







Expression of Interest to Provide Architectural /
Engineering Services

To the West Virginia Division of Natural Resources

Parks and Recreation Section

Blackwater Falls State Park

Sled Run Improvements

DNRB11013

September 2, 2010

30 Columbia Boulevard Clarksburg, West Virginia 26301 304-624-4108 304-624-7831-Fax thrasher@thrashereng.com www.thrashereng.com

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FURCHASING DIVISION STATE OF WV

CLARKSBURG CHARLESTON BECKLEY COAKLAND, MD

September 1, 2010



West Virginia Division of Natural Resources Parks and Recreation Section c/o Mr. Frank Whittaker State of West Virginia Purchasing Division 2019 Washington Street, East Charleston, WV 25305

RE: Expression of Interest – RFQ # DNRB11013

Blackwater Falls State Park Sled Run Improvements

Dear Mr. Whittaker and Members of the Selection Committee:

Thrasher Engineering, Inc. (Thrasher) is pleased to submit our Expression of Interest (EOI) and our qualifications to the West Virginia Department of Natural Resources (DNR) to provide architectural/ engineering services for improvements to the Blackwater Falls State Park sled run.

As demonstrated in this EOI, Thrasher Engineering has compiled a team of experienced personnel that possess not only the technical skills needed for this project, but also they possess the project management skills that will ensure the project is designed and completed within the time frame and budget parameters set by the DNR and funding sources. We greatly appreciate the opportunity to present our qualifications and look forward to becoming your partner on this endeavor.

In addition to our thorough understanding of your needs, the benefits we offer as the engineering firm selected for this project include:

- 1. Personnel: The engineering personnel Thrasher Engineering has assigned to this project are experienced in the study and design of water sources, water lines and the hydraulic systems needed for recreational area purposes. Additionally, our inhouse team includes our landscape architect/planner, survey crews and construction monitoring personnel. We have also added the services of Moody and Associates, Harper Engineering and Stevens Engineering as sub-consultants. Moody and Associates is a leading firm in identification and drilling for water wells, while Harper Engineering will provided expertise in electrical engineering. Stevens Engineering brings specialization in ski and sled area design and equipment specification. Stevens Engineering has worked with the West Virginia DNR in a consulting role for numerous years.
- 2. Experience with within Canaan Valley and winter recreation facilities: Throughout our 27-year history, Thrasher has provided engineering and field services for numerous clients in Tucker and surrounding counties. Additionally, Thrasher has provided services to recreation facilities including Canaan Valley Resort, Timberline and Snowshoe Mountain Resort. Our team knows the terrain and the environmental conditions of the area which will be a benefit in moving the project forward.

30 COLUMBIA BLVD | PO BOX 1532 | CLARKSBURG, WV 26301 TEL: 304.624.4108 FAX: 304.624.7831 EMAIL: thrasher@thrashereng.com

3. Accurate Project Estimating: Once the DNR agrees on the final plans for the project, you will experience why our track record of accurately estimating construction costs is one of the strongest reasons we have repeat customers and long-term relationships with our clients. Through good design and careful estimating, we save clients time and money.

Along with these aspects of our abilities, our philosophy of utilizing a *teamwork approach* and single source management will be the key factor to a successful project. As the lead firm for the project, Thrasher will take the responsibility for getting the project completed to your satisfaction and meeting the budget and time requirements. I will supply a "one stop shop" for answers to your questions, problems or concerns.

At Thrasher Engineering, we listen to our clients and their needs, we work hand-in-hand with regulatory agencies to meet their criteria and we work closely consultants. Our success with this approach is shown in the repeat clientele and references included with the representative projects listed in this proposal.

We look forward to the opportunity of meeting with representatives of the DNR to discuss your needs and how Thrasher Engineering can provide the users and potential users of the Blackwater Falls State Park sled run the quality of engineering services required.

Sincerely, THRASHER ENGINEERING, INC.

DANIEL FERRELL, PE Principal-in-Charge / Project Manager



TYPE NAME/ADDRESS HERE

CLARKSBURG, WV 26301

30 COLUMBIA BLVD.

THRASHER ENGINEERING, INC.

State of West Virginia Department of Administration Quotation Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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FRANK WHITTAKER

DIVISION OF NATURAL RESOURCES PARKS & RECREATION SECTION

DATE

ADDRESS CHANGES TO BE NOTED ABOVE

SEPT. 1, 2010

324 4TH AVENUE SOUTH CHARLESTON, WV 25303-1228 304-558-3397

DATE PRINTED TERMS OF SALE SHIP VIA FOR FREIGHT TERMS 08/03/2010 PĒNING DĀTE: 09/02/2010 TIME BID OPENING 01:30PM AMOUNT QUANTITY UOP ITEM NUMBER UNIT PRICE 906-00-00-001 วร N/A N/A 1. ARCHITECTURAL/ENGINEERING SERVICES EXPRESSION OF INTEREST (EOI) THE WEST VIRCINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF NATURAL RESOURCES ts soliciting expressions of interest for architectural ENGINEERING AND RELATED SERVICES TO DESIGN, CONSTRUCT, OR SPECIFY IMPROVEMENTS TO THE SLED RUM AT BLACKWATER FALLS STATE PARK PER THE ATTACHED. PECHNICAL QUESTIONS CONCERNING THIS PROJECT MUST BE . SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WV STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS \$HOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115, ΦR VIA EMAIL AT FRANK.M.WHITTAKER@WV.GΦV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 08/16/2010 AT THE CLOSE OF BUSINESS! ALL TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY ADDENDUM AFTER THE DEADLINE HAS APSED. questions concerning the actual process by which a IRM MAY SUBMIT AN EXPRESSION OF INTEREST TO THE STATE OF WEST VIRGINIA ARE NOT CONSIDERED TO BE rechnical questions and may be submitted at any TIME PRIOR TO THE BID OPENING AND IN ANY FORMAT. SEE REVERSE SIDE FOR TERMS AND CONDITIONS

WHEN RESPONDING TO RFQ. INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

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PRINCIPAL-IN-CHARGE

30 COLUMBIA BLVD.

CLARKSBURG, WV 26301

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THRASHER ENGINEERING, INC.

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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RANK WHITTAKER

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DIVISION OF NATURAL RESOURCES PARKS & RECREATION SECTION

324 4TH AVENUE SOUTH CHARLESTON, WV 25303-1228 304-558-3397

DATE PRINTED. 08/03/2010 09/02 CAT. NO. UNIT PRICE AMOUNT QUANTITY UOP ITEM NUMBER LINE EXHIBIT 10 **DNRB** 11013 REQUISITION NO.: addendum acknowledgement HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NO. NO. 1 NO. 2 NO. NO. NO. UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF PROPOSALS. VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY dral discussion hild bitween vendor's representatives AND ANY STATE PERSONNEL IS NOT BINDING. ONEY THE INFORMATION ISSUED IN WRITING AND ADDED ŤĦÉ specifications by an official/addendum BINDING. CNATURE SEE REVERSE SIDE FOR TERMS AND CONDITIONS DATE SEPT 1, 2010 304-624-4108

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THRASHER ENGINEERING, INC.

State of West Virginia Department of Administration Quotation **Purchasing Division** 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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FRANK WHITTAKER

DIVISION OF NATURAL RESOURCES PARKS & RECREATION SECTION

ADDRESS CHANGES TO BE NOTED ABOVE

324 4TH AVENUE SOUTH CHARLESTON, WV 25303-1228 304-558-3397

TERMS OF SALE DATE PRINTED SHIP VIA F.O.B. FREIGHT TERMS 08/03/2010 PENING DATE: TIME 09/02/2010 BID OPENING 01:30PM QUANTITY LIOP ITEM NUMBER UNIT PRICE THUOMA THRASHER ENGINEERING, INC. COMPANY SEPTEMBER 1, 2010 DATE NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED VITH THE PROPOSAL REV. 09/21/2009 IN THE EVENT THE VENDOR/CONTRACTOR FILES BANKRUPTCY: FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER. NOTICE SIGNED EOI MUST BE SUBMITTED TO: DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WA\$HINGTON STREET, EAST CHARLESTON, WV 2\$305-0130 THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EO! MAY NOT BE CONSIDERED: ÉOI \$EALED SEE REVERSE SIDE FOR TERMS AND CONDITIONS. TELEPHONE 304-624-4108 SEPT 1, 2010

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PRINCIPAL-IN-CHARGE



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CLARKSBURG, WV 26301

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THRASHER ENGINEERING, INC.

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

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ADDRESS CORRESPONDENCE TO ATTENTION OF FRANK WHITTAKER 304-558-2316

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DIVISION OF NATURAL RESOURCES PARKS & RECREATION SECTION

324 4TH AVENUE SOUTH CHARLESTON, WV 25303-1228 304-558-3397

FREIGHT TERMS DATE PRINTED: TERMS OF SALE 08/03/2010 PENING DATE: 09/02/2010 01:30PM BID OPENING TIME CAT. NO ITEM NUMBER UNIT PRICE AMOUNT QUANTITY UOP BUYER: 44 DNRB11006 EOI. NO.: BID OPENING DATE: 09/02/2010 1:30 PM EOI OPENING TIME: please provide a fax number in case it is necessary to contact you regarding your proposal 304-624-7831 CONTACT PERSON (PLEASE PRINT CLEARLY): DANIEL E. FERRELL, PE NA TOTAL: THIS IS THE END OF REQ DNRB11013 ***** SEE REVERSE SIDE FOR TERMS AND CONDITIONS TELEPHONE 304-624-4108 DATE SEPT. 1, 2010 FEIN 55 06335966 ADDRESS CHANGES TO BE NOTED ABOVE PRÍNCIPAL IN CHARGE



PROJECT UNDERSTANDING

Blackwater Falls State Park has featured sled riding as a winter recreation option for nearly 50 years with a riding hill that extends for one quarter of a mile. The growing popularity of winter sports in and around the Canaan Valley / Blackwater area and West Virginia as a whole has prompted the West Virginia Department of Natural Resources (DNR) to improve, upgrade and replace various aspects of the sledding area.

To meet their goals, the DNR is looking to procure the services of an engineering / architectural firm or team of firms to provide project management and all technical aspects required for a complete project. Of most importance to the project is the selected firm's or team's ability to meet or exceed the three (3) year schedule for design through completion and develop the project within budget.



Although recently replaced with another surplus pick-up truck, this tow-system has been in use at Blackwater Falls sledding area for nearly 50 years. The DNR hopes to replace it with a new surface lift or tow system.

The scope of services required of the selected architectural/ engineering firm will include:

- Preliminary planning to develop the most effective and economical improvements;
- Civil engineering and water hydrology services for design of two water source wells, the enlargement of an existing pond to create a water supply, and a pump house and lines for snowmaking purposes;
- Electrical engineering services for upgrades and area lighting;
- Civil engineering for design of site grading to improve the run and for the installation of a new surface lift or tow system;
- Development of specifications for snowmaking equipment;
- Environmental assessment, permitting and regulatory approvals;
- > Development of final engineering design and construction bidding documents;
- > Construction contract administration.

Based upon these parameters, Thrasher Engineering, Inc. (Thrasher) - West Virginia's leading engineering firm - has assembled a team whose personnel and expertise combine to provide the DNR with the right management and abilities to get the job done.

We offer the following summary of our team capabilities as they apply to the scope of services needed by the DNR for the Blackwater Falls State Park sled run project.

PRIOR EXPERIENCE WITH SIMILAR ASSIGNMENTS

SKIING / WINTER RECREATION AREAS

Various recreational areas have benefitted from Thrasher's expertise in engineering and architectural design and the support services necessary to bring projects to fruition. Our work at Chief Logan State Park, Canaan Valley State Park, Timberline Resort and Snowshoe Mountain Resort has ranged from civil engineering design for structural site development, utilities, sidewalks and roadways to landscape architecture, survey, and construction management and materials testing.

To provide the highest level of professional expertise in ski area design, we have teamed with Stevens Engineering of New London, New Hampshire. Stevens Engineering has designed many facilities that are similar to the proposed sledding hill at Blackwater Falls State Park and incorporate a means of uphill transportation and downhill sledding or snow tubing runs. Ross Stevens, PE has worked for the State of West Virginia Department of Natural Resources as a passenger ropeway consultant for its ski lifts and aerial tramways at Canaan Valley, Hawks Nest and Pipestem Resort State Parks. Ross holds ASC B77 accreditation with the American National Standards Institute.

WATER SUPPLY AND DISTRIBUTION

Our 28 year history in water treatment and distribution projects throughout rural areas of West Virginia allows us to bring extensive "know how" in the location of water sources, supply pond construction / enlargement and water distribution lines. As an example, working with Moody and Associates, Thrasher was responsible for the identification and drilling for four (4) water well sources to serve Hazelton Federal Prison and the northeast section of Preston County. This project was in conjunction with a water treatment plant and distribution system project performed for the Preston County Economic Development Council.

Additionally, Thrasher's team brings experience in the hydraulic design for pump stations. The firm has completed over 60 water distribution projects since our formation, which have included the technical design for these stations. Most recently, and of significance to the Blackwater Falls project, is our design and construction administration services for an upgrade to snowmaking water system at Snowshoe Mountain Resort.

MANAGEMENT AND STAFFING CAPABILITIES

As the leading civil engineering firm in West Virginia, Thrasher has the personnel resources to address numerous projects, both big and small, simultaneously. Our resources allow us to draw the right personnel for any project from more than 160 professionals, including Registered Professional Engineers, Registered Professional Surveyors, Environmental Engineers, Engineer Interns, Graduate Engineers, Landscape Architect, Project Designers, Engineer Technicians, CADD Operators, Construction Inspectors, Surveyors, and Office Support.

The staff that will be assigned to the sled run project includes Dan Ferrell, P.E. as Principal-in-Charge and Project Manager, Matt Fluharty, PE as Project Engineer, Tom Urquhart, PE, BCEE providing hydraulic studies, and Travis Adams to provide environmental assessment and permitting. Jim Christie, RLA will

provide services related to the sled run grading. Survey and construction monitoring staff if needed will be assigned under the direction of Aaron Denham. Woody Thrasher, PE – the firm President - and Ken Moran, PE, PS will provide Quality Assurance and Quality Control.

Sub-consultants on the team include Moody and Associates to provide hydro-geological services, Harper Engineering for electrical services and as mentioned earlier, Stevens Engineering for design related to the tow system and the run.

The approach to specific projects and tasks vary by the scope of services necessary; however, Thrasher's approach to management is one that sets us apart from other firms: we successfully practice single source management. Although the Thrasher team personnel chart shows various department heads and personnel from Thrasher representing specific disciplines and our sub-consultants, the DNR will have only two direct points of contact: the Dan Ferrell, the Principal-in-Charge / Project Manager and Ross Stevens of Stevens Engineering due to his specialized field and previously established relationship with the DNR. All requests and project communication will be filtered through these individuals. This policy also applies to any sub-consultants we may utilize.

ACCURACY IN ESTIMATING AND PREPARING PLANS AND SPECIFICATIONS / CONSTRUCTION DOCUMENTS

A project that is well designed is one in which the work to be done is clearly defined, allowing contractors to reduce their risk factor, resulting in a more competitive situation and lower bid prices. A well-designed project often has more bidders with a closer spread in bids than a poorly designed one. Accurately estimating construction costs is vitally important. A capable engineering firm provides good estimates, even though there may be several years between estimating and construction. Due to budget limitations for publicly funded projects, accurate estimating is a must to avoid exceeding the available allocated budget.

Thrasher offers proven proficiency in project construction estimating vs. contractor's bid. *An average of nearly 90% of infrastructure projects estimated since 2005 received contractors' bids below or within 10% of our engineers estimate.*

CONSTRUCTION DOCUMENTATION AND BIDDING SERVICES

Thrasher's Project Engineers thoroughly review preliminary plans to ensure accuracy and constructability. Based upon that review, we prepare the necessary bidding and contracting documents. A well-designed project has more bidders with a closer spread in bids than a poorly designed project. Thrasher Engineering has earned a reputation among funding agencies and contractors for well-designed projects resulting in more bidders and costs that meet funding allocations. During the past two years, Thrasher Engineering's public utility projects have averaged six (6) bidders per contract; more recent projects have experienced up to 18 bidders which is a very price competitive arena with positive results for our clients. To promote your projects to potential bidders, Thrasher Engineering includes project information in the "Out to Bid" section of its Web site www.thrashereng.com). The site is updated with new plan-holders daily.

PARTICIPATION IN EVALUATING OF BIDS RECEIVED

It's not enough to receive multiple bids that are competitive. Each bid has to be thoroughly reviewed and determined to meet bidding requirements. Our staff will be on hand to assist in the process of evaluating the bids during the bid opening and will also assist in making sure the selected contractor is

aware of their responsibilities. Your Principal-In-Charge and Project Manager, Dan Ferrell, P.E., and his team have decades of combined experience in making sure this phase of the process is done to the desire of the client and to meet the requirements of all funding agencies.

CONCLUSION

Thrasher Engineering's philosophy of "Successful Projects, Repeat Clientele" is founded on the principle of client satisfaction and repeat business. We do what it takes to assure satisfaction and to ensure project success, and want to work with the West Virginia Department of Natural Resources to provide the necessary enhancements to your infrastructure.



HISTORY

Founded in 1983, Thrasher Engineering, a West Virginia owned and operated full-service company has provided engineering design and construction services for infrastructure throughout the State of West Virginia for more than 25 years.

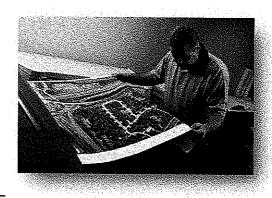
H. Wood "Woody" Thrasher and his father, the late Henry A. Thrasher, both graduates of West Virginia University's College of Engineering and Mineral Sciences, formed Thrasher Engineering in 1983 to provide civil engineering services focused on publicly funded work throughout the State of West Virginia. Since that inception, Woody Thrasher has grown Thrasher Engineering, Inc. into West Virginia's largest privately-owned engineering firm and formed Resource Engineering Group, the State's most qualified corporation of affiliated companies offering civil and environmental engineering, architecture, survey, construction management, inspection and materials testing services.



Throughout our history, Thrasher Engineering has provided site development planning and engineering design services for many successful building projects, working with numerous architectural firms and contractors. Based on that success, in 2004, we added architectural design to the scope of services we provide in-house.

LOCATIONS

Thrasher Engineering is based in *Clarksburg, West Virginia* with branch offices in *Charleston* and *Beckley West Virginia* along with *Oakland, Maryland*. The Oakland office was opened in early 2004 to serve customers in the eastern portion of West Virginia and the western portion of Maryland, while our Charleston and Beckley offices are able to effectively meet the needs of our southern West Virginia clients, well into Virginia.



SERVICES

Designing Practical Solutions With Exceptional Service

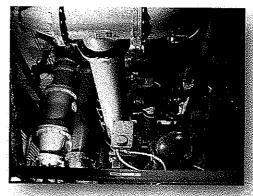
From engineering to architecture to construction monitoring and materials testing, the mission of Thrasher Engineering, Inc. is to provide innovative solutions to our clients' challenges and offer every client the highest level of service possible while adhering to principled business practices. Since 1983, that has meant a hands-on approach to each and every project. Whether it is a multi-million dollar engineering or architectural project, or a site survey for a private individual – we utilize our talent and expertise, resulting in our ongoing track record of success.

With multi-discipline capabilities, Thrasher Engineering covers all of the professional services needed to deliver successful projects to both public and private clientele. The firm's roots were planted in civil engineering and consulting services for public utility projects. Over the years, our success in that area allowed us to branch out, expanding our services to meet both the needs of our clients and the growing need for more responsive and effective solutions. Based on that success, in 2004, we added architectural design to the scope of services we provide in-house.

Disciplines practiced and areas of service include:

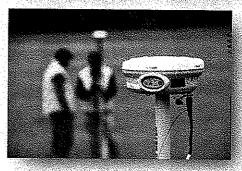
□ Civil Engineering

- Water Treatment & Distribution
- Wastewater Collection & Treatment
- o Land & Site Development
- Roadways / Bridges / Streetscapes
- o Airports
- o Storm Water Systems
- □ Architecture
- □ Land Planning And Landscape Architecture
- □ Parks & Recreation
- □ Survey
- □ Construction Monitoring
- □ Materials Testing
- □ Environmental Services
- □ Pipeline Inspection
- ☐ GIS Mapping And Software Development









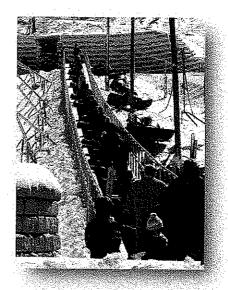
FIRM OVERVIEW – STEVENS ENGINEERING – SKI SERVICES SUB-CONSULTANT



Stevens Engineering is recognized throughout North America for responsive planning and engineering design. With nearly 30 years of service to its clients, Stevens Engineering is an accomplished source for passenger ropeway engineering, planning and design of lift and trail systems, snow tubing park design and mountain surveying.

Lift relocation engineering and the design of upgrades and modifications to existing lift installations are technical specialties at the core of the firms' capabilities. Stevens Engineering frequently assists lift manufacturers with the design of new installations, major lift upgrades and lift profile surveying. Ski area clients often seek out the technical expertise and the knowledge of governing standards and regulations Stevens Engineering has to offer for assistance in preparing comprehensive and result oriented bid specifications for future lift purchases and for expert witness representation.

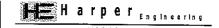
Stevens Engineering has designed many facilities that are similar to the proposed sledding hill at Blackwater Falls State Park and incorporate a means of uphill transportation and downhill sledding or snow tubing runs. They have also designed a variety of sites that utilize conveyors as a means of transporting



foot passengers and\or skiers from one location to another, as would be the case with the Canaan Valley Resort project. Some of these projects include: Mount Cranmore Resort in New Hampshire, Stone Mountain Park in Georgia, Ober Gatlinburg Snow Tubing in Tennessee and Snow Park Niagara in New York. We are also experienced in working on projects at State, Federal and Municipal Parks including: Franconia Notch State Park in New Hampshire, Adirondack Park in New York, Laurel Mountain State Park in Pennsylvania, Green Mountain National Forrest in Vermont and Oglebay Family Park in West Virginia.

For many years Stevens Engineering has worked for the State of West Virginia Department of Natural Resources as a passenger ropeway consultant for its ski lifts and aerial tramways at Canaan Valley, Hawks Nest and Pipestem Resort State Parks.

FIRM OVERVIEW – HARPER ENGINEERING – MEP SERVICES SUB-CONSULTANT



Harper Engineering was founded in 2008 to provide innovative engineering design services to architects, owners and contractors throughout the state. We are a unique combination of eager young talent and proven experience fused together to serve all of your building systems design needs including heating, cooling, plumbing, lighting, and electrical. Our goal is to design optimized systems that meet all of our client's



performance, energy use, and budgetary needs. The staff at Harper Engineering has a combined 80 years of experience working with clients in a variety of fields including but not limited to education, hospitals, offices, airports, manufacturing, and water treatment plants.

FIRM OVERVIEW- MOODY AND ASSOCIATES HYDROGEOLOGY SUB-CONSULTANT



Moody and Associates is dedicated to providing hydro-geologic services of exceptional quality in a practical and efficient manner. Moody and Associates, Incorporated is a privately owned corporation located in Meadville, Pennsylvania. The company was founded in 1891 and incorporated in 1954. **Ground Water Supply Services**

Moody's staff of hydro-geologists, drillers and pump technicians can provide the complete range of services required for the development and maintenance of industrial, commercial or municipal ground water supply wells.

The services available range from hydro-geologic evaluation and well site selection through well drilling and construction to pump system installation. Existing supply wells are also evaluated and rehabilitated. Experience gained of thousands of projects enables Moody to provide an effective solution to your ground water supply problems.

Moody has been developing ground water supplies since 1891. The following services are currently offered:

Ground Water Supply Consulting Services

- Ground Water Feasibility Studies
- Ground Water Resource Evaluations
- Development of Ground Water Supplies
- Aquifer Analysis / Pumping Test Analysis
- Water Well Site Location Selection
- > Fracture Trace Mapping
- Wellhead Protection Studies
- Water Supply Permitting (State and Federal)
- Expert Witness Testimony

Ground Water Supply Contracting Services

- Test Well Drilling to Locate Water Producing Aquifers
- Production Well Drilling / Installation (4 to 30 inch diameter)
- Pumping Tests / Packer Tests
- Well Cleaning / Redevelopment featuring AirBurst® Technology
- Downhole TV Camera Inspection of Wells, Screens and Boreholes
- Well and Pump Performance Testing / Troubleshooting

PROJECT MANAGEMENT AND STAFFING

WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES
PARKS AND RECREATION SECTION

DANIEL E. FERRELL, PE PRINCIPAL-IN-CHARGE/ PROJECT MANAGER H. WOOD THRASHER, PE PRESIDENT KENNETH P. MORAN, PE, PS VICE-PRESIDENT

QUALITY ASSURANCE / QUALITY CONTROL

MATTHEW FLUHARTY, PE
PROJECT ENGINEER
WATER SOURCE / WATER DISTRIBUTION

THOMAS URQUHART, PE, BCEE CONSULTING ENGINEERING HYDRAULICS/ PUMP SYSTEM

TRAVIS ADAMS
DESIGN TECHNICIAN /
ENVIRONMENTAL SCIENTIST

MOODY AND ASSOCIATES HYRODGEOLOGY – WATER WELLS

AARON DENHAM
PARTNER
GENERAL MANAGER
SURVEY AND CONSTRUCTION
MONITORING SERVICES

ROSS STEVENS, PE STEVENS ENGINEERING PROJECT MANAGER SLED RUN IMPROVEMENTS / LIFT AND TOW SYSTEM

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JIM CHRISTIE, RLA SITE PLANNING / LANDSCAPE ARCHITECT

HARPER ENGINEERING

MECHANICAL-ELECTRICAL-PLUMBING

JASON HARPER, P.E. PRINCIPAL-IN-CHARGE

RICK STANDISH ELECTRICAL

WOOD THRASHER, P.E. -/ PRESIDENT

QUALIFICATIONS SUMMARY

Mr. Thrasher formed Thrasher Engineering in 1983 and serves as Principal-In-Charge on all projects executed by Thrasher Engineering. Mr. Thrasher has extensive experience in all aspects of the engineering process, with emphasis on management and administration of multi-million dollar projects including funding and regulatory issues. Mr. Thrasher forms and supervises multi-project design teams and conducts client needs assessments. He formed Resource Engineering Group in 2005 and serves as Chief Executive Officer of the corporation.

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EDUC	ATION
' o	B.S., Civil Engineering, 1977 – West Virginia University
CERT	IFICATIONS
	Registered Professional Engineer (PE), State of West Virginia #09478
	Registered Professional Engineer (PE), Commonwealth of Pennsylvania #PE038314R
	Registered Professional Engineer (PE), State of Maryland #27262
SANIT	ARY SEWER PROJECTS
	City of Clarksburg, I&I, WWTP Upgrades, Colonial Village Line Replacement
ū	City of Bridgeport, Lift Station Improvements, WWTP Upgrades
	City of Worthington, Construction of New Collection and Treatment
	City of Mannington, Replacement of Collection System, Construction of New Treatment Facility
WATE	R PROJECTS
	Hardy County EDA /Hardy County PSD Phased County Wide Water System
	City of Bridgeport, Replacement of Water Distribution System
	Town of Terra Alta, Replacement of Water Distribution System
	Hammond PSD, Water System Extension

☐ Preston County PSD, Phase II, III, III-A Water System Extension

☐ Short Line PSD, Water System Extension

KENNETH P. MORAN, P.E., P.S - VICE PRESIDENT / / CHIEF ENGINEER

QUALIFICATIONS SUMMARY

Mr. Moran joined Thrasher Engineering in 1991 and currently serves as Vice President and Chief Operations Officer and Chief Engineer. Mr. Moran is responsible for management feasibility studies and design of public utility and site development projects for local state, federal and private clients. Additionally, Mr. Moran has extensive experience in all aspects of engineering and with funding and regulatory agencies in conjunction with projects.

EDILO	ATION
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u	B.S., Civil Engineering Technology, 1983 – Fairmont State University
CERTI	FICATIONS
	Registered Professional Engineer (PE), State of West Virginia #11309
	Registered Professional Engineer (PE), Commonwealth of Virginia#0102021855
	Registered Professional Engineer (PE), State of Ohio #64412
	Professional Land Surveyor (PS), State of West Virginia#1333
REPRE	SENTATIVE PROJECT EXPERIENCE
	City of Belmont, Sanitary Sewer Project — Project Manager and Project Engineer. Mr. Moran was involved in the Wastewater Treatment Plant Expansion and inflow filtration improvements. Mr. Moran negotiated with the West Virginia Department of Environmental Protection for the removal of the sludge blanket for French Creek. Improvements for the Plant included designs for new clarifiers, sludge thickening, sludge processing and the relocation of the outfall to the Ohio River.
0	Scott's Run PSD, Sanitary Sewer, Collection System Extensions — Project Manager. Mr. Moran was involved in the extension projects for new gravity sewer collection systems in the areas of Osage, Cassville, Wade's Run, Chaplin Hill of Monongalia County. Project removed the existing Wastewater Treatment Facility in the area of New Hill. The project negotiations with the Morgantown Utility Board for the wastewater treatment, operation and maintenance and system boundary.
٥	Canaan Valley Public Service District Waste Water Treatment System — Principal-In-Charge and Project Manager. This project entailed analyzing the Canaan Valley area for implementation of a public sanitary sewer system. There were multiple tasks involved with this project from working with the Environmental Protection Agency and the West Virginia Department of Environmental Protection with regards to the TMDL on the Blackwater River. The project solution provided a managed stream point discharge solution for the Valley. First project entailed design of a membrane biological reactor (MBR) wastewater treatment plant facility and wastewater transmission system.
0	Brooke County PSD, Sanitary Sewer Project – Principle in Charge and Chief Engineer. The project entailed planning and design, new sanitary sewer collection systems in and around Wellsburg and Follansbee. The project negotiations with the West Virginia Department of Environmental Protection and various municipalities to determine the sanitary sewer treatment provider.
	Preston County PSD #4 ~ Principal-In-Charge / Project Manager / Project Engineer. Mr. Moran managed and designed a water treatment facility 700 GPM and U.S. Filter mixed media pressure filter technology. The project also included well development for a raw water source. 16" multi-mile

	transmission system, two 700 GPM booster pump stations and a million gallon elevated storage tank. The project was done in conjunction with the system to provide service to the FBOP.
	Greater Harrison County PSD, Sanitary Sewer Project —Project Manager and Project Engineer. This project included Wastewater Collection System Extensions in the areas of Lost Creek, Good Hope and Mount Clare. We were involved in the upgrade of the existing West Milford Wastewater Treatment Facility from 300,000 gpd to 600,000 gpd. The improvements included a new pre system upgrade of the aeration system and disinfection systems.
	Preston County Sewer PSD WWTP- Project Manager- Project included design of a 0.5 MGD expandable sequential batch reactor (SBR) wastewater treatment plant to the Hazelton FBOP and surrounding area
	Huttonsville PSD, WWTP, Sanitary Sewer, Collection System, Extensions - Project Manager. The inflow filtration improvement project removed and replaced the gravity collection systems in the areas of Valley Bin, Daley and East Daly in Randolph County. The project included upgrading the District's existing Wastewater Treatment Facility. The improvements included head works facility, aeration system, filtering system improvements and disinfection system improvements.
	Pea Ridge PSD, WWTP, Sanitary Sewer, Collection System, Extensions – Project Manager. This project included extensions in the existing system, inflow infiltration collection system improvements, upgrades of two (2) Wastewater Treatment Facilities, and abandonment of an existing lagoon system, which was converted to wetlands.
	City of Bridgeport, Sanitary Sewer Lift Station Improvements, WWTP Upgrades – Project Engineer, Project Manager and Principal in Charge. Mr. Moran has managed multiple projects for the City of Bridgeport for more than 18 years. He has designed multiple pumps station and collection system for the City of Bridgeport. He also designed the City's 2.5 million gpd Wastewater Treatment Facility and has worked with the City of Bridgeport to establish their GIS and Long Term Control Plan solutions.
	City of Clarksburg, WWTP Upgrades, Inflow and Sanitary Sewer System Improvements, Colonial Village Line Replacement – Project Engineer, Project Manager and Principal in Charge. Mr. Moran has managed multiple projects for the City of Clarksburg for more than 18 years. He has designed multiple pump stations and collection system for the City. Mr. Moran also worked on various pump station systems and collection systems throughout the City of Clarksburg and as Engineer in Charge management upgrades of their existing Wastewater Treatment Facility. This facility was a 6 million to 8 million gpd facility. Mr. Moran worked with the City to establish their GIS and Long Term Control Plansolutions.
0	Hundred-Littleton PSD, New Sanitary Sewer Collection and Treatment System Water System — Project Manager, Project Engineer and Principal in Charge. Mr. Moran was involved in the Sanitary Sewer Collection System project in and around the Town of Hundred. This was a 50,000 gpd Wastewater Treatment Facility. As Principle in Charge, Mr. Moran was involved with multiple tank replacements and water line replacements throughout the district.
	City of Kingwood - Project Engineer and Principal in Charge. Over the last 15 years Mr. Moran was involved in multiple water projects and sanitary sewer projects for the City of Kingwood. He also worked on various sewer pump station systems, sewer collection systems throughout the City of Kingwood sanitary sewer and water system. As Principal in Charge, he was involved with the upgrades of their existing Wastewater Treatment Facility.

DANIEL E. FERRELL, P.E. - PARTNER / PRINCIPAL-IN-CHARGE / PROJECT MANAGER

QUALIFICATIONS SUMMARY

Mr. Ferrell joined Thrasher Engineering in 2004 and serves as Partner and Project Manager for the firm. Mr. Ferrell is responsible for public utility projects from conception to design and construction. Typical tasks involved as part of Mr. Ferrell's work includes project management, utilities systems management, project planning, funding, design development of bid documents, construction administration and operations.

EDUCATION		
•	M.S., Civil Engineering, 1993, Old Dominion University	
	B.S., Civil Engineering, 1988 – West Virginia University	
CERTII	FICATIONS	
	Registered Professional Engineer (PE), State of West Virginia #13462	
	Registered Professional Engineer (PE), State of Pennsylvania #PE071143	
	Registered Professional Engineer (PE), Commonwealth of Virginia #0402-023968	
REPRE	SENTATIVE PROJECT EXPERIENCE	
	City of Bridgeport, Project Manager for Sanitary Sewer Study/Barnett Run Extension: Construction of new interceptor line, rebuilt three pump stations, and modified wastewater treatment plant head works to accept additional flow.	
	Jane Lew PSD, Project Manager for Sanitary Sewer Line Upgrade and Inflow and Infiltration Reduction: Rehabilitation of multiple pump stations and replacement of substandard manholes and pipes	
	Malden PSD, Project Manager for Sanitary Sewer Improvements: Rehabilitation and construction of 20 pump stations. The project added 23,000 LF of 10" and 16" force main, replaced 10,000 feet of gravity line; and lined 18,000 feet of existing pipe. The project will eliminate overflows in the collection system.	
٥	Canyon PSD Sewer Extension: Removal of five failing package treatment plants and laying of 20,000 LF of gravity sewer line along with 11,000 linear feet of force main. The project included six new sewage pump stations. The overall project goal involves the connecting of the PSD's collection system into the Morgantown Utility Board (MUB) system to provide treatment.	
	City of Clarksburg Long Term Control Plan / Sanitary Sewer Mapping: Wrote the CSO plan for Clarksburg. The plan identified \$48 million in needed repairs to the existing system. The LTCP provides a detailed evaluation of future projects needed to comply with permit requirements.	
	Hampshire County Water and Sanitary Sewer Infrastructure County-Wide Study: Wrote comprehensive plan for water and sewer service county wide. The plan serves as a roadmap for future utility work.	
0	Paw Paw-Route 19 PSD Water System Improvements Project: The project consisted of the construction of two new water booster stations and a 132,000 gallon water storage tank; replaced 23,000 LF of water line, including 65 reconnections of customers. The project goal stressed reducing water loss and replacing/repairing failing lines.	
	West Virginia University Evansdale Waterline: Waterlines were replaced and upgraded to provide fire suppression and water service to areas around the Evansdale Engineering Buildings.	

	rutnam County Development Authority: The project consisted of a new 220,000 gallon water storage tank and more than 3,000 LF of lines put in place at the Hurricane Business Park.
	Central Hampshire Public Service District: The sewer line extension's purpose was to connect the PSD to the City of Romney's sewer system. Part of the project involved three new submersible pump stations and approximately 7,000 LF of 8" force main and 6,000 LF of gravity sewer line that was constructed. The project also included additional capacity at the City of Romney's wastewater treatment plant.
	City of Clarksburg Sanitary Sewer Line Replacement and Line Cleaning: Installation of 2,000 LF of 24" gravity sewer line in the Adamston section of the city. Video checked and cleaned 3,300 LF of 18" graving sewer line in the Stealey section of the city. The third part of this project involved the removal and replacement of 3,000 LF of existing gravity sewer system in the Davisson Run Road area of Clarksburg. The installation of nearly 2,000 LF of 8" gravity sewer line allowed for the elimination of two grinder pump stations.
Directo	r of Public Works, Public Utilities and City Engineer / City of Bridgeport
	Charles Pointe/United Hospital Center Water Project
	North Land Bay Site Development Area
	Charles Pointe Development
	Raintree Acres Sanitary Sewer Extension
	Ridgeway Drive Road Replacement
	Compton Booster Station Reconstruction
	Route 131 Sewer Extension
	CSO Long Term Control Plan Sanitary Sewer Improvement Project, Phase 4 Replacement and Improvements

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MATTHEW FLUHARTY, P.E. - PROJECT MANAGER

QUALIFICATIONS SUMMARY

Mr. Fluharty joined Thrasher Engineering in 2000 and serves as Project Manager for Water and Wastewater Projects. Mr. Fluharty is responsible for the development of public water and wastewater system feasibility studies and subsequent design work for private, state and federally funded projects. Additionally, Mr. Fluharty oversees project acquisition, project funding applications, engineering design and construction management on public utilities projects. Specialties Include:

 Funding Applications: Developing preliminary engineering reports and det source of public/private funding scenarios to suit the applicant. Utility Design: Primary force on water projects including distribution system 	m replacements and
Utility Design: Primary force on water projects including distribution system	m replacements and around water
extensions including pump stations, storage facilities, raw water intakes, acquisition and evaluations. Other duties include existing water treatment additions/retrofitting. Sanitary sewer extension designs including pump st mains.	: plant
Construction Management: Overseeing construction projects from the pre conference to the final inspection. Duties involve reviewing contractor pay orders, attending monthly progress meetings, and managing the project be	requisitions, change
EDUCATION	
☐ B.S. Civil Engineering, 2000 – West Virginia University	
<u>CERTIFICATIONS</u>	
☐ Registered Professional Engineer – State of West Virginia #16375	
☐ Registered Professional Engineer – State of Maryland #33491	
☐ Registered Professional Engineer — State of Pennsylvania #PE076002	
□ WVDOH Certified Compaction Technician	
□ WVDOH Certified Concrete Inspector/Technician	
☐ WVDOH Aggregate Sampling Inspector	
☐ Basic Safety – Compaction Gauge, 2000	
WATER SYSTEM PROJECTS	
City of Kingwood (2009-2010): Project Manager for Phase II water distrib project. Project involves the replacement of 11,000 LF existing water line improvement to the existing water treatment plant. Total project cost of	s and makina
□ Masontown Water Works (2009-2010): Project Manager for AML water involving 15 miles of water line to extend to 90 new customers. Project e to Bull Run, North Union, and Ridge Road. Project also involves adding a gallon water storage tank. Total project cost of \$2,985,000.	xtends water service

☐ Town of Tunnelton (2009-2010): Project Manager for AML water lines extension project

Blazer Road, Buckeye, and Kanetown. Total project cost of \$1,600,000.

involves 10 miles of water line extension to approximately 60 new customers in the areas of

Town of Tunnelton (2008-2009): Project Manager for water distribution extension to Rowlesburg where Tunnelton will purchase all of their water from Rowlesburg. Project involves 5 miles of water line, two (2) 150 GPM booster pump stations, a 70,000 gallon water storage tank, a solenoid operated control valve station, and a satellite telemetering system. Total project cost of \$1,825,000.
City of Kingwood (2009): Project Manager for Phase I water distribution improvement project. Project involves the replacement of an existing water storage tank with a new 1,200,000 gallon water storage tank, Total project cost of \$1,135,000.
Short Line PSD (2008-2009): Project Manager for water tank replacement project. This project involves the replacement of an existing water tank with a new 300,000 gallon water storage tank. Total project cost of \$600,000/
Short Line PSD (2008): Project Manager for the cleaning and repainting of two (2) existing 100,000 gallon welded steel water storage tanks. Total project cost of \$125,000.
Gilmer County PSD - ST RT5 (2008): Project Manager for a water distribution extension involving 19 miles of water line to serve 115 new customers. Project extends water service along ST RT 5, Rosedale Road, Gluck Run, Joes Run, and Dusk camp Run. Total project cost of \$2,884,200.
City of Kingwood – Whetsell Settlement (2007): Project Manager for a water distribution extension involving 3 miles of water line to serve 40 new customers. Project provided water service to the Whetsell Settlement area located along the Cheat River. Total project cost of \$575,000.
Masontown Water Works (2007): Project Manager for a water distribution extension involving 3 miles of 8" water line to connect Masontown system to Morgantown Utility Board system. Project involved a 200 GPM booster pump station, a solenoid operated control valve station, and a four-unit telemetering system. Project connected the two systems along Snake Hill Road. Total project cost of \$1,451,000.
Lewis County EDA – Southern Lewis County (2006-2007:)Project Manager for a water distribution extension involving approximately 42 miles of water line to serve 400 new customers. Project involved two (2) new 100,000 gallon glass-lined bolted steel water tanks and a 200 GPM booster pump station. Project provided water service along Georgetown Road to US RT 119 and served the communities of Walkersville, Ireland, Duffy, and Vandalia. Total project cost of \$6,879,000.
Raleigh County PSD – Clear Creek Project (2005): Project Engineer for a water distribution extension involving approximately 20 miles of water line to serve 310 new customers. Project involved two (2) new glass-lined bolted water tanks a 75,000 gallon and a 150,000 gallon, a 150 GPM water booster pump station, a solenoid operated control valve station, pressure reducing valve station, and a four-unit telemetering system. Project extended water service to the areas of Spruce Mountain along Rt. 1 to the communities of Clear Creek, Workman's Creek, McDowell, Toney Fork, Buffalo Fork, Artie, and White Oak. Total project cost of \$1,000.000.

Raleigh County PSD – Montcoal Project (2005): Project Engineer for a water distribution extension involving approximately 6 miles of water line to serve 125 new customers. Project extended water service from Montcoal north along Route 3 to Jarrolds Valley. Total project cost of \$1,000,000.
Gilmer County PSD (2004-2005): Project Engineer for a water distribution extension involving approximately 23 miles of water line to serve 150 new customers. Project involved a 150 GPM booster pump station, two (2) 50,000 gallon water storage tanks, and a two-unit telemetering system. This project served the areas along RT33 to Normantown and Stumptown in Gilmer County. Total project cost of \$3,400,000
Lewis County EDA – Freemansburg (2003): Project Engineer for a water distribution extension involving approximately 30 miles of water line to serve 300 new customers. Project involved a new 100,000 gallon welded steel water tank and a 100 GPM package water booster pump station. The areas served were Freemansburg, McCann Run, Kliens Run, Jennings Run, Aberdeen, Middle Run, and Herdman Run. Total project cost of \$3,600,000.
Hodgesville PSD (2003): Project Engineer for a water distribution extension involving approximately 30 miles of water line to serve 250 new customers. Project involved a new 240,000 gallon welded steel water tank and a 250 GPM package water booster pump station. The areas served were to the north of Buckhannon, WV. Total project cost of \$3,500,000.

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THOMAS E. URQUHART, P.E., DEE - CONSULTING ENGINEER

QUALIFICATIONS SUMMARY

Mr. Urquhart joined Thrasher Engineering in 1996 and serves as Consultant for the firm. Mr. Urquhart is experienced in civil engineering of public utilities including design and construction of water storage tanks, new and replacement water and sanitary sewer lines, pump stations and water treatment and wastewater treatment plants. Mr. Urquhart previously served as General Manager/Engineering for the Morgantown (WV) Utility Board.

EDUC	ATION
ľ	ATION
	M.S. Civil Engineering – West Virginia University
Q	B.S. Civil Engineering – West Virginia University
CERTI	FICATIONS
	Registered Professional Engineer (PE) – State of West Virginia #05262
	Registered Professional Engineer (PE) — State of Pennsylvania #PE014449E
	Registered Professional Engineer (PE) – State of Ohio #64320
	Registered Professional Engineer (PE) – State of Maryland #30289
	Certified Master Modeler by Heastad Methods for Water Systems, 2002
REPRE	SENTATIVE PROJECT EXPERIENCE
	Pocahontas County PSD Hydraulic Modeling for County-Wide Water System
Q	City of Bridgeport/Charles Pointe, Used Computer Hydraulic Model to design wastewater pumps at four locations pumping into common force main
	City of Weston, Used Computer Hydraulic Model to design wastewater pumps at four locations pumping into common force main
	Mingo County PSD, Used Existing Computer Hydraulic Model used to design extension out of Ragland
	Timberline Four Seasons Resort, Complete Computer Hydraulic Model prepared to evaluate existing water system and design improvements for projected growth
	City of Milton, Complete Computer Hydraulic Model prepared leading to elimination of troublesome booster station, solving pressure problems in two sections of town, design of two major extensions to the water system and providing alternatives for getting fire flows to a new school and assisted living facility
	City of Parsons Design of Improvements to Water Filters
	Town of Rowlesburg, Used Computer Model of Water System to Design of High Service Pumps

	Fairmont State University, Computer Hydraulic Model of Existing Water System and Design Improvements to Provide Fire Protection
	City of Weirton, Complete Hydraulic Model and Study for New Tank, Pump Station, and Elevated Tank
	City of Tunnelton, Used Computer Hydraulic Model to design connection to Taylor County PSD water system
	Raleigh County Airport Industrial Park, Used Computer Hydraulic Model to design water system to provide maximum fire flows from Beckley water system
	Sun Valley PSD, Complete Computer Hydraulic Model prepared to design system improvements, including providing water to the City of Salem
Q)	Various Subdivisions in Hardy and Berkeley County; Computer Hydraulic Model and Analysis Reports
	Greater Harrison County PSD, Existing Computer Hydraulic Model used to design improvements to provide more water to Lost Creek area
	Glenville Prison, Water System Design, Computer Hydraulic Model
	Canaan Prison, Water System Design, Computer Hydraulic Model
	McDowell Prison, Water System Design, Computer Hydraulic Model
0	River Road PSD, Used existing Computer Hydraulic Model to answer question about their systems ability to serve proposed housing subdivisions
	Craigsville PSD, Complete Computer Hydraulic Model prepared to examine several alternatives for constructing new water plant and feeding water from Summersville

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TRAVIS ADAMS — PROJECT ENGINEER / ENVIRONMENTAL SCIENTIST

QUALIFICATIONS SUMMARY

Mr. Adams joined Thrasher Engineering in 2000 and serves as Project Engineer and Environmental Scientist from TEI's Clarksburg Office, Mr. Adams is responsible for engineering design and construction management of sanitary sewer collection system and extension projects, wastewater treatment projects, and water distribution, storage and treatment projects. He also provides direction to Engineering Technicians on his staff. A graduate of West Virginia University's Davis College of Agriculture, Forestry and Consumer Sciences, Mr. Adams is also responsible for environmental assessments and permitting assistance. He has extensive knowledge of reclamation of disturbed land, soil erosion control, treatment of acid mine drainage, and small community on-site wastewater treatment and disposal systems.

EDUC.	ATION
	Bachelor of Science, Agricultural- Environmental Sciences - West Virginia University, 1998
REGIS	TRATIONS
	WVDOH Certified Aggregate Sampling
	WVDOH Portland Concrete Testing/Inspector
	WVDOH Soil Compaction Inspector
AFFILI	ATIONS
	West Virginia Association of Professional Soil Scientists

REPRESENTATIVE PROJECT EXPERIENCE

- □ Brooke County Public Service District; Sanitary Sewer Extension Project: Project duties included the design and layout of the proposed sanitary sewer collection system. Major system components included in the design of a large diameter gravity sewer interceptor pipeline and seven (7) sanitary sewer pump stations including all associated pumps and control systems. This project also required the design of a state-of-the-art pump station odor control system located in close proximity to Brooke County High School. Mr. Adams was also responsible for all environmental permitting issues associated with obtaining approvals from the governing regulatory agencies.
- □ Scotts Run Public Service District; Phase I Sanitary Sewer Collection System Monongalia County, WV: Major project duties included the design and layout of a large sanitary sewer collection system. Major system components included a gravity sewer collection system that required the construction of multiple horizontal directional bores and the construction of four (4) sanitary sewer pump stations with associated pumps, controls, and large diameter force main which connected to the Morgantown Utility Board's sanitary sewer collection system for treatment at the City of Morgantown's Star City wastewater treatment plant. Mr. Adams also performed all construction management duties required for a successful system installation. In addition, Mr. Adams was responsible for all environmental permitting and securing all required approvals from the governing regulatory agencies for project construction. This

project provided sanitary sewer service to approximately 700 residential and commercial customers outside of the City of Morgantown area.

- Lewis County EDA; Walkersville Community Sanitary Sewer Collection and Wastewater Treatment System: Project duties included the design and layout of a small community sanitary sewer collection and wastewater treatment system. Major system components included a conventional gravity sewer collection system, four (4) sanitary sewer effluent pump stations which were designed with a septic tank effluent pump system to allow all solids to settle out in the septic tank and allow for the pumping of septic tank effluent only. This type of effluent pumping system was designed to allow for the installation of a package recirculating sand filter wastewater treatment plant designed to treat sewer effluent only. This type of system was desirable for this small community application due to low operation and maintenance costs resulting in lower proposed sewer rates for this small 25 customer community.
- □ City of Kingwood, Preston County, WV: Sanitary sewer collection system extensions, existing pump station improvements, and upgrades to the existing wastewater treatment plant. Project duties included layout and design of the proposed Route 7 North extension, design of the existing pump station improvements, and coordination with additional project staff for the proposed upgrades to the existing WWTP. Major system components included collection system extensions, pump station replacement and upgrades, and construction of a new head works facility including screening and grit removal at the existing WWTP. Mr. Adams was also responsible for coordination with city officials for identifying the project scope, obtaining all necessary permits approvals from the governing regulatory agencies and additional environmental permitting issues.
- Thousand Acres Lakeside Golf Community; Sanitary sewer collection and water distribution extensions, Garrett County, MD: Project duties included working with the resort development team for layout and design of the sanitary sewer collection and water distribution system extensions. In, addition Mr. Adams was involved with coordination and approval with Garrett County Public utilities staff to ensure proper design and layout of the proposed systems. Mr. Adams was also responsible for all environmental permitting requirements with the governing agencies which were quite an involved process due to the projects close proximity to Deep Creek Lake.
- The Meadows Subdivision; Sanitary sewer collection and water distribution systems, Monongalia County, WV. Project duties included coordination with developers for design and layout of the sanitary sewer collection and water distribution systems. Major system components included a conventional gravity sewer collection system and a water distribution system with a constant rate booster pump station to provide water service to the customers located at a high elevation within the development. Mr. Adams was also responsible for obtaining all the required permit approvals for the construction of the system. In addition, coordination between the developers and the local water and sewage providers was essential to the success of the project.

AARON W. DENHAM - PARTNER / GENERAL MANAGER MATERIALS **TESTING AND INSPECTION**



QUALIFICATIONS SUMMARY

Mr. Denham joined Thrasher Engineering in 2000 and serves as Manager of all Construction Inspection and Materials Testing projects for the firm. Mr. Denham is responsible for all construction inspection for water, sewer, site development, and WVDOH projects, and the daily activities of the materials testing department for highway, airport, site development, structural and public utilities projects.

EDUCA	TION	

<u>EDUCA</u>	<u>TION</u>
	B.S. Civil Engineering Technology, 1999 – Fairmont State University
<u>CERTIFI</u>	ICATIONS
	Fairmont State University Level V Certification – Transportation Engineering Technologist – Engineering
_	Specialization
	WVDOH Compaction Inspector
	WVDOH Concrete Inspector/Technician
	WVDOH Aggregate Sampling Inspector
	WVDOH Aggregate Technician/Inspector
	WVDOH Bituminous Inspector/Technician
	WVDOH Radiation Safety Traylor Proje Safety Nuclear Communities Co
	Troxler Basic Safety – Nuclear Compaction Gauge
<u>AFFILIA</u>	<u>TIONS</u>
	ASHE - American Society of Highway Engineers
REPRES	ENTATIVE PROJECT EXPERIENCE
	WV National Cemetery Expansion – Grafton, WV [Project Representative]: Performed inspection on
	the daily activities of the general contractor and all sub-contractors pertaining to the new construction
	of fifteen (15) acres of future burial sites, and one (1) mile of roads. Inspected a twenty (20) foot high
	and 1,200 foot long segmental retaining wall, installation of concrete crypts, cut and fill of the four (4)
	future burial sites. Additional duties included submittals, pay estimates, and as-builts. Construction
	began and ended in 2002.
	Fairmont State University (Parking Garage, Bryant Place Dormitory, Campus Renovations, Engineering
	Building Addition, and Falcon Center) [Materials Testing Technician]: Responsibilities included materials
	testing and inspection of all material used in the construction all the renovations and new construction
	for Fairmont State University. Performed compaction testing, with nuclear gauge, on soils, stone, and
	asphalt, tested concrete for air content, slump, temperature, and compressive strength of cylinders,
	mortar cubes and grout prisms; rebar inspection, and fireproofing testing which included density and
	thickness. (Robert Kelley, KC Craddock, Steve Harman, and Steve Wright)
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_	West Virginia Division of Highways – Appalachian Corridor H 0.57 miles North of CR 1 & CR 3/3 I/S to
	1.6 miles West of CR 3 in Grant County [Project Manager]: Responsible for completing fee proposal
	for construction inspection, quality assurance, and surveying. Building a construction inspection team,
	which meets WVDOH qualifications, and assigning them to the project as requested by the WVDOH.
	Weekly on-site visits to the project to oversee the inspection duties, and interaction with WVDOH

	construction engineer. Review of all invoices for submittal to WVDOH. Construction cost was \$54.8
	million, and construction began in August 2008 and completion is September 2010. (Will Kump, Bill
	Swaim, Steve Haynes, Shawn Jack, Steve Wright, and Steve Harman)
	Jackson County Airport Taxiway Widening [Materials Testing Technician]: Performed materials testing
	on fill material used for the taxiway widening. Duties included laboratory testing of soil material for
	compaction curve and classification, on-site compaction testing of soil fill by nuclear gauge method and
	sand cone method, and tested concrete for air content, slump, temperature, and compressive strength
_	of cylinders. Construction duration was from 2002 to 2003. (Robert Kelley)
Ш	Walgreens - Grafton, WV and Oakland, MD [Project Manager]: Responsibilities including reviewing
	asphalt and concrete mix designs. Coordinating with contractor on assigning field technicians and any
	special testing. Reviewing field technician's daily reports, field testing reports, and all laboratory
	testing results before being submitted to owner. Construction for the Grafton Walgreens was from
	2008 to 2009, Oakland Walgreens was from October 2008 to November 2009. (KC Craddock, Andy
	Kincell, Matt Watson, Michael Sanders, Jared Woofter)
	Blanchette Rockefeller Neuroscience Institute – Morgantown, WV [Project Manager] Responsibilities
	including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field
	technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and
	all laboratory testing results before being submitted to owner. Construction began May 2006 and
	completed September 2007. Construction cost was \$35 million. (KC Craddock and Michael Sanders)
	Bio Medical Research Facility – Morgantown, WV [Project Manager]: Responsibilities including
_	reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field
	technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and
	all laboratory testing results before being submitted to owner. Construction began July 2006 and
_	completed October 2007. Construction cost was \$30 million. (KC Craddock and Michael Sanders)
Ц	Mon General Hospital Hazel Ruby McQuain Tower – Morgantown, WV [Project Manager]:
	Responsibilities including reviewing asphalt and concrete mix designs. Coordinating with contractor on
	assigning field technicians and any special testing. Reviewing field technician's daily reports, field
	testing reports, and all laboratory testing results before being submitted to owner. Construction began
	September 2006 and completed August 2008. Construction cost was \$90 million. (KC Craddock)
	West Virginia University Cancer Center – Morgantown, WV [Project Manager]: Responsibilities
	including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field
	technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and
	all laboratory testing results before being submitted to owner. Construction began March 2007 and
	completed May 2008. Construction cost was \$18 million. (KC Craddock)
	West Virginia University Alumni Center – Morgantown, WV [Project Manager]: Responsibilities
	including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field
	technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and
	all laboratory testing results before being submitted to owner. Construction began September 2007
	and completed July 2008. Construction cost was \$20 million. (KC Craddock)
	and completed fully 2000. Construction cost was \$20 minion. (RC Craduock)
	Health Science Learning Center – Morgantown, WV [Project Manager]: Responsibilities including
_	reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field
	technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and
	all laboratory testing results before being submitted to owner. Construction began May 2005 and
	completed May 2006. Construction cost was \$12 million. (KC Craddock, Steve Wright and Robert
	Kalley)

Ruby Memorial Hospital NE Addition Morgantown, WV [Project Manager]: Responsibilities including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and all laboratory testing results before being submitted to owner. Construction began January 2004 and completed May 2005. Construction cost was \$70 million. (KC Craddock, Steve Wright and Robert Kelley)
Mountaineer Challenge Academy – Camp Dawson, WV [Project Manager]: Responsibilities including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and all laboratory testing results before being submitted to owner. Construction began September 2007 and completed January 2010. (KC Craddock, Steve Wright, Michael Sanders, Jared Woofter and Robert Kelley)
Rubenstein Center for Youth – Davis, WV [Project Manager]: Responsibilities including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and all laboratory testing results before being submitted to owner. (Jared Woofter)
Glenville State College Dormitory —Glenville, WV [Project Manager]: Responsibilities including reviewing asphalt and concrete mix designs. Coordinating with contractor on assigning field technicians and any special testing. Reviewing field technician's daily reports, field testing reports, and all laboratory testing results before being submitted to owner. Construction began October 2009 and completed May 2011. Construction cost was \$100 million. (Patrick Shaver)

JAMES CHRISTIE, RLA - LANDSCAPE ARCHITECT/PLANNER

Mr. Christie joined Thrasher Engineering in February of 2010, bringing with him over thirteen years of high end landscape design/build experience and eleven years of Landscape Architecture, nine of which were as Partner/Owner or Associate. Throughout his career, he has successfully coordinated projects from conceptual design through construction management in the US and abroad. His business related abilities include excelling in presentations to Design Review Boards, homeowners and developers.

presen	tations to Design Review Boards, homeowners and developers.
<u>EDUCA</u>	TION
	Bachelor of Science in Landscape Architecture, West Virginia University, Morgantown, West Virginia, 1998
PROFF	SSIONAL ASSOCIATIONS AND AWARDS
	Registered Landscape Architects in Colorado (RLA)
	Xeriscape Grand Award – Betty Ford Alpine Garden, Vail, Colorado, 2004
	Xeriscape Grand Award – Private Estate, Eagle County, Colorado, 2004
ū	Water Feature Merit Award – Betty Ford Alpine Garden, Vail, Colorado,
EATU	RED PLANNING PROJECT EXPERIENCE
	La Estancia de Cafayate - Argentina Ventana Mar - Costa Rica
	The Himalayan Ski Village - India
EATU	RED DESIGN/BUILD PROJECTS EXPERIENCE
	BETTY FORD ALPINE GARDENS - Vail, Colorado 1998-2002 Landscape Architect, Project
	Manager: Designed a specialized \$1 mil Alpine Rock Garden and Xeric Garden. Completed
	color rendering, site plan, grading plan to comply with ADA requirements, construction
	documents and on-site construction management for the Alpine Rock Garden (Dedicated - summer 2000) and the Children's Garden (Designed by EDAW).
	- Merit Award: 2003 for Water Feature, Associated Landscape Contractors of Colorado
	- Grand Award: 2004 for Xeriscape, Associated Landscape Contractors of Colorado
	MONTROSE BOTANICAL GARDENS - Montrose, Colorado 1999-2004 Landscape Architect:
	Created a master plan and color rendering for the Montrose Botanical Society to use as a marketing
	tool to raise funds to complete the gardens. Successfully designed xeric garden, meditation garden,
	children's garden and water features. The garden is currently one quarter finished and has created a
	source of pride for the community.
	PRIVATE RESIDENCE - Diamond 'S' Ranch, Eagle County, Colorado Landscape
	Architect/Project Manager: Envisioned and broadened owner concept of landscape potential.
	This \$1.6 mil, 100 acre project included Master Plan, grading plan, fire mitigation plan,
	construction details, planting plan, re-vegetation plans, multiple hot tub and swim-ex plans,
	project management and owners contact. Successfully implemented all designs to create an
	award winning fire wise property.
_	- Grand Award: 2004 for Xeriscape, Associated Landscape Contractors of Colorado
L	FRANK LLOYD WRIGHT'S FALLINGWATER - Mill Run Pennsulvania Landscane Architect Intern

Chosen as the Landscape Architect intern to live on-site at the famous property. Designed site plans for

trails and signage, master plan for guest house site, planting plan and implementation of plan.

Implemented a plant/ soil mapping and testing of the grounds for future uses.



P.O. Box 1945 New London, NH 03257 Tele: (603) 526-2493 Fax: (603) 526-2003

PROFESSIONAL PROFILE

Ross A. Stevens, P.E., President, STEVENS ENGINEERING 215 Sargent Road P.O. Box 1945 New London, NH 03257

SPECIALIZED PROFESSIONAL COMPETENCE

Passenger Ropeways:

Aerial Ropeways
Surface Lifts

Conveyors

Snow Tubing Parks: Civil Engineering: Structural Engineering: Planning, Engineering Design, Analysis, Inspection, Relocation Engineering, Upgrades, Modifications,

Due Diligence Surveys, Dynamic Testing, Maintenance Consulting, Accident Investigation, Profile Surveying, Construction Engineering

Planning & Engineering Design, Terrain Dynamics Evaluation Site Planning, Engineering Design, Surveying, Permitting

Engineering Design, Analysis, Inspection

PROFESSIONAL BACKGROUND

Registered Professional Engineer and Qualified Tramway Engineer in: Maine, Maryland

New Hampshire, Vermont, Connecticut, Massachusetts,

New York, Pennsylvania, Michigan, Utah,

Wisconsin, New Jersey, Colorado, Idaho, Iowa, Tennessee, West Virginia. Wisconsin, Ontario, New Brunswick

Bachelor of Science Degree in Civil Engineering University of Massachusetts, Amherst - 1974 Entered Profession in 1974

AFFILIATIONS

NATIONAL TRAMWAY STANDARDS BOARD - Member from 2000 - 2006

AMERICAN NATIONAL STANDARDS INSTITUTE - ASC B77 Accredited Standards Committee - American National Standard for Passenger Tramways, Committee Member

OITAF-NACS - International Organization for Transportation by Rope, North American Continental Section, Member

NSAA - National Ski Areas Association, Member

OSRA - Ontario Ski Resorts Association, TSSA/OSRA Technical Advisory Committee

SENII - Structural Engineers of New Hampshire, Member

State of New Hampshire, Governor's Office of Emergency Management - ACT-20 Post-Earthquake Building Safety Evaluation Engineer

steveng@tds.net www.stevens-engineering.com



JASON E. HARPER, PE

(304)-541-1390 jason@harperengwv.com

EDUCAT	Ю	N
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 West Virginia University Institute of Technology Montgomery, WV Bachelor of Science-Mechanical Engineering

REGISTRATIONS/PROFESSIONAL AFFILIATIONS

- □ WV Licensed Professional Engineer
- □ ASHRAE

EXPERIENCE

Jason E. Harper, PE brings 5 years design experience to our firm. He has experience with HVAC and piping design. His projects include educational facilities (including colleges and universities), health care facilities, office buildings, banks, emergency services facilities, postal facilities, and government buildings.

REPRESENTATIVE PROJECTS

Summersville Readiness Center

Independence High School HVAC

Lewisburg Readiness Center

Liberty High School HVAC

WVARNG Fire Station

Grafton High School Addition

Mylan Pharmaceuticals Expansion

Robert Byrd Health Science Center

Raleigh Co. 911 Center

TMH MRI Addition- Ashton Place

RELATED EXPERIENCE - UTILITIES

PRESTON COUNTY EDA / PRESTON COUNTY PSD #4 - WATER WELLS / TREATMENT AND DISTRIBUTION

Client/Contact:
Preston County EDA
330 East Main Street, Ste 100
Kingwood, WV 26537
304-329-2299

Project Location:
Preston County, West Virginia

Funding:
US EDA Grant
WVIJDC Grant
Federal Bureau of Prisons

Bid Information: \$6,237,635

Total Project Cost: \$7,190,000

Project Status:

Completed

This project consisted of preliminary engineering, survey, design and construction management to provide water service to the U.S. Federal Prison located near Hazelton, WV.

The identification of additional water wells was an integral part of the project. Working with Moody and Associates, Thrasher identified three wells, two for daily use, depending upon need and a third back-up well.

Contract 1, Glade Run Water Treatment Plant.

Design and construction management of:

A 700 GPM water treatment plant, including 3 new water supply wells, Backwash holding and decant system.

Flocculation,

Clarification and filtration system along with necessary structures.

Contract 2, Water Line Extension.

Included the design and construction management of over 11 Miles of water line.

Contract 3, Elevated Water Storage Tank.

Design and construction management for a 1 Million Gallon water storage tank to serve the Federal Prison.

Contract 4, Storage Tanks: Design and Construction Management of four (4) water storage tanks including two (2) 100,000 gallon and two (2) 150,000 gallon water storage tanks.

SNOWSHOE MOUNTAIN RESORT - WATER SUPPLY / TREATMENT UPGRADE

Snowshoe Mountain Resort currently utilizes the same source of water to both service the businesses and residences of the resort area and for snowmaking purposes. Thrasher Engineering recently completed the engineering design to separate the water treatment intake lines from those for the snow making system. The design called for the installation of three (3) 500 gpm pumps to allow for adjustments of needed flow based upon high occupancy vs. low occupancy occurrences at the resort.

Separation of the intakes also allows the snow making department to now utilize Snow-Max in their snow making efforts.

WATOGA STATE PARK – WATER AND WASTEWATER IMPROVEMENTS Thrasher Engineering provided design and construction oversight services of various water and sewer improvements to the Watoga State Park systems. Sanitary Sewer Projects: Scope of services included: Installation of a new force main to service the park, ☐ Installation of a new Island Lick gravity sewer system servicing nine (9) cabins, Demolition of the Bush Place Wastewater Treatment Plant and landscaping, Removal of the existing Riverside Pump Station and installation of a new grinder pump station to service two (2) cabins in Riverside Campground, and ☐ Retrofitting existing manholes with watertight lids in the Pine Run portion of the park. **Water Projects:** Scope of services include replacement of water distribution system lines, installation of iron and manganese removal filtration systems and cleaning of existing water reservoirs at the Island Lick, Pine Run and Bush Place locations of the park. Also included in this project was painting of the 10,000 gallon water tank servicing Riverside Campground. LOST RIVER STATE PARK Construction of a new wastewater collection system in Lost River State Park. Construction consisted of: ■ 8750 LF of 4",6" and 8" gravity collection; 32 manholes.

- 28 clean-outs,
- Street repair,
- Erosion and sediment control, and
- ☐ Other numerous miscellaneous appurtenances.

This project also included:

- ☐ The construction of an underground electrical system,
- ☐ The installation of 6,400 LF of 7,200 volt cable-in-conduit, and
- ☐ 3450 LF of 12/240 volt cable in conduit.

Additionally, this project included the removal of approximately 49 poles and 12, 400 LF of overhead electrical lines.

CANAAN VALLEY STATE PARK

Canaan Valley State Park is located in an environmentally sensitive area in West Virginia. To accommodate an increase in skiers to the area, the base lodge was expanded. This expansion required the management of additional wastewater during peak operations.

Thrasher Engineering provided design, construction management and inspection services for this project. The project included the review of discharge monitoring reports and water consumption records for the previous five years, and the evaluation of treatment and water-reuse alternatives.

Additionally, Thrasher Engineering recommended and designed a 13,000 gallon flow equalization basin to attenuate peak hydraulic loadings and provided uniform organic loadings. Construction of this project has been completed.

ADDITIONAL WATER DISTRIBUTION – WATER SOURCE/TREATMENT/DISTRIBUTION CLIENTS

	Hamarial Bublic Commission D	
_	Hamrick Public Service District	304-478-2898
	Hardy County Public Service District	304-530-3047
	Gilmer County Public Service District	304-462-4272
	Chestnut Ridge Public Service District	304-497-4935
	Greater Harrison Public Service District	
	Mingo County Public Service District	304-745-3134
	Hodgesville Public Service District	304-235-2244
_		304-472-1904
	Green Spring Valley Public Service District	304-492-5842
	Lewis County Economic Development Authority	304-269-4993
	Clinton Water Association	304-292-3088
	City of Mannington, WV	
	City of Bridgeport, WV	304-986-2700
	City of Parsons, WV	304-842-8200
	•	<i>304-478-2311</i>
	Town of Terra Alta, WV	<i>304-789-6211</i>
	Town of Elizabeth, WV	304-275-3400
	Town of Worthington, WV	
o ·	City of Weirton, WV	304-287-2238
_	City of Kingwood, WV	<i>304-797-8544</i>
	City of Kingwood, WV	<i>304-329-1225</i>



CHIEF LOGAN STATE PARK – LOGAN COUNTY, WV

Thrasher Engineering provided all civil engineering services for the development of a Conference Center for Chief Logan State Park in Logan County, West Virginia. The scope of services included:

Site Engineering:

Mass grading, drainage, site sections, sediment and erosion control, detailing as required, specification for the site preparation plans

Utility Design:

Location, detailing as required and specification on site for all utilities including the placement and detailing of a package wastewater treatment plant.

Roadway Design:

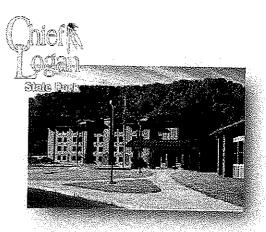
Alignment, profiling, sections, grading, drainage, pavement design, detailing as required specification for the access road and any parking or vehicular travel areas

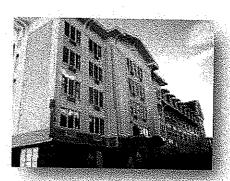
SNOWSHOE MOUNTAIN RESORT — POCAHONTAS COUNTY, WV EXPEDITION CENTER AND SENECA CONDOMINIUMS

Thrasher Engineering provided site development engineering along with associated field services for the construction of two (2) condominium buildings at Snowshoe. Each of the structures is located in what is referred to as the "North Village" of the mountain resort. Services provided by Thrasher Engineering included:

- □ Ground Survey
- □ Utilities Mapping for the North Village
- □ Coordination of Geo-technical services
- Design of All Site Utilities
- Storm Water Drainage Plans
- Health Department and Department of Environmental Protection Permitting
- □ Consultant Services During Construction
- Value Engineering Services

All designs took future extensions of North Village into consideration. Thrasher Engineering was an integral part of the design build team to adjust the project scope to meet the proposed budget.







SOUTH VILLAGE PARKING LOT EXPANSION:

- Design (Grading Plan, Erosion and Sediment Control, Storm Water, Parking Space Layout)
- □ Final Design Completed
- □ Permitting in final stages.

SNOWSHOE DRIVE WIDENING PROJECT

- □ Survey
- □ Design
- □ Storm Water Drainage
- □ Erosion and Sediment Control





SELECTED CLIENTS FOR THE MOUNTAIN RESORT INDUSTRY

Squaw Valley - CA CNL Lifestyles, LLC - FLA Arrowhead Ski Area - NH Mount Isenglass Snow Park - NH Attitash - NH Cannon Mtn. - NH Crotched Mountain, Francistown, NH Dartmouth Skiway, NH Gunstock, NH Willis of New Hampshire Kaser North America - Grantham, NH Mount Cranmore - North Conway, NH Mount Sunapee State Park, NH Star Lifts, Sunapee, NH State of NH - Dept. of Parks and Recreation Proctor Academy, NH Rowell Hill - NH Moose Mountain - NH Ragged Mountain - NH Whaleback - Lebanon, NH Bretton Woods - NH Waterville Valley - Waterville Valley, NH King Ridge - New London, NH Snow Hill at Eastman - NH Sno-engineering, Inc. - Littleton, NH Poma of America - West Lebanon, NH Ragged Mountain, NH Tenney Mountain - New Hampshire Mountain Creek - NJ Hidden Valley - NJ Ober Gatlinberg, TN Burke Mtn. - VT Round Top, VT Bolton Valley, VT Stratton Mountain - VT Mount Snow - VT Smugglers Resort - VT Haystack, VT Mount Mansfield Resort - Stowe, VT Round Top, VT Sugarbush Resort - Warren, VT Mad River Glen - Fayston, VT Magic Mountain, VT Jay Peak Resort - Jay, VT Middlebury Snow Bowl - Middlebury, VT Bear Creek - VT

Wachusett Mountain - Princeton, MA

Otis Ridge - MA

Ski Bradford - MA

Nashoba Valley - MA Amesbury Sports Park - Amesbury, MA Blue Hills Ski Area - Canton, MA Conservation Tourism, LTD - MA Aon-Reed Stenhouse - ON Searchmont - ON Horseshoe Valley - ON Craigleith Ski Club - ON Cassels Brock & Blackwell - ON Dale Intermediaries Ltd. - Toronto, ON Hidden Valley Highlands Ski Club - ON Hughes, Amys - Toronto, ON Zurich Canada - Toronto, ON Snow Valley - Barrie, ON Berthoud Pass, CO Breckenridge, CO Howelson Hill, CO Jenlynn International, Inc. - Boulder, CO Stadeli USA - Boulder, CO Doppelmayr USA - Golden, CO Poma of America - CO Ski Snowstar - III Sun Valley Company - Idaho Mt. Crescent - Iowa Sleepy Hollow Sports Park - Iowa Norway Mountain - MI Ski Brule - MI Mt. Bohemia, MI Porcupine Mountain - MI U.S. Gypsum, MI Whiteface - Olympic Regional Development Authority - Wilmington, NY Catamount - NY Mount Peter, NY Gore Mountain - NY Partek Enterprises, Inc. - Pine Island, NY USMA, West Point - NY Big Tupper - NY Snow Park Niagara - NY Scotch Valley, NY Hunt Hollow, NY Ski Windham - NY Royal Mtn. - NY Belleayre Ski Center - NY Whitetail Ski Company - Mercersberg, PA Laurel Mountain State Park - PA Boyce Park Ski Area - Pittsburg, PA Willowbrook - PA Ski Big Bear - PA

stevens@tds.net stevens-engineering.com



SELECTED CLIENTS FOR THE MOUNTAIN RESORT INDUSTRY

Framar, Inc., PA Montage Ski Area - PA Pinecrest Resorts - PA Framar, Inc - PA Ski Roundtop - PA Rustler Lodge - Alta, Utah

Bruckschlogi GES.M.B.H - Austria Winter Park - Wisconsin Ri b Mountain - Wisconsin Hermon Mountain - Maine Oxford Plains Snowtubing, Maine Sugarioaf USA -- Maine Camden Snow Bowl - Maine Mars Hill - Maine Shawnee Peak - Maine Saddleback - Maine Sports Parks of Maine Shawnee Peak - Maine Sunday River - Maine Eaton Mountain - Maine Stone Mountain Park - GA Ober Gatlinburg - TN Garaventa, CTEC - Utah Division of Parks and Recreation -Commonwealth of WV Canaan Valley - WV Oglebay Family Resort - WV The Chapman Technical Group - WV Snowshoe Mountain Resort - WV Mount Ashwabay - WI Dosel, S.A. - Costa Rica Rain Forest Trams - Costa Rica Rain Forest Trams, LTD - Dominica Poley Mountain - New Brunswick Mount Southington - CT Yawgoo Valley - CT Brandywine - Ohio

RFQ No.	DNRB11013

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

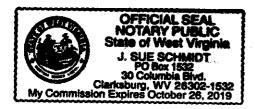
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due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

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

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

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

Vendor's Name: THRASHER ENGINEERING, INC.		 	
Authorized Signature:		_ Date: _	SEPTEMBER 1, 2020
State of WEST VIRGINIA			
County of HARRISON , to-wit:			
Taken, subscribed, and sworn to before me this <u>1ST</u> day of	f <u>SEPTEMBER</u>		, 20 <u>10</u> .
My Commission expires <u>October 26</u>	, 20 <u>/<i>9</i></u> .		
ACCIV SEAL HERE	IOTARY PUBLIC		es Schmeth



WITNESS THE FOLLOWING SIGNATURE