

DECEMBER 15, 2009

EXPRESSION OF INTEREST

# CAMBRIA PORTALS & DRAINAGE DESIGN

DEP14845

HARRISON COUNTY, WEST VIRGINIA



**E.L. ROBINSON**

*the Challenge. the Choice.*<sup>TM</sup>

E.L. Robinson Engineering Co.  
5088 Washington Street, West  
Charleston, WV 25313  
Phone: (304) 776-7473  
Fax: (304) 776-6426  
[www.elrobinson.com](http://www.elrobinson.com)

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PLANNING DIVISION  
STATE OF WV

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

# Request for Quotation

RFQ NUMBER  
 DEP14845

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 CHUCK BOWMAN  
 304-558-2157

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE  
 E.L. Robinson Engineering Co.  
 5088 Washington Street, West  
 Charleston, WV 25313

SHIP TO

ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 OFFICE OF AML&R  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499

| DATE PRINTED | TERMS OF SALE | SHIP VIA | F.O.B. | FREIGHT TERMS |
|--------------|---------------|----------|--------|---------------|
| 11/05/2009   |               |          |        |               |

BID OPENING DATE: 12/15/2009 BID OPENING TIME 01:30PM

| LINE  | QUANTITY | UOP | QAT NO | ITEM NUMBER | UNIT PRICE | AMOUNT |
|---|----------|-----|--------|-------------|------------|--------|
| 0001  | 1        | JB  |        | 906-29      |            |        |
| CAMBRIA PORTALS & DRAINAGE DESIGN<br><br>EXPRESSION OF INTEREST<br><br>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE CAMBRIA PORTALS AND DRAINAGE PROJECT IN HARRISON COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.<br><br>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.<br><br>***** THIS IS THE END OF RFQ DEP14845 ***** TOTAL: |          |     |        |             |            |        |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

|                                      |                           |                                   |
|--------------------------------------|---------------------------|-----------------------------------|
| SIGNATURE<br><i>Richard W. Walto</i> | TELEPHONE<br>304-776-7473 | DATE<br>11/8/09                   |
| TITLE<br>Project Manager             | FEIN<br>55-0594633        | ADDRESS CHANGES TO BE NOTED ABOVE |

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



*the Challenge. the Choice.™*

December 15, 2009

West Virginia Department of Environmental Protection  
Office of AML & R  
601 57<sup>th</sup> Street  
Charleston, WV 25304

Attn: Eric J. Coberly, P.E., Chief

Re: Cambria Portals & Drainage Design  
DEP14845  
Expression of Interest

Dear Mr. Coberly:

E. L. Robinson Engineering Co. (ELR) is pleased to submit this proposal in response to your request to perform professional engineering design services, and construction monitoring services associated with the design of the Cambria Portals & Drainage Design project located in Harrison County.

We have completed plans and specifications for numerous reclamation and waterline projects for WVDEP/AML over eleven years. In addition, we have completed numerous projects with ODNR over the past five years. We have descriptions of these projects in the attached proposal. Please note that the majority of staff that worked on these projects are still with ELR.

The ELR staff has combined experience in the design of nearly 100 AML projects.

We are able to assemble multiple design teams with our current staff. The Charleston office has:

- A. Thirteen (13) registered professional engineers (civil or mining), two (2) Landscape architects, four (4) engineers in training as well as several CADD technicians that may be used on these teams.
- B. ELR Corporate experience in designing more than forty (40) abandoned mine land remediation projects. Personal experience on nearly one hundred (100) AML projects. This number does not include surveying/mapping/drilling projects.

E. L. Robinson Engineering Co. has grown from 13 employees in 1996 to over 80 employees today. Throughout this growth period we have continued to meet project deadlines while providing a high quality engineering product.

5088 Washington Street West • Charleston, West Virginia 25313

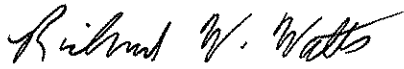
304-776-7473 • toll-free 800-856-6485 • fax 304-776-6426 • [www.elrobinson.com](http://www.elrobinson.com)

Other locations: Beckley, WV • Chapmanville, WV • Columbus, OH • Ironton, OH • Inverness, FL • Ashland, KY

Our office location in Charleston is centrally and conveniently located in respect to the WVDEP offices and the referenced project.

We at E.L. Robinson Engineering Co. look forward to serving your agency under this contract. If you have any questions or need clarification, please feel free to contact me at (304) 776-7473.

Sincerely,  
E. L. Robinson Engineering Co.  
By:



Richard W. Watts, P.G.  
Project Manager



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Our Capabilities.....Page 5

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    Soil Analysis.....Section 12B

    Hydrology and Hydraulics.....Section 12C

    Aerial Photography and Contour Mapping.....Section 12D

    Key Personnel.....Section 13

**RPEM.....Attachment C**

**Purchasing Affidavit**



# Executive Summary

For more than 10 years, E.L. Robinson Engineering Company has been a prime and preferred engineering and surveying consultant to the WV Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation (WVDEP/AML) program. We have provided this Executive Summary to directly respond to the Expression of Interest and provide ease for the evaluators to score this proposal.

## **Understanding of Project Requirements**

E.L. Robinson Engineering Co. fully understands the requirements for this project and is committed to giving the WVDEP/Office of Abandoned Mine Lands and Reclamation the time and attention that is necessary for the reclamation project. Professional services may include: civil; structural; geological; surveying and mapping; preparation of all necessary permit applications; construction monitoring and other services that may be required.

## **Firm's Capacity**

E.L. Robinson Engineering Co. approaches all engineering projects with the same attention to detail and fiscal responsibility to ensure the client receives the most cost effective plan, design and operationally functional project possible. Our approach truly makes the WVDEP/AML engineering staff an integral part in the design of the project. We want to make sure that the review staff is comfortable with the design concept before the project is submitted for review. During this process, we evaluate all technical alternatives to determine the most cost effective plan and technically acceptable project for the WVDEP/AML staff.

E.L. Robinson Engineering Co. has more than 50 professionals on staff and individuals experienced in mine reclamation. This capacity allows for the development of innovative and alternative methods to address complex issues involved in reclamation projects of this nature. Our QA/QC process also allows for a different perspective to be brought to the project before submission to the client and for review. E.L. Robinson Engineering Co. has the capacity to take this project from conception to completion with a wide variety of experienced professionals with in-house staff for planning, design, permitting, bidding and construction monitoring.

E.L. Robinson Engineering Co. will work diligently to deliver the highest quality, cost effective solution that the WVDEP/AML deserves. We have extensive knowledge in mine reclamation and are currently working with WVDEP/AML and Ohio DNR on similar projects. We have an excellent understanding of the requirements for this type of project and a good working relationship with NEPA, permitting and regulatory issues.

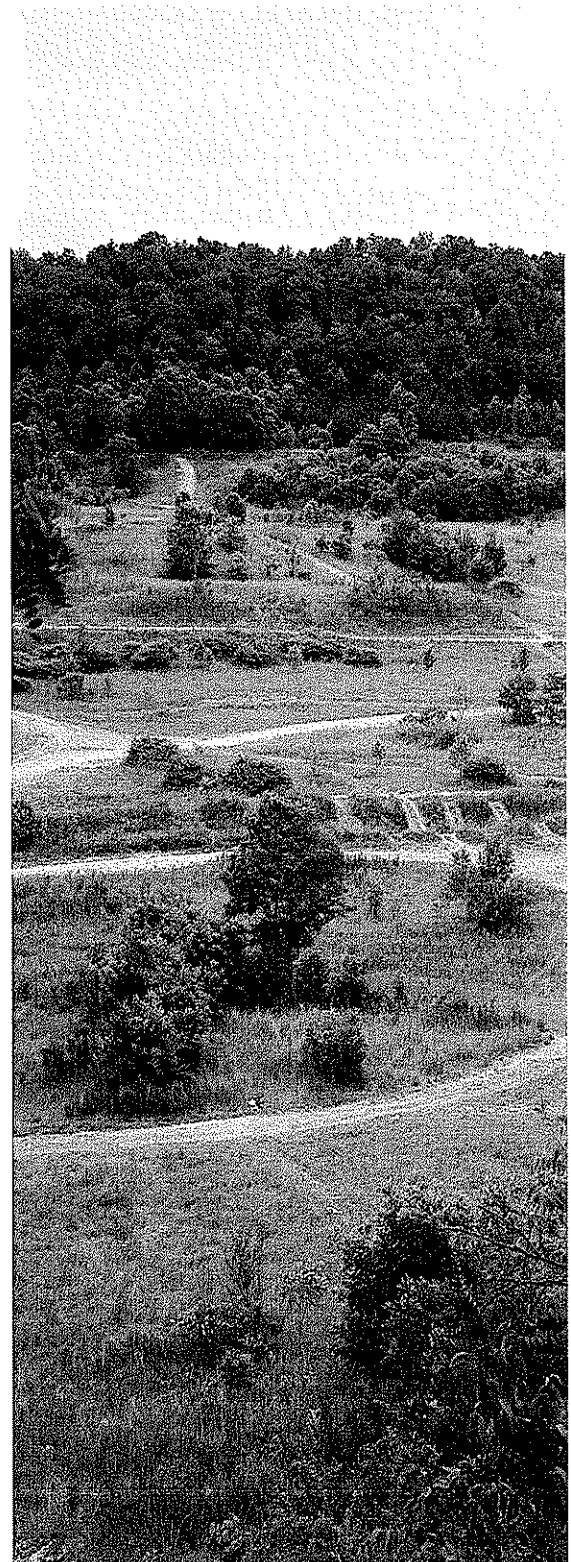
E.L. Robinson is familiar with the project area and the type of project for which you are seeking engineering services. We believe that we have a thorough understanding of the work to be provided to the WVDEP/AML for the subject reclamation project.

We are anxious to become an extension of your staff by providing prompt planning, design and construction monitoring services as needed. We interact with the various review and permitting agencies. As you will see from our resumes, we are uniquely diversified to provide quality engineering services to your agency.

E.L. Robinson will work closely with the WVDEP/AML and all regulatory and permitting agencies to complete this project. We feel that our extensive knowledge and experience in the planning and design of similar projects are significant assets in developing a cost-effective solution to your reclamation project.

The scope of services will include but are not limited to:

- Conceptual engineering and identification of permitting requirements
- Surveying and contour mapping
- Geotechnical services
- Design
- Preparation of plans and specifications
- Participation in the pre-bid meeting
- Participation in the pre-construction meeting
- Preparation of all necessary permit applications
- Construction monitoring
- Other services that may be required by the WVDEP/AML







## Our Project Team

Our firm has put together a project team that is experienced in the design and construction of mine reclamation projects and has the capacity to perform the project's scope in a timely and efficient manner.

**Mr. Rich Watts, P.G.** will be assigned as the Project Manager.

**Mr. John Kelly, II, E.I.** will be assigned the CADD designer and principal production person for the project. He has performed this role for numerous mine reclamation projects.

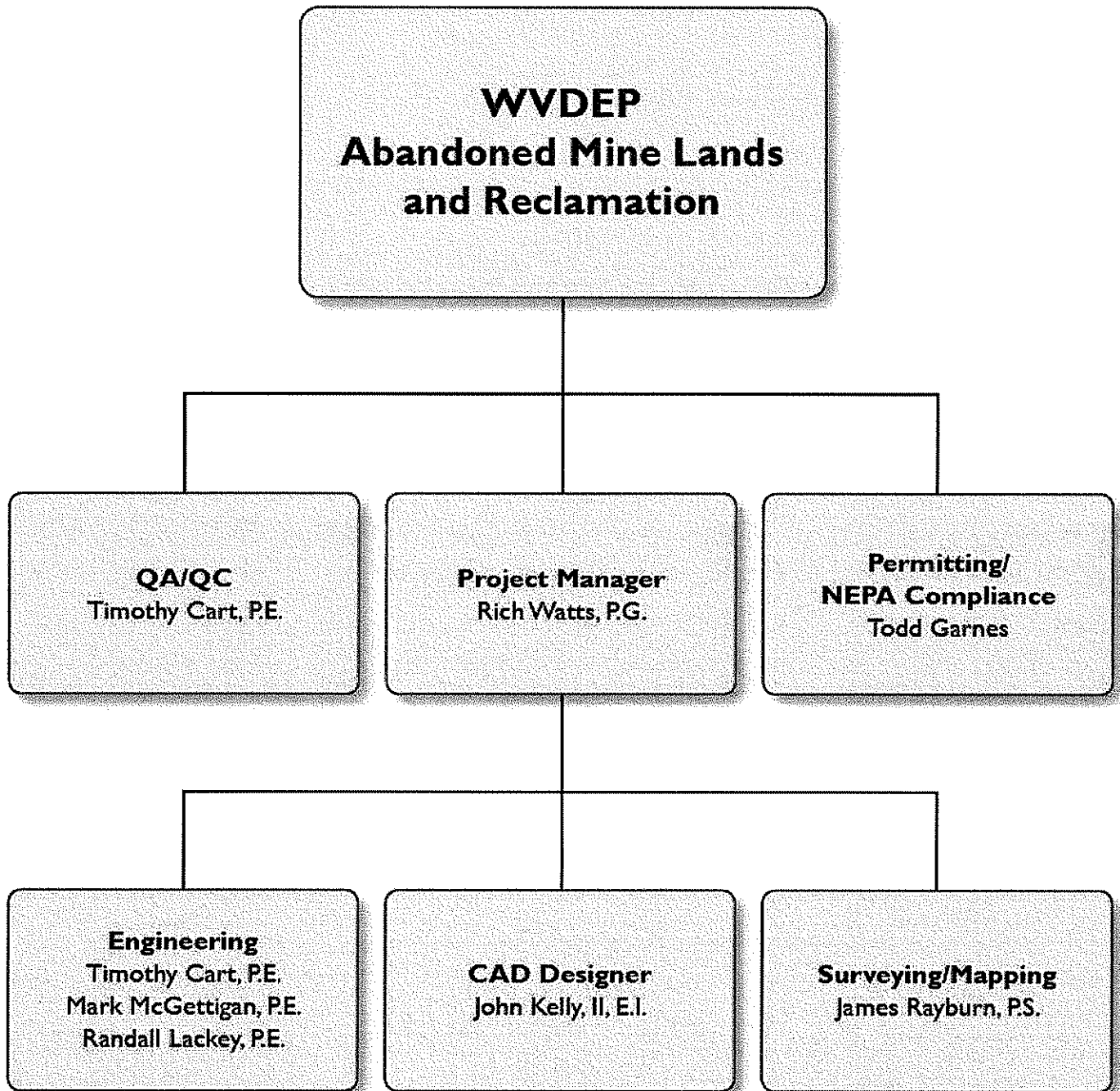
**Mr. Timothy Cart, P.E., Mr. Randall Lackey, P.E. and Mr. Mark McGettigan, P.E.** will be assigned as the Project Engineers.

**Mr. James Rayburn, P.S.** will be assigned to oversee all surveying and mapping activities.

Our staff is well-qualified and experienced in related reclamation projects. They have the knowledge and capabilities to perform all of the tasks required for your project. In addition to your primary project team, other members of our organization may be called upon from time to time to provide their expertise and assistance to ensure this important project is completed on time and on budget.

Our team of construction inspectors, led by Ronnie Williams, offers years of experience with construction monitoring.

Also, our team of surveyors, managed by James Rayburn, P.S., provides the WVDEP/AML with the latest in technology and experience in surveying and mapping. By using GIS-based mapping and high-tech instrumentation, E.L. Robinson's survey team can evaluate any type of surface. Other services pertaining to surveying that our company specializes in are aerial photogrammetric consulting, hydrographic surveying, land surveying and GPS surveying.





## Our Capabilities

Over the past 30 years, E.L. Robinson Engineering Co. has focused its efforts on delivering quality projects to our clients and building strong relationships based on trust and partnership. We believe building lasting relationships with our clients is key to delivering exceptional service for many years to come.

E.L. Robinson provides WVDEP/AML with the capabilities, expertise and resources of one of the top-notch civil engineering firms in the region. Our offices are staffed with professionals experienced in AML reclamation mapping, permitting, design and construction monitoring projects with more than 50 employees, including 10 registered professional engineers, degreed design engineers, construction inspectors and a support team of administrative and technical personnel to assist the WVDEP/AML.

We are very familiar with the requirements of the permitting and regulatory agencies. This experience expedites the completion of projects.

As part of our commitment to quality, E.L. Robinson realizes that every project, client and location is very different. As a result, we look at each project independently to determine the most cost-effective solution. Specifically, we look at ways we can maximize the project benefit and minimize the construction cost while at the same time completing projects on time and within budget.



E.L. Robinson is well-qualified and experienced in mine reclamation projects. We are very familiar with the requirements of the project. We have demonstrated abilities in developing practical and cost-effective reclamation and improvement projects and are dedicated to meeting project schedules and budgets.

Such demonstrations can be seen in our recent and past work on reclamation projects, including:

- **Jacob's Fork Complex – substantially complete December 2008**
- **Rhodell Refuse and Portals – substantially complete October 2008**
- **Gilmer B Sites 3-8 – substantially complete September 2008**
- **Ohio DNR Emergency Reclamation – 19 sites completed**
- **Toney Fork Landslide Emergency – complete February 2006**
- **North Matewan – complete February 2005**
- **Big Creek "C" Refuse – complete July 2004**
- **Charleston Romeo Landslide – complete May 2004**
- **Gooney Otter Refuse – complete January 2004**
- **Chapmanville (Gorby) Mine Blowout – December 2003**
- **Tuppers Creek (Layne) Landslide – July 2003**
- **Rich Fork (Thaxton) Landslide – July 2003**
- **Maidsville (Tennant) Landslide – February 2003**



**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE Attachment "B"**

PROJECT NAME  
Cambria Portals & Drainage  
DEP14845

DATE (DAY, MONTH, YEAR)  
December 15, 2009

FEIN  
55-0594633

1. FIRM NAME  
E.L. Roberson Engineering Co.

2. HOME OFFICE BUSINESS ADDRESS  
5088 Washington Street, West  
Charleston, WV 25313

3. FORMER FIRM NAME

4. HOME OFFICE TELEPHONE  
304-776-7473

5. ESTABLISHED (YEAR)  
1978

6. TYPE OWNERSHIP  
Individual x Corporation  
Partnership Joint-Venture

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

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE  
5088 Washington Street, West 304-776-7473/Tim Cart, P.E./56 Staff in Charleston Area

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM  
Ed Roberson, P.E. 304 776-7473 Ext 211

8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS

9. PERSONNEL BY DISCIPLINE

|                            |   |                          |                        |
|----------------------------|---|--------------------------|------------------------|
| 6 ADMINISTRATIVE           | — | 2 LANDSCAPE ARCHITECTS   | 6 STRUCTURAL ENGINEERS |
| ARCHITECTS                 | — | MECHANICAL ENGINEERS     | 7 SURVEYORS            |
| BIOLOGIST                  | — | MINING ENGINEERS         | — TRAFFIC ENGINEERS    |
| 7 CADD OPERATORS           | — | PHOTOGRAMMETRISTS        | — OTHER                |
| CHEMICAL ENGINEERS         | — | PLANNERS: URBAN/REGIONAL |                        |
| 10 CIVIL ENGINEERS         | 2 | SANITARY ENGINEERS       |                        |
| 15 CONSTRUCTION INSPECTORS | — | SOILS ENGINEERS          | 56 TOTAL PERSONNEL     |
| DESIGNERS                  | — | SPECIFICATION WRITERS    |                        |
| DRAFTSMEN                  | — |                          |                        |

**TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 13**  
**\*RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?  YES  NO X This is not applicable

Questionnaire" for each if copy is not on file with AML.

|  |                        |                                       |
|--|------------------------|---------------------------------------|
| NAME AND ADDRESS:<br><br>Novel Geo - Environmental (NGE)<br>806 B Street, St. Albans, WV | SPECIALTY:<br>Drilling | WORKED WITH BEFORE<br><br>X YES<br>NO |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |
| NAME AND ADDRESS:  | SPECIALTY:             | WORKED WITH BEFORE<br><br>YES<br>NO   |

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

YES Description and Number of Projects: Sixty-nine (69) Projects - See Attached Sheet

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: Eighteen (18) Projects Listed - See attached Sheet

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Ten (10) Projects Listed - See attached sheet

NO

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

YES Description and Number of Projects: > 200 - in Firm History - 65 Recent Projects Listed

All ELR WV & OH AML Projects since 2003 have been surveyed with ELR Surveying Staff

NO

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

YES Description and Number of Projects: Forty five (45) Total  
Eleven (11) Domestic Waterline Experience (AML Related)  
Twenty (20) Evaluation of Aquifer Degradation  
Twenty Five (25) Non-AML Domestic Water Lines

NO

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

YES Description and Number of Projects: Seven (7) Projects

NO



13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

| NAME & TITLE (Last, First, Middle Int.)  |  | YEARS OF EXPERIENCE                   |   | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
|--|--|---------------------------------------|---|--|
| Edward L. Robinson, President  |  | YEARS OF AML DESIGN EXPERIENCE:<br>10 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>24 | 32   |
| Brief Explanation of Responsibilities  |  |                                       |   |  |
| Mr. Robinson worked in the Right of Way Division of the WV Department of Highways for ten years where he reviewed major utility plans. He has extensive experience in property surveys, property title searches, aerial mapping and land acquisition. He has provided quality control on all projects designed by this firm for the past 25 years. Provide and coordinate Quality Control on all design projects.  |  |                                       |   |  |
| EDUCATION (Degree, Year, Specialization)   |  |                                       |   |  |
| Bachelor of Science 1969 Civil Engineering<br>Master of Science 1981 Civil Engineering   |  |                                       |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |  |                                       |   |  |
| American Society of Civil Engineers - Past President WV<br>American Council of Engineering Companies<br>National Society of Professional Engineers   |  |                                       |   |  |
| 13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)  |  |                                       |   |  |
| NAME & TITLE (Last, First, Middle Int.)  |  | YEARS OF EXPERIENCE                   |   | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Richard W. Watts, P.G.   |  | YEARS OF AML DESIGN EXPERIENCE:<br>27 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>32 | 1  |
| Brief Explanation of Responsibilities  |  |                                       |   |  |
| Mr. Watts has served as project geologist on more than eighty (80) abandoned mine land projects. Responsibilities include project management, field reconnaissance, drilling coordination, laboratory testing and analysis, stability analysis, specification writing, quantity determinations, cost estimates, pre-bid and pre-construction meetings. Projects included surface and deep mine reclamation, subsidence, AMD treatment and waterline feasibility studies. |  |                                       |   |  |
| EDUCATION (Degree, Year, Specialization)   |  |                                       |   |  |
| B.S./1977/Geology<br>M.S./1994/Geography   |  |                                       |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |  |                                       |   |  |
| Geological Society of America<br>Association of Engineering Geologists<br>REGISTRATION (Type, Year, State)<br>Professional Geologist/1992/Virginia<br>Professional Geologist/1993/Kentucky   |  |                                       |   |  |



13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |                                      |  |   |
|---|--------------------------------------|--|---|
| NAME & TITLE (Last, First, Middle Int.) | YEARS OF EXPERIENCE                  |  |   |
| John Kelly II, E.I.                     | YEARS OF AML DESIGN EXPERIENCE:<br>8 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>8 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>8 |

Brief Explanation of Responsibilities  
 Mr. Kelly has worked on many AML projects since joining ELR. His responsibilities have included drilling inspection, sampling of coal refuse materials, hydrology, hydraulics design of drainage structures, and development of regrading plans. Estimation of quantities developed estimated cost. Mr. Kelly is proficient with Auto Cadd. Mr. Kelly has performed layout and inspection of core drilling operations for bridge and roadway projects. In addition, he has designed cut slopes for large-scale roadway projects such as the US Route 52 Kermit Bypass in Mingo County, WV and Meadowbrook Road in Harrison County, WV.

EDUCATION (Degree, Year, Specialization)  
 B.S. Civil Engineering/1998/WVU

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  
 REGISTRATION (Type, Year, State)  
 Engineer Intern, WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |                                       |   |  |
|---|---------------------------------------|---|--|
| NAME & TITLE (Last, First, Middle Int.) | YEARS OF EXPERIENCE                   |   |  |
| Timothy B. Cart, P.E.                   | YEARS OF AML DESIGN EXPERIENCE:<br>25 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>25 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>20 |

Brief Explanation of Responsibilities  
 Mr. Cart has completed numerous mine reclamation projects under the AML program, including regrading of coal refuse materials, re-establishment of vegetation cover, disposal of acid producing materials, and developing methods for extinguishing burning materials and disposal of old mining structures. Designed passive AMD treatment systems. Conducted Phase I and Phase II Studies to determine if groundwater had been affected by pre-law mining. Mr. Cart has extensive experience in the design and construction management of waterline extension projects. Mr. Cart has recently completed water projects in Mingo; Kanawha; Putnam; and Cabell counties. Mr. Cart has performed geotechnical engineering calculations and designs for settlement analysis of dams and other embankments.

EDUCATION (Degree, Year, Specialization)  
 Bachelor of Science 1981 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  
 REGISTRATION (Type, Year, State)  
 Professional Engineer WV OH

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |  |   |  |
|---|--|---|--|
| NAME & TITLE (Last, First, Middle Int.) |  | YEARS OF EXPERIENCE                                 |  |
| Mark McGettigan, P.E.                   |  | YEARS OF AML DESIGN EXPERIENCE:<br>7                | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>7 |
|   |  | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>7 |  |

Brief Explanation of Responsibilities

Mr. McGettigan has worked on several AML projects since joining our firm. He has developed grading plans, cross sections, estimated and checked quantity calculations. He has also served as a field inspector for several waterline projects designed by E. L. Robinson Engineering Co. He has been the lead designer on waterlines over the past five years.

Mr. McGettigan also has experience with surveying and equipment including; theodolites, levels, and total stations. He has also performed various concrete and soil tests and is certified on Troxler nuclear density gage.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering Technician/Fairmont State/1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer WV

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |  |   |  |
|---|--|---|--|
| NAME & TITLE (Last, First, Middle Int.) |  | YEARS OF EXPERIENCE                                 |  |
| Randall L. Lackey, P.E.                 |  | YEARS OF AML DESIGN EXPERIENCE:<br>1                | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>8 |
|   |  | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>1 |  |

Brief Explanation of Responsibilities

Mr. Lackey has performed hydraulics and scour for Ripley Town Bridge; Tallman Bridge; Meadowbrook Road Bridge; Simpson Creek Bridge; Kermit Bypass Bridge; Left Hand Fork Bridge; and Blennerhassett Bridge.

Mr. Lackey has also performed calculations for deck drainage; performed girder design and analysis; pier design and analysis; prepared design study reports; type, size and location reports and final plans on many of our Division of Highways projects.

EDUCATION (Degree, Year, Specialization)

B.S. Civil Engineering/1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

REGISTRATION (Type, Year, State)

Professional Engineer WV

**13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)**

|   |  |   |  |
|---|--|---|--|
| NAME & TITLE (Last, First, Middle Int.)   |  | YEARS OF EXPERIENCE                       |  |
| J. Todd Garnes  |  | YEARS OF AML RELATED DESIGN EXPERIENCE: 5 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 5 |
| Brief Explanation of Responsibilities   |  |   |  |
| Mr. Garnes experience surveying and providing CADD Design for mine reclamation projects and waterline and sewer extrusions. He has provided construction inspection services for landslides and subsidence projects in Ohio. Mr. Garnes has performed numerous water feasibility studies, which involved interviews, water sampling and analysis, mapping, mine research, and development of final reports. |  |   |  |
| EDUCATION (Degree, Year, Specialization)  |  |   |  |
| A.S. Architectural Design/ 1999   |  |   |  |
| A.S. Computer Aided Drafting and Design/ 1999   |  |   |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  |  |   |  |
| REGISTRATION (Type, Year, State)  |  |   |  |

**13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)**

|  |  |  |  |
|--|--|--|--|
| NAME & TITLE (Last, First, Middle Int.)  |  | YEARS OF EXPERIENCE                        |  |
| Thomas Rayburn, P.S.   |  | YEARS OF AML RELATED DESIGN EXPERIENCE: 30 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| Brief Explanation of Responsibilities  |  |  |  |
| Mr. Rayburn has experience in mine mapping and surveying, formulated short term and long range mining plans for all types of coal mining, designed mine drainage and water supply systems for underground and surface mines, designed mine ventilation plans and systems which include precision pressure quality surveys and computer simulation of ventilation systems. He has performed slope stability analysis and hydrology calculations, provides computer analysis for mining applications, work with leases and land management as well as reclamation and environmental permits. By utilizing "state of the art" electronic total stations and/or GPS (Satellite) equipment, he performs control surveys for aerial mapping and collects data and develops GIS for utility mapping. Mr. Rayburn has also performed surveying and mapping for large scale highway projects. |  |  |  |
| EDUCATION (Degree, Year, Specialization)   |  |  |  |
| A.S. Mechanical Engineering, WVIT/1970   |  |  |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |  |  |  |
| REGISTRATION (Type, Year, State)   |  |  |  |
| Professional Surveyor WV   |  |  |  |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

| NAME & TITLE (Last, First, Middle Int.)  |   | YEARS OF EXPERIENCE             |  |
|--|---|---------------------------------|--|
| YEARS OF AML DESIGN EXPERIENCE:  | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF AML DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
| 1  | 1                                       | 1                               | 1  |
| <p><b>Scott LeRose, P.E.</b></p> <p>Brief Explanation of Responsibilities<br/>                     Mr. LeRose is experienced in developing major highway and right of way plans; Bridge Construction Inspections; Core Drilling Operations; Groundwater Sampling/Monitoring; UST Removal/Replacement and Mine Permitting/Reclamation. Specific major highway design and right of way plan development projects include: Meadowbrook Road, a 2 mile design of new four lane highway; US 52(I-73), a 3.5 mile design and ROW plans for a new four lane highway with two major interchanges; design of 2 mile section of Appalachian Corridor H from Davis to Bismark; design of 5.2 mile section of Corridor H from Grant/Hardy County line to Moorefield.</p> <p>While working on these projects, he has gained experience in major drainage design, site grading design, utility relocation, MOT, signing and pavement stripping. He has performed quantity calculations for pavement, drainage, seeding, pollution control quantities, and other items associated with roadway plans. He is also experienced in the development of ROW plans, including deed plots and legal descriptions.</p> <p>EDUCATION (Degree, Year, Specialization)<br/>                     B.S. Civil Engineering/1997</p> <p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS<br/>                     Registration (Type, Year, State)<br/>                     Professional Engineer WV</p> |   |                                 |  |
| <p>13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)</p>   |   |                                 |  |
| NAME & TITLE (Last, First, Middle Int.)  |   | YEARS OF EXPERIENCE             |  |
| YEARS OF AML DESIGN EXPERIENCE:  | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF AML DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
|  | 5                                       |                                 | 30   |
| <p><b>Ray Tilley, P.E.</b></p> <p>Brief Explanation of Responsibilities<br/>                     Mr. Tilley has over 30 years experience in water and wastewater design as a Project Manager/Engineer. In addition, Mr. Tilley is a certified Water Plant Operator. Mr. Tilley has successfully completed numerous waterline design projects over his career. His current duties include managing both water and wastewater design projects for ELR.</p> <p>EDUCATION (Degree, Year, Specialization)<br/>                     B.S. Civil Engineering/WV Tech 1975; M.S. Sanitary Engineering Virginia Tech, 1976</p> <p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS<br/>                     Registration (Type, Year, State)<br/>                     Professional Engineer WV</p>   |   |                                 |  |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

| NAME & TITLE (Last, First, Middle Int.)  |                                      | YEARS OF EXPERIENCE                          |   |
|--|--------------------------------------|--|---|
| James Eric Gwinn, E.I.   | YEARS OF AML DESIGN EXPERIENCE:<br>8 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>8 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>8 |
| <p>Brief Explanation of Responsibilities</p> <p>Mr. Gwinn has experience in construction layout for waterline projects. He performs calculation and permit requirements. He has worked on the Cabell County Water Project and the raw water intake structure for the Fayette Plateau Regional Water Project. He has performed calculations on various AML project.</p> <p>Mr. Gwinn has designed approach slabs, decks and extensive detailing on several bridge projects.</p> <p>EDUCATION (Degree, Year, Specialization)</p> <p>B.S. Civil Engineering/1998/ West Virginia Institute of Technology</p> |                                      |  |   |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                      | REGISTRATION (Type, Year, State)             |   |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

| NAME & TITLE (Last, First, Middle Int.)  |                                      | YEARS OF EXPERIENCE                          |   |
|--|--------------------------------------|--|---|
| Brian D. Morton, P.E.  | YEARS OF AML DESIGN EXPERIENCE:<br>2 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>2 | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>6 |
| <p>Brief Explanation of Responsibilities</p> <p>Mr. Morton has worked on waterline extension projects in Putnam County. He also has completed numerous waterline relocation projects involving the West Virginia Division of Highways.</p> <p>Mr. Morton has prepared signing and pavement marking plans and performed hydrologic and hydraulic calculations for culverts and other drainage structures and highway construction.</p> <p>EDUCATION (Degree, Year, Specialization)</p> <p>B.S. Civil Engineering/1998</p> |                                      |  |   |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |                                      | REGISTRATION (Type, Year, State)             |   |
|  |                                      | Professional Engineer WV                     |   |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |  |   |  |
|---|--|---|--|
| NAME & TITLE (Last, First, Middle Int.) |  | YEARS OF EXPERIENCE                     |  |
| Joseph T. Carney, P.E.                  |  | YEARS OF AML RELATED DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
|   |  |   | 32   |

Brief Explanation of Responsibilities

Mr. Carney has extensive experience in design engineering, preparation of contract documents, construction inspection, and contract administration. He has worked on a variety of Civil Engineering projects including grading, earthwork, storm sewer, drainage studies, roadway, bridge design, hydrologic/hydraulic reports, sanitary sewer and water systems.

EDUCATION (Degree, Year, Specialization)

|  |                                  |
|--|----------------------------------|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS | REGISTRATION (Type, Year, State) |
|  | Professional Engineer WV         |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|  |  |                                 |  |
|--|--|---------------------------------|--|
| NAME & TITLE (Last, First, Middle Int.)  |  | YEARS OF EXPERIENCE             |  |
| Workman, Gary A., CADD Senior Technician |  | YEARS OF AML DESIGN EXPERIENCE: | YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: |
|  |  | 20                              | 1  |

Brief Explanation of Responsibilities

Mr. Workman is responsible for CADD design on AML projects, as well as geotechnical soil analysis. He Worked on 44 WVDEP/AML projects while employed at Ackenheil, and has worked on 7 AML projects while at E. L. Robinson.

EDUCATION (Degree, Year, Specialization)

Technical School/1987/CADD

|  |   |
|--|---|
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS | REGISTRATION (Type, Year, State)                          |
|  | WVDOH certifications compaction, aggregates and concrete. |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| NAME & TITLE (Last, First, Middle Int.)  |  | YEARS OF EXPERIENCE                  |  |
| Mayes, Jason M.  |  | YEARS OF AML DESIGN EXPERIENCE:<br>2 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>2 |
| YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:<br>2  |  |                                      |  |
| Brief Explanation of Responsibilities  |  |                                      |  |
| Provides CADD Design for site development, waterline and sewer extensions, and layout on AML Projects. Mr. Mayes has Nearly ten years experience in WV DOT design with a prior firm. |  |                                      |  |
| EDUCATION (Degree, Year, Specialization)   |  |                                      |  |
| B.S. Industrial Technology 1997 WVU Tech<br>A.S. Drafting and Design 1996 WVU Tech   |  |                                      |  |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS   |  |                                      |  |
| REGISTRATION (Type, Year, State)   |  |                                      |  |

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

|   |  |                                       |   |
|---|--|---------------------------------------|---|
| NAME & TITLE (Last, First, Middle Int.)   |  | YEARS OF EXPERIENCE                   |   |
| Scott A. Pratt  |  | YEARS OF AML DESIGN EXPERIENCE:<br>10 | YEARS OF AML RELATED DESIGN EXPERIENCE:<br>10 |
| YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:  |  |                                       |   |
| Brief Explanation of Responsibilities   |  |                                       |   |
| Mr. Pratt has extensive experience as a Field Geologist, performing test boring over-sight, logging soil and core samples, and obtaining water levels. He has also performed many geotechnical soil tests in the laboratory. He is also experienced in mine map research, specification writing, and quantity and cost calculations for AML projects. |  |                                       |   |
| EDUCATION (Degree, Year, Specialization)  |  |                                       |   |
| B.S. Geology, 1999, Marshall University   |  |                                       |   |
| MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  |  |                                       |   |
| REGISTRATION (Type, Year, State)  |  |                                       |   |

Various computer hardware and software including: Microstation, InRoads, AutoCAD, ELRSoil, Microsoft Office applications, Haested, Water CADD, Culvert Master, Flow Master

Various surveying equipment:

Instruments - Topcon Total Station (6), Trimble Robotic DR200+ (2)

GPS Equipment - Trimble 5700 Receiver (6), Trimble TSCe Controller/Handheld (5)

\*all equipment lists have various misc. survey equipment to go along (poles, tape measures, data collectors, etc.)

Riegl LMS - 360 3D Laser Scanner - surface imaging system based upon accurate distance measurement by means of electro-optical range measurement and a two axis scanning mechanism.



15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

| PROJECT NAME, TYPE AND LOCATION                | NAME AND ADDRESS OF OWNER  | NATURE OF YOUR FIRM'S RESPONSIBILITY | ESTIMATED CONSTRUCTION COST            | PERCENT COMPLETE |
|--|--|--------------------------------------|--|------------------|
| Jacobs Fork Complex<br>McDowell County         | WVDEP/AML&R  | Surveying, Mapping and Design        | \$750,000                              | 99               |
| Brownston Landslide<br>Barbour County          | WVDEP/AML&R  | Surveying, Mapping and Design        | \$350,000                              | 70               |
| Rhodell Refuse & Portals, Wyoming<br>County    | WVDEP/AML&R  | Surveying, Mapping and Design        | \$1.2 M                                | 99               |
| Holden Water System<br>Upgrade<br>Logan County | Logan County PSD<br>P. O. Box 506<br>Logan, WV<br>Attn: Rick Roberts | Design and Construction Management   | \$6.0 M                                | 80               |
| Gilbert Slabtown<br>Waterline Extension        | Town of Gilbert<br>P.O. Box 188<br>Gilbert, WV<br>Attn: John White   | Design and Construction Management   | \$2.3 M                                | 15               |
| Lavalette PSD Rt. 37<br>Waterline Extension    | Lavalette PSD<br>5308 Route 152<br>Lavalette, WV                     | Design and Construction Management   | \$5.0 M                                | 85               |
| Danese Waterline<br>Extension                  | Danese Public Service<br>District                                    | Design and Construction Management   | \$6.0 M                                | 85               |
| TOTAL NUMBER OF PROJECTS:                      |  |                                      | TOTAL ESTIMATED CONSTRUCTION COSTS: \$ |                  |

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

| PROJECT NAME, TYPE AND LOCATION                          | NAME AND ADDRESS OF OWNER                 | NATURE OF YOUR FIRM'S RESPONSIBILITY | ESTIMATED CONSTRUCTION COST                         | PERCENT COMPLETE |
|--|---|--------------------------------------|---|------------------|
| Island Creek #18<br>Logan County                         | WVDEP/AML&R                               | Surveying, Mapping and Design        | \$500,000   | 85               |
| Miller Mountain Water Extension, Webster County          | Webster County EDA<br>Webster Springs, WV | Design and Construction Management   | \$3.0 M   | 80               |
| McDowell PSD Jolo Phase II Water<br>McDowell County      | McDowell Public Service District          | Design and Construction Management   | \$4.0 M   | 85               |
| Dille/Widen Water Extension<br>Clay County               | Birch River PSD                           | Design and Construction Management   | \$4.0 M   | 85               |
| Dutch Ridge/Sanderson Water Extension,<br>Kanawha County | Kanawha County RDA                        | Design and Construction Management   | \$2.5 M   | 85               |
| Williamson Sanitary Sewer Improvements                   | City of Williamson                        | Design and Construction Management   | \$1.1 M   | 50               |
| Lubeck Sanitary Sewer Extension, Wood County             | Lubeck PSD<br>Lubeck, WV                  | Design and Construction Management   | \$2.1 M   | 0                |
| TOTAL NUMBER OF PROJECTS: 14                             |   |                                      | TOTAL ESTIMATED CONSTRUCTION COSTS: \$ 38.8 Million |                  |



17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

| PROJECT NAME, TYPE AND LOCATION                              | NAME AND ADDRESS OF OWNER  | ESTIMATED CONSTRUCTION COST | YEAR | CONSTRUCTED (YES OR NO) |
|--|--|-----------------------------|------|-------------------------|
| Glen Rogers Waterline Extension<br>Wyoming County            | WVDEP-AML<br>601 57 <sup>th</sup> Street<br>Charleston, WV 25304                                   | \$1.2 M                     | 2007 | Yes                     |
| Guyandotte River Bridge<br>I-64 Cabell County                | WV Dept. of Transportation<br>Engineering Division<br>Charleston, WV 25301<br>Attn: Gregory Bailey | \$2.25 M                    | 2006 | Yes                     |
| Corridor H Davis-Bismark<br>X347-H-64.85 00<br>Tucker County | WV Dept. of Transportation<br>Engineering Division<br>Charleston, WV 25301<br>Attn: Gregory Bailey | \$9.0 M                     | 2008 | No                      |
| WVDEP-Emergency<br>East Bank (Willis) Mine<br>Blowout        | WVDEP AML&R<br>601 57 <sup>th</sup> Street<br>Charleston, WV 25304                                 | \$0.8 M                     | 2009 | Yes                     |
| Chief Logan Recreational<br>Center<br>Logan County           | WV State Parks   | \$4.0 M                     | 2007 | Yes                     |
| Mt View Streeter Water<br>Raleigh County                     | Flat Top PSD   | \$2.5 M                     | 2007 | Yes                     |
| Gilmer B Sites 3-8<br>Gilmer County                          | WVDEP-AML&R<br>601 57 <sup>th</sup> Street<br>Charleston, WV 25304                                 | \$675,000                   | 2009 | Yes                     |
| Upshur County<br>Industrial Park<br>Upshur County            | Upshur County EDA  | \$4.0 M                     | 2009 | Yes                     |

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

| PROJECT NAME, TYPE AND LOCATION  | NAME AND ADDRESS OF OWNER  | ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION                                      | YEAR | CONSTRUCTED (YES OR NO) | FIRM ASSOCIATED WITH               |
|--|--|---|------|-------------------------|------------------------------------|
| Appalachian Corridor<br>D Blennerhassett<br>Island Bridge<br>X354-D-0.00 | Sub to Michael Baker,<br>Jr., Inc.<br>Surveying, structural<br>design, hydraulic &<br>scour analysis | WV Dept. of Transp.<br>Division of Highways<br>Engineering Div.<br>Charleston, WV 25301 | 2004 | No                      | Sub to Michael<br>Baker, Jr., Inc. |
| I-70 Ft. Henry IC<br>Bridge<br>X335-70-9.50 00                           | Sub to Michael Baker,<br>Jr., Inc.<br>Post Design Services   | WV Dept. of Transp.<br>Division of Highways<br>Engineering Div.<br>Charleston, WV 25301 | 2004 | No                      | Sub to Michael<br>Baker, Jr., Inc. |
| Appalachian Corridor H<br>Section 3<br>Davis to Bismark                  | Sub to Modjeski & Masters<br>Survey, Geotech & ROW<br>Plans  | WV Dept. of Transp.<br>Division of Highways<br>Engineering Div.<br>Charleston, WV 25301 | 2004 | No                      | Sub to Modjeski &<br>Masters       |
|  |  |   |      |                         |                                    |
|  |  |   |      |                         |                                    |
|  |  |   |      |                         |                                    |

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.  
**E. L. Robinson Engineering Co. is committed to the WVDEP/AML program to provide professional design, surveying and mapping and construction monitoring services in a timely and cost-efficient manner. Our business plan relies heavily on the work offered by the WVDEP/AML program.**

20. The foregoing is a statement of facts.  
 Signature: Richard W. Watts Title: PROJECT MANAGER  
 Printed Name: Richard W. Watts Date: December 15, 2009

NOTE: THIS DOCUMENT WILL BECOME VOID AFTER DECEMBER 31 IN CALENDAR YEAR OF DATE HEREON.



# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Jacob's Fork Complex**  
Boone County, WV  
**Year:** 2008-2009  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Field surveying and mapping, subsurface investigation, design work for mine seals, drainage, and reclamation.

---

**Project:** **Rhodell Refuse & Portals**  
Wyoming County, WV  
**Year:** 2008  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.

---

**Project:** **Gilmer B Site 3.8**  
Gilmer County, WV  
**Year:** 2008  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Performed survey, drilling, design for refuse and spoil regarding and mine drainage control.

---

**Project:** **Gouge Landslide Emergency**  
Scott Town, OH  
**Year:** September 2007  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site survey, drilling and prepared landslide abatement design.

---

**Project:** **Brown Landslide Emergency**  
Rayland, OH  
**Year:** August 2007  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site survey and prepared landslide abatement design.

---



## 12A Abandoned Mine Land Reclamation Experience

---

**Project:** **Rodgers Subsidence Emergency**  
Wellston, OH  
**Year:** January 2007  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site survey and prepared subsidence abatement design.

---

**Project:** **McAdams Subsidence Emergency**  
Stark County, OH  
**Year:** April 2006  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed investigation and prepared report of findings.

---

**Project:** **Athens Rt. 13 Refuse Fire Emergency**  
Athens County, OH  
**Year:** March 2006  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site survey, prepared abatement design and monitored on site construction for fire extinguishment.

---

**Project:** **Toney Fork Landslide Emergency**  
Boone County, WV  
**Year:** February 2006  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Performed site survey, drilling and prepared plans and specifications to stabilize an emergency landslide area.

---



## 12A Abandoned Mine Land Reclamation Experience

**Project:** Cox Refuse Fire Emergency  
Gallia County, OH  
**Year:** December 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed abatement design for fire extinguishment.

---

**Project:** Lavender Refuse Fire Emergency  
Meigs County, OH  
**Year:** November 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed abatement plan and monitored construction.

---

**Project:** Goetz Subsidence Emergency  
Columbiana County, OH  
**Year:** November 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed investigation and prepared report of findings.

---

**Project:** Adkins Landslide Emergency  
Gallia County, OH  
**Year:** December 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed surveying, drilling, landslide abatement and construction monitoring.

---

**Project:** North Matewan (Sipple Drainage)  
Mingo County, WV  
**Year:** February 2005  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design for drainage project abatement.

---





# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Phalen Landslide Emergency**  
Martins Ferry, OH  
**Year:** January 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site surveying and landslide abatement design.

---

**Project:** **Baisden Subsidence Emergency**  
Jackson, OH  
**Year:** January 2005  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed drilling to develop subsidence abatement solutions.

---

**Project:** **Parsons Landslide Emergency**  
New Philadelphia, OH  
**Year:** December 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site review and report concerning landslides relation to mining and potential solutions.

---

**Project:** **Treadway Landslide Emergency**  
Rayland, OH  
**Year:** October 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed site surveying, drilling and landslide abatement design.

---

**Project:** **Big Creek "C" Refuse**  
Logan County, WV  
**Year:** July 2004  
**Client:** WVDEP-AML  
**Description:** Performed surveying and drilling for design.

---



# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Imboden Landslide Emergency**  
Rutland, OH  
**Year:** June 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed drilling and surveying to develop landslide abatement solutions and cost estimates.

---

**Project:** **Titus Road Landslide Emergency**  
Rutland, OH  
**Year:** June 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.

---

**Project:** **Jefferson County Road 26 Landslide Emergency**  
Winterville, OH  
**Year:** May 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed surveying, drilling and prepared plans and specifications to stabilize and emergency landslide area.

---

**Project:** **Charleston Romeo Landslide**  
Kanawha County, WV  
**Year:** May 2004  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide abatement.

---



# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Roush Landslide Emergency**  
Pomeroy, OH  
**Year:** March 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Prepared plans and specifications to stabilize an emergency landslide area.

---

**Project:** **Lewis Landslide Emergency**  
Pomeroy, OH  
**Year:** March 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Performed surveying, drilling, prepared plans and specifications to stabilize an emergency landslide area, and provided construction monitoring.

---

**Project:** **Moran Subsidence**  
Clinton, OH  
**Year:** January 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Prepared plans and specifications to stabilize an emergency subsidence area.

---

**Project:** **Ron Bobar Subsidence**  
Flushing, OH  
**Year:** January 2004  
**Client:** ODNR-AML  
1855 Fountain Square  
Columbus, OH  
**Description:** Investigation and report of an emergency subsidence area.

---



# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Gooney Otter Refuse**  
Wyoming County, WV  
**Year:** January 2004  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and site design for refuse regarding project.

---

**Project:** **Chapmanville (Gorby) Mine Blowout**  
Logan County, WV  
**Year:** December 2003  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide regrading and retaining wall design.

---

**Project:** **Tuppers Creek (Layne) Landslide**  
Kanawha County, WV  
**Year:** July 2003  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide abatement.

---

**Project:** **Maidsville (Tennant) Landslide**  
Monongalia County, WV  
**Year:** February 2003  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide abatement.

---

**Project:** **Whittington Hill (Walker Landslide)**  
Kanawha County, WV  
**Year:** June 2002  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design for an emergency landslide.

---



# 12A Abandoned Mine Land Reclamation Experience

**Project:** **Minden Refuse Pile Reclamation Project**  
Fayette County, WV  
**Year:** September 2001  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for emergency project to upgrade drainage control.

---

**Project:** **Jeffrey Mine Complex Reclamation Project**  
Boone County, WV  
**Year:** July 2001  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design regrading refuse.

---

**Project:** **Hot Coal Reclamation Project**  
Raleigh County, WV  
**Year:** October 2000  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Performed surveying and design for regrading refuse.

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**Project:** **Bull Run #27**  
Preston County, WV  
**Year:** October 2000  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for regrading refuse.

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**Project:** **Rich Fork (Thaxton) Landslide**  
Kanawha County, WV  
**Year:** July 2003  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide abatement.

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**Project:** **Maidsville (Tennant) Landslide**  
Monongalia County, WV  
**Year:** February 2003  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design of landslide abatement.



# 12A Abandoned Mine Land Reclamation Experience

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**Project:** Whittington Hill (Walker Landslide)  
Kanawha County, WV  
**Year:** June 2002  
**Client:** WVDEP-AML  
**Description:** Performed surveying, drilling and design for an emergency landslide.

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**Project:** Minden Refuse Pile Reclamation Project  
Fayette County, WV  
**Year:** September 2001  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for emergency project to upgrade drainage control.

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**Project:** Jeffrey Mine Complex Reclamation Project  
Boone County, WV  
**Year:** July 2001  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design regrading refuse.

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**Project:** Hot Coal Reclamation Project  
Raleigh County, WV  
**Year:** October 2000  
**Client:** WVDEP-AML  
Charleston, WV  
**Description:** Performed surveying and design for regrading refuse.

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**Project:** Bull Run #27  
Preston County, WV  
**Year:** October 2000  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for regrading refuse.

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# 12A Abandoned Mine Land Reclamation Experience

**Project:** Riffe Branch Impoundment  
Fayette County, WV  
**Year:** June 2000  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for regrading refuse and drainage control.

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**Project:** Ven's Run Landslide  
Harrison County, WV  
**Year:** September 1999  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for regraded landslide area.

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**Project:** Fickey Run  
Preston County, WV  
**Year:** September 1999  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for refuse and spoil regrading and drainage control.

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**Project:** Bull Run #35  
**Year:** July 1999  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for refuse and spoil regrading.

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**Project:** Securro Mine Drainage Site 1 & 2  
Fairmont, WV  
**Year:** July 1998  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for mine drainage system.

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**Project:** Brown's Creek #10 Reclamation Project  
**Year:** 1997  
**Client:** WVDEP-AML  
**Description:** Performed surveying and design for refuse regrading and mine seal installation.



# 12B Soil Analysis Geotechnical Experience

## **US-52 Kermit By-Pass**

Solicited Bids from core boring contractors and performed core borings for highway and bridges for a planned four-lane highway in Mingo County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a total of six bridges.

## **Meadowbrook Road**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Harrison County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the West Fork River.

## **US 60 Coal River Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge, which spans the Coal River in Kanawha County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the existing fill slopes.

## **US 60 CSX-Overpass Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans mainline tracks of the CSX Railroad in Kanawha County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the existing fill slopes.

## **Indian Creek Bridge Boone County West Virginia**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans the Coal River in Boone County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

## **Camp Creek Bridge – Lavalette**

Layout and directed core boring operations using WVDOH forces for a replacement bridge on US 152 in Wayne County West Virginia. Prepared Geotechnical report with recommended foundation alternatives.





# 12B Soil Analysis Geotechnical Experience

## **Jackson Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Middle Island Creek in Tyler County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

## **Tallman Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Middle Island Creek in Tyler County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

## **Corridor H-Section 7 (Foreman to Moorefield)**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Hardy County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the South Branch of Potomac River.

## **Corridor H-Section 12 Section 01(Davis to Bismarck)**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Tucker/Grant Counties West Virginia.

## **Corridor H-Section 12 Section 03 (Davis to Bismarck)**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a planned four-lane highway in Tucker/Grant County West Virginia.

Designed cuts performed slope stability analysis and settlement analysis for several major fill areas, designed foundations for a bridge spanning the West Fork River.

## **I-79 Lodgeville Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.



# 12B Soil Analysis Geotechnical Experience

## **I-79 Simpson Creek Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

## **I-79 Meadowbrook Road Over Pass**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

## **Ripley Town Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge that spans Mill Creek in Jackson County West Virginia. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill slopes.

## **Ripley Route 21 Road Widening**

Performed slope stability analysis of a landslide area and designed a method to stabilize the area so the existing roadway could be widened. Developed Plans and specifications, which were included in the bid, package for the road-widening project.

## **I-64 Cross Roads Overpass Bridge**

Solicited Bids from core boring contractors and performed core borings for highway and bridge for a replacement for a bridge and road-widening project. Prepared geotechnical report with recommended foundations and performed slope stability analysis of the proposed fill.

## **I-79 Left Hand Fork Bridge**

Reviewed existing core boring data, and performed slope stability analysis on the existing bridge abutment that had moved. Reviewed data from slope inclinometers and design pile lagging and rock buttress to stabilize the embankment.



## 12C Hydrology and Hydraulics

**Project:** Blennerhassett Island Bridge Over Ohio River  
**Year:** 1999-2003  
**Client:** Michael Baker Jr., Inc.  
5088 Washington Street, West  
Charleston, WV 25313

**Contact:** Pi Amin, P.E.  
Vice President Michael Baker Jr, Inc. (Southwest Region)  
304-769-0821

**Description:** Prepared an analysis of the hydraulic impact of the proposed bridge on the Ohio River flow, and prepared an appropriate hydraulic report. The analysis utilized HEC-RAS and as a part of the hydraulic report, a scour analysis was performed. E. L. Robinson Engineering Co. developed a computer model of the Ohio River using hydrographic survey mapping provided by our survey group.

Two – Dimensional Hydraulic was also developed to model complex flows for various bridge configurations and to provide more accurate predictions of hydraulic behavior anticipated in the area. The 2-D and 3-D models allow derivation of design details and design analyses and provide more accurate simulations of scour hole geometry.

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**Project:** US 52 Mainline Bridge  
KY 40 Bridge/Kermit Bypass over Marrowbone Creek  
**Year:** 2000  
**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the Kermit Bypass Project over Marrowbone Creek and a partial relocation of the creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



## 12C Hydrology and Hydraulics

**Project:** Bridge No. 2922.1 NB & SB  
I-79 Over Left Hand Creek & US 119

**Year:** 2000

**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the placement of a retaining wall for slope protection of the Left Hand Fork Bridge over Left Hand Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

ELR also prepared Section 404 permitting documents outlining the effects a temporary cofferdam, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

**Project:** Bridge No. 2448.1 – Simpson Creek Bridge  
I-79 Over Simpson Creek

**Year:** 2000

**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the widening of the Simpson Creek Bridge over Simpson Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

ELR also prepared Section 404 permitting documents outlining the effects temporary cofferdams, which would be used during the construction phase, would have on the outlying areas upstream of the projects.



## 12C Hydrology and Hydraulics

**Project:** Bridge No. 10059 – Ripley Town Bridge  
US 33 Over Mill Creek

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the replacement Ripley Town Bridge over Mill Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program. ELR also prepared Section 404 permitting documents outlining the effects temporary causeways, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

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**Project:** Bridge No. 4732 – Jackson Bridge  
WV 18 Over Point Pleasant Creek

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Office of the District Engineer, District 6  
903 3<sup>rd</sup> Street  
Moundsville, WV 26041

**Contact:** Daniel W. Sikora, P.E., District Engineer  
304-843-4008

**Description:** Prepared an analysis of the hydraulic impact of the replacement Jackson Bridge over Point Pleasant Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



## 12C Hydrology and Hydraulics

**Project:** Bridge No. 4636 – Indian Creek Bridge  
CR 3/25 Over Big Coal River

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Office of the District Engineer, District 1  
1334 Smith Street  
Charleston, WV 25301

**Contact:** John W. Dawson, P.E., District Engineer  
304-558-3001

**Description:** Prepared an analysis of the hydraulic impact of the Indian Creek Replacement Bridge over the Big Coal River and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.

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**Project:** Bridge No. 4769 – Tallman Bridge  
CR 24 Over Middle Island Creek

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Office of the District Engineer, District 6  
904 3<sup>rd</sup> Street  
Moundsville, WV 26041

**Client:** Daniel W. Sikora, P.E., District Engineer  
304-843-4008

**Description:** Prepared an analysis of the hydraulic impact of the replacement Tallman Bridge over Middle Island Creek and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-RAS program.



## 12C Hydrology and Hydraulics

**Project:** Bridge No. 10058 – Meadowbrook Road Bridge  
CR 24 Over West Fork River

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the new Meadowbrook Road Bridge over the West Fork River and prepared the appropriate hydraulics and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process and the Harrison County Flood Insurance Study model of the West Fork River was also used. Computer modeling was prepared using the USACE 1-D HEC-RAS program.

Prepared Section 404 permitting documents outlining the effects temporary sheet piling, which would be used during the construction phase, would have on the outlying areas upstream of the projects.

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**Project:** Bridge No. 4426 – Lower Gassaway Bridge  
WV 4 Over Elk River

**Year:** 1999

**Client:** West Virginia Department of Transportation  
Division of Highways  
Building 5  
1900 Kanawha Blvd. East  
Charleston, WV 25305

**Contact:** James Sothen, P.E., Director, Engineering Division  
304-558-0501

**Description:** Prepared an analysis of the hydraulic impact of the Lower Gassaway Replacement Bridge over the Elk River and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.



## 12C Hydrology and Hydraulics

**Project:** Bridge No. 4574 – Camp Creek Bridge  
WV 52 Over Camp Creek

**Year:** 1998

**Client:** West Virginia Department of Transportation  
Division of Highways  
Office of the District Engineer, District 2  
P.O. Box 880  
Huntington, WV 25712

**Contact:** J. Wilson Braley, P.E., District Engineer  
304-528-5625

**Description:** Prepared analyses of the hydraulic impact of the Camp Creek Bridge over Camp Creek and prepared the appropriate hydraulic and scour reports. E. L. Robinson Engineering's survey unit developed the cross sections and mapping that were utilized in the analysis process. Computer modeling was prepared using the USACE 1-D HEC-2 program and the FHWA WSPRO program.





## 12D Aerial Photography and Contour Mapping Experience

E.L. Robinson Engineering Co. has worked with various clients to develop contour mapping of sites and areas that otherwise could not be determined. With the use of aerial photography and state of the art technology, E.L. Robinson Engineering Co. has developed maps from photographs for numerous projects including but not limited to:

- City of Beckley
- City of Charleston
- Corridor D
- Corridor H
- Cross Lanes Connector
- Eldora
- Frazier's Bottom
- Glenwood
- Hatfield Cemetery
- I-70 Washington Avenue (Wheeling, WV)
- I-64 Glade Creek
- Jackson Mill
- King Coal
- KY 40 Connector
- Logan Run
- New River Parkway
- Ohio River Crossing
- Pinegrove
- Parkersburg
- Powell Creek
- Prince
- PSI-Baker/Ft. Henry Bridges
- Racetrack
- White Sulphur Springs
- Veterans Park



# 12D Aerial Photography and Contour Mapping Experience

E.L. Robinson Engineering Co. has completed the preliminary mapping, within the past five years, for West Virginia Department of Environmental Protection for the projects listed below:

## 2003-Present

All ELR AML Projects  
WV and OH

## 2002

Community of Preston  
Rhodell Refuse Portals  
Vivian Refuse Maintenance  
Glen Rogers Waterline  
Sundial (Hatfield) Refuse Pile  
Jacob Fork Complex  
Thomas (NE) Subsidence

## 2001

Bartley Mine Dump  
Beckley Soccer Complex  
Holden Portals/Structures  
Jeffrey Complex  
Minden Refuse Drainage  
Roach Branch Refuse  
Sauls Run Strip  
Stonecoal Creek Complex  
Waterline Photography  
Weaver Portals/Mine Drain

## 2000

Micajah Refuse Pile  
McAlphin Eroding Dump  
Flemington Portals/Drainage  
Minden "C" Refuse Pile  
National Mine Complex  
Linger Clogged Stream  
Hotcoal Mine Dump  
Layton Mine Drainage  
Quintain Development

## 1999

Bull Run #27  
8<sup>th</sup> Street-Warwood Avenue  
Mabie Highwall  
Coal Branch  
Matoaka Subsidence  
Elkins Coal  
Springton Refuse  
Veins Run

## 1998

Bull Run #35  
Fickey Run

## 1997

Browns Creek  
Marrowbone  
Matewan  
Pigeon Creek

**Edward L. Robinson, P.E., P.S.**  
*President*

**Education**

M.S. Civil Engineering  
University of West Virginia, (COGS),  
1981

B.S. Civil Engineering  
West Virginia Institute of  
Technology, 1969

**Registrations**

Registered Professional Engineer in West Virginia, Kentucky, Ohio, Pennsylvania, North Carolina, South Carolina, Virginia, Georgia, Maryland and Colorado.

Registered Professional Surveyor in West Virginia.

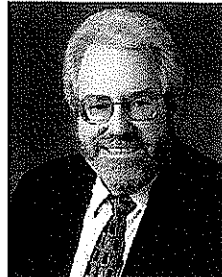
**Professional Memberships**

- American Society of Civil Engineers
- National Society of Professional Engineers

**Professional Experience**

Mr. Robinson founded E. L. Robinson Engineering Co. in 1978 with four employees. Initially the firm provided land surveying and land development services.

Under his leadership, E. L. Robinson has entered the new millennium as a multi-disciplined professional services firm that



utilizes the latest technology in the design of highways, bridges, structures, environmental, civil, and geotechnical projects as well as global position satellite surveying, right-of-way, construction inspection and architectural services.

The firm now employs more than 90 engineers, architects, surveyors and support personnel and has been converted to an employee owned company through an Employee Stock Ownership Plan (ESOP).

**Representative Projects**

Engineering Review of the following projects:

- **US Route 52 - Kermit Bypass:** This project consisted of 2.5 miles of four-lane divided highway, 3,000 LF of four-lane access road design, two 4-ramp intersections, one set of twin structures, one single bridge, and 2,900 LF of stream relocation, all of which resulted in 10 million cubic yards of excavation and an estimated total construction cost of \$88 million.
- **Corridor H - Davis to Bismark:** This project consisted of 1.75 miles of four-lane divided highway, one bridge, two at-

grade intersections, and a 6' x 6' concrete box culvert. This project has an estimated total construction cost of \$9 million.

- **Corridor H - Foreman to Moorefield:** This project consisted of 5 miles of four-lane divided highway, almost 3 miles of access road design, a truck escape ramp, one set of twin structures, one single bridge, a box culvert, and naturalized stream design. This project resulted in 10 million cubic yards of excavation and an estimated construction cost of \$75 million.
- **CAMC 33<sup>rd</sup> Street Relocation:** Engineering design and construction management for the relocation of 33<sup>rd</sup> street and site development for a five story clinical teaching facility in Charleston, WV.

#### Offices Held

- Current Member of West Virginia University Board of Governors
- Current Chairman of WVUIT Advisory Board
- President of West Virginia Council of Engineering Companies
- Chairman Transportation Committee - WV Association of Consulting Engineers
- State Director of West Virginia Society of Professional Engineers
- President of West Virginia Society of Professional Engineers

- Assistant Treasurer of the American Society of Civil Engineers
- National Director of the ASCE representing WV, NC, SC and VA
- President of West Virginia Section of ASCE

#### Honors Awarded

- Honorary PhD, *Doctor of Science* - West Virginia Institute of Technology 2002
- Engineering Entrepreneur of the Year - Ernst & Young, 2001
- National Entrepreneur of the Year Finalist - Ernst & Young, 2001
- Engineer of the Year - American Society of Civil Engineers, 1998
- Engineer of the Year - West Virginia Society of Professional Engineers, 1997
- Alumnus of the Year - West Virginia University Institute of Technology, 1992

## **Timothy B. Cart, P.E., P.S.**

*Project Engineer*

### **Education**

B.S. Civil Engineering  
West Virginia University, 1981

### **Registrations**

Registered Professional Engineer in West Virginia and Ohio

Registered Professional Surveyor in West Virginia

### **Professional Memberships**

- American Society of Civil Engineers

### **Professional Experience**

Mr. Cart has over 25 years of experience in providing consulting engineering services. Clients served have included Industrial, Public and Private Institutions and State and Federal Agencies.

Mr. Cart has served as Project Engineer on numerous geotechnical investigations over the years. These projects have included highways, bridges, industrial sites and private development.

He has designed numerous waterline extensions and sewer collection systems. These extensions have included providing service to many residential as well as industrial customers. The sewer collection systems have included design of systems to collect sewage from residential and industrial sites. Mr. Cart served as a project



engineer on several major waste water treatment plant upgrades for industrial clients in the Kanawha Valley. He has designed several plants to serve industrial as well.

Mr. Cart has performed over 100 Abandoned Mine Land Reclamations projects throughout Appalachia. These projects have been mainly in Ohio, West Virginia and Eastern Kentucky. These projects have involved draining flooded mine workings, support of ground experiencing or subject to Mine subsidence and the stabilization of landslides.

Mr. Cart has designed numerous retention and retaining ponds for sites. These designs have involved the determination of storm runoff and design of structures to safely retain and pass the required storm peak flows.

His experience includes permitting activities for projects which have included:

- Railroad Occupancy Permits for Utilities
- NPDES Permits for Industrial and Public Wastewater Facilities
- Highway Permits for Utility Occupancy and Access Road Tie Ins
- Health Department Permits for Water and Sewer Projects

- US Corps of Engineers Permits - Nationwide and Individual
- West Virginia Public Lands Permits

Mr. Cart has recently been involved in the design of a 100 acre Industrial Site and 8 acre Industrial/Commercial Site in Mingo County. These projects are currently under construction and are located near Appalachian US 119 Corridor G.

## **Richard W. Watts**

*Project Manager/Geologist*

### Education

B.S.in Geology, Marshall University,  
1977 M.S.in Geography, Marshall University,  
1994

### Professional Registrations

Registered Professional Geologist, Kentucky,  
1993, No.159 Certified Professional  
Geologist, Virginia, 1992, No.856

### Professional Memberships

Geological Society of America Association of  
Engineering Geologists

### Teaching Experience

Instructor, 1998 - Marshall University  
Engineering Geology Program - Soil and  
Rock Mechanics

### Professional Experience

Mr. Watts has more than 31 years of  
experience in providing consulting services  
as a senior geologist. He has also served as  
project manager on numerous projects.

Mr. Watts is primarily an engineering  
geologist whose range of project experience  
has encompassed numerous projects  
concerning geologic investigation, rock and  
soils engineering, landslides, land  
reclamation, forensic damage investigations,  
hydrogeology and the coal industry.

He has performed hundreds of slope stability  
analyses for landslides and other projects  
involving the design of stable slopes. In  
addition, he has performed several studies  
involving landslide prediction to aid clients in  
land use and safety planning. Projects  
involving rock slope stability have included  
the analysis of the stability of high rock cuts for  
surface mining operations and highways.

Geotechnical experience has included  
numerous projects involving soils,  
foundations, landfills and damage studies.  
These projects have encompassed such areas as  
pile driving, caisson installation, earth fill  
placement, subsurface exploration, site  
reconnaissance, grout and concrete placement  
and quality control.

### AML and Coal Industry Projects:

Work on more than 50 Abandoned Mine Land  
Reclamation projects, including:

- Mine subsidence, refuse piles and  
draining mine portals.
- Coal seam mineability studies.
- Coal refuse embankment and slurry  
pond design.
- Coal permitting, exploration and drill  
log correlations.
- Roof and floor studies and pillar  
strength evaluations.

## **John R. Kelly, III**

*Engineer Intern*

### **Education**

B.S. Civil Engineering  
West Virginia University, 1998

### **Computer Skills**

AutoCAD, Microstation, COM624-P,  
Inroads, Hec-Ras, and ELRSoil

### **Professional Memberships**

- American Society of Civil Engineers

### **Professional Experience**

Mr. Kelly has performed layout and inspection of core drilling operations for bridges and roadway projects. He has also designed numerous mine reclamation projects as well as assisted in completion of water feasibility studies.

Mr. Kelly has performed construction inspections of waste water treatment facilities and has experience with roadway design, design of foundations, and retaining walls.



### **Representative Projects**

Mr. Kelly has designed cut slopes for large scale roadway projects such as:

- Kermit Bypass, Mingo County, WV
- Meadowbrook Road, Harrison County, WV
- US-35, Mason County, WV
- Corridor H, Section 7, Hardy County, WV



**James T. Rayburn, P.S.**

*Chief Surveyor*

**Education**

A.S. Mechanical Engineering,  
West Virginia Institute of Technology,  
1970

**Registrations**

Registered Professional Surveyor in West  
Virginia

**Professional Memberships**

American Congress on Surveying and  
Mapping

The American Association for Geodetic  
Surveying (AAGS)

Member Organization of ACSM.

Cartography and Geographic Information  
Society (CaGIS)

Geographic and Land Information Society  
(GLIS)

National Society of Professional Surveyors  
(NSPS)

West Virginia Association of Land  
Surveyors, Inc.



**Professional Experience**

Mr. Rayburn currently serves as Manager of Surveying for E.L. Robinson Engineering (ELR) and has more than 30 years of Design Surveying and Construction Surveying experience. The responsibilities include management of surveying and control for various design projects, including highways, buildings, and bridges. In addition, Mr. Rayburn manages and performs work consisting of courthouse research for property ownership resolution for the above mentioned project types. This includes preparation of property resolution maps, deed descriptions for property acquisitions required for project plan preparation. Mr. Rayburn has experience in Geodetic Control Surveys, 3D Laser Scanning, Photogrammetric Control, Topographic Surveys, Cemetery Surveys, Boundary Surveys, Construction Stakeout, Subdivision Surveys, along with Hydrographic surveys of river and lake bottoms. A few of the more notable surveying projects performed by ELR under the supervision of Mr. Rayburn, has been the Blennerhassett Bridge Project, 11 continuous miles of Corridor H design surveys, GPS Control for the West Virginia Statewide Mapping and Addressing Board Project, 3D Laser Scan and mapping of the

CAMC Parking Garage partial collapse, and 3D Laser Scanning of I64/I77 Retaining Wall for Monitoring.

### Representative Projects

#### Design Surveys

- **Corridor H (WVDOT) Hardy County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately 11 miles of Corridor H in Hardy County, WV. This was for Sections 6 & 7 of Corridor H, both Sections of which are now under construction. Estimated construction cost of \$150 million dollars.
- **WV Route 10 (WVDOT) Logan to Man WV, Logan County, WV:** Lead Surveyor for Design Surveys for a section approximately five miles in length from Man, WV, to Rita, WV, including the Man Bridge. Also provided control surveying for the entire project length of approximately 12 miles. The approximate five miles section of roadway is now under construction at an estimated cost of \$51 million dollars.
- **Blennerhassett Bridge, Corridor D (WVDOT), Wood County, WV :** Lead Surveyor for Design Surveys for this landmark Bridge Project which is now under construction at an estimated cost of \$120 million dollars.
- **James Ramsey Bridge (WVDOT) Potomac River, Shepardstown, WV:** Lead Surveyor for Design Surveys for this Bridge Project which is now completed at an estimated cost \$15.5 million dollars. This project involved working in an environmentally historic area, which adjoined a National Park.
- **US Route 35 (WVDOT) Mason County, WV:** Lead Surveyor for Design Surveys for two Design Sections each approximately 2.5

miles in length from Lower Five Mile Road to Upper Nine Mile Road. Also provided control surveying for the entire US 35 design project length of approximately 22 miles.

- **I64/US 35 (WVDOT) I64 to US 34 Crooked Creek, Putnam County, WV:** Lead Surveyor for Design Surveys, Right of Way Staking, etc. for approximately four miles of US 35 including Interstate 64 Ramps and Flyovers in Putnam County, WV. This included the I64 Bridges and Flyovers, which is now under construction.
- **ATB-Parrish Road (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for rail grade separation project. Project involved roadway realignment, 900' new bridge, new waterline, storm and sanitary sewers. Project is currently under construction. Estimated construction cost: \$8.6 million.
- **PIC-23-3.21 and Various (ODOT) Pickaway County, Ohio:** Project Design Surveyor for ODOT Project PIC-23-3.21 and Various. Project involves deck replacements along 11 miles of US 23 in Pickaway County. Project includes large diameter culvert liner, interchange upgrade that includes mainline profile correction, ramp reconstruction, and addition of barrier wall and storm drainage. Project is currently under design (90%). Project scheduled for construction in 2007. Estimated construction cost: \$12 million.
- **ATB-90-22.06 (ODOT) Ashtabula County, Ohio:** Project Design Surveyor for Interstate Reconstruction Project. Project includes total pavement replacement, bridge widening, and contra - crossover maintenance of traffic, culvert replacements and storm sewer rehabilitation and sign replacements. Project is currently under design (50%) and scheduled for construction in 2011. Estimated construction cost: \$36 million.

## Construction Surveys

- **Corridor D (WVDOT) Wood County, WV:** Lead Surveyor for Highway/Bridge Construction Monitoring surveys for the following segments of Corridor D and related relocation projects:
  - Godbey Athletic Field Relocation Construction
  - Godbey Colt Field and Soccer Field Construction
  - West WV 47-East WV 47 Highway/Bridge Construction
  - East Buckeye-West Little Kanawha River Highway/Bridge Construction
- **Interstate I-79 Widening and Median Barrier (WVDOT) Harrison County, WV:** Lead Surveyor for construction layout surveys for the widening of I-79 from the Meadowbrook Exit, north to the Jerry Dove Exit approximately three miles in length, as a subcontractor to the prime contractor.
- **CAMC 33<sup>rd</sup> Street Relocation and Building Expansion, Charleston, WV:** Lead Surveyor for construction layout surveys for 33<sup>rd</sup> Street relocation along with ancillary items including sidewalks, drainage and utilities. Also layout surveys for building expansion project.
- **Saturn Dealership, Hurricane, WV:** Lead Surveyor for Saturn Dealership site development and access roads at Hurricane Interchange of Interstate 64.
- **Arch Coal WV Mining Operations:** Lead Surveyor as a subcontractor to Arch Coal operations for Valley Fill Construction (Up to 27 million cubic yard fills), mine haul road layout, drill line staking, and dragline pit layout.

## **Randall L. Lackey, P.E.**

*Project Engineer*

### **Education**

B.S. Civil Engineering  
West Virginia University Institute of  
Technology, 1999

### **Registrations**

Registered Professional Engineer in West  
Virginia, Ohio and Kentucky

### **Professional Memberships**

- American Society of Civil Engineers
- Society of American Military Engineers

### **Computer Skills**

C++, AutoCAD, MathCAD, Microstation,  
MS Excel, MS Word, MS Project,  
MS PowerPoint, Windows, MDX, MERLIN,  
BRASS Systems, SIMON, HEC-RAS, RC  
Pier, and HY8

### **Professional Experience**

Prior to joining E.L. Robinson Engineering Co., Mr. Lackey worked with the WV Division of Highways as an Engineering Co-op Technician. As part of his co-op experiences, he performed calculations for steel, flowrate and roadway. He performed roadway and guardrail design and construction inspection for bridge and roadway projects.



### **Representative Projects**

Mr. Lackey has been intricately involved in the hydraulic design process of the Blennerhassett Island Bridge Project, which will connect West Virginia to Ohio as well as span the Ohio River and Blennerhassett Island. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge as well as Blennerhassett Island, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also been involved with the hydraulic design process of the Corridor H South Branch of the Potomac River Bridge. Included in this project are the following: Preparation of flood plain analysis for existing, temporary, and various post construction conditions, scour analysis using FHWA approved publications, analyzing the affects that debris flow will have on the bridge, studying the affects the proposed conditions

will have on the Town of Moorefield, WV flood level, and studying the potential for lateral channel migration and understanding the affects the migration would have on the design on the bridge substructure.

Mr. Lackey has also performed hydraulics and scour computations for Ripley Town Bridge, Jackson Bridge, Beaver Creek Bridge, Walnut Bottom Bridge, Tallman Bridge, Meadowbrook Road Bridge, Simpson Creek Bridge, Kermit Bypass Bridges and culverts, Left Hand Fork Bridge, and Corridor H Bridges over Walnut Bottom Run and an unnamed tributary.

Mr. Lackey has prepared Section 404 permitting analysis and paperwork for Ripley Town Bridge, Simpson Creek Bridge, Meadowbrook Road Bridge, and the Left Hand Fork Bridge. Along with this work, Mr. Lackey has prepared CLOMR analysis and documentation for Horseshoe Village Subdivision and for The Ohio State University Medical Center's two proposed bridges that connect the University with OH SR 314 over the Olentangy River.

Mr. Lackey has performed calculations for deck drainage, performed girder design and analysis, pier design and analysis, prepared design study reports, type, size and location reports and final plans on many of E.L. Robinson's Division of Highways projects.

**Mark Allen McGettigan, PE,**  
*Project Engineer*

**Education**

M.S.E. Engineering Management/Environmental  
Engineering,  
Marshall University December 2007

B.S. Civil Engineering Technology,  
Fairmont State College, 1999

**Registrations**

Registered Professional Engineer in West  
Virginia

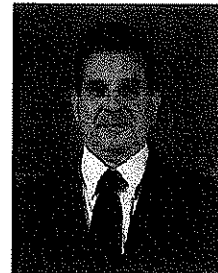
**Professional Memberships**

- American Society of Civil Engineers

**Professional Experience**

Successfully worked on and managed numerous Phase I and II ground water quality investigations and feasibility studies for the West Virginia Department of Environmental Protection.

Mr. McGettigan has taken several large water and wastewater projects from the initial development phase through the construction phase. This includes writing the preliminary engineering report, developing funding scenarios, designing the system, developing the plans and specifications, developing the bid documents/overseeing the bid process and managing the construction inspection.



Developed specifications and managed construction inspection for land development and utility construction projects.

**Representative Projects**

Mr. McGettigan has been the design engineer on the following projects:

- Lavalette Public Service District's U.S. Route 52 Waterline Extension Project.
- Lavalette Public Service District's Crockett and Millers Fork Waterline Extension Project.
- Lavalette Public Service District's State Route 37 Waterline Extension Project.
- Crum Public Service District's Mill Creek Waterline Extension Project.













STATE OF WEST VIRGINIA  
Purchasing Division**PURCHASING AFFIDAVIT****VENDOR OWING A DEBT TO THE STATE:**

**West Virginia Code** §5A-3-10a provides that: 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.

**PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:**

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the **West Virginia Code**. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the **West Virginia Code** and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the **West Virginia Code** may take place before their work on the public improvement is begun.

**ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**LICENSING:**

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

**CONFIDENTIALITY:**

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

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: E.L. Robinson Engineering Co.Authorized Signature: Richard W. WattsDate: 11/8/09