



October 8, 2008

325 Sixth Ave.
South Charleston, WV
25303
Office: (304) 744-5200
Fax: (304) 744-3955

Mr. Chuck Bowman, Buyer
Purchasing Division
P.O. Box 50130
2019 Washington Street, East
Charleston, WV 25305-0130

RE: DEP14383 – Burnwell (Standard/Paint Creek/Collinsdale) Waterline Extension

Dear Mr. Bowman,

HMB Professional Engineers, Inc. (HMB) is pleased to submit our Expression of Interest for the Burnwell (Standard/Paint Creek/Collinsdale) Waterline Extension project. HMB has extensive project experience helping the WVAML office provide domestic water service to the areas affected by coal mining. As a leader in Phase I and Phase II Water Feasibility Studies, HMB has paved the way for countless water line extension projects in rural West Virginia. In addition to our Feasibility Study experience, HMB has an impressive list of successful water line extension projects. This combination of planning and design experience, along with familiarity with the project area, makes HMB's qualifications stand out above the competition.

HMB has a multi-disciplined staff that includes five engineers with water line design experience. These engineers are the key ingredient of a project team that also includes engineering technicians and construction inspectors that are all experienced with water line design and construction. We hope that you will agree that HMB is uniquely qualified to design this project.

Sincerely,
HMB PROFESSIONAL ENGINEERS, INC.

Greg Boleyn, PE
West Virginia Office Manager

RECEIVED

08 OCT -7 AM 11:37

PURCHASING DIVISION
STATE OF WV

Abandoned Mine Land

Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

Master Planning

Environmental Planning

Surveying

Project Management

Cost Estimation

Stream Restoration

Construction Inspection

Aviation Services

Environmental Remediation

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

PROJECT NAME - DEP 14383-Burnwell (Standard/Paint Creek/Collinsdale) Waterline Extension	DATE (DAY, MONTH, YEAR) 10/08/08	FEIN 61-0968333
1. FIRM NAME - Haworth-Meyer-Boleyn Professional Engineers, Inc. d.b.a. HMB Professional Engineers, Inc.	2. HOME OFFICE BUSINESS ADDRESS 3 HMB Circle Frankfort, KY 40601	3. FORMER FIRM NAME N/A
4. HOME OFFICE TELEPHONE 502-695-9800	5. ESTABLISHED (YEAR) 1979	6. TYPE OWNERSHIP Individual Partnership Joint-Venture Corporation
		6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES <u>NO</u>

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE
325 Sixth Avenue South Charleston, WV / 304-744-5200 / Greg Boleyn, P.E. / 5
 Secondary AML design office: 3 HMB Circle Frankfort, KY / 502-695-9800 / Joe Grider, P.E. / 2

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM
 Brad Meyer, President Karen Wood, CFO
 Bob Blankenship, Principal-in-Charge

8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
 Greg Boleyn, WV Regional Office Manager
 304-774-5200

9. PERSONNEL BY DISCIPLINE

8 ADMINSTRATIVE	—	ECOLOGISTS	—	LANDSCAPE ARCHITECTS	—	3 STRUCTURAL ENGINEERS
— ARCHITECTS	—	ECONOMISTS	—	— MECHANICAL ENGINEERS	—	4 SURVEYORS
3 BIOLOGIST	—	ELECTRICAL ENGINEERS	—	— MINING ENGINEERS	—	4 TRAFFIC ENGINEERS
11 CADD OPERATORS	3	ENVIRONMENTALISTS	3	— PHOTOGRAMMETRISTS	—	3 OTHER (R/W acquisition)
— CHEMICAL ENGINEERS	(10)	ESTIMATORS	—	— PLANNERS: URBAN/REGIONAL	—	
20 CIVIL ENGINEERS	1	GEOLOGISTS	3	— SANITARY ENGINEERS	—	
4 CONSTRUCTION INSPECTORS	—	HISTORIANS	—	— SOILS ENGINEERS	—	
3 DESIGNERS	(10)	HYDROLOGISTS	—	(10) SPECIFICATION WRITERS	—	67 TOTAL PERSONNEL
(4) DRAFTSMEN						

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 3
 *RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

Numbers shown in parenthesis indicate staff with multiple areas of experience and responsibilities. Those numbers are not included in the total personnel figure.

All AML design work will be done by our civil engineering staff. HMB's staff includes Sanitary and Structural engineers that will not be working on any AML projects, unless a specific need arises for their expertise.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO

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

<p>NAME AND ADDRESS: Photo Science 2670 Wilhite Drive Lexington, KY 40503</p>	<p>SPECIALTY: Photogrammetry and digital mapping services See attached CCQQ forms.</p>	<p>WORKED WITH BEFORE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?
YES - HMB has completed over 80 AML projects in WV, KY, VA and IN. Several of those projects are water line extension projects done for the WVAML office. See Schedule "A" for a list of HMB's past AML projects.

NO

B. Is your firm experienced in Soil Analysis?
YES Description and Number of Projects:

NO - We do not anticipate needing a geotechnical engineer. If that should change, HMB would team with Novel Geo-Environmental.

C. Is your firm experienced in hydrology and hydraulics?

YES - Most of our past AML projects require hydrologic and hydraulic analysis. The attached Schedule "A" indicates which AML projects required hydrologic and hydraulic analysis.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?
YES Description and Number of Projects:

NO - HMB is teaming with Photo Science, who will be providing photogrammetry and digital mapping services. Their CCQQ is attached to this submittal.

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

YES - HMB has an extensive list of past projects where the feasibility of extending water lines was analyzed and documented. HMB also has completed numerous water line extension projects in WV, KY, IN & TN. See the Similar Projects Section of this submittal for a list of past water line feasibility projects.

NO

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

YES - HMB has completed several projects where AMD was a problem. See the Similar Projects Section of this submittal for a list of past AML projects that involved AMD.

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: 2 years	
Boleyn, Greg PE, WV Regional Office Manager		YEARS OF AML DESIGN EXPERIENCE: 1 year	YEARS OF AML RELATED DESIGN EXPERIENCE: 14 years		
<p>Brief Explanation of Responsibilities Greg is currently Manager of HMB's West Virginia Branch office in South Charleston. The son of one of our firm's founders, he began his full-time career at HMB in 1982. Pursuing his professional education while working part-time, he successfully completed his degree in 1994. His design experience includes highways, waterlines, and airports, as well as drainage and highway capacity analysis and geometric design.</p>					
<p>EDUCATION (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> BS/Civil Engineering/University of Kentucky/1994 					
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING</p> <ul style="list-style-type: none"> PSMJ Marketing Workshop/2005 PSMJ Strategic Planning Workshop/May 2002 PSMJ Principals Bootcamp/2002 Thinking Beyond the Pavement/1999 INDOT/Bridge Backwater Computer Program Class/1996 CAD & In-Express Productivity 3-Day Workshop/Nashville/1996 					
<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 DOMESTIC WATERLINE DESIGN EXPERIENCE: 2 years	
Farmer, Travis EIT		YEARS OF AML DESIGN EXPERIENCE: 0 years	YEARS OF AML RELATED DESIGN EXPERIENCE: 0 years		
<p>Brief Explanation of Responsibilities Travis joined HMB in 2007. He assists the project managers in various engineering design services, including water system modeling, water line design, waste water design, cost estimating, and contract administration.</p>					
<p>EDUCATION (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> BS/Biosystems and Agriculture Engineering/University of Kentucky/2006 					
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING</p> <ul style="list-style-type: none"> Storm water Seminar/ 2007 PSMJ Project Management Bootcamp/2008 Contract Management Training/ 2007 					
<p>REGISTRATION (Type, Year, State)</p> <ul style="list-style-type: none"> West Virginia/Civil/P.E. #15216/2002 Kentucky/Civil/P.E. #20693/1999 Ohio/Civil/P.E. #66767/2002 Georgia/Civil/P.E. #027690/2002 					
<p>REGISTRATION (Type, Year, State)</p> <ul style="list-style-type: none"> Kentucky/Civil/EIT #13,057/2006 					

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 RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
4 years	20+ years	20+ years	12 years
<p>Grider, Joe PE, PLS - Surveying Manager</p> <p>Brief Explanation of Responsibilities Joe manages HMB's land development & surveying division. He has designed 22 major subdivisions in central KY which involved the layout of nearly 1,500 commercial and residential lots and nearly 18 miles of infrastructure. Each one of these subdivisions required designing the water distribution system for the entire subdivision, and analyzing the system to ensure that domestic flow needs and fire flow needs were met. These subdivisions are located throughout four different water districts and each set of plans was prepared to the standards set by that water district.</p> <p>EDUCATION (Degree, Year, Specialization) • B.S.C.E. University of Kentucky, 1982</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING Highway Capacity Workshop Lessons in Professional Liability Contract Review & Revisions Preparation of Survey Reports Fundamentals of GPS Research techniques for boundary surveys</p>			
REGISTRATION (Type, Year, State) Professional Engineer # 14,752, KY 1986 Land Surveyor # 2889, KY 1987 Professional Engineer # 10,266 WV (Currently seeking re-instatement)			
<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 RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
2	2	2	8 years
<p>Brown, Sandi Technician</p> <p>Brief Explanation of Responsibilities Sandi brings 8 years of technical experience to HMB's Water/Wastewater Division. She possesses a broad range of knowledge in AutoCAD, Micro Station, and Eagle Point engineering design software programs. In addition to her 8 years of water line design experience, Sandi also has hands on design experience in residential street design, sanitary sewer gravity line design, sanitary pump station and force main design and structural detailing.</p> <p>EDUCATION (Degree, Year, Specialization) • Franklin County High School, Diploma 1984</p>			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING REGISTRATION (Type, Year, State)</p>			

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)		13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Blankenship, Bob PE, Principal In Charge			29 years
<p>Brief Explanation of Responsibilities</p> <p>Bob joined HMB in 1989 as Manager of the Water and Wastewater Division. Currently, he is Principal-In-Charge of this division, as well as Vice President in charge of contracting, scheduling and production for HMB's Water and Wastewater, Construction and Environmental Remediation Divisions in Kentucky, Indiana, West Virginia, Tennessee and Alabama. As Vice President, Bob has direct oversight of these divisions to ensure professional and timely delivery of services to our clients. With over 29 years of experience as a Consulting Engineer, he has served as Project Manager on numerous projects from Ohio to Florida. In addition, he served as an Engineer Officer in the U.S. Marine Corps for eight years and then for an additional six years in the Marine Corps Reserves. He is Vice Chairman of the Versailles/Woodford Co. Planning & Zoning Commission, having served on this Commission since 1993. Bob currently serves on the HMB Board of Directors.</p> <p>EDUCATION (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> • BS/Civil Engineering/University of Kentucky/1970 			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <ul style="list-style-type: none"> National Society of Professional Engineers Kentucky Rural Water Association Kentucky Society of Professional Engineers American Water Works Association American Council of Engineering Companies Society of American Military Engineers Vice Chairman - Versailles, Midway, Woodford Co. Planning and Zoning Commission 			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)		13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Ray Bascom, PE Project Engineer			20 years
<p>Brief Explanation of Responsibilities</p> <p>In 1996, Ray joined HMB as a Project Manager in our Water and Wastewater Division. His experience includes more than 20 years designing water and wastewater treatment facilities, water distribution systems, water storage reservoirs, sewage collection/transmission systems, lift stations and force mains. He also has land and industrial development experience. Ray has designed a total of 13 wastewater treatment plants ranging in size from 2000 gallons per day to 9.9 million gallons per day and ranging in cost from \$45,000 to \$4.4 million.</p> <p>EDUCATION (Degree, Year, Specialization)</p> <ul style="list-style-type: none"> • BS/Civil Engineering/University of Tennessee/1986 			
<p>MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS</p> <ul style="list-style-type: none"> American Water Works Association Chi-Epsilon (National Honor Society of Civil Engineers) Consulting Engineers Council of Kentucky National Society of Professional Engineers PSMJ Project Management Training/2002 			

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.) Stewart, Chris PE, Division Manager	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 8
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities
 Chris' experience as a consulting engineer includes design of water and wastewater treatment facilities, water distribution systems, water booster stations, sewage collection/transmission systems and force mains. He is also experienced in all aspects of water and wastewater related project management including system analysis and recommendation, preliminary engineering and study, funding procurement, cost estimating, project budgeting, detailed technical design, preparation of project specifications and bidding documents, advertising and bidding, construction administration, construction observation coordination and project close out.

EDUCATION (Degree, Year, Specialization)
 • BS/Civil Engineering/University of Kentucky/1999

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING
 National Society of Professional Engineers
 PSMJ Project Manager Bootcamp/2002
 American Society of Civil Engineers
 ACEC-KY Retreat/2005
 Order of the Engineer
 Fundamentals of Erosion Protection and Sediment Control/2005

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

NAME & TITLE (Last, First, Middle Int.) Jeff Reynolds, PE Project Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 15 years
	YEARS OF EXPERIENCE		

Brief Explanation of Responsibilities
 Jeff began his career at HMB in 1993. He is a Project Manager/Engineer in HMB's Water and Wastewater Engineering Division. His emphasis is design of water distribution systems and sewage collection systems. His experience includes designing water distribution systems, water storage tanks, water booster pump station, sewage collection system, lift station and force mains. Jeff has also assisted counties and municipalities acquire project funding with a variety of funding agencies.

EDUCATION (Degree, Year, Specialization)
 • BS/Civil Engineering/University of Kentucky/1993

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING
 • PSMJ Project Manager Bootcamp/2002
 • PSMJ Marketing Workshop/2005

REGISTRATION (Type, Year, State)
 • Kentucky/Civil/#20469

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 DOMESTIC WATERLINE DESIGN EXPERIENCE:
Howard, Craig Survey Crew Chief	0 years	15+ years	0 years
Brief Explanation of Responsibilities Supervises field crew for boundary, control, topographic and construction staking projects. Also acts as primary contact for property owners, clients and contractors at project sites.			

EDUCATION (Degree, Year, Specialization)

- Lees Junior College, 1986-87
- Mayo State Vocational Technical School, 1988-1990

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING

- HAZWOPER Trained - OSHA 40 hour course, 2007
- CPR, First Aid and Bloodborne Pathogens Training-American Red Cross, 2007

REGISTRATION (Type, Year, State)

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

NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Perry, Patrick	0 years	2 years	0 years

Brief Explanation of Responsibilities
Patrick joined HMB upon graduating from college in 2006. He has worked in the highway design section where he has become proficient at processing survey data, hydrologic analysis, hydraulic design, roadway geometric design, quantity calculations, cost estimating and project management.

EDUCATION (Degree, Year, Specialization)

- BSCE University of Kentucky, 2006

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS / TRAINING

- American Society of Civil Engineers
- Order of the Engineer
- Associated General Contractors

REGISTRATION (Type, Year, State)

- Kentucky/Civil/EIT/2006

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

Surveying Equipment: Trimble 5700 GPS Receivers; (3) Trimble 5600 Fully Robotic Total Stations; Nikon DTM 550 Total Station; Leica 800 Total Station; Range TDS Survey Pro Data Collector; TSC1 Trible Survey Controller; HP 48 with SMI Construction 5 Robotic Software; Lietz Automatic Level; CADD-AUTOCADD, LDD2 & Microstation; Star*Net; Trimble Geomatics Office Software; GPS Vector Analysis; (3) Ziess Levels; (1) Wild Level; (1) Paulin Altimeter; (2) Survey Trucks; Trimble GEOXH; Trimble Pathfinder Office

Testing Equipment: (4) Concrete Air Meters; (1) Concrete Cylinder Breaker; (5) Slump Cones; (3) Speedy Moisture Testers; (1) Asphalt Extractor & 2 Sieve Shakers; (3) Nuclear Density Meters

Drilling Equipment: Mobile Sounding Rig

Noise Equipment: Bruel & Kjaer 2236A Type I Sound Level Meter; Skymate Anemometer; FHWA TNM 1.1/2.5 Noise Prediction (Computer Program); RION NL-20 Sound Level Meter

Air Equipment: Computer programs- Mobile 6.0/6.2; CAL3QHC (Carbon Monoxide Prediction Model); Microstation V8 and Descartes V8

Aquatic & Water Quality Equipment: Olympus LMS225R Bi-ocular Dissecting Microscope; HACH pH meter; Hach DREL/2010 Aquaculture Laboratory; Zoon Stereo Microscope w/Fiber Optic Light Sources; Seine & Dip Nets-Portable Lab Kits; HACH TDS/Conductivity Meter; HACH Spectrophotometer

Terrestrial Equipment: TRX 1000S Radio Receiver; Plant Presses; Holohil Systems, Ltd; LB2N Radio Transmitter; LTM Radio Transmitters, Soil Augers; Anabat II Bat Detector, Bat Nets & Poles; Soil Sieves

Hardware: (100) Engineering/CADD workstation; (20) Administrative workstation; (19) Laptop computers; (10) Large Format Plotters; VPN between Main Office and Regional Offices; Corporate Intranet and Internet e-mail; (6) Novell 5 Servers; (3) Color Laser Printers; (7) Linux Servers; (1) Linux Mail Server; (1) Color Copier/Scanner/Printer; (4) Window Servers

Software: Bentley; Microstation; Descartes InRoads, InRoads Survey, Geopak, Geopak Survey, SewerCad and Watercad, Integraph InXpress Roadway Design, EaglePoint Hydraulic/Site Development/Storm & Sanitary Sewer Design/Roadway Design, CAL3QHC/Mobile6/TNM 2.5 Air Quality/Noise, KyHydro, KyPipe, HEC - 2 HC-RAS, WSPRO - Highway and Environmental Hydraulic Design, HCM - Highway Traffic Analysis, Passer 2 - Highway Traffic Analysis, MSTRUDL, STAAD3, CONSPAN, TRAPS, Merlin DASH - RC Pier Structural Design, MATHCAD - general mathematical modeling software, Microstation Office Office Suite; Word, Excel, Outlook, PowerPoint, Project, Publisher, Front Page

CorelDraw - graphic/presentation, Adobe, Acrobat, Photoshop E S R I - ARCGIS - ARC Editor, Deltek Vision (Accounting and CRM), Acutate e.Report Designer Professional, Trend Micro Client/Server Anti-Virus, HAESTAD: Watercad, Stormcad, Culvertmaster, Pondpack and Flowmaster, Hydrain for Windows: Hydrologic & Hydraulic Modeling,

Anabat - Env. Bat Echolocation species identification hardware/software package.

Global Mapper 8, Visualization: Autodesk 3DS Max, Visual Nature Studio, Adobe Creative Suite

Auto Desk; Auto Cad, Civil 3-D, Civil 3 P Pro, Survey

KYCOGO - Coordinate geometry / highway design

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
West Virginia Rt 10 Upgrade to 4 Lanes Cabell County, WV	WV Department of Transportation Charleston, WV	Highway Design	\$12,000,000 (Placed on hold October 2000)	95%
Corridor H Design new 4-lane highway Grant County, WV	WV Department of Transportation Charleston, WV	Highway Design	\$12,000,000	95%
Burner Mountain Upgrade to 2 lanes Pocahontas County, WV	WV Department of Transportation Charleston, WV	Highway Design	\$1,500,000	Not Scoped
Mt Gay Bridge Bridge Replacement Logan County, WV	WV Department of Transportation Charleston, WV	Structural Design	\$5,600,000	85%
Midkiff Bridge Bridge Replacement Lincoln County, WV	WV Department of Transportation Charleston, WV	Structural Design	\$2,100,000	30%
Barren County I-65 5.1 Miles	KY Transportation Cabinet Frankfort, KY	Highway Design	\$6,250,000	60%
US 127, Relocation, 4.3 Miles Clinton County, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$26,600,000	90%

TOTAL NUMBER OF PROJECTS: 7

TOTAL ESTIMATED CONSTRUCTION COSTS: \$66,050,000

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
US 460/KY 80 at Draffin 0.5 Miles Pike County	KY Transportation Cabinet Frankfort, KY	Highway Design	\$7,100,000	90%
I-66 London to Somerset Env. and Prem. Design 20 miles Laurel and Pulaski Counties	KY Transportation Cabinet Frankfort, KY	Highway Design	\$60,000,000	98%
Scott County US 460 0.9 Mile	KY Transportation Cabinet Frankfort, KY	Highway Design	\$3,200,000	75%
Hart County 1.0 Miles	KY Transportation Cabinet Frankfort, KY	Highway Design	\$14,000,000	40%
KY 80 Over CSRR & Russell Fork 0.4 Miles Pike County, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$4,000,000	95%
KY 22 Over Licking River 0.5 Miles Pendleton County, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$4,500,000	75%
Hal Rodgers Parkway Safety Improvements 2.2 miles Leslie County, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$15,000,000	30%

TOTAL NUMBER OF PROJECTS: 7

TOTAL ESTIMATED CONSTRUCTION COSTS: \$107,800,000

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
Widen KY 1848 to 5 lanes 0.9 Miles Shelby County, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$3,700,000	90%
Marion County KY 1231	KY Transportation Cabinet Frankfort, KY	Highway Design	\$7,500,000	40%
Laurel County US 25 0.8 Miles	KY Transportation Cabinet Frankfort, KY	Highway Design	\$3,500,000	40%
Knott County KY 1231	KY Transportation Cabinet Frankfort, KY	Highway Design	\$5,500,000	25%
Owsley County US 25	KY Transportation Cabinet Frankfort, KY	Highway Design	\$20,000,000	10%
Pine Mountain Settlement School Restoration Harlan Co, KY	KY Transportation Cabinet Frankfort, KY	Highway Design	\$900,000	50%

TOTAL NUMBER OF PROJECTS: 6

TOTAL ESTIMATED CONSTRUCTION COSTS: \$41,100,000

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
I-64 7 Miles Widening and Rehabilitation Jefferson-Shelby County	Final Design	KY Transportation Cabinet Frankfort, KY	2008	\$45,000,000	
Whitley County Welcome Center	Final Design	KY Transportation Cabinet Frankfort, KY	2008	\$10,000,000	
Carter Co I-64	Scoping Study	KY Transportation Cabinet Frankfort, KY	2008	N/A	
I-69/I-66 Spur Daviess County	Scoping Study	KY Transportation Cabinet Frankfort, KY	2008	N/A	

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)	
SR-10 Melissa Huntington Rd Demolition Plans Cabell County, WV	WV Department of Transportation Charleston, WV	\$300,000	2004	YES	
I-71 4-mile widening to 6 lanes and entrance to Nascar Race Track Roadway/Bridge Design Gallatin County, KY	KY Transportation Cabinet Frankfort, KY	\$35,000,000	2003	NO	
Rowlesburg Bridge & Approaches (CR 1) Roadway/Bridge Plans Preston County, WV	WV Department of Transportation Charleston, WV	\$3,000,000	2003	YES	
Robertson County KY 165 4 miles 2-lane on new Location Roadway and Bridge	KY Transportation Cabinet Frankfort, KY	\$6,000,000	2004	YES	
Sullivan County SR357	Tennessee Department Of Transportation Nashville, TN		2005	NO	
Grays Run Natural Channel Design Cynthiana Bypass, KY	KY Transportation Cabinet Frankfort, KY	\$210,000	2004	NO	
Kess Creek Natural Channel Design KY 121 Graves Co, KY	KY Transportation Cabinet Frankfort, KY	\$300,000	2005	NO	
Parks Branch Natural Channel Design Whitley Co, KY	KY Transportation Cabinet Frankfort, KY	\$360,000	2005	NO	

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
Locust Creek Stream Mitigation and Monitoring KY 19 Bracken Co., KY	KY Transportation Cabinet Frankfort, KY	\$160,000	2002	YES	
Rush Fork Creek Stream Restoration US 23 Johnson Co., KY	KY Transportation Cabinet Frankfort, KY	\$340,000	2001	YES	
Dix River Tributary Stream Mitigation and Monitoring US 150 Lincoln Co., KY	KY Transportation Cabinet Frankfort, KY	\$540,000	2000	YES	
Lick Fork Stream Mitigation and Monitoring KY 7 Morgan Co., KY	KY Transportation Cabinet Frankfort, KY	\$220,000	2001	YES	
Reed Fork Creek Stream Restoration US 119 Pike Co., KY	KY Transportation Cabinet Frankfort, KY	\$240,000	2002	YES	
Roundstone Creek Tributary Stream Mitigation and Monitoring I-75 Rockcastle Co., KY	KY Transportation Cabinet Frankfort, KY	\$500,000	2002	YES	

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.

The projects listed on this page only are Steve Rice's personal experience that he gained with a previous employer.

20. The foregoing is a statement of facts.

Signature: *Greg Boleyn*

Title: WV Office Manager

Date: October 8, 2008

Printed Name: Greg Boleyn, PE

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME - DEP14383 - Burnwell
 (Standard/paint Creek/Collinsdale)
 Waterline Extension

DATE (DAY, MONTH, YEAR)
 10/08/08

FEIN
 61-1183895

1. FIRM NAME
 GMR Aerial Surveys, Inc.
 dba Photo Science

2. HOME OFFICE BUSINESS ADDRESS
 2670 Wilhite Drive
 Lexington, KY 40503

3. FORMER FIRM NAME
 Photo Science of Kentucky, Inc.

4. HOME OFFICE TELEPHONE
 859-277-8700

5. ESTABLISHED (YEAR)
 1974

6. TYPE OWNERSHIP
 Individual Corporation
 Partnership Joint-Venture YES NO

6a. WV REGISTERED DBE

7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. PERSONNEL EACH OFFICE

2670 Wilhite Drive / Lexington, KY 40503 / 859-277-8700 / G. Michael Ritchie / 75

1410 Indian Trail Road / Norcross, GA 30093 / 770-564-9843 / Jeffrey S. Simmons / 46

67 Pine Street, Suite 2 / Bangor, ME 04401 / 207-262-3232 / Kristina Ivey / 1

6200 Metrowest Boulevard, Suite 206 / Orlando, FL 32835 / 407-521-2262 / Nickolas R. Fusco / 2

10033 MK Street N, Suite 200 / St. Petersburg, FL 33716 / 727-576-9500 / Gary R. Florence / 35

4801 Telsa Drive, Suite J / Bowie, MD 20715 / 301-262-9400 / Kurt W. Allen / 17

104 South Church Street / West Chester, PA 19382 / 610-344-0890 / Robert J. Hickey / 2

8. NAMES OF PRINCIPAL OFFICIALS OR MEMBERS OF FIRM

G. Michael Ritchie / President / 859-277-8700

Mark E. Meade / Vice President / 859-277-8700

Jeffrey S. Simmons / Vice President / 770-564-9843

Kurt W. Allen / Vice President / 301-262-9400

Robert J. Hickey / Vice President / 610-344-0890

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

9. PERSONNEL BY DISCIPLINE

ADMINISTRATIVE	ECOLOGISTS	LANDSCAPE ARCHITECTS	STRUCTURAL ENGINEERS
ARCHITECTS	ECONOMISTS	MECHANICAL ENGINEERS	17 SURVEYORS
BIOLOGIST	ELECTRICAL ENGINEERS	MINING ENGINEERS	TRAFFIC ENGINEERS
18 CADD OPERATORS	ENVIRONMENTALISTS	15 PHOTOGRAMMETRISTS	OTHER
CHEMICAL ENGINEERS	ESTIMATORS	PLANNERS: URBAN/REGIONAL	
CIVIL ENGINEERS	GEOLOGISTS	SANITARY ENGINEERS	
CONSTRUCTION INSPECTORS	HISTORIANS	SOILS ENGINEERS	
DESIGNERS	HYDROLOGISTS	SPECIFICATION WRITERS	178 TOTAL PERSONNEL
DRAFTSMEN			

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 2

*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

11. OUTSIDE KEY CONSULTANTS/ASSOCIATES ANTICIPATED TO BE USED. Attach "Consultant Confidential Qualification Questionnaire" for each if copy is not on with the Division.

NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO
NAME AND ADDRESS	SPECIALITY	WORKED WITH BEFORE <input type="checkbox"/> YES <input type="checkbox"/> NO

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

YES Description and Number of Projects: _____

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: _____

NO

C. Is your firm experienced in Hydrology and hydraulics?

YES Description and Number of Projects: _____

NO

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

YES Description and Number of Projects: See description of services on following pages.

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: _____

NO

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

YES Description and Number of Projects: _____

NO

COMPANY BACKGROUND

Founded in 1974, Photo Science is a Geospatial Services firm, specializing in aerial imaging and data collection, photogrammetric mapping, GIS, remote sensing, and surveying services.

Initially, the company consisted of one (1) aircraft, ten (10) employees, and offered aerial photography and photogrammetric mapping services, predominantly to local area engineers and the coalfields of eastern Kentucky and throughout West Virginia. Through decades of planning and disciplined growth, Photo Science currently owns and operates nine (9) aircraft, employs more than 170 professional and technical staff in seven (7) production facilities across the country, and provides full-service geospatial solutions to our diversified client base.

The firm is currently registered to conduct business in 22 states, including West Virginia since 1998. We are registered in West Virginia to offer and provide engineering services (C01583) and land surveying services (6-5358). In addition, our staff consists of West Virginia registered Professional Engineers and registered Professional Land Surveyors.

We currently have a strong group of professionals, including 15 Certified Photogrammetrists, 18 Professional Land Surveyors, 3 Professional Surveyor and Mappers, 2 Professional Engineers, and 2 Certified Planners with many years of experience in all facets of geospatial solutions.

We have invested millions of dollars in state-of-the-art equipment over the past decade to stay current with the ever changing geospatial industry. Our aircraft are equipped with conventional precision film cameras; large-format Z/I Imaging Digital Mapping Cameras (DMC) — *being only one of five firms in the country to own this high-end large-format digital imaging capability*; medium-format Applanix Digital Sensor System (DSS) 322, and Leica ALS-50 LIDAR sensors. These sensors are integrated with our flight management systems, airborne GPS, and Inertial Measurement Unit technology. Additionally, we maintain a diversified platform of photogrammetric workstations and production resources that enables efficient, multi-task-order operations.

Photo Science has the equipment, staffing, and experience to meet the needs of the West Virginia Office of Abandoned Mine Lands. We offer:

- ◆ aircraft, sensors, and processors that are the most innovative equipment in the photogrammetric arena today;
- ◆ mapping and GIS professionals totaling more than 180 with a total of over 1,300 years of combined work experience and an average of over 10 years of experience working together;
- ◆ 30+ years of experience providing the same services as requested to various municipal, county, state, and federal agencies.

LOCATION

The corporate headquarters of Photo Science is located in Lexington, Kentucky. Our principal offices are located at:

Address: 2670 Wilhite Drive
Lexington, Kentucky 40503

Phone: 859-277-8700
FAX: 859-277-8901
Web Page: www.photoscience.com

Our corporate headquarters' facilities currently occupy over 21,000 square feet with some of the most modern equipment used in photogrammetry. We now have seven (7) branch offices; located in Bangor, Maine; Colorado Springs, Colorado; Norcross, Georgia; Orlando and St. Petersburg, Florida; and Bowie, Maryland; and Exton, Pennsylvania.

CORE SERVICES

Aerial Imaging and Data Collection

- Aerial Photography
- Digital Aerial Imaging
- LIDAR Terrain Mapping

Photogrammetric Mapping

- Aerotriangulation
- Stereocompilation / Feature Extraction
- Digital Orthophotography
- Photographic Laboratory / Scanning

Geographic Information Systems

- Data Capture / Conversion
- Database Design
- Application Software Development

Training

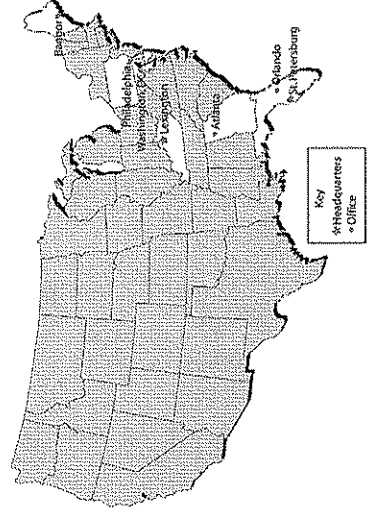
- 3-D Visualization

Remote Sensing

- Thematic Mapping
- Image Processing / Analysis
- Photointerpretation
- Change Detection

Surveys

- Airborne GPS / IMU
- GPS Surveys / Geodetic Control
- Conventional Surveys



PROJECT STAFFING

G. Michael Ritchie, PE, PLS, PSM, CP is Principal-In-Charge and President of Photo Science. He has over 30 years of transportation engineering, surveying, and computer mapping experience. He has been responsible for many presentations and papers regarding digital base mapping and information mapping for various communities. He is qualified in all areas of technical expertise required for this project. He is a licensed civil engineer in 15 states, a licensed land surveyor in 7 states, and he is a nationally recognized Certified Photogrammetrist. **He is currently licensed in West Virginia as a Professional Engineer (8679) and as a Professional Land Surveyor (1163).**

Other key staff members include:

1. Jack L. Mitchell, PLS, CP Project Manager
2. Marcus G. Penrod, CP Assistant Project Manager
3. Mark E. Meade, PE, PLS, CP Survey Manager
4. Clay D. Smith, PLS, CP Production Manager
5. William R. Mitchell, CP QA/QC Manager
6. Forrest E. Godby, PLS Flight Coordinator

EXPERIENCE

Photo Science has been completing aerial photography and mapping projects since it opened 30 years ago. Our staff has vast experience completing projects with similar requirements to yours. We currently have nine statewide open-end contracts with various Departments of Transportation utilizing the same type services as those requested by the West Virginia Department of Transportation. The table below highlights those contracts and illustrates relative services being provided.

EQUIPMENT

Airworthy Aircraft. Photo Science owns and operates nine FAA-certified aircraft to provide aerial photo missions. Each aircraft is capable of supporting virtually any type of traditional and digital aerial photogrammetric mission and is equipped with airborne Global Positioning Systems (GPS) receivers, Inertial Measurement Units (IMU), Forward-Motion Compensation (FMC), and gyro-stabilized camera mounts.

Traditional and Digital Aerial Photography Acquisition. In support of traditional aerial photo missions, Photo Science offers four USGS tested and calibrated analog photogrammetric cameras. Additionally, Photo Science's state-of-the-art Z/I DMC provides for the direct capture of high-resolution, large-format, multispectral (R,G,B, NIR) aerial imagery. The DMC is the industry's most innovative and precise turnkey digital camera system supporting aerial photogrammetric missions for the broadest range of GIS and remote sensing applications. Photo Science is only one of five firms in the country to own this high-end, large-format digital imaging capability.

	SERVICES										
	Aerial Photography	Mapping & DTMs	Ground Control	Digitized U.S.G.S Quad Maps and DTM	Raster Images	Quality Control	LIDAR	Digital Mapping	Camera		
Relative Statewide Contracts	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
West Virginia DOT (2 contracts)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Florida DOT Turnpike Commission</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Georgia DOT</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Kentucky Transportation Cabinet</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Maine DOT</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Maryland DOT</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>South Carolina DOT</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<i>Tennessee DOT</i>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

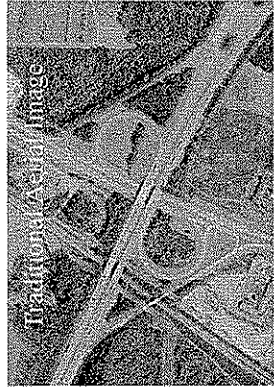
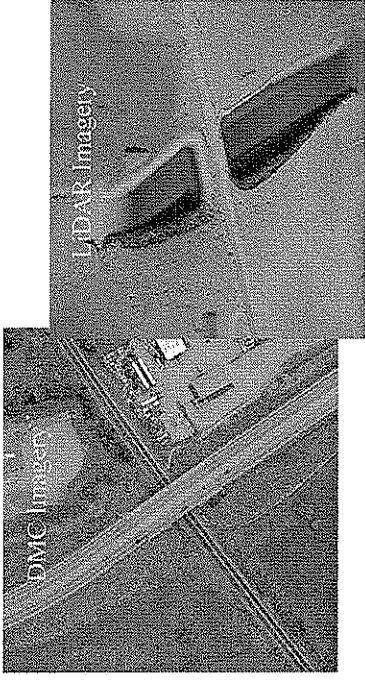


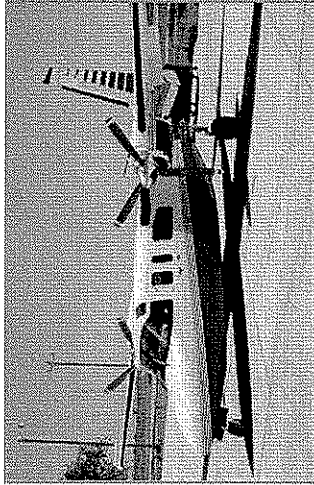
Photo Science's most recent acquisition is the latest in aerial imaging – the Applanix DSS 322. The DSS 322 system is technology engineered to maximize the system's capability in generating high-quality color and color infrared (CIR) digital geospatial imaging products. The DSS is a ready-to-use, directly georeferenced, medium-format, airborne digital camera system.

LIDAR Data Acquisition. Photo Science is an industry leader in the collection and processing of airborne Light Detection and Ranging (LIDAR) information. LIDAR is an active remote sensing system that uses airborne laser scanning technology to emit pulses of light to illuminate the terrain. Photo Science utilizes the latest in LiDAR technology, employing the Leica Geosystems ALS50 II sensor. In addition to acquisition, Photo Science utilizes a variety of technologies to process the acquired, raw LIDAR information—converting ASCII point samplings to finished digital elevation models, surface terrain models, and digital contour products.



Aircraft

1.	2.	3.	4.	5.	6.	7.	8.	9.
840 Turbine Commander	690B Turbine Commander	PA-31 Navajo	Cessna T-310R	Cessna T-210N	Cessna T-210N	Cessna U-206G	Cessna U-206G	Cessna U-206H
N910FC	N167R	N101UF	N2737U	N6479Y	N5425A	N7320G	N9471R	N2448G
Gulfstream	Rockwell International	Piper	Cessna	Cessna	Cessna	Cessna	Cessna	Cessna
Twin	Twin	Twin	Twin	Single	Single	Single	Single	Single
Turbine	Turbine	Yes	Yes	Yes	Yes	No	No	No
300	270	180	185	160	160	130	130	140
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
34,500	31,000	26,300	27,400	28,500	28,500	16,700	16,700	15,700



Cameras

Serial Number	Aerial Cameras			Digital Cameras			
	1. Zeiss RMK-TOP 15	2. Zeiss RMK-TOP 15	3. Zeiss LMK-2000	4. Zeiss LMK-1000D	6. Z/I Imaging DMC	7. Z/I Imaging DMC	8. Applanix DSS 322
144117	No	Yes	Yes	269155D	13	33	78
Forward-Motion Compensation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gyro-Stabilized Mount	Yes	Yes	Yes	Yes	Yes	Yes	Azimuth Mount
Dual Magazine	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Calibration Date	08/28/07	09/30/06	06/21/06	01/03/07	10/04	06/06	01/06
AWAR	107	100	97	97	N/A	N/A	N/A
Format	Large	Large	Large	Large	Large	Large	Medium

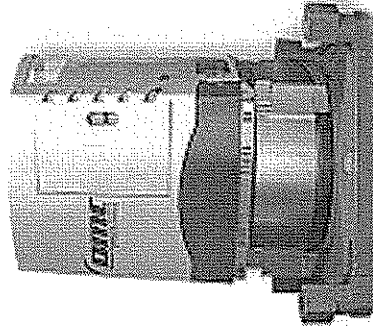


Photo Lab. Photo Science maintains two full-service photographic laboratories for film processing, precision photographic reproductions, enlargements, and color proofing. We own two state-of-the-art Vexcel 4000 high-resolution image scanners, as well as a Z/I PhotoScan 2000 roll-feed, high-resolution image scanner. These scanners represent two of the top scanners in the photogrammetric marketplace today. They are capable of bearing multiple resolutions up to 7.5 microns including 14 microns as specified. Additionally, these scanners can operate as roll-feed or with single or dual film diapositives. In addition, by staffing the lab 24 hours per day during the peak flying seasons (spring and fall), Photo Science is able to maintain direct control of project schedules.

Field Control Surveys. Photo Science performs aerial photography and photogrammetric services over the eastern United States and as such, has completed survey requirements of all types in a variety of locations. We have worked with hundreds of consulting engineers who perform their own control surveys. We have 20 Trimble GPS receivers available immediately for this project including RTK capability. We have complete software including the GeoSurv software for better vertical adjustments and Trimble GP Survey.

Aerotriangulation. Photo Science has complete in-house facilities for analytical triangulation control extension. Our team has performed in-house aerotriangulation to support photogrammetric compilation and orthophoto production for many years. Intergraph ISAT aerotriangulation software is the software package most often utilized by our staff to determine the position and rotation angles of each of the acquired aerial photos and to establish their relationship to the ground.

Stereo Compilation (Digital Data Capture). Photo Science has 34 stereo plotters with experienced staff and computers to assign to this project. We utilize KORK and Atlas mapping software to insure exact project specifications and formatting of data. Our stereo compilation experts are highly experienced providing both large scale (1"=20') and small scale (1"=2,000') planimetric and terrain feature extraction in support of topographic mapping. The scope of our project experience ranges from small, engineering level survey and mapping projects to comprehensive and extensive statewide mapping initiatives. We have performed hundreds of DTM corridor-type projects including CEAL translations for the West Virginia Department of Transportation as well as for a wide variety of consultants.

Interactive Graphics - Photo Science utilizes the latest equipment for data processing and formatting to clients' needs. We utilize software capable of delivery in the several formats. Final ink-on-mylar drawings are produced on Hewlett Packard inkjet drum plotters. Services are available for laser or electrostatic plots.

Digital Terrain Modeling. DTM experience is an everyday occurrence at Photo Science; all of our projects are compiled using DTM techniques. Photo Science uses a combination of breaklines and mass points for a true and accurate Triangulation Irregular Network (TIN) file for contour generation. Photo Science uses the Plus III Terramodel software for contour generation at every stereoplotter for instant on-line quality control checks. In addition, our raw data is easily loaded into our Intergraph "select" system for processing in the "In Roads," "Road Works", or "Engineering Site Package" and "In-Roads Select" as well. We routinely provide this data to clients who use ArcInfo, AutoCAD, Intergraph, and other modeling software systems. We also produce TTN files on our Intergraph Imagestations and have produced this data in ArcInfo, ASCII, CEAL, GeoPak, and Cauce formats.

Metric Data. Photo Science has completed several hundred projects requiring data in metric units. All of our equipment can readily fulfill this requirement.

Airborne GPS. Photo Science is a leader in airborne GPS services, using our considerable knowledge and experience to make effective use of this new technology. All of our aircraft are equipped for airborne GPS (ABGPS) and Inertial Measurement Unit (IMU) missions and have undergone rigorous testing to ensure accurate determination of the three-dimensional position of each photographic exposure.

TIME SCHEDULE

Photo Science is committed to assign adequate resources to complete the West Virginia Department of Transportation projects in a timely manner. We would recommend progressive delivery of specific priority projects so as to allow you and your consultants to meet design schedules.

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
Adkins, Lonnal
 Photogrammetrist | Photo Lab Manager

YEARS OF EXPERIENCE

AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
0	0	>30

EDUCATION (Degree, Year, Specialization)
Engineering Studies, 1.5 Years

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
ASPRS

REGISTRATION (Type, Year, State)
Certified Photogrammetrist: 1985 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
Brock, Allen
 Photogrammetrist | Project Manager

YEARS OF EXPERIENCE

AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
0	0	23

EDUCATION (Degree, Year, Specialization)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
ASPRS

REGISTRATION (Type, Year, State)
Photogrammetric Surveyor: 2005 SC
Certified Photogrammetrist: 1996 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
Florence, Gary
 Photogrammetrist | Project Manager

YEARS OF EXPERIENCE

AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
0	0	27

EDUCATION (Degree, Year, Specialization)
MS 1980 Remote Sensing / Vegetation Survey; BS 1975 Geography

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
N/A

REGISTRATION (Type, Year, State)
Photogrammetric Surveyor: 2005 SC
Certified Photogrammetrist: 2005 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial) Hickey, Robert Vice President Photogrammetrist	YEARS OF EXPERIENCE		
	AS PRINCIPAL IN THIS FIRM 1	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL 19

EDUCATION (Degree, Year, Specialization)
MS 2001 Business Administration; BS 1983 MIS

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS	REGISTRATION (Type, Year, State) Certified Photogrammetrist: 1997 National
---	---

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial) Logan, Douglas Photogrammetrist Digital Orthophoto Specialist	YEARS OF EXPERIENCE		
	AS PRINCIPAL IN THIS FIRM 0	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL 25

EDUCATION (Degree, Year, Specialization)
AS 1982 Electronic Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ACSM, ASPRS	REGISTRATION (Type, Year, State) Professional Land Surveyor: 1999 NC Photogrammetric Surveyor: 2005 SC Certified Photogrammetrist: 1997 National
---	---

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial) Meade, Mark Vice President Photogrammetrist	YEARS OF EXPERIENCE		
	AS PRINCIPAL IN THIS FIRM 10	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL 14

EDUCATION (Degree, Year, Specialization)
MS 1987 Business Administration; BS 1983 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ACEC, ASPRS, Kentucky Engineering Foundation	REGISTRATION (Type, Year, State) Professional Engineer: 1987 KY; 1988 WV Professional Land Surveyor: 1989 KY; 1995 WV; 1997 GA Photogrammetric Surveyor: 2005 SC Certified Photogrammetrist: 1997 National
--	--

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
 Mitchell, Jack
 Project Manager | Project Manager
 AS PRINCIPAL IN THIS FIRM 0 AS PRINCIPAL IN OTHER FIRMS 0 OTHER THAN PRINCIPAL >30

EDUCATION (Degree, Year, Specialization)
 N/A

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 ASPRS
 REGISTRATION (Type, Year, State)
 Professional Land Surveyor: 1999 NC
 Photogrammetric Surveyor: 2005 SC
 Certified Photogrammetrist: 1991 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
 Mitchell, William
 Project Manager | Sr Project Manager
 AS PRINCIPAL IN THIS FIRM 0 AS PRINCIPAL IN OTHER FIRMS 0 OTHER THAN PRINCIPAL >30

EDUCATION (Degree, Year, Specialization)
 1972 Principles of Photogrammetry; 1967 Advanced Photogrammetry; 1958 - 1960 Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 ASPRS
 REGISTRATION (Type, Year, State)
 Certified Photogrammetrist: 1992 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)

NAME (Last, First, Middle Initial)
 Penrod, Marcus
 Project Manager | Project Manager
 AS PRINCIPAL IN THIS FIRM 0 AS PRINCIPAL IN OTHER FIRMS 0 OTHER THAN PRINCIPAL >30

EDUCATION (Degree, Year, Specialization)
 N/A

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
 ASPRS
 REGISTRATION (Type, Year, State)
 Certified Photogrammetrist: 1998 National

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial)	AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
	0	0	28
YEARS OF EXPERIENCE			
Ricks, Keith Photogrammetrist Digital Orthophoto Specialist			
EDUCATION (Degree, Year, Specialization) N/A			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS			
		REGISTRATION (Type, Year, State) Professional Land Surveyor: 1999 NC Certified Photogrammetrist: 1997 National	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial)	AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
	17	13	8
YEARS OF EXPERIENCE			
Ritchie, G. Michael President Principal-In-Charge Photogrammetrist			
EDUCATION (Degree, Year, Specialization) BS 1972 Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ACEC, ACSSM, ASCE, ASPRS, GITA, KSPE, MAPPS, NSPE, PEPP, SAME, TAPS			
		REGISTRATION (Type, Year, State) Professional Engineer: 1979 AL; 2000 CO; 1998 FL; 1999 GA; 2000 IL; 1974 KY; 1979 LA; 1979 MS; 1980 MO; 1978 NC; 2000 OH; 2000 PA; 1998 SC; 1979 TN; 1971 WV Professional Land Surveyor: 1981 AL; 1974 KY; 1979 MS; 1979 NC; 1995 WV; 2001 FL-PSM Certified Photogrammetrist: 1997 National	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial)	AS PRINCIPAL IN THIS FIRM	AS PRINCIPAL IN OTHER FIRMS	OTHER THAN PRINCIPAL
	0	0	20
YEARS OF EXPERIENCE			
Shillenn, Michael Photogrammetrist Project Manager			
EDUCATION (Degree, Year, Specialization) BS 1987 Geography			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS			
		REGISTRATION (Type, Year, State) Certified Photogrammetrist: 1997 National	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial) Smith, Clay		YEARS OF EXPERIENCE	
AS PRINCIPAL IN THIS FIRM 0	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL 29	
EDUCATION (Degree, Year, Specialization) AS 1986 Photogrammetry			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS REGISTRATION (Type, Year, State) Professional Land Surveyor: 1999 NC Photogrammetric Surveyor: 2005 SC Certified Photogrammetrist: 1994 National			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial) Smothers, Jerry		YEARS OF EXPERIENCE	
AS PRINCIPAL IN THIS FIRM 0	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL >30	
EDUCATION (Degree, Year, Specialization) 1989 Pre-Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS REGISTRATION (Type, Year, State) Certified Photogrammetrist: 1991 National			
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME (Last, First, Middle Initial) Veit, Jacob		YEARS OF EXPERIENCE	
AS PRINCIPAL IN THIS FIRM 0	AS PRINCIPAL IN OTHER FIRMS 0	OTHER THAN PRINCIPAL >30	
EDUCATION (Degree, Year, Specialization) N/A			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASPRS REGISTRATION (Type, Year, State) Certified Photogrammetrist: 1984 National			

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

SEE ENCLOSED EQUIPMENT LIST.

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

PROJECT NAME, TYPE AND LOCATION & NATURE OF RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED FEES (as of 11/30/07)	PERCENT COMPLETE
<ul style="list-style-type: none"> ➤ Aerial Photography for Photogrammetric Mapping ➤ Mapping Services & Related Svcs Statewide - West Virginia 	West Virginia Department of Transportation 1900 Kanawha Boulevard, East Charleston, WV 25305	\$246,811.00	On-Going
Aerial Photography & Related Svcs Statewide - Florida	Florida Department of Transportation 605 Suwannee Street Tallahassee, FL 32399	\$374,712.00	On-Going
Photogrammetric Mapping Statewide - Florida	Florida Turnpike Enterprise PO Box 9828 Ft. Lauderdale, FL 33310	\$159,033.00	On-Going
Aerial Photography & Related Svcs Various Counties	Florida Department of Revenue 725 South Calhoun Street Tallahassee, FL 32399	\$153,359.00	On-Going
Aerial & Photogrammetric Svcs Statewide - Kentucky	Kentucky Transportation Cabinet 501 High Street, Room 908 Frankfort, KY 40622	\$856,718.00	On-Going
Aerial Photography & Related Svcs Statewide - Maine	Maine Department of Transportation 16 State House Station Augusta, ME 04333	\$47,406.00	On-Going
Photogrammetric Services Statewide - South Carolina	South Carolina Department of Transportation 955 Park Street, Room 425 Columbia, SC 29216	\$19,800.00	On-Going
Aerial Photogrammetry, Reconnaissance, Mapping, & Related Services Statewide - Tennessee	Tennessee Department of Transportation 521 Olen Tayler Drive Nashville, TN 37217	\$40,202.00	On-Going
Photogrammetric Mapping And Aerial Photography Huntington District Boundaries	USACE Huntington District 502 Eighth Street Huntington, WV 25701	\$30,727.00	On-Going
Photogrammetric Mapping And Aerial Photography Nashville District Boundaries	USACE Nashville District 801 Broadway Nashville, TN 37202	\$150,000.00	On-Going
Photogrammetric Mapping And Aerial Photography Pittsburgh District Boundaries	USACE Pittsburgh District 1000 Liberty Avenue Pittsburgh, PA 15222	\$313,867.00	On-Going

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

PROJECT NAME, TYPE AND LOCATION & NATURE OF RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED FEES (as of 11/30/07)	PERCENT COMPLETE
NAIP & PSU Services Various Locations	USDA Farm Service Agency 2222 W. 2300 Street Salt Lake City, UT 84119	\$1,619,421.00	On-Going
GIS Services Various Locations	USDA Forest Service 2222 W. 2300 Street Salt Lake City, UT 84119	\$494,303.00	On-Going
Photogrammetric & Mapping Sciences Various Locations	USGS 1400 Independence Road Rolla, MO 65401	\$821,581.00	On-Going
Aerial Photography & Related Svcs Charleston, West Virginia	Charleston Sanitary Board 208 26th Street Charleston, WV 25324	\$219,790.00	On-Going
Aerial Photography & Related Svcs Cherokee County, Georgia	Cherokee County Government 90 North Street Canton, GA 30114	\$43,950.00	On-Going
Aerial Photography & Related Svcs Coweta County, Georgia	Coweta County Board of Commissioners 22 East Broad Street Newnan, GA 30263	\$249,500.00	On-Going
Aerial Photography & Related Svcs Henry County, Georgia	Henry County Board of Commissioners 140 Henry Parkway McDonough, GA 30523	\$245,000.00	On-Going
Miscellaneous Surveying & Mapping Hillsborough County, Florida	Hillsborough County Board of Commissioners P. O. Box 1110 Tampa, FL 33601	\$68,195.00	On-Going
Digital Orthophotography Newton County, Georgia	Newton County Board of Commissioners 113 Usher Street Covington, GA 30014	\$103,300.00	On-Going
Aerial Photography & Related Svcs Campbell & Kenton Counties, Kentucky	Northern KY Area Planning Commission 2332 Royal Drive Ft. Mitchell, KY 41017	\$103,090.00	On-Going
Aerial Photography & Related Svcs Various Locations	R.J. Corman Railroad Group, LLC P.O. Box 788 Nicholasville, KY 40340	\$171,260.00	On-Going

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD			
PROJECT NAME, TYPE AND LOCATION & NATURE OF RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED FEES (as of 11/30/07)	PERCENT COMPLETE
Aerial Seagrass Mapping Tarpon Springs south to Boca Grande, Florida	Southwest Florida Water Management District 2379 Broad Street Brooksville, FL 34604	\$132,855.00	On-Going
Aerial Photography & Related Svcs Various Locations	Colonial Pipeline Company 945 East Paces Ferry Rd Atlanta, GA 30326	\$134,023.00	On-Going
Aerial Photography & Related Svcs Various Locations	Columbia Gas Transmission Corporation 1700 MacCorkle Avenue Charleston, WV 25314	\$491,395.00	On-Going
GIS Program Various Locations	Dalton Utilities 1200 VD Parrott Jr Pkwy Dalton, GA 30722	\$8,990.00	On-Going
Aerial Photography & Related Svcs Various Locations	Duke Energy 5400 Westheimer Court Houston, TX 77056	\$219,338.00	On-Going
Aerial Photography & Related Svcs Kentucky	East Kentucky Power Cooperative 4775 Lexington Road Winchester, KY 40391	\$19,445.00	On-Going
Aerial Photography & Related Svcs Various Locations	El Paso Energy 1001 Louisiana Street Houston, TX 77002	\$962,320.00	On-Going
Aerial Photography & Related Svcs Thomas Ranch Mapping	Fourth Quarter Properties 211 N. Main Street, Suite 201 Alpharetta, GA 30004	\$224,800.00	On-Going
Aerial Photography & Related Svcs Various Locations	Georgia Power Company 241 Ralph McGill Boulevard NE Atlanta, GA 30308	\$279,200.00	On-Going
GIS Program Various Locations	Georgia Transmission Corporation 2100 East Exchange Place Tucker, GA 30084	\$5,361,140.00	On-Going
Aerial Photography & Related Svcs Lexington, Kentucky	Kentucky Utilities One Quality Street Lexington, KY 40507	\$55,508.00	On-Going

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

PROJECT NAME, TYPE AND LOCATION & NATURE OF RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED FEES (as of 11/30/07)	PERCENT COMPLETE
Aerial Photography & Related Svcs Various Locations	Southern Union Panhandle 5444 Westheimer Road Houston, TX 77056	\$160,945.00	On-Going
Aerial Photography & Related Svcs Various Locations	Texas Gas Transmission, LLC 3800 Frederica Street Owensboro, KY 42301	\$321,529.00	On-Going
TOTAL NUMBER PROJECTS: 38		TOTAL ESTIMATED FEES: \$17,164,542.00	

NOTE: These are various projects Photo Science is currently working on; we perform services for hundreds of projects at a given time.

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: American Engineers, PLC	Unknown	Unknown	\$14,575.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Arcadis Geraghty & Miller	Unknown	Unknown	\$100,541.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Carter & Burgess	Unknown	Unknown	\$51,793.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Carter & Sloope Consulting Engineers	Unknown	Unknown	\$37,455.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Hatch Mott MacDonald	Unknown	Unknown	\$64,635.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: HNTB Corporation	Unknown	Unknown	\$25,290.00
Various Projects & Locations	Aerial Photography and Related Services	Various, Sub to: Infotech Enterprises America	Unknown	Unknown	\$76,252.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Kisinger Campo & Associates	Unknown	Unknown	\$70,962.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: SAM, Inc.	Unknown	Unknown	\$89,037.00
Various Projects & Locations	Aerial Photography & Related Svcs	Various, Sub to: Thomas & Hutton Engineering	Unknown	Unknown	\$60,780.00
TOTAL NUMBER PROJECTS: 10				TOTAL ESTIMATED FEES: \$591,320.00	

NOTE: These are various projects Photo Science is currently working on; we perform services for hundreds of projects at a given time.

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 FEE	YEAR	CONSTRUCTED (YES OR NO)
➤ Aerial Photography for Photogrammetric Mapping	West Virginia Department of Transportation	\$432,292.00	2006	Unknown
➤ Mapping Services & Related Svcs Statewide - West Virginia Statewide Since 1992	1900 Kanawha Boulevard, East Charleston, WV 25305	\$229,473.00 \$305,000.00 \$184,000.00 \$676,000.00	2005 2004 2003 2002	
Photogrammetric Mapping Statewide - Florida	Florida DOT 605 Suwannee Street, MS 20 Tallahassee, FL 32399-6544	\$106,925.00 \$42,718.00	2006 2005	Unknown
Aerial & Photogrammetric Services Statewide - Kentucky Since 1981	Kentucky Transportation Cabinet 501 High Street, Room 908 Frankfort, KY 40622	\$484,846.00 \$135,445.00 \$101,000.00 \$681,000.00 \$1,921,000.00	2006 2005 2004 2003 2002	Unknown
Survey & Mapping Services Statewide - Maine Since 2000	Maine DOT 16 State House Station Augusta, ME 04333	\$96,899.00 \$57,150.00 \$13,000.00 \$3,000.00	2006 2005 2003 2002	Unknown
Photogrammetric Services Statewide - South Carolina Since 2002	South Carolina DOT 955 Park Street, Room 425 Columbia, SC 29216	\$192,364.00 \$77,550.00 \$243,000.00 \$150,000.00	2006 2005 2004 2003	Unknown
Aerial Photogrammetry, Reconnaissance, Mapping, & Related Services Statewide - Tennessee Since 1996	Tennessee DOT 521 Olen Taylor Drive Nashville, TN 37217	\$60,003.00 \$163,625.00 \$44,000.00 \$25,000.00 \$64,000.00	2006 2005 2004 2003 2002	Unknown
Aerial Photography & Related Svcs Baldwin County, Alabama	Baldwin County Government 175 Courthouse Square Bay Minette, AL 36507	\$71,213.00 \$112,828.44	2006 2005	Unknown
Photogrammetric Base Mapping Bartow County, Georgia	Bartow County Government 135 West Cherokee Avenue Cartersville, GA 30120	\$97,750.00 \$392,250.00	2006 2005	Unknown
Aerial Photography & Related Svcs Charleston, West Virginia	Charleston Sanitary Board 208 26th Street Charleston, WV 25324	\$109,479.00	2006	Unknown
Aerial Photography & Related Svcs Reading, Pennsylvania	City of Reading, PA 815 Washington Street Reading, PA 19601	\$128,321.00 \$157,939.00	2006 2005	Unknown

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 FEE	YEAR	CONSTRUCTED (YES OR NO)
Aerial Photography & Related Svcs Various Locations	Colonial Pipeline Company 945 East Paces Ferry Rd Atlanta, GA 30326	\$719,032.00 \$872,562.00 \$250,000.00 \$76,000.00	2006 2005 2004 2002	Unknown
Aerial Photography & Related Svcs Various Locations	Columbia Gas Transmission Corporation 1700 MacCorkle Avenue Charleston, WV 25314	\$1,295,577.00 \$414,799.00 \$487,000.00 \$373,000.00 \$481,000.00	2006 2005 2004 2003 2002	Unknown
Aerial Photography & Related Svcs Various Locations	Dalton Utilities 1200 VD Parrott Jr Pkwy Dalton, GA 30722	\$30,000.00 \$283,704.00 \$147,000.00 \$118,000.00 \$152,000.00	2006 2005 2004 2003 2002	Unknown
Aerial Photography & Related Svcs Various Locations	Duke Energy 5400 Westheimer Court Houston, TX 77056	\$309,222.00 \$30,130.00 \$334,000.00 \$468,000.00 \$861,000.00	2006 2005 2004 2003 2002	Unknown
Aerial Photography & Related Svcs Kentucky	East Kentucky Power Cooperative 4775 Lexington Road Winchester, KY 40391	\$205,365.00 \$344,894.00	2006 2005	Unknown
Aerial Photography & Related Svcs Various Locations	El Paso Energy 1001 Louisiana Street Houston, TX 77002	\$839,640.00 \$1,046,359.00 \$249,000.00 \$640,000.00 \$917,000.00	2006 2005 2004 2003 2002	Unknown
Aerial Photography & Related Svcs Various Locations	Georgia Transmission Corporation 2100 East Exchange Place Tucker, Georgia 30084	\$3,890,620.00 \$2,976,417.00 \$4,597,000.00 \$3,212,000.00 \$4,881,000.00	2006 2005 2004 2003 2002	Unknown
Miscellaneous Surveying & Mapping Hillsborough County, Florida	Hillsborough County Board of Commissioners P. O. Box 1110 Tampa, FL 33601	\$76,605.00 \$223,496.00 \$261,000.00 \$204,000.00	2006 2005 2004 2003	Unknown

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 FEE	YEAR	CONSTRUCTED (YES OR NO)
Aerial Photography & Related Svcs Lexington, Kentucky	Kentucky Utilities One Quality Street Lexington, KY 40507	\$337,814.00 \$562,852.00	2006 2005	Unknown
Digital Orthophotography Newton County, Georgia	Newton County Board of Commissioners 113 Usher Street Covington, GA 30014	\$167,330.00 \$62,000.00 \$89,000.00 \$566,000.00	2006 2005 2004 2003	Unknown
Science & Technology Contract Miami-Dade and Broward County, Florida	South Florida Water Management District 3301 Gun Club Road West Palm Beach, FL 33406	\$294,976.00 \$317,911.00	2006 2005	Unknown
Aerial Photography & Related Svcs Various Sites	Southern Star Central Gas Pipeline, Inc. 3800 Frederica Street Owensboro, KY 42301	\$233,009.00 \$220,745.00 \$184,000.00 \$232,000.00	2006 2005 2004 2003	Unknown
Aerial Photography & Related Svcs Various Sites	Texas Gas Transmission LLC 3800 Frederica Street Owensboro, KY 42302	\$315,440.00 \$213,694.00 \$148,000.00	2006 2005 2003	Unknown
IDC Contract for Photogrammetric Mapping And Aerial Photography St. Louis District Boundaries	USACE St. Louis District 1222 Spruce Street St. Louis, MO 63103-2833	\$302,941.00 \$290,000.00	2006 2005	Unknown
NAIP and PSU Services Various Sites	USDA Farm Service Agency 2222 W. 2300 Street Salt Lake City, UT 84119	\$1,490,605.00 \$1,017,663.00 \$917,000.00 \$470,000.00	2006 2005 2004 2003	Unknown
GIS Services Various Sites	USDA Forest Service 2222 W. 2300 Street Salt Lake City, UT 84119	\$588,894.00 \$958,381.00 \$3,462,000.00	2006 2005 2004	Unknown
Photogrammetric & Mapping Sciences Svcs Various Sites	USGS 1400 Independence Road Rolla, MO 65401	\$1,635,019.00 \$1,412,078.00	2006 2005	Unknown
Aerial Photography & Related Svcs Georgia and Florida Sites	Florida Rock Industries 700 Palmetto Street Jacksonville, FL 32202	\$195,443.00 \$127,000.00 \$157,000.00	2005 2004 2003	Unknown

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 FEE	YEAR	CONSTRUCTED (YES OR NO)
Aerial Photography & Related Svcs Georgetown, Kentucky	Georgetown / Scott County Planning Commission 101 E. Main Street Georgetown, KY 40324	\$220,708.00	2005	Unknown
Mapping Program Orange County, Florida	Orange County Government 4200 South John Young Parkway Orlando, FL 32839	\$376,667.00	2005	Unknown
Aerial Photography & Related Svcs Roanoke County, Virginia	Roanoke County Government P.O. Box 29800 Roanoke, VA 24018-0798	\$290,142.00 \$364,510.00	2005 2004	Unknown
Aerial Photography & Related Svcs Various Locations	Tennessee Valley Authority 1101 Market Street Chattanooga, TN 37402	\$9,944.00 \$111,000.00	2005 2003	Unknown
IDC Contract for Photogrammetry and Related Services Huntington District Boundaries	USACE Huntington District 502 Eighth Street Huntington, WV 25701	\$479,055.00 \$577,000.00 \$176,000.00 \$81,000.00	2005 2004 2003 2002	Unknown
IDC for Surveying and Mapping Louisville District Boundaries	USACE Louisville District 600 M.L. King, Jr., Pl., Room 821 Louisville, KY 40202-2230	\$2,064.00 \$243,000.00 \$454,000.00 \$777,000.00	2005 2004 2003 2002	Unknown
Developing & Populating a Graphical Interactive Database, Survey Engineering, Mapping, & Related Svcs Memphis District Boundaries	USACE Memphis District 167 N. Main Street, B202 Memphis, TN 38103-1894	\$122,791.00	2005	Unknown
Aerial Photography & Related Svcs City of Paducah and McCracken County, Kentucky	City of Paducah, Kentucky 300 South Fifth Street Paducah, KY 42002	\$29,000.00 \$482,000.00	2004 2003	Unknown
Digital Orthophotography Henry County, Georgia	Henry County Purchasing Department 140 Henry Parkway McDonough, GA 30253	\$18,000.00 \$206,000.00	2004 2003	Unknown
Surveying and Mapping Services Wilmington District Boundaries	USACE Wilmington District 69 Darlington Avenue Wilmington, NC 28403	\$15,000.00 \$180,000.00 \$296,000.00	2004 2003 2002	Unknown
Aerial Photography & Related Svcs Various Locations	Williams Natural Gas Company One Williams Center Tulsa, OK 74101	\$364,000.00	2002	Unknown

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 FEE	YEAR	CONSTRUCTED (YES OR NO)
Aerial Photography & Related Svcs Elizabethtown, Kentucky	City of Elizabethtown, Kentucky 200 West Dixie Avenue Elizabethtown, KY 42701	\$86,000.00 \$61,000.00 \$20,000.00 \$1,000.00 \$18,000.00	2003 2002 2001 1998 1997	Unknown
Aerial Photography & Related Svcs Jasper, Indiana and Surrounding Area	City of Jasper, Indiana 610 Main Street Jasper, IN 47547	\$30,000.00 \$7,000.00	2003 2002	Unknown

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$10,526.00	2006	Unknown	Aero-Metric
		10,610.00	2004		
		12,920.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$12,885.00	2006	Unknown	Alpha Associates, Inc.
		\$14,019.00	2005		
		\$7,540.00	2004		
		\$1,200.00	2003		
		\$19,735.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$10,244.00	2006	Unknown	American Consulting Engineers
		\$152,431.00	2004		
		\$1,572.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$9,852.00	2006	Unknown	American Engineers
		\$21,620.00	2005		
		\$8,635.00	2004		
		\$30,235.00	2003		
		\$5,823.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$276,134.00	2006	Unknown	Arcadis Geraghty & Miller
		\$387,787.00	2005		
		\$145,531.00	2004		
		\$141,104.00	2003		
		\$156,767.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$1,003,105.00	2006	Unknown	Autometric
		\$494,813.00	2005		
		\$2,187,183.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$2,066,545.00	2006	Unknown	BAE Systems ADR
		\$739,320.00	2005		
		\$304,826.00	2004		
		\$349,550.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$5,605.00	2006	Unknown	Burgess & Niple
		\$99,613.00	2003		
		\$14,493.00	2002		

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$27,870.00	2006	Unknown	Carter & Sloope Consulting Eng
		\$20,500.00	2005		
		\$188,700.00	2004		
		\$50,450.00	2003		
		\$49,650.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$20,955.00	2006	Unknown	CDP Engineers, Inc.
		\$59,641.00	2005		
		\$32,740.00	2004		
		\$7,222.00	2003		
		\$395.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$21,069.00	2006	Unknown	CH2M Hill
		\$7,250.00	2005		
		\$3,700.00	2004		
		\$7,478.00	2003		
		\$10,600.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$16,012.00	2006	Unknown	Day Wilburn Associates
		\$4,100.00	2005		
		\$60,083.00	2004		
		\$25,938.00	2003		
			2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$30,973.00	2006	Unknown	Dunn Engineers
		\$9,797.00	2005		
		\$77,495.00	2004		
		\$41,021.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$22,900.00	2006	Unknown	E. L. Robinson Engineering
		\$21,307.00	2005		
		\$19,343.00	2004		
		\$16,368.00	2003		
		\$40,372.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$17,610.00	2006	Unknown	Eagle Engineers
		\$8,400.00	2005		
		\$5,220.00	2004		
		\$8,205.00	2003		
		\$11,285.00	2002		

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$18,991.00	2006	Unknown	Fuller Mossbarger Scott & May Eng
		\$2,720.00	2005		
		\$1,970.00	2004		
		\$2,125.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$74,581.00	2006	Unknown	Gresham Smith & Partners
		\$7,000.00	2005		
		\$18,000.00	2004		
		\$5,450.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$120,492.00	2002	Unknown	H.W. Lochner Engineers
		\$14,529.00	2006		
		\$130,758.00	2005		
		\$14,779.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$118,596.00	2000	Unknown	Hatch Mott MacDonald
		\$77,086.00	1997		
		\$85,500.00	2006		
		\$20,100.00	2005		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$182,573.00	2004	Unknown	HDR Engineering
		\$49,860.00	2003		
		\$19,822.00	2006		
		\$1,187.00	2005		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$19,951.00	2003	Unknown	Highland Engineering
		\$45,300.00	2006		
		\$13,200.00	2005		
		\$700.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$13,250.00	2003	Unknown	HMB, Inc.
		\$20,050.00	2002		
		\$13,588.00	2006		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$213,105.00	2006	Unknown	HNTB Corporation
		\$28,333.00	2005		
		\$41,298.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$12,254.00	2006	Unknown	J.B. Trimble & Associates
		\$89,260.00	2005		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$121,083.00	2006	Unknown	Jordan Jones & Goulding
		\$180,246.21	2005		
		\$344,069.00	2004		
		\$17,400.00	2002		

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$12,555.00	2006	Unknown	KBM, Inc.
		\$7,040.00	2005		
		\$8,160.00	2004		
		\$50,352.00	2003		
		\$42,300.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$255,782.00	2006	Unknown	Keck & Wood, Inc.
		\$62,800.00	2005		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$54,865.00	2006	Unknown	Kenviron, Inc.
		\$52,161.00	2005		
		\$41,972.00	2004		
		\$49,261.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$68,482.00	2002	Unknown	Leo Miller & Associates
		\$2,825.00	2006		
		\$15,879.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$6,687.00	2002	Unknown	Lowe Engineers
		\$13,777.00	2006		
		\$28,209.00	2005		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$74,471.00	2004	Unknown	McGee Partners
		\$58,074.00	2002		
		\$3,681.00	2006		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$159,254.00	2004	Unknown	Michael Baker Jr., Inc.
		\$24,600.00	2006		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$262,307.00	2005	Unknown	Monarch Engineering
		\$96,082.00	2002		
		\$24,499.00	2006		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$9,972.00	2005	Unknown	Morgan Worldwide Mining Consul
		\$10,248.00	2004		
		\$18,773.00	2003		
		\$11,125.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$76,541.00	2006	Unknown	Qk4
		\$15,719.00	2005		
		\$23,998.00	2004		
		\$13,908.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$30,303.00	2002	Unknown	
		\$33,739.00	2006		
		\$216,174.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$34,177.00	2003	Unknown	
		\$72,581.00	2002		

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$38,918.00	2006	Unknown	Quest Engineers
		\$65,938.00	2005		
		\$19,683.00	2004		
		\$28,932.00	2003		
		\$22,585.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$34,617.00	2006	Unknown	Rettew Associates, Inc.
		\$27,536.00	2005		
		\$5,571.00	2004		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$3,640.00	2006	Unknown	Sherman Carter Barnhart Architects
		\$7,815.00	2005		
		\$45,565.00	2004		
		\$9,290.00	2003		
		\$21,780.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$15,515.00	2006	Unknown	Sisler Maggard Engineering
		\$27,125.00	2005		
		\$9,059.00	2004		
		\$9,154.00	2003		
		\$6,020.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$30,300.00	2006	Unknown	Thomas & Hutton Engineering
		\$111,101.00	2005		
		\$30,100.00	2004		
		\$2,600.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$225,212.00	2006	Unknown	Vaughn & Melton Consulting Eng
		\$157,654.00	2004		
		\$8,685.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$34,443.00	2006	Unknown	Volkert & Associates
		\$61,962.00	2005		
		\$69,798.00	2004		
		\$184,767.00	2003		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$11,898.00	2006	Unknown	Wilbur Smith & Associates
		\$25,345.00	2005		
		\$3,503.00	2004		
		\$12,372.00	2002		
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$29,808.00	2006	Unknown	Woolpert Consultants
		\$43,648.00	2005		

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)

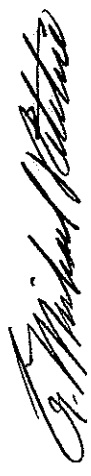
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$10,227.00	2005	Unknown	A/E Associates
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$51,700.00 \$42,800.00 \$35,650.00	2005 2004 2002	Unknown	Arundel Corporation
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$46,205.00 \$25,366.00 \$1,500.00 \$30,427.00	2005 2004 2003 2002	Unknown	Chapman Technical Group
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$2,525.00 \$42,227.00	2005 2002	Unknown	H.A. Spalding Engineers
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$38,584.00 \$17,574.00 \$58,405.00 \$5,255.00	2005 2004 2003 2002	Unknown	Haworth Meyer & Boleyn
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$1,175.00 \$16,384.00 \$23,118.00 \$30,268.00	2005 2004 2003 2002	Unknown	Howard K Bell Consulting Eng
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$12,976.00 \$43,066.00	2005 2003	Unknown	L.A. Gates
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$118,900.00 \$159,700.00 \$150,305.00 \$111,652.00	2005 2004 2003 2002	Unknown	LaFarge
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$6,553.00 \$18,121.00 \$104,624.00	2005 2004 2002	Unknown	Palmer Engineers
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$550.00 \$3,920.00	2005 2003	Unknown	The Gateway Engineers
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$136,069.00 \$60,552.00 \$5,200.00	2005 2004 2003	Unknown	Wolverton Associates
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$1,624,711.00	2004	Unknown	BAE Systems Mission Solutions
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$42,204.00 \$42,204.00 \$16,722.00	2004 2003 2002	Unknown	Coleman Aerial Imaging

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
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$10,727.00 \$51,060.00	2004 2003	Unknown	CTE Engineers
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$6,367.00 \$4,993.00 \$5,114.00	2004 2003 2002	Unknown	Parsons Brinckerhoff Quade Douglas
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$38,100.00 \$28,262.00	2003 2002	Unknown	HDR / WL Jordan
Aerial Photography & Related Svcs Various Projects and Locations	Various Projects	\$44,753.00 \$97,378.00	2003 2002	Unknown	Hoffman & Company

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 Division of Highways.

20. The foregoing is a statement of facts.

Signature: 

Title: President

Printed Name: G. Michael Ritchie, PE, PLS, PSM, CP

Date: October 8, 2008

Project #	Project Name	County	State	Year Completed	Design	Drainage	Control	Channels	Wet or Dry Seal	Portals	Eliminate High Walls	Regrade Refuse Piles	Restore Damaged Streams	Correct Slope Stability Problems	Water Feasibility Studies	Water Line Extensions
4-4A	Osborne Slide	Johnson	KY	1981-82										X		
4-5A	Dorton Orphan Reclamation	Pike	KY	1980-81										X		
603	Hunter Branch	Floyd	KY	1982-84				X						X		
604	Bent Mountain	Pike	KY	1982-85				X						X		
605	Straight Creek	Bell	KY	1983-86				X						X		
606	Martins Creek	Harlan	KY	1984-86		X					X			X		
607	Brushy Fork	Pike	KY	1985-90				X		X				X		
608	Smith Chapel	Harrison	WV	1985-88				X						X		
609	Buckhorn Sites	Leslie	KY	1986-89		X		X			X			X		
610	Sun Valley	Harrison	WV	1986-89				X		X						
611	Oneida Area Water Study	Clay	KY	1986-89											X	
612	Cabin Creek	Kanawha	WV	1987-88				X							X	
613	Cannel City Water Study	Morgan	KY	1987-91												
614	Cliff Top Refuse Pile	Fayette	WV	1987-89		X						X				
615	Mingo Run	Brooke	WV	1987-93				X		X				X		
616	Upper Whitman Mine	Logan	WV	1987-89		X						X				
617	Berry Branch Refuse	Raleigh	WV	1987-89		X						X				
618	Ikes Branch Seam Fire	Harlan	KY	1987-89				X								
619	Martins Fork Phase	Harlan	KY	1987-89		X		X				X				
620	Ford's Run #1	Barbour	WV	1988-89		X		X				X				
621	Skitter Creek Dam	Fayette	WV	1988-89		X		X				X				
622	West VA. Water Feasibility Study	Mercer	WV	1988-93											X	
623	Iroquois Refuse Pile	Wyoming	WV	1988-89		X						X				
624	Raleigh Refuse Pile	Raleigh	WV	1988-92		X						X				
625	Vancleve Water Study	Breathitt	KY	1988-89											X	
626	Buchanan Co. Water Study	Buchanan	VA	1988-90									X		X	
627	Accoville Refuse Pile	Logan	WV	1988-89		X						X				
628	Cassity Fork Water Feasibility Study	Randolph	WV	1988-89											X	
629	Kellys Creek Water Feasibility Study	Kanawha	WV	1988-95											X	
630	Buck Run	Taylor	WV	1988-90					X					X		

Project #	Project Name	County	State	Year Completed	Design Drainage Control Channels	Wet or Dry Seal or Portals	Eliminate High Walls	Regrade Refuse Piles	Restore Damaged Streams	Correct Slope Stability Problems	Water Feasibility Studies	Water Line Extensions
631	Peck's Run Specs	Upshur	WV	1988-90	X	X		X				
632	Ream Refuse Pile	McDowell	WV	1988-90	X	X		X				
633	Boissevain Maintenance	Tazewell	VA	1989	X			X				
634	Clifton "C" Portals	Mason	WV	1989-91		X						
635	Spriggs Land Slide & Portals	Mingo	WV	1989-90		X				X		
636	Nealy Ridge Water Feasibility Study	Dickenson	VA	1989-91							X	
637	Oneida Water System Improvements	Clay	KY	1989-93								X
638	Big Creek Area Water Study	Clay	KY	1989-90							X	
639	Grafton # 5	Taylor	WV	1990-92	X	X	X	X				
640	Mabie Tipple & Refuse	Randolph	WV	1990-91	X			X				
641	Richmond VA-Shaft Study	Chesterfield	VA	1990-92		X						
642	Morgan Co. Water Study	Morgan	KY	1990-94							X	
643	Boldmen Slides	Pike	KY	1990-93						X		
644	Dony Refuse & Slide	Floyd	KY	1990-93	X	X		X				
645	Barker Branch Hollow fill	Morgan	KY	1990-93	X			X		X		
646	Tolar Portals/Slide-Floyd	Floyd	KY	1990-92	X	X		X	X	X		
647	Laurel Fork Sediment Deposits	Tazewell	VA	1991-93	X			X	X			
648	Pocahontas Sediment Deposits	Tazewell	VA	1991-95					X			
649	Rocklick Refuse Highwall	Fayette	WV	1991-93	X	X	X	X				
650	Greggville AMD	Ohio	WV	1991-94		X						
651	Horton Ridge Water Feasibility Study	Multiple	VA	1991							X	
652	Noseman Branch Refuse Piles	Wyoming	WV	1991-94	X	X		X				
653	Messer Slide	Perry	KY	1991-95						X		
654	Kodak Slides	Perry	KY	1991-94					X	X		
655	Watkins Landing Shafts	Multiple	VA	1992-95		X						
656	Alphe Mine Portals & Refuse	Harrison	WV	1992-94	X	X	X	X		X		
657	Middle Fork Church	Leslie	KY	1992-94								
658	George Wooton Park	Leslie	KY	1992-94		X			X	X		
659	KY 1780 Slides Engineering Study	Leslie	KY	1992-96						X		

Oneida Area Water System Improvements Clay County, KY

State:

- *Kentucky*

Agency:

- Finance and Administration
Cabinet – Division of
Abandoned Lands

Dates:

- *1989-93*

Project Team:

- *Bob Blankenship, PE, PLS,
Principal-in-Charge*
- *C.P. Luttrell, Design
Engineer*

In 1988, a Water Quality Study was conducted by HMB in the Oneida area of Clay County. This study was conducted as part of the AML Reclamation Program and it concluded that pre-1977 coal mining adversely affected the ground water supply that fed local wells. As a result, AML funded a water system extension from the existing City of Manchester's water system to Oneida.

HMB provided engineering services for the preparation of construction plans for the extension of water lines, a booster pump station, and a water tank in the Oneida area of Clay County, Kentucky. Additional services were provided that included construction supervision and contract administration. The project improvements consisted of a 160,000 gallon ground storage tank, 49,000 linear feet of 10" PVC, 9,500 L.F. of 8" PVC and 15,500 L.F. of 4" PVC. The total number of customers served by these water system improvements is 250. The construction cost was \$1.7 million.

Upper Rum Creek Water Supply Project Logan County, WV

State:

- *West Virginia*

Agency:

Department of Environmental
Protection - Office of
Abandoned Mine Lands and
Reclamation

Dates:

- *1993-94*

Project Team:

- *Ronald Williams, PE,
Regional Office Manager*
- *Joe Crittenden, Design
Engineer*

A Water Quality Study was conducted in the Upper Rum Creek area of Logan County. This study was conducted as part of the AML Reclamation Program and it concluded that pre-1977 coal mining adversely affected the ground water supply that fed local wells. As a result, AML funded a water system extension that started at the existing Logan County Public Service District's (LCPSD) 8" transmission main at Dehue, WV and extended approximately four miles east along Local Service Route (LSR) 14/1 to the eastern end of the Yolyn Community.

HMB provided engineering services for the preparation of construction plans for the extension of these water lines. The project served 124 customers and the improvements consisted of 23,300 l.f. of 8" water main, 3,900 l.f. of 2" PVC service line, 11 fire hydrants, a 150 GPM booster pump station, and a 105,000 gallon glass-lined water storage tank. The project was funded by the Abandoned Mine Lands Reclamation Funds and the Logan County Public Service District and was constructed at a cost of \$783,000.

Crooked Creek Water Supply Project

Logan County, WV

State:

- *West Virginia*

Agency:

- Department of Environmental Protection - Office of Abandoned Mine Lands and Reclamation

Dates:

- 1993-94

Project Team:

- Philip Boleyn, P.E., Principal-In-Charge
- Ronald Williams, P.E., Project Manager
- Joe Crittenden, Design Engineer

The Crooked Creek Water Supply Project is located in central Logan County, adjacent to West Virginia State Route 10 and West Virginia Logan County Route 12. The project consisted of constructing a new water main from State Route 10 across the Guyandotte River and WV Logan County Route 12 and running along Local Service Route (LSR) 12/1. The project provided potable water to the un-serviced residents on Crooked Creek. The length of the project was 2 3/4 miles. The main water supply in the Crooked Creek community is ground water that had been degraded by the mining activity in the area prior to 1977. The WVDOE used abandoned mine lands reclamation funds to provide a reliable potable water supply to the area residents who have been affected. Before this project was started, only half of the homes in the Crooked Creek community were served by the West Logan Water Company. The remaining residents along the creek derived their water supply from wells in the alluvium along the streams or wells into rock strata underlying the alluvium. Chemical analysis data from a feasibility report indicated that the vast majority of the ground water samples were out of compliance with EPA National Secondary Drinking Water Regulation for iron & manganese. One in ten samples exhibited lead content exceeding the maximum limit set by the EPA National Interim Primary Drinking Water Regulations.

HMB provided engineering services for the preparation of construction plans for the extension of these water lines. The Crooked Creek Water Supply Project started 2,000 l.f. south of the intersection of Local Service Route 10/3 and SR 10, crossed the Guyandotte River, ran under the CX railroad yard and LSR 12, and followed LSR 12/1 for approximately 2.75 miles. The project serviced 91 customers and includes approximately 15,800 l.f. of 6" waterline, 16 fire hydrants, a 150 gpm water booster pump station, and a 105,000 gallon glass-lined water storage tank. The project was funded by the Abandoned Mine Lands and Reclamation Funds and the LCPSD and was constructed at a cost of \$729,000.

Marrowbone Water Line Extension Mingo County, WV

State:

- West Virginia

Agency:

- Department of Environmental Protection - Office of Abandoned Mine Lands and Reclamation

Dates:

- 1994-95

Project Team:

- Philip Boleyn, P.E., Principal-In-Charge
- Ron Sheets, P.E., Project Manager
- Joe Crittenden, Design Engineer

In 1993, HMB was selected to perform a Phase I feasibility study for the unincorporated community of Marrowbone, which is located in northwestern Mingo County and lies along Marrowbone Creek just above its confluence with Tug Fork. The project area began where Local Service Route (LSR) 52/34, crosses the Mingo-Wayne County Line and extended into Mingo County for 3.5 miles along LSR 2. Also included was a 2-mile stretch of LSR 2/2 along Marrowbone Left Fork. Phase I provided a preliminary determination of the probable impact of pre-August 3, 1977 mining activity on the groundwater supply of the project area. Once the Phase I study indicated the presence of probable groundwater degradation due to mining activities, Phase II was initiated.

In 1994, HMB was selected to perform a Phase II feasibility study for the same area. This study supported the AML & R grant request to OSM for funding to extend the water distribution system in the study area.

This project provided potable water and fire protection to the existing unserved residents in the Marrowbone area. The existing water main in Middle Burning Creek Road was extended over the ridge and along Vinson Branch. Serving those locations required a high head booster pump on Middle Burning Creek and a 150,000 gallon water storage tank near the headwaters of Vinson Branch. A 60 horsepower booster pump, which produced 620 feet of head, was necessary to serve the area. Due to the extremely high pressure in some areas, high service ductile iron pipe (DIP) and a special piping jointing system are required to prevent leakage and water main breakage. A pressure reducing station was required to reduce the water transmission line pressure along Marrowbone Creek to a manageable level. Individual house service pressure reducing valves were also required in some areas. The length of the project was approximately 12.5 miles.

Ragland-Delbarton Area Water Line Extension Logan County, WV

State:

- *West Virginia*

Agency:

- Department of Environmental Protection - Office of Abandoned Mine Lands and Reclamation

Dates:

- 1995-97

Project Team:

- Philip Boleyn, P.E., Principal-In-Charge
- Jonathan M. Fowler, P.E., Project Manager
- Joe Crittenden, Design Engineer

Because HMB had conducted the Phase I and Phase II studies for the Ragland-Delbarton area, the Water Supply Systems Advisory Committee (WSSAC) selected HMB to design the construction plans and specifications for this water line extension project.

The Ragland Public Service District waterline was extended along Local Service Route (LSR) 65/5 to serve the area residents whose ground water supply has been degraded by coal mining operations. The new 6" water main tapped into an existing RPSD 6" water main on LSR 65/5 and extended along this route toward Delbarton to the end of the project area. A 6" line also connected to the RPSD distribution system and crossed Rockhouse Fork to provide service to the Lando Mines area. In addition to extending these water lines, a 100,000 gallon water storage tank and a water booster pump station were constructed to provide service to the Curry Branch residents. These improvements also provided fire protection service to the entire project area.

Pigeon Creek Water Line Extension Feasibility Study, Mingo County, WV

State:

- *West Virginia*

Agency:

- Department of Environmental Protection - Office of Abandoned Mine Lands and Reclamation

Dates:

- 1996-97

Project Team:

- Philip Boleyn, P.E., Principal-In-Charge
- Jonathan M. Fowler, P.E., Project Manager
- Joe Crittenden, Design Engineer

HMB was selected to perform a feasibility study for the Pigeon Creek area. This feasibility study investigated the area's current water supply and made a determination as to how past mining activity affected the water supply in that area. Additional information and documentation was completed to support an AML & R grant request to OSM for funding to extend the water system in the study area.

The study was developed in two phases. Phase I provided a preliminary determination of the probable impact of pre-August 3, 1977 mining activity on the groundwater supply of the project area. Once the Phase I study indicated the presence of probable groundwater degradation due to mining activities, Phase II was initiated.

Phase II work consisted of a detailed engineering report of the evaluation of the impact of pre-August 3, 1977 mining activities on the groundwater supply of the study area. Phase II included the following key tasks: a.) Conduct personal interviews with residents and local businesses within the study area. b.) Conduct interviews with officials from local, state, and federal agencies to gather information on the water quality in the area. c.) Develop and carry out a representative water sampling and testing program of the area. The tests will be performed for the following parameters: pH, specific conductivity, acidity, alkalinity, calcium, magnesium, sodium, potassium, iron, chloride, sulfate, bicarbonate, fecal coliform, turbidity, and lead. d.) Compile a complete mining history study of the area to determine the sources of the water quality problem e.) Determine the relationship of Abandoned Mine Lands to the water quality problem. f.) Examine possible alternative solutions, along with cost estimates. g.) Develop and prepare exhibits. h.) Present in a formal engineering report all information gathered in services "a" through "g".

This project description is typical of all the water feasibility studies done for the West Virginia Office of Abandoned Mine Lands and Reclamation

Glen Fork - Sabine Water Line Extension Wyoming County, WV

State:

- *West Virginia*

Agency:

- Department of Environmental Protection - Office of Abandoned Mine Lands and Reclamation

Dates:

- 1996-97

Project Team:

- Philip Boleyn, P.E., Principal-In-Charge
- Jonathan M. Fowler, P.E., Project Manager
- Pat Taylor, P.E., Design Engineer

The project area is located in the communities of Glen Fork and Sabine in the Laurel Fork drainage area of northern Wyoming County, which is a tributary of the Guyandotte River. HMB had conducted a Phase II Water Feasibility Study of the Glen Fork area in December 1994 to determine the impact by pre-law surface and/or deep mining activities. An estimated 350 homes are located in the study area, which encompasses approximately 3.6 square miles. The Ravencliff-McGraws-Saulsville Public Service District (RMSPSD) provides water to the eastern border of the study area.

HMB provided engineering services to review a water supply design for the impacted study area. The design consisted of extending waterlines 5,200 feet from the western side of the study area on LSR 1 to an area just past Hurricane Branch (LSR 1/12), constructing two 160,000 gallon tanks (located at Sabine and McGraw), upgrading the existing RMSPSD water treatment plant from 430,000 GPD to 860,000 GPD, and constructing a flow control valve to the Glen Fork Sabine area.