



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header

List View

General Information

Contact Default Values Discount Document Information

Procurement Folder: 189210

Procurement Type: Central Master Agreement

Vendor ID: 000000206513

Legal Name: TERRADON CORPORATION

Alias/DBA:

Total Bid: \$219,865.00

Response Date: 06/21/2016

Response Time: 11:54

SO Doc Code: CRFQ

SO Dept: 0313

SO Doc ID: DEP1600000053

Published Date: 6/14/16

Close Date: 6/21/16

Close Time: 13:30

Status: Closed

Solicitation Description: Addendum No. 01-Mapping Services in Southern WV

Total of Header Attachments: 0

Total of All Attachments: 0



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 189210

Solicitation Description : Addendum No. 01-Mapping Services in Southern WV

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation No	Version
	2016-06-21 13:30:00	SR 0313 ESR06211600000006197	1

VENDOR
000000206513 TERRADON CORPORATION

FOR INFORMATION CONTACT THE BUYER
 Beth Collins
 (304) 558-2157
 beth.a.collins@wv.gov

Signature X FEIN # DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Control Surveying	600.00000	HOUR	\$85.000000	\$51,000.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.1.1.2 & 4.2)

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Topographic, Planimetric and Check Surveying	1800.00000	HOUR	\$85.000000	\$153,000.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.1.1.3 & 4.2)

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Topographic Mapping - (0-25 Acres)	15.00000	ACRE	\$250.000000	\$3,750.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.2 & 4.2)

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Topographic Mapping - (25-50 Acres)	30.00000	ACRE	\$133.000000	\$3,990.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.2 & 4.2)

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Topographic Mapping - (50-100 Acres)	75.00000	ACRE	\$50.000000	\$3,750.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.2 & 4.2)

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Topographic Mapping - (Over 100 Acres)	125.00000	ACRE	\$35.000000	\$4,375.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description : (Spec Item 3.2 & 4.2)



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 27 – Miscellaneous

Proc Folder: 189210

Doc Description: Mapping Services in Southern West Virginia (Open-End)

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2016-05-18	2016-06-21 13:30:00	CRFQ 0313 DEP1600000053	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

TERRADON Corporation, Inc. 409 Jacobson Drive
 Poca, WV 25159
 304-755-8291

FOR INFORMATION CONTACT THE BUYER

Beth Collins
 (304) 558-2157
 beth.a.collins@wv.gov

Signature X *Virginia L. Kuo* FEIN # 55-0687626 DATE 06/21/16

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMAITON:

THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING BIDS FOR AN OPEN-END CONTRACT FOR MAPPING SERVICES FOR THE SOUTHERN WEST VIRGINIA COUNTIES, PER THE ATTACHED SPECIFICATIONS AND DOCUMENTATION.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Control Surveying	600.00000	HOUR	85.00	51,000.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
(Spec Item 3.1.1.2 & 4.2)

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Topographic, Planimetric and Check Surveying	1800.00000	HOUR	85.00	153,000.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
(Spec Item 3.1.1.3 & 4.2)

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Topographic Mapping - (0-25 Acres)	15.00000	ACRE	⌘250.00	⌘3,750.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
(Spec Item 3.2 & 4.2)

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Topographic Mapping - (25-50 Acres)	30.00000	ACRE	⌘133.00	⌘3,990.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
(Spec Item 3.2 & 4.2)

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Topographic Mapping - (50-100 Acres)	75.00000	ACRE	⌘50.00	⌘3,750.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
(Spec Item 3.2 & 4.2)

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV25304 US	ENVIRONMENTAL PROTECTION OFFICE OF AML&R 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Topographic Mapping - (Over 100 Acres)	125.00000	ACRE	☒35.00	☒4,375.00

Comm Code	Manufacturer	Specification	Model #
81151601			

Extended Description :
 (Spec Item 3.2 & 4.2)

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Tech Question Deadline at 5:00 PM, EST	2016-06-03

DEP160000053	Document Phase Final	Document Description Mapping Services in Southern West Virginia (Open-End)	Page 5 of 5
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: TERRADON

Authorized Signature: Virginia R. King Date: 6-21-16

State of WV

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 21 day of June, 2016

My Commission expires April 5, 2020

AFFIX SEAL HERE

NOTARY PUBLIC Susan Lightner

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



(Name, Title)

Robert Thaw, VP of Survey

(Printed Name and Title)

409 Jacobson Drive, Poca, WV 25159

(Address)

304-755-8291/304-755-2636

(Phone Number) / (Fax Number)

robert.thaw@terraddon.com

(email address)

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

TERRADON Corporation, Inc.

(Company)



(Authorized Signature) (Representative Name, Title)

Virginia L. King, CEO

(Printed Name and Title of Authorized Representative)

06/21/16

(Date)

304-755-8291/304-755-2636

(Phone Number) (Fax Number)

State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
- Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
- Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,

2. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

3. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

4. Application is made for 5% vendor preference for the reason checked:

- Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,

5. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,

6. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: TERRADON

Signed: Virginia R. Giv

Date: 06/21/16

Title: CEO

Engineering . Planning . Surveying . Inspection . Environmental

STATEMENT OF QUALIFICATIONS

for
DEP16000000053
Mapping Services in
Southern West Virginia
(Open - End)

June 21, 2016



Charleston, WV
(Corporate Office)
409 Jacobson Dr.
Poca, WV 25159
304-755-8291

Greenbrier Valley, WV
425 North Jefferson St.
Lewisburg, WV 24901
304-645-4636

Jackson County, WV
101 North Court Street
Ripley WV, 25271
304-532-4909

Fayette County, WV
P.O. Box 307
Charlton Heights, WV 25040
304-541-7655

ALL LOCATIONS Phone: 1-800-755-8291 Fax: 304.755.2636

www.terraddon.com

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CORPORATE OVERVIEW

TERRADON Corporation offers a multi-faceted approach to design engineering and consulting services. For more than 25 years TERRADON staff has provided a wealth of engineering solutions blanketing the Ohio Valley and the Appalachian Region with successful projects. The company built its reputation on expert personnel and quality, time-sensitive service. Those same founding principles hold true today.

Staff includes engineers, landscape architects, surveyors, planners, environmental scientists, designers, technicians and LEED Accredited Professionals. The company maintains approximately 50 leading-edge staff in four locations: Nitro/Poca, WV; Lewisburg, WV; Charlton Heights, WV; and Ripley, WV. TERRADON'S departments work cohesively to provide turn-key solutions that strive to exceed client expectations.

ABOUT TERRADON

The family-owned business has built a strong reputation by providing flexible, cost effective design solutions and maintaining the highest level of customer service. TERRADON is particularly suited to design engineering within the mountainous areas of the Appalachian Region. The firm has been recognized through numerous awards from professional organizations and agencies including the several State Divisions of Highways, Departments of Environmental Protection and the American Institute of Architects state chapters.

TERRADON's corporate culture promotes innovation and progressive thinking. Project leaders strive to sustain customers through a wide-range of engineering offerings. TERRADON employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.

SERVICE OFFERINGS

- Land Planning and Site Design
- Civil Engineering
- Surveying and Mapping
- Environmental
- Geotechnical Engineering
- Energy
- Water/Wastewater
- Transportation Engineering
- Structural Engineering
- Storm Water Management
- Construction Oversight and Monitoring
- Materials Testing

PROFESSIONAL QUALIFICATIONS

Robert Thaw, PS

VP - Survey and Mapping

Primary Point of Contact/Contract Manager

Phone: 304-755-8291, Fax: 304-755-2636

robert.thaw@terraddon.com

With more than 22 years of experience in a wide range of surveying projects, Robert Thaw serves as head of TERRADON's Survey and Mapping department. He organizes and supervises survey crews, reviews project plans and creates base mapping for various projects including noise barriers, interchanges, connectors, bypasses, sidewalks, bike paths and bridges. Thaw oversees all TERRADON survey activities, including: preparation of Right-Of-Way plans; the development of GPS static networks for aerial mapping in the design of roadways; identification of existing utilities and property lines; base image development and control placement for construction projects; and drafting of legal descriptions for ROW parcels.

Thaw has been directly responsible for survey and mapping services on a number of notable transportation projects including:

- **Nitro Land Fill-2007 Topo**
Surveyed the boundary of the former Landfill for future cap and development. Performed topographic survey of the site , prepared maps used for design of a municipal boat ramp.
- **Cooper Ridge Landfill**
Environmental services performed by Teresa Shuler.
- **Tucker Co Landfill**
Established survey control for the landfill. Created topographic surveys quarterly to be used for quarterly volume reports.
- **Charleston Landfill**
Geo 2003 - Performed topographic surveys, and located bore hole locations
- **Landfill services of Charleston**
Conducted a feasibility study for a Leachate tank in 2003. Performed topographic surveys of proposed leachate tank sites to be used in the feasibility study.
- **Carol County Landfill**
QA/QC by Robert Fuller - 1999
- **Nicholas Co Landfill Design 2004**
Establish survey control for the landfill. Create topographic surveys for design.
- **AEP – John Amos Power plant industrial Landfill 2006 - Client, Shelly and Sands, Inc.**
TERRADON established survey control, performed topographic surveys used for access road design, Completed construction staking for access road, and excavation, provided daily volume reports.



Education

A.S., Survey Technology, 1981,
West Virginia Institute of
Technology

B.S., Surveying, 1985, West
Virginia Institute of Technology

Work Experience

TERRADON Corporation
1994-Present

Bowman Land Surveying
1992-1994

Dunn Engineers
1990-1992

Kelley Gidley Blair and Wolf
1988-1990

Pierson & Whitman
Architects and Engineers
1984-1986

Registration

Professional Surveyor,
West Virginia

SPECIALIZED EXPERIENCE & TECHNICAL EXPERTISE

Corporately, TERRADON has a strong history of providing engineering services to the WVDOT, including Right-Of-Way Plans, Bridge Design, Highway Design, Survey, and Geotechnical. TERRADON's expertise in providing engineered drawings per local, state, and federal specifications provide expedited timelines and aide in controlling costs throughout a project. TERRADON and staff have demonstrated its performance by receiving accolades including WVDOT Engineering Excellence Awards for several projects.



TERRADON is well-versed in completing successful transportation survey projects, having provided design and construction survey services for numerous projects during the company's 24-year history. An expert staff of professional surveyors provides mapping, construction layout, ALTA survey, topographic survey, GPS network control surveys for aerial and LiDAR mapping projects, and boundary survey services. Efficient and accurate results are ensured by prioritizing the use of modern technology, including state of the art GPS and robotic total stations, with the latest design software.

TERRADON maintains six full-time Professional Surveyors on staff. The firm services projects through the use of seven in-house field survey crews who are backed by 60 corporate staff members, including an experienced team of CAD designers.

TERRADON's transportation survey group is experienced in conventional surveying, GPS, Remote Sensing, Hydraulic and Hydrology as well as Subsurface Utility (SUE) at various locations throughout the State for highway, bridge or miscellaneous projects. Surveyors also have experience in preparing highway right of way plans, including courthouse research and right of way questionnaires, and writing legal descriptions for right of way take parcels, temporary construction easements and permanent drainage easements.

TERRADON maintains an on-call survey contract with the West Virginia Department of Transportation (WVDOT), where it has provided design and construction surveys for numerous bridges and highway projects. TERRADON has also provided design and/or construction surveys for Virginia Department of Transportation (VDOT) and Ohio Department of Transportation (ODOT).

TERRADON's Professional Surveyors are licensed in West Virginia, Ohio Kentucky, Virginia, Pennsylvania and Tennessee.

SPECIALIZED EXPERIENCE & TECHNICAL EXPERTISE

Dave Brown, PS Senior Survey Manager

Since joining TERRADON in 1999, Dave Brown has been involved in highway design/right of way projects and many surveying projects in West Virginia and surrounding states. Brown's responsibilities include survey project management, GPS networks, control surveys, subdivision design, development of highway Right-of-Way Plans, boundary solutions, reports, courthouse research, drafting, construction staking, survey data reduction, and preparation of surveying cost estimates and proposals.



Relevant Project Experience

- The Summit Bechtel Family National Scouting Reserve (SBR) - Glen Jean, WV** - Assisted in incorporating design drawings from multiple sources and as-built features into an overall GIS for the project. This work consisted of organizing drawings in different phases (preliminary, final, as-built) from the various engineering and architectural firms working on the project to keep a current plan of the site at all times during construction. Provided construction staking, volume calculations for various aspects of the project. Collected as-built information, including x,y,z, locations of all underground utilities installed on the Summit Bechtel Reserve, which was incorporated into GIS. This information was collected by conventional survey method and by real-time GPS, utilizing the WVDOH VRS network. This information is invaluable for future development and conflict avoidance during construction. Additionally, supervised a 14.5-mile boundary survey of a portion of the SBR property boundary line.
- WVDOH Corridor L Right of Way Project-Summersville, WV** - Performed a GPS static network and placed aerial mapping target control for aerial mapping for the project in Nicholas County, WV. Performed boundary ties, hydraulic cross sections, mapped existing underground and above ground utilities, and established reference points for the project.
- Black Diamond Ranch Subdivision(1656 Acres)-Craig County, VA** - Performed a GPS static network and placed aerial mapping target control for aerial mapping for the 1700 acre residential subdivision project in Craig County, VA, which included roadway and utility design and construction layout.
- Flowing Springs Road, Jefferson County, WV** - Provided field surveys, developed Construction and Survey Right-of-Way Plans, Legal Descriptions and Questionnaires for take parcels, PDE & TCE, Aerial Photography, Panel Layout and Control Survey, and Digital Contour Mapping.
- Grade Road** - Provided Contour Mapping, field surveys, developed Construction and Survey Right-of-Way Plans, Right-of-Way Plans, Legal Descriptions and Questionnaires for take parcels, PDE & TCE.
- AEP John Amos Plant Quarrier Landfill** - Served as Project Engineer for a contractor constructing the Quarrier Landfill. Responsible for: Daily site construction coordination with AEP Engineering; Construction Staking of Amos Quarrier Landfill "Valley B" landfill, including under-drain, clay liner, temporary cover, and permanent clay liner; Topographic surveys and volume computation for unit price construction quantities; Coordinated with AEP for periodic removal of Bottom Ash from ponds located within John Amos plant; Periodic surveying, construction staking at John Amos Fly Ash dam; and Clay reserve studies for future landfill cells adjacent to Valley B landfill.
- John Amos Plant Industrial Landfill Bill's Creek, Putnam County, WV** - Served as Survey Project Manager for construction staking during construction of the dewatering island access road on Bill's Creek. Responsibilities included topographic surveys and volume computations.
- Beech Ridge Wind Tower Project-Greenbrier County, WV** - Provided survey support for construction staking and road design.
- Allegheny Energy Pleasants County Power Station ALTA Survey, St. Mary's, WV** - Served as Survey Project Manager for ALTA Surveys at five large Allegheny Energy Power Station Facilities in West Virginia.
- The Woodlands - Summersville, WV** - Provided survey services for a 40-acre subdivision.
- Liberty Square Boundary/Topographic & Utility Design Survey- Winfield, WV**
- Tucker County Landfill** - Served as Survey Project Manager for three new landfill cells for the Tucker County Solid Waste Authority. Responsible for verifying testing locations and ancillary survey support.

Education

B. S Engineering Technology/
Surveying
West Virginia University
Institute of Technology

Work Experience

1999 to Present
TERRADON Corporation

1997 - 1999
Trans-Ash

1997 - 1997
Summit Engineering

1996 - 1997
USGS

Registrations

Professional Surveyor:
West Virginia, Tennessee

SPECIALIZED EXPERIENCE & TECHNICAL EXPERTISE

Paul Cox

Survey Crew Chief

Paul Cox is a survey crew chief responsible for electronic data collection in the field and subsequently analyzing and plotting the field data in the office. He has nearly 20 years' experience, including right of way (highway and utilities), boundary surveys, construction stakeouts (highway, building, sewer lines, etc.), topographical surveys, utility location, well locations and pay quantities. Cox's responsibilities include finding boundary solutions, courthouse research, survey data reduction and construction stakeout data preparation.

Relevant Project Experience

- Surveying including cross-sections, profiles, construction layout, and as-built surveys
- U.S. Route 9 upgrade- Right of Way monumentation, courthouse research, R/W Questionnaire.
- U.S. Route 19 upgrade, Corridor "G", West Virginia
- Completed sampling plans involving both hazardous and non-hazardous materials in soils and water
- Applied skills including appraisal of material and labor estimates for securing bided and hourly contracts
- FHA building experience included framing lumber, installation of windows and doors, roofing, vinyl siding and treated decks
- Instructing students in the Principals of Accounting, Business Law, Insurance and Real Estate Courses.
- Sales and Account Management as a Licensed West Virginia Accident and Sickness, Life Insurance Agent.
- Management skills including the appraisal of damages, costs of parts, materials and labor estimates.
- Service and sales of Coal Treatment Chemicals to regional area companies. Marketing/Management of new and existing optical service accounts with institutional laboratories and hospitals in the tri state area.
- Retrieved freeze-release glycol samples from FRM 12 holding reservoirs at various West Virginia/Kentucky coal mine locations. The Chemical Spray Systems were sold and serviced by Preiser Scientific Engineering Division of Charleston, West Virginia.
- Associated subcontracting informal training gauging volume levels and samples for the Corps of Engineers, Huntington Division on Ohio/Kanawha River Systems. drainage assessment.

Education

B.A. Finance
Marshall University

Work Experience

1993-Present
TERRADON Corporation

1991-1993
Self Employment -
Construction

1990-1991
U.S. Army National Guard

1989-1990
Phillips Jr. College -
Instructor

1988-1989
Pennsylvania Life
Insurance

1984-1988
Self Employment -
Partnership

1982-1983
Preiser Scientific

SPECIALIZED EXPERIENCE & TECHNICAL EXPERTISE

Brian Bakanas, PS

Survey Crew Manager

Bakanas is a land surveying party chief responsible for electronic data collection in the field and subsequently analyzing and plotting the field data in the office. He has more than fifteen years experience, including right of way (highway and utilities), boundary surveys, construction stakeouts (highway, building, sewer lines, etc.), topographical surveys, utility location, well locations and pay quantities. Bakanas' responsibilities include survey crew manager, boundary solution, courthouse research, survey data reduction, and construction stakeout data preparation.

Relevant Project Experience

- **Ford Electronics Facility** - Construction - Dublin Twp, Pennsylvania. Stakeout for site grades, roads, storm and sanitary sewers, and detention basins.
- **Rorer Pharmaceutical Plant** - Collegetown, Pennsylvania, Stakeout horizontal vertical control, and column lines.
- **Chief Logan State Park Dam Project** - Logan, West Virginia. Stakeout dam, riser, road and parking lots, and clearing limits. Electronic data collection of road, dam, and borrow area sections. Analysis and plotting of field data.
- **Hansford AML Reclamation** - Surface Mines - West Virginia. Electronic data collection of sections on slide and reclamation of slide.
- **Smithers,-West Virginia** - Appalachian Mining Permits, Topographic and G.P.S. survey of roads, ponds, and gas well locations.
- **Monsanto Armour Creek Site,-Nitro, WV** - Site Assessment - Horizontal/Vertical S/O and location of monitoring wells at landfill. Topographic survey for drainage assessment.
- **U.S. Route 9 Upgrade** - Right of Way monumentation, courthouse research, R/W Questionnaire.

Education

A.S. Land Surveying
Glennville State College

Work Experience

1995 – Present
TERRADON Corporation
1991-1994
Dunn Engineers, Inc.
1988-1991
Czop/Spector, Inc
1986-1988
V & I Associates

Registration

Professional Surveyor
West Virginia, Pennsylvania

Randy Melton, PS

Survey Project Manager

Randy Melton is a Senior Survey Specialist at TERRADON. With 34 years of experience, Melton offers a wealth of industry expertise in progressive survey technologies. Melton routinely provides survey project management on large scale construction activities, design surveys, and oversees TERRADON survey crews.

Relevant Project Experience

- Summit Bechtel Scouting Reserve, Glean Jean, WV, Geodetic Surveyor: Responsible for GPS network analysis and RTK site calibration on a nearly 11,000-acre site for the Boy Scouts of America. The site will be home to the National Boy Scout Jamboree and host the World Scout Jamboree in 2013. Provides support for construction survey including 3D machine control data preparation.
- A \$121 million contract, Pck. DEF and V Highway Interchange, Harbert/Westbrook, Ft. Lauderdale, FL. Managed survey department responsible for stakeout of 22 bridges under simultaneous construction.
- A \$22 million bridge contract, Glade Creek Bridge, Westbrook Construction, Beckley, WV. Responsible for all survey layout computations, concrete quality control testing, quantity reports, and safety. Melton also oversaw quality Control & Field Engineering.

Education

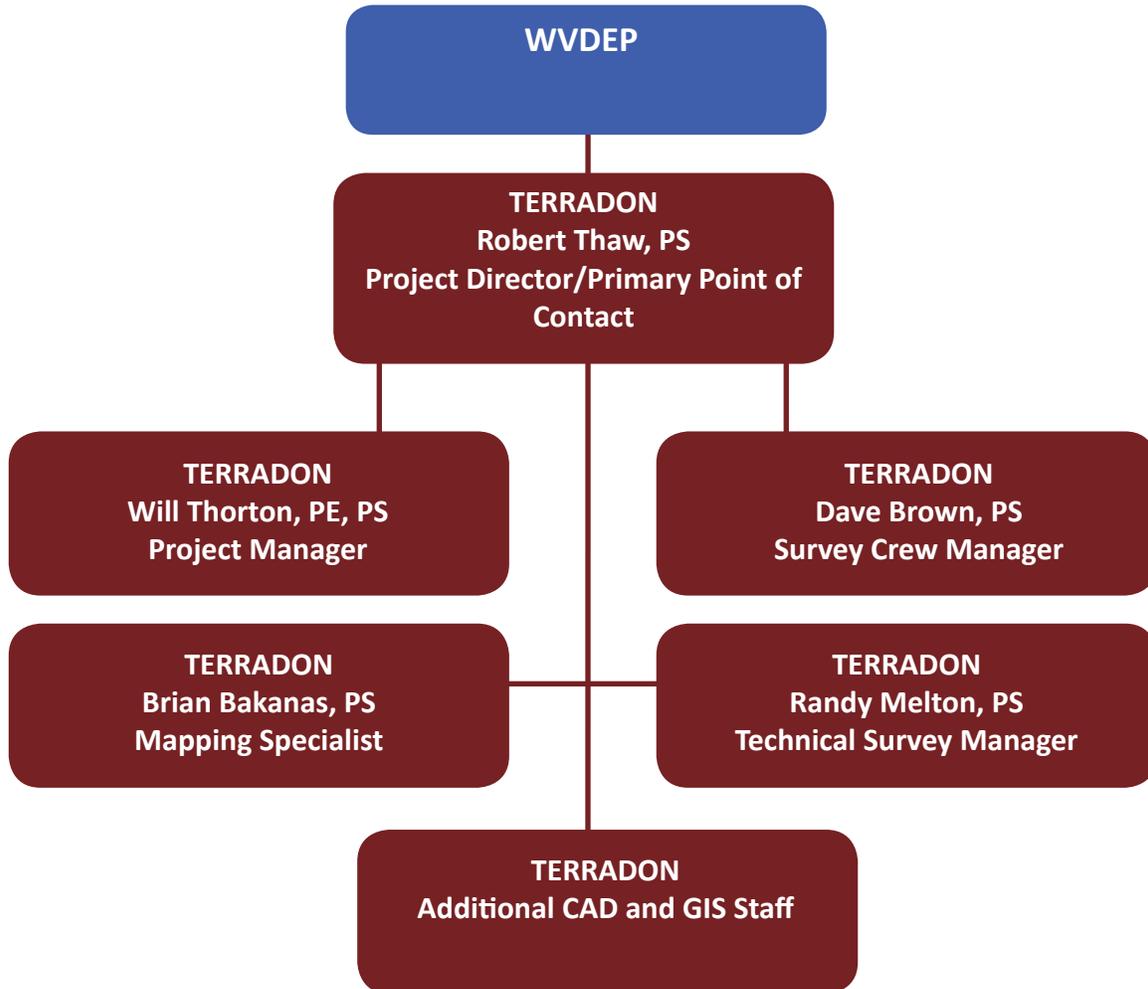
A.S. Land Surveying
Glennville State College

Registration

Professional Surveyor
West Virginia

PROPOSED DESIGN TEAM

TERRADON presents the Proposed Design Team in the following organizational chart:



TERRADON Corporation currently maintains capacity for multiple full-time survey crews. For this project, TERRADON anticipates the use of full-time crews working out of its Charleston-area office. TERRADON has the ability to dispatch additional crews on an as needed basis from its Ripley, Charlton Heights and Lewisburg offices.

CAPACITY

TERRADON Corporation maintains more than 50 full-time personnel who are dedicated to perform services within the WVDOT's required scheduled time frame. The company also maintains staffing protocols in order to supplement staff should project demands increase. At present time, the TERRADON has sufficient staff in-house to manage and complete project tasks in relation to this contract, more specifically, all types of surveying including, but not limited to, conventional, GPS, Remote Sensing, Hydraulic and Hydrology as well as Subsurface Utility (SUE) at various locations throughout the State for highway, bridge or miscellaneous projects..

TERRADON currently holds a Statewide Surveying Services contract with the WVDOT. TERRADON continues to offer a professional and experienced staff to perform the tasks required for this project. Additionally, TERRADON staff are well-versed in WVDOT procedures and have a strong working relationship with WVDOT staff.

PERSONNEL DEDICATED TO SURVEY SERVICES:

<u>Name</u>	<u>Project Role</u>
Robert Thaw, PS	Survey Project Director
William Thornton, PE, PS	Survey Project Manager
Dave Brown, PS	Survey
Brian Bakanas, PS	Survey
Randy Melton, PS	Survey

TERRADON maintains in-house staff for ancillary engineering-related tasks. Primary personnel and their specialty include:

- Bill Hunt, PG, LRS (Environmental Planning)
- Greg Fox, ASLA, LEED Ap (Grading and Site Design)

Registered Professional Engineers are:

- Joe Saunders, PE (Transportation and Structural)
- Will Thornton, PE, PS (Transportation and Structural) *Thornton will join TERRADON January 1, 2014*
- Jim Nagy, PE (Utilities)
- John James, PE (Geotechnical)
- Mike Pyles, PE (Hydraulic and Transportation)
- Robert Simmons, PE (Transportation and Structural)
- Phil Reed, PE, LEED Ap (Civil)
- Kristen McClung, PE (Hydrology and Erosion/Sediment Control)
- Ashley Lioi, PE (Civil)
- Lee Hale, PE (Civil, Environmental)
- Jennifer Casey, PE (Civil)
- V. Grant Martin, PE (Civil, Transportation)

PAST PERFORMANCE

The TERRADON team has provided engineering services to government and private industry for nearly 25 years. During this time, the company has implemented policies and standards to provide solid cost control, quality of work and compliance with performance schedules. The firm has a strong track record of meeting WVDOH performance schedules and consistently scoring above average on consultant evaluations.

TERRADON has many satisfied Government Agency, repeat customers including WVDEP Office of Abandoned Mine Lands and Reclamation, WVDNR Parks & Recreation Section, City of Fairmont, WV, City of Montgomery, WV, Kanawha County Commission, Tennessee Valley Authority, National Oceanic and Atmospheric Administration, Army Corps of Engineers, USGS, US Air Force, FEMA, & US Marine Corps.

The following project descriptions provide an overview of several successful projects TERRADON has completed that are similar in size and scope to the projects that will be part of this contract.

The Summit Bechtel Reserve

Working in tandem with geotechnical and environmental teams, in-house survey experts performed GPS static networking for Aerial Imagery, topographic mapping and project survey control. TERRADON's scope of survey services included providing permanent control monumentation, boundary surveys and construction stakeout for: roads, utilities, bridges, buildings, dams, trails and AML reclamation. During the course of the project, as-built surveys of roads, utilities, bridges, buildings, dams, trails and AML reclamation for GIS databases were provided.



State-of-the-art equipment was used to provide survey and mapping services on the project. Surveys were completed utilizing high accuracy GPS, utilizing VRS networks, robotic total stations and digital levels. The survey work performed by TERRADON on the project provided generations of custom basemaps for use in handheld GPS units. TERRADON performed as-built surveys for all underground utilities on site and field surveyed the lines prior to backfill. Additionally TERRADON is developing as-built plans off the survey information to eventually be turned over to the Summit.

Sleeth's Run Bridge

TERRADON provided design for the replacement of an existing truss bridge in Lewis County, WV. The project included the design of a new 200' structure and approaches. The project included roadway design, drainage, maintenance of traffic and right-of-way plans, and a topographic design study.

Sedalia Arch Bridge

TERRADON provided engineering services on the replacement of an existing single span concrete arch bridge with a 72' single span bridge. The bridge consisted of adjacent concrete prestressed box beams with a cast-in-place concrete deck. Roadway design consisted of new bridge approaches and a designed detour. Drainage, Maintenance of Traffic, Right of Way Plans and a Topographic Design Study with existing utilities were all part of the project.



PAST PERFORMANCE

Flowing Springs Road

TERRADON Corporation provided services on the Flowing Springs Road project in Jefferson County, WV. The project involved the design and preparation of construction contract plans and related documents for a segment of Jefferson County Route 17 (Flowing Springs Road). The project consisted of re-alignment and re-construction of the existing two-lane roadway. TERRADON provided field surveys, Right-of-Way Plans, Legal Descriptions and Questionnaires for take parcels, PDE & TCE, Aerial Photography, Panel Layout and Control Survey, and Digital Contour Mapping.

Grade Road

TERRADON provided services to study, design and prepare construction contract plans for Grade Road. The project consisted of the new construction of two lanes adjacent to an existing two-lane roadway in order to provide a four-lane facility. TERRADON provided Contour Mapping, field surveys, Right-of-Way Plans, Legal Descriptions and Questionnaires for take parcels, PDE & TCE.

Corridor L

TERRADON performed a GPS static network and placed aerial mapping target control for aerial mapping for the project in Nicholas County, WV. Additionally, TERRADON performed boundary ties, hydraulic cross sections, mapped existing underground and above ground utilities, and established reference points for the project.

Martinsburg Drainage Study

TERRADON was contracted to perform a drainage study for the City of Martinsburg, WV. The project involved the development of a comprehensive drainage study comparing pre and post development conditions. TERRADON performed aerial photography, mapping, right-of-way and survey services as part of this contract.

Pine Creek/OMAR LCAP

TERRADON performed a GPS static network and placed aerial mapping target control for aerial mapping for the project in Logan County, WV. Additionally, we mapped utilities for the design of the closing of an approximate 12 acre abandoned Municipal Solid Waste Landfill.

Black Diamond Ranch

TERRADON performed a GPS static network and placed aerial mapping target control for aerial mapping for the 1700 acre residential subdivision project in Craig County, VA, which included roadway and utility design and construction layout.

Stone Mountain

TERRADON performed a GPS static network and placed aerial mapping target control for aerial mapping for the 6,250 acre residential development project in Stone Mountain, TN.

PAST PERFORMANCE

Town of Eleanor

For the Town of Eleanor, TERRADON provided survey support for town improvements including streets, storm water, wastewater and water facilities. Boundary surveys, plat and legal description preparation, topographic surveys, mapping and construction staking services were performed.

Chief Logan State Park

TERRADON performed topographic survey services for the new Recreational Center.

Bluestone State Park

TERRADON performed topographic survey services for the pool replacement.

Little Beaver State Park

TERRADON performed topographic and underground utility survey services for the campground.

Volcano Island Waterpark/Fairmont Coke Works

TERRADON Corporation performed utility investigation at Fairmont Coke Works and the surrounding areas, totaling approximately 350 acres of utility location and mapping work. The site was mapped utilizing aerial photography. TERRADON field edited aerial mapping and identified and surveyed all underground utilities. The utility information was presented in tabular format on AutoCAD drawings.



PAST PERFORMANCE

Charleston Relocation Housing



TERRADON performed detailed underground surveys for nine (9) Charleston Relocation Housing projects, including Orchard Manor, Washington Manor, Little Page Terrace and KVSS. The surveys included all aboveground features and all underground utilities. The City of Charleston historical records were utilized extensively to reconcile the underground utilities. While the project was under construction, TERRADON survey crews were available to locate any underground utility that the excavation by construction crews discovered. Detailed mapping was geo-referenced in AutoCAD format.

Kanawha Valley CTC

TERRADON performed a survey on the proposed Kanawha Valley CTC site located at the DOW Tech Park. The survey included two parcels totaling approximate 20 acres. An underground utility investigation was performed utilizing existing mapping and utility sketches for the Tech Park. Part of the storm water investigations was to reconcile the fresh water storm system that discharged into the Kanawha River and the storm water system that discharged into the South Charleston PSD treatment facility. Detailed mapping was prepared for the sites showing all underground utility locations and geo referenced.



West Virginia State Government Office Building

TERRADON provided a design survey for a state government office building located in Fairmont, WV. The survey included boundary survey and utility survey, including the identification of above and below-ground utilities encompassing an entire city block. All underground utilities were located utilizing conventional survey methods, and presented on detailed mapping generated in AutoCAD complete with Geo referencing.

City of Milton MS4 Stormwater Management Plan

Working for the City of Milton, TERRADON engineers prepared a Municipal Separate Storm Sewer System (MS4) management plan for compliance with Environmental Protection Agency (EPA) orders. TERRADON's plan ensured the City's compliance with federal regulations and provided overall guidance for the City's long-term management of the program.

6. LOCATION OF OFFICES IN WHICH THE WORK WILL BE PERFORMED

The primary office in which work will be performed for this project is the Charleston/Poca office, which is located at 409 Jacobson Drive, Poca, WV. Work may also be performed in the Charlton Heights area office, located in Fayette County, WV, at P.O. Box 307, Charlton Heights, WV 25040; the Lewisburg office, which is located at 425 North Jefferson Street, Lewisburg, WV, 24901; at the Ripley office, which is located at 101 North Court Street, Ripley WV, 25271.

7. CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

TERRADON has a completed copy of its Consultant Confidential Qualification Questionnaire (CCQQ) dated January 2015 on file with the WVDOT. Additional copies will be provided upon request.

8. IDENTIFICATION OF SUBCONSULTANTS

TERRADON Corporation will use Tuck Mapping Solutions, Inc. for aerial mapping tasks. Mike Hobbs, Surveyor Photogrammetrist, Photogrammetry Coordinator, is the Point of Contact for Tuck Mapping Solutions, Inc.

Tuck Mapping Solutions, Inc.
P.O. Box 760
Big Stone Gap, VA 24219
276-523-4669
Fax: 276-523-4673

9. COST ACCOUNTING SYSTEM

TERRADON Corporation maintains a cost accounting system in house that segregates and identifies accumulating costs for each job that is performed under cost-type projects. TERRADON utilizes Deltek accounting software and routinely tracks projects in accordance with WVDOT requirements.

TERRADON CORPORATION

CORPORATE CULTURE

TERRADON Corporation offers a multi-faceted approach to design engineering and consulting services. For the past 25 years TERRADON staff has provided a wealth of engineering solutions blanketing the Appalachian and Mid-Atlantic region with successful projects. The company built its reputation on expert personnel and quality, time-sensitive service. Those same founding principles hold true today.

The second-generation, family-owned business has built a strong reputation by providing flexible, cost effective design solutions and maintaining the highest level of customer service. The firm has been recognized through numerous awards from professional organizations and agencies including the American Society of Civil Engineers, State Highway Departments, the Department of Environmental Protection and the American Institute of Architects.

TERRADON's corporate culture promotes innovation and progressive thinking. Project leaders strive to sustain customers through a wide-range of engineering offerings. TERRADON employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.

CONTACTS

Project Opportunities

Ryan Wheeler

ryan.wheeler@terraddon.com

Energy, Environmental, Geotechnical, Testing & Inspection

Bill Hunt, PG, LRS

bill.hunt@terraddon.com

Land Development

Greg Fox, ASLA, LEED AP

greg.fox@terraddon.com

Survey & Mapping

Robert Thaw, PS

robert.thaw@terraddon.com

Transportation, Abandoned Mine Lands

Joe Saunders, PE

joe.saunders@terraddon.com

Civil, Water, Wastewater & Stormwater

Will Thornton, PE, PS

will.thornton@terraddon.com



TERRADON is the largest woman-owned engineering firm in West Virginia.

TERRADON is also registered within the City of Columbus as a certified Women's Business Enterprise as defined by the Women's Business Enterprise National Council.

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425 North Jefferson St.
Lewisburg, WV 24901
304-645-4636

Jackson County, WV
101 North Court Street
Ripley WV, 25271
304-532-4909

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P.O. Box 307
Charlton Heights, WV 25040
304-541-7655