

Expression of Interest

Architectural/Engineering Services

Design of ADA Ramp to the
Kanawha River Levee/Boat Dock

EOI# GSD116408

September 15, 2010



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

Prepared by:
GAI Consultants, Inc.
500 Summers Street, 3rd Floor
Charleston, WV 25301
304.926.8180 | gaiconsultants.com

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WV PURCHASING
DIVISION





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

Request for Quotation

RFQ NUMBER
 GSD116408

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 KRISTA FERRELL
 304-558-2596

RFQ COPY
 TYPE NAME/ADDRESS HERE

DEPARTMENT OF ADMINISTRATION
 GENERAL SERVICES DIVISION
 BUILDING 1
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305 304-558-3517

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
08/19/2010				

BID OPENING DATE: 09/15/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-07		
<p>A&E SERVICES: DESIGN OF ADA RAMP TO LEVEE/BOAT DOCK</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF GENERAL SERVICES, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES FOR THE DESIGN OF AN ADA COMPLIANT ACCESS RAMP TO THE KANAWHA RIVER LEVEE AND FUTURE FLOATING BOAT DOCK LOCATED ON KANAWHA BOULEVARD ACROSS FROM THE GOVERNOR'S MANSION IN CHARLESTON, WEST VIRGINIA PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO KRISTA FERRELL IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115 OR VIA EMAIL AT KRISTA.S.FERRELL@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 08/31/2010 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>EXHIBIT 10</p> <p>REQUISITION NO.:</p> <p>ADDENDUM ACKNOWLEDGEMENT</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: 304.926.8100 DATE: 9.15.10

TITLE: Manager FEIN: 25-1260999 ADDRESS CHANGES TO BE NOTED ABOVE

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



State of West Virginia
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I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

- ADDENDUM NO.'S:
- NO. 1 ✓ *66*
 - NO. 2
 - NO. 3
 - NO. 4
 - NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF TH ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF EOIS.

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

[Signature]
 SIGNATURE
 GAI CONSULTANTS
 COMPANY
 9.15.10
 DATE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
SIGNATURE	TELEPHONE	DATE
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BID OPENING DATE: 09/15/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE EOI.</p> <p>REV. 09/21/2009 BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>NOTICE</p> <p>A SIGNED EOI MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:</p> <p>SEALED EOI</p> <p>BUYER: KRISTA FERRELL-FILE 21</p> <p>EOI. NO.: GSD116408</p> <p>EOI OPENING DATE: 09/15/2010</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
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 Charleston, WV 25305-0130

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ADDRESS CORRESPONDENCE TO ATTENTION OF:
KRISTA FERRELL
804-558-2596

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08/19/2010				

BID OPENING DATE: **09/15/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
EOI OPENING TIME: 1:30 PM PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR EOI: <u>304.926.8180</u> CONTACT PERSON (PLEASE PRINT CLEARLY): <u>David Gilmore</u>						
***** THIS IS THE END OF RFQ GSD116408 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: GAI CONSULTANTS

Authorized Signature: [Signature] Date: 9.15.10

State of WEST VIRGINIA

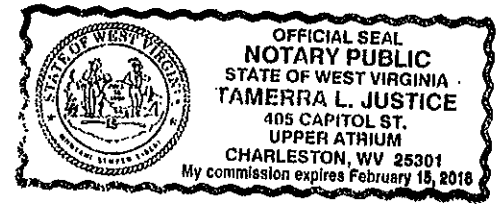
County of KANAWHA, to-wit:

Taken, subscribed, and sworn to before me this 15th day of SEPTEMBER, 2010.

My Commission expires FEBRUARY 15, 2018

AFFIX SEAL HERE

NOTARY PUBLIC Tamera L. Justice



September 13, 2010

Department of Administration
Purchasing Division, Building 15
2019 Washington Street East
Charleston, West Virginia 25305 - 0130
Attn: Krista Ferrell

RE: Request for Qualifications
Engineering Services for the ADA Compliant Access Ramp to the Kanawha River Levee
Charleston, West Virginia

Dear Ms. Ferrell:

GAI Consultants, Inc. is excited about the opportunity to present our experience and qualifications with regard to your RFQ concerning the ADA Compliant Access Ramp to the Kanawha River Levee. It will become evident as you read our qualifications that GAI Consultants has vast experience in all aspects of recreational planning and riverfront development ranging from master planning to construction documentation and administration.

As the prime consultant for Haddad Riverfront Park, GAI has recently collaborated with the City of Charleston to develop a conceptual design, master plan and construction drawings to improve this underutilized asset. A key component of that project involved the design of a much needed ADA compliant boat dock and ramp that unites the entire park into a cohesive facility while upgrading its facilities to current ADA standards. Once an unattractive, isolated space, Haddad Riverfront Park is now the "front porch" of the city, where residents congregate, recreate, and communicate. We invite you to call Mr. David Molgaard, City Manager, at 304.348.8014 to learn more about this successful venture.

We at GAI Consultants Inc. bring an intimate understanding of the complexities of project design and management with an emphasis on ADA design compliance, environmental sensitivity and sustainable design practices. GAI Consultants is an 800 person, multi-discipline engineering and environmental consulting firm located in Charleston, West Virginia as well as offices across the Northeast, Southeast, and Midwest United States. GAI has been involved on a variety of riverfront projects as illustrated by our body of work.

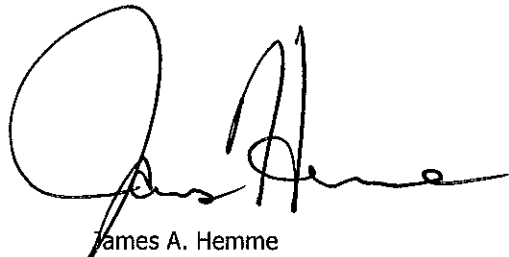
We look forward to partnering with Department of Administration General Services Division to help achieve your goals of creating an ADA ramp that not only provides access for pedestrians, but is contextually sensitive to the historical surroundings that make up our beautiful state capital. We invite you to read on to learn how our individualized approach can provide the State of West Virginia with a riverfront access ramp that they can be proud of.

Sincerely,

GAI Consultants, Inc.



David Gilmore, RLA
Land Development Services Manager
Corporate Practice Leader: Landscape Architectural Services



James A. Hemme
Senior Engineering Manager
Corporate Practice Leader: Sustainable Design

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CONCEPT

What sets GAI apart?

At GAI Consultants, Inc. (GAI) our goal is to deliver for you – a project that draws award winning reviews and provides the highest quality experience for our clients and their key stakeholders.

The key to Successful project development and outcome requires passion, commitment, and innovation. It also requires attention to detail, due diligence, and organization.

By avoiding costly delays and frustrating glitches, we are better able to assist our clients in the development process and support project buy-in from financial partners, local governments, and involved communities. Whether developing former brownfield sites, urban in-fills, or raw land, our experienced professionals are known for smoothly navigating the compliance and development process. We respect our clients' time, money, and resources as if they were our own. With this philosophy, we increase value in every project we do.

A Unique Opportunity Realized

As development and sprawl continues to rage out of control and our greenspace and recreational areas continue to disappear in our downtowns and along our riverfronts, the quality and relationship of the spaces where people live, work and play have taken on an increased role of importance over the last decade. These issues, when coupled with emerging trends such as place making and sustainable design practices, make selecting the right consultant team even more important. We feel that the planning team that we have assembled will be unmatched in experience and talent, and will ensure the success of the ADA compliant access ramp project.



The GAI Planning Team's philosophy that supports the master planning process begins as an exercise in problem definition. Identifying constraints and opportunities evolves from a variety of physical and nonphysical conditions, and most importantly...the needs of the Client. The ability to creatively combine these factors is the key to the project's success. Of utmost importance to the success of your project is the ability to engage the General Services Division and its representatives at every stage of the design process. The GAI planning team will accomplish this by establishing an open and transparent dialog from the outset of the project to the drafting of the construction plan. This active dialog ensures that as the design effort progresses, the Client is able to respond to the concepts and ideas presented before the process moves forward.

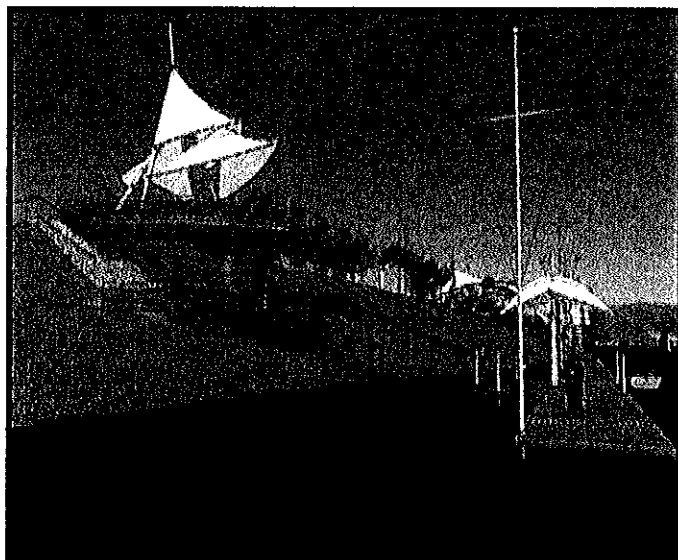
GAI Consultants Inc. brings an intimate understanding of the complexities of project design and construction management. GAI has worked with a number of towns and municipalities across the United States in many different capacities from master planning and public involvement illustrated by the Martinsburg Comprehensive Study to construction documentation and administration implemented on the Caperton Trail. GAI also has an intimate understanding of permitting issues illustrated by multiple WVDOT projects, and right-of-way issues as part of the Westmoreland Heritage Trail. Our experience also includes parks and recreation design, streetscape engineering and urban revitalization which were an important element of new Haddad Riverfront Park, now a focal point and pedestrian hub for downtown Charleston, West Virginia.

Experience Matters

When approaching a project of this magnitude, you want a team of professionals that are experienced and can assess the project with a holistic approach. GAI has an extensive master planning, construction documentation and administration background, and looks forward to applying our current knowledge and expertise to the design of the ADA compliant access ramp for General Services Division. In addition to project design experience, GAI has an extensive knowledge in construction administration that helps create a practical approach to anything we design. We are confident that the design team that we have assembled will be unmatched in experience, talent, and drive to fulfill the State of West Virginia's vision for success.

We have accomplished many goals most people would not have thought possible. GAI met the challenge.
-Columbia Gas

The GAI design team's philosophy is that the design process begins as an exercise in problem definition. Identifying constraints and opportunities evolves from a variety of physical and nonphysical conditions, and most importantly...**the needs State of West Virginia Department of Administration.** The ability to creatively combine these factors is the key to the plan's success. Of utmost importance to the success of the design is the ability to engage the client and its users at **every** stage of the design process. The GAI Planning team will accomplish this by establishing an open and transparent dialog from the outset of the project through construction administration. This active dialog ensures that as the planning effort progresses, the Client is able to respond to the concepts and ideas presented before the process moves forward.



Components for Success

One of several things that make GAI the right choice for this assignment is the broad range of service types that our team can offer. To ensure a successful project outcome, we must first identify the constraints and opportunities that are presented by the project. Whether they are physical constraints or related to permitting, our team has the luxury of being able to draw insight from recognized experts in the fields of vehicular and pedestrian circulation, cultural resources, landscape architecture, biology, ecology, and site utilities. The principal design team members assigned to manage this project have extensive experience with regard to projects of this type, providing an insight, knowledge and design ability that no other team can match.

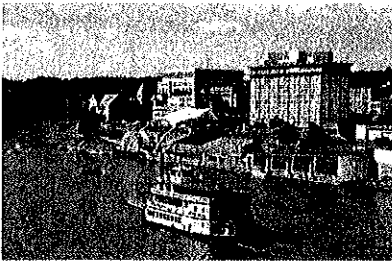
- **David Gilmore**, RLA, ASLA 22 years. Mr. Gilmore will serve as the overall project manager, overseeing scheduling, personnel, design and client communication. The central focus of his practice is on the continued development of the firm's site design and landscape architecture projects throughout the eastern United States, while providing landscape architectural support to all of GAI's offices and clients.
- **James Hemme**, PE, LRS, 20 years. Mr. Hemme specializes in site engineering, planning, permitting and stormwater management, with emphasis on parks and recreation areas and infrastructure. He brings a multi-disciplinary background to projects that enables him to see the "big picture" of what will be needed to take a project from start to finish.
- **Jared Tuck**, M.A., 12 years. Mr. Tuck specializes in historic architectural surveys, National Register nominations, Section 106 compliance-related surveys, and historic preservation planning. He has been involved with efforts to identify, evaluate, and preserve historic buildings, districts, and sites, and is a skilled architectural historian specializing in 19th- and early 20th-century architecture.

- **Joseph Prine, E.I.**, 9 years. Mr. Prine has a wide variety of experience in environmental engineering, civil engineering, site development, streetscape, and planning projects while at GAI. He has worked with private developers, architects, municipalities and governmental agencies. He has also contributed to planning and design in several community improvement and streetscape projects.

Our team's goal is to meet the needs of the State of West Virginia Department of Administration while keeping construction costs low and remaining sensitive to the surrounding environment. In addition to economics and practicality, the projects should create a connection to the surrounding natural environment.

Full Service Capabilities

We are a One Stop Shop. Our multi-disciplined capabilities mean clients can form a single partnership to shepherd their entire project to completion. GAI is one of the few engineering and environmental consulting firms nationwide with an in-house cultural resources team. This strong background in historic preservation better equips GAI with the tools to address any client concern.



We take a proactive approach to every project, working to identify issues and find solutions before they become costly problems. We also approach our work from the contractor's perspective, finding as many ways to assist them in the building process as possible. As a result, our work is highly constructable, efficient, and cost-effective. Our clients are highly valued partners – our goal is to make working with us the easiest and smoothest process that you've gone through with an engineering firm.

Office Brief



Engineering Solutions
Client Care
Environmental Stewardship
Community Enhancement
Safety & Sustainability

GAI-Charleston Office Brief

GAI-Charleston

The City of Charleston, located at the confluence of the Elk and Kanawha Rivers, is West Virginia's largest city and state capital. Three major interstates converge in the city's center, placing Charleston within a day's drive of 60 percent of the U.S. population. Downtown and riverfront improvement projects attract visitors to the Capitol Complex, the Kanawha State Forest, and other educational and recreational areas.

Since 1985, GAI-Charleston has provided award-winning consulting services in mine land reclamation and mine drainage engineering. We continue to deliver innovative engineering solutions in transportation, land development, and energy markets, with a particular specialization in landscape architecture and LEED design. GAI-Charleston's premier teams of professionals serve a wide range of clients, including local developers, state government agencies, and large corporations.

General Services

- + Environmental Engineering, Permitting and Mitigation
- + Transportation and Traffic Engineering, Planning & Design
- + Geotechnical and Structural Engineering
- + Mechanical and Electrical Engineering
- + Water/Wastewater Engineering/Utility Management
- + Land Development, Landscape Architecture and Planning
- + Cultural Resources Management
- + Surveying/Geographic Information Systems (GIS)
- + CEI/CMS/Materials Testing
- + Utility Coordination/Eminent Domain
- + LEED Design and Greenhouse Gas Consulting

Specialty Services

- + Grant-writing, Asset Management & Valuation Studies
- + Computer Programming & Web Site Development
- + Graphic Design, Video Production, & Public Outreach

Transforming ideas into reality for over 50 years, GAI is a 700-person, employee-owned, multi-discipline engineering and environmental consulting firm, serving our clients worldwide in the energy, transportation, real estate, water, municipal, government, institutional, and industrial markets from offices throughout the Northeast, Midwest, and Southeastern United States.

GAI Consultants, Inc.
500 Summers Street, 3rd Floor
Charleston, WV 25301
304.926.8100

For more information on GAI Consultants, Inc.,
please visit www.gaiconsultants.com.

Service Briefs

Historic Preservation Service Brief

Overview

As required by the National Historic Preservation Act, historic resources such as above-ground historic buildings, structures, sites, districts and objects, must be considered during the planning stages of federal undertakings. Other regulations protecting historic resources include the National Environmental Policy Act, and Section 4(f) of the Department of Transportation Act.

GAI Consultants, Inc. (GAI) assists our clients by providing historic resources identification services for public and privately funded projects. GAI's project expertise ranges from large-scale architectural surveys, resource evaluations and effects criteria for large transportation projects to small-scale surveys of buildings and districts for small towns with CLG grants.

Experienced Personnel

GAI's professional staff comprises a highly professional and accomplished full-service team with advanced degrees in architectural history, history and historical archaeology. Our qualifications exceed the professional standards in 36 CFR 61, Appendix A.

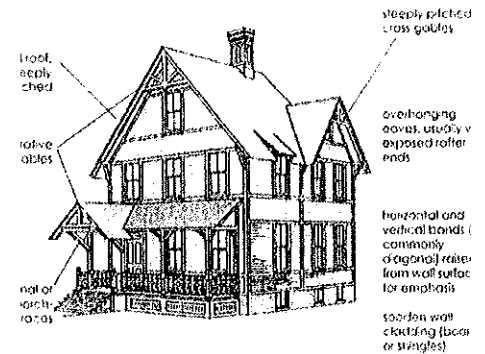
GAI's professionals are experts in conducting historic resources studies through contracts with various state and federal agencies throughout the eastern United States. At GAI, we conduct documentary research, National Register nominations and surveys consistent with the procedures and quality established by the United States Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, 48 CFR 44716.

Our preservation services are supported by database management software, CADD facilities, a photographic darkroom and a large-format camera for stringent HABS/HAER processing requirements.

Historic Preservation Services

GAI's cultural resources group provides historic resources and preservation services in the following areas:

- Historic context development
- Primary and secondary archival research/deed research
- Architectural reconnaissance surveys
- Historic district and landscape surveys
- National register evaluations
- National register nominations
- Effects determinations and 4(F)
- HABS/HAER recordation
- Mitigation measures
- Agreement documents (MOA, PA)
- Preservation plans



Timely Agency Concurrence

GAI has established and maintained excellent working relationships with the State Historic Preservation Offices (SHPO) in the states where we have conducted our work. This relationship is critical for timely agency review.

Our thoroughness, attention to quality, and timely performance have proven vital to our clients' success in obtaining historic resources clearance for their Section 106 compliance projects.

Excerpts from Unsolicited Commendation Letters to GAI

- "The recordation documentation for the Gleason Bridge is excellent and certainly meets our standards. Thank you for preparing this excellent record of the bridge for future research." — PHMC, Bureau for Historic Preservation
- "The methodology for the current survey [U.S. 219] was very well-designed...the historic context was well written and provides a good, basic understanding of the development of this part of the state." — WV Division of Culture and History
- "Utilization of the magnetometer survey and computer-generated illustrations was very innovative... we appreciated the attention paid to incorporating the historic contexts and themes [Simpsonville Stone Ruins] — Maryland Historical Trust
- "Through your hard work and commitment, we have inched ever closer to the goal of preserving the battlefield at Gettysburg National Military Park for this and all future generations." — Superintendent, Gettysburg National Military Park





Cultural Resources Service Brief

Overview

Since 1974, GAI Consultants, Inc. (GAI) has been a leading provider of cultural resources services. The qualifications of our professional staff exceed the federal standards for cultural resource management studies. Our archaeologists have doctoral and master's degrees in historic archaeology, prehistoric archaeology, urban archaeology, and soil science, and extensive training in historic preservation and federal law. Many are certified by the Society of Professional Archaeologists. Because we maintain a large staff, we can conduct several archaeological investigations simultaneously and respond to our clients' needs quickly. GAI conducts similar studies for historical resources.

GAI's Cultural Resources Group is a full-service division, offering both architectural history and archaeological services.

Cultural Resources Group capabilities include:

- Phase I archaeology surveys
- Public outreach products/ programs/education
- Quantitative analysis and statistics
- Site formation studies
- Phase II site evaluations
- Historical archival and deed research
- Database design and management/ GIS/GPS
- Phase III data recovery, treatment and mitigation plans
- HABS/HAER
- Prehistoric and historic pottery analysis
- Historic architectural surveys
- Assessment studies
- NEPA, FERC, NHPA/SECTION 106
- Geomorphology/pedology/ petrography

Cultural Resource Management Services

The National Historic Preservation Act requires completion of the Section 106 Compliance Review Process for any project that has federal assistance. This process involves locating, evaluating, and mitigating significant archaeological sites and historic resources that may be impacted by a proposed project. Most states also have such regulations for state-funded or licensed projects.

GAI provides a full range of cultural resource services for federal, state, and local government agencies; state departments of transportation; mining companies; electric utilities; gas utilities; private land developers; and to other engineering firms.



Assessment Studies

GAI conducts Phase Ia Assessment Studies to determine the likelihood that archaeological sites may or may not be present in a proposed project area. Usually conducted at the outset of a project, an assessment study can reduce project costs by limiting the need for intensive or unnecessary field work to locate possible cultural resource sites. It may include:

- Predictive modeling using GIS
- Historical background studies
- Geomorphic studies

We use Geographic Information System (GIS) in predictive modeling to correlate large volumes of three-dimensional topographic data to locate potential archaeological areas.

Predictive modeling including statistical methods are used to determine the probability of finding cultural resources within a large geographic area. Assessing the location of previously recorded sites and conducting historical background studies within project boundaries are also critical. Geomorphic studies can provide information about soil disturbances that might have obliterated archaeological sites in a project area.

- NEPA/NHPA Section 106 compliance reviews
- Phase I reconnaissance surveys
- Phase II testing for National Register of Historic Places (NRHP) eligibility
- Phase III mitigative excavations
- Analysis of prehistoric and historic material assessments
- Avoidance/preservation measures
- SHPO consultation

A Phase I reconnaissance survey usually involves shovel testing and a walkover of the project area to see if it contains evidence of cultural resources. If it is impossible to avoid a site that has been located, Phase II testing for NRHP eligibility may be required. It includes additional excavation of a site. If a site is eligible for the National Register, we can begin Phase III mitigative excavations. With each phase, we analyze prehistoric and historic data sets and evaluate project alternatives according to our client's project needs.

Special Features

GAI offers the following special features:

- Our technical staff specializes in pedology, the identification of soils in relation to the location of archaeological sites. It is useful in an assessment study for determining previous surface disturbances and the potential for the occurrence of archaeological sites. Our geological capabilities also include mineral analysis of rock sections for sourcing studies.
- GAI's archaeologists provide public information programs to our clients. These programs include popular reports, brochures and pamphlets, educational posters, and visits to local schools.
- GAI received 2002 Pennsylvania Division of FHWA Historic Preservation Excellence Award (Public Outreach) for Coverts Crossing Bridge Replacement Project for PENNDOT District
- 11-0 and Taylor Engineering. Also received WVDOH 2001 Engineering Excellence Award, Planning & Environmental Category for Native American Burial Site Relocation.



Facilities

Cultural resource support facilities include 2,050-square-feet of office space, a 2,500-square-foot archaeological laboratory where artifacts are processed and analyzed, and a 1,500-square-foot equipment storage/temporary curation area. These areas house standard laboratory and field equipment and incorporate a darkroom, in-house printing, a library, a drafting area, and a computer room.

Client Comments

- "I want to commend again GAI for a well-coordinated field program [Lazarus building], and for meeting our critical project schedule." Paul Maniago, Pittsburgh URA
- "...these [Documentations for Consultation] are some of the best-written documents I have received since I took this job. Tell GAI they did good work." Ed Compton, FHWA to Norse Angus, WVDOT.
- "Everyone from GAI...made us very proud. Thank you so very much; we really appreciate all that your team has done to make this emergency project [Cubbage Pond] through two Nor' easters, a real success..." Kevin Cunningham, DelDOT Archaeologist.



Land Development Service Brief

Overview

Land development involves the integration of a variety of activities that include: Economic Feasibility, Master Planning, Engineering and Environmental Analysis, Legal Issues, Financing, and Marketing.

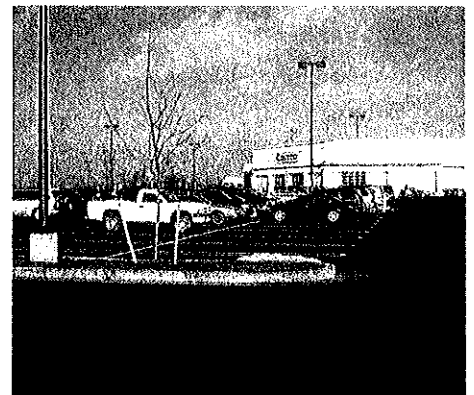
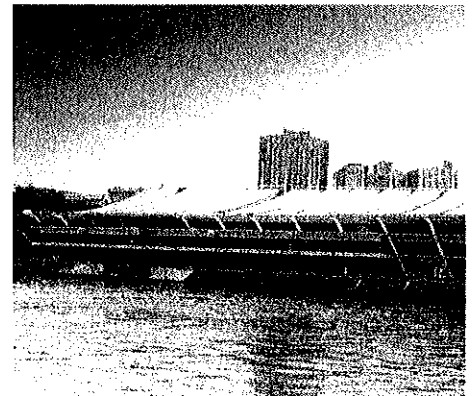
Without effective guidelines and long-term planning, development becomes haphazard and risky, reactive only to short-term needs. Success is largely dependent upon early planning and engineering studies that provide insight into the best possible use, reuse, or development of properties.

Project Experience

Since 1958, GAI Consultants, Inc. (GAI) has worked extensively with developers, private industry, and government agencies on planning and developing projects for the commercial, residential, industrial, and recreational markets.

- Regional shopping malls
- Industrial parks
- Commercial office sites
- Recreational parks
- Residential subdivisions
- Recreational and resort communities
- Marinas
- Higher Education
- Healthcare
- Airports

In the present economic climate, our clients are faced with escalating project costs due to rising real estate value, diminishing availability of desirable sites, growing environmental concern and increasing construction cost. All of these factors along with changes in real estate tax laws make obtaining financing for a development project an almost insurmountable task. However, GAI's development professionals are experts who keep abreast of changes in regulations. Also, we can analyze project/site feasibility to provide cost-effective strategies for many kinds of projects, even major projects involving infrastructure that must be completed under time-sensitive schedules.



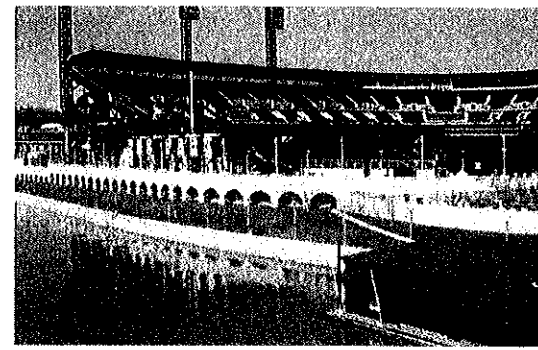
Civil Engineering Planning and Development Services

- Site selection
- Permit acquisition
- Economic feasibility studies
- Facilities planning and design
- Environmental assessments
- Wetland delineation
- Archaeological studies
- On-site and off-site traffic impact assessments
- Roadway design
- Foundation investigations
- Code impact assessments
- Hydrologic and hydraulic studies
- Storm-water management
- Site lighting
- Land use studies
- Landscape architecture
- Erosion and sedimentation control
- Utility assessments and rehabilitation
- Surveying, construction layout, and as-builts
- Materials testing
- Construction documentation
- Construction cost estimates
- Construction monitoring
- Construction management
- Structural and non-structural alternative analyses

We provide engineering services for all project phases—planning, permitting, design, and construction. Our complete services, tailored to the client's needs, range from site selection and feasibility studies, through developing master plans and preparing detailed design drawings and specifications, to construction management. We provide project planning and coordination to help our clients obtain the necessary construction approvals, and we render construction planning/management and quality assurance services to fulfill project requirements.

GAI's planning and development services are provided by an experienced staff of land use planners, site engineers, landscape architects, traffic engineers, roadway and drainage engineers, structural and soils engineers, utility designers, and environmental specialists.

Through our many years of experience in site development work, we have developed the expertise to evaluate the cumulative impact of topographic, hydrologic, geologic, environmental, and geographic factors on a site. Of equal importance is our staff's appreciation of the impact that the non-engineering aspects of site development—social, economic, and legal—can have on a project's success.



Support Services

The successful, cost-effective outcome of a site planning and development project requires the support of several engineering service groups and the interaction of various engineering disciplines.

- Transportation engineering
- Geotechnical engineering
- Structural engineering
- Environmental engineering
- Environmental sciences

The blending of our academic training with our experience in research and practical engineering provides a unique background for the solution of complex site development problems involving structural analysis, load determination, structural reliability, soil-structure interaction, and storm-water management.

Basic physical principles combined with innovative engineering ideas help our clients preserve aesthetics and enhance the environment as they go about the business of shaping tomorrow's surroundings.

Construction Engineering and Inspection Service Brief

Overview

The Construction Engineering and Inspection (CEI) industry is based on client service, construction integrity, and on-time/on-budget project completion. Without reliable CEI services, the client is without protection. GAI Consultants, Inc. (GAI) is dedicated to providing our clients with the reliable and quality services that are required to ensure a successful project.

GAI's construction engineering and inspection team consists of highly skilled construction engineers, resident engineers and construction technicians with experience inspecting large, multi-phased construction projects. Our expertise in large, multiphased construction projects ranges from major bridge replacements to roadway widening projects. For new construction and enhancement projects, GAI's CEI team has the experience to provide client protection throughout the construction process.

Our services are divided into five distinct work areas

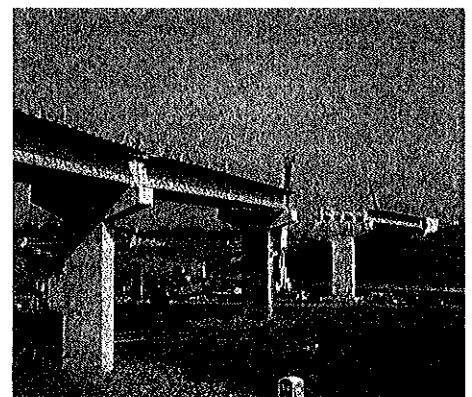
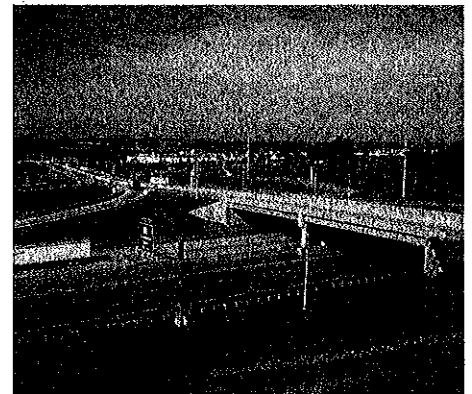
- Pre-construction services
- Pre-construction conference implementation
- Construction engineering and inspection services
- Project management/contract administration
- Post-Construction services

Pre-Construction Services

Pre-construction services primarily involves mobilizing staff, equipment, and resources. It involves a careful evaluation of the project's specialized needs, and the selection of staff and resources to keep costs at a minimum, yet provide for a high quality product.

Pre-Construction Conference Implementation

Pre-construction conference implementation involves developing a comprehensive, well orchestrated meeting. This meeting includes: the owner/client, the selected contractor and his subcontractors, local utility companies, governmental units, GAI and, the owner/client representative. This meeting is important to effectively create a team.



The conference sets the tone of cooperation and communication throughout construction. It serves to communicate the project goals and objectives for the entire work effort and gives the team a focus that promotes quality workmanship. At this meeting the team outlines communication methods, establishes processes for change orders and construction pay requests, and sets milestone production completion dates.

GAI has learned that project performance is enhanced by implementing a successful pre-construction conference, construction quality, project communication, and on-time/on-budget.

Construction Engineering and Inspection Services

Construction engineering and inspection services encompass the entire production process. It is the daily monitoring of the construction program. It includes inspecting workmanship, testing construction material quality, and monitoring on-site construction safety for workers and the general public. It also involves implementing public information processes to ensure that the public as well as all governmental agencies, contractors, and the owner/client are kept well informed.

Project Management/Contract Administration

Project management/contract administration means effectively maintaining progress reports, quantity surveys, supplier/construction material deliveries, shop drawing review and plan interpretation, pay request administration, and resolving claims, disputes and liability issues.

This work element provides the protection the client needs to ensure his project is accomplished in a professional and appropriate manner with minimal or no construction delays, cost overruns, and/or safety violations.

Post-Construction Services

Post-construction services deliver thorough, concise reports on the work effort's overall performance. The post construction services include a full inspection of the project in relation to the goals and objectives established at the pre-construction conference.

GAI is proud of its performance in the CEI services industry. Our success is based on repeat business which provided comprehensive CEI services for over \$175 million in construction in five years.





Landscape Architecture Service Brief

Overview

GAI Consultants, Inc. (GAI) performs various landscape architecture services for a wide range of project types in order to assist our clients, and provide them with individual design solutions that exceed their expectations.

GAI's team of professional landscape architects work on a wide range of project types to achieve a balance between the constructed and natural environment. Projects range from the site design for a small, urban park to a regional study of native ecosystems. Landscape architects often work as an integral part of a comprehensive GAI design team with other disciplines. This comprehensive approach is used in: land development, highway corridor studies, recreational and resort communities, municipal and comprehensive planning studies, environmental studies and mitigation design, urban design and neighborhood beautification plans.

Benefits of Landscape Architecture Services

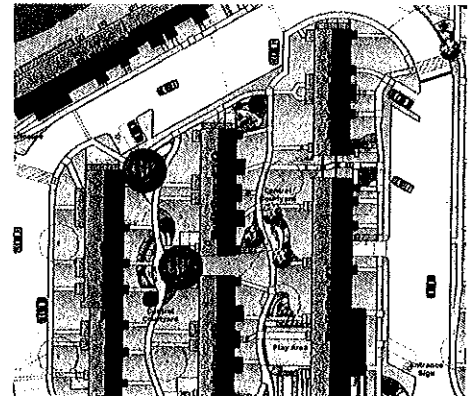
For both public and private sector projects, landscape architecture design provides tangible benefits to the client. These advantages include:

- A more aesthetic project and a greater return on investment through site amenity design features
- Lower site development costs through site analysis and site-sensitive design

GAI creates unique, individual design solutions for the client, which can help a project achieve a higher profile and stand out among the competition. Our team of land planners and landscape architects promote both site-appropriate and sustainable design through the use of innovative techniques such as GIS mapping of natural systems, the use of Traditional Neighborhood Development (TND) concepts, and the use and promotion of native plant materials.

Our Landscape Architecture Designers contrive the themes and the guides for the creation of active and passive landscape spaces. First, we begin by attaining a comprehensive understanding of our client's needs, goals and specific site opportunities. Then, armed with this insight and our internal resources, we achieve the "conceptual intent" of the landscape space. Lastly, we redefine the concept and transform it into Landscape Design.

Communicating and presenting concepts and themes are essential tasks which, as a result, lead to making interaction with our clients and other project related disciplines the most indispensable step towards the final creation of the Landscape Design Construction Documents. Through maintaining contact and understanding the project goals, we stay on task and on budget.



Landscape Architecture Services

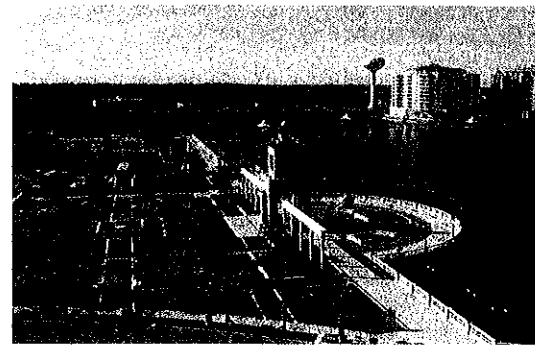
GAI provides both stand-alone landscape architecture services as well as any required support services for a wide array of project types including:

- Site analysis
- Site layout and grading plans
- Landscape design
- Community master plans
- Hardscape design and construction detailing
- Streetscape design
- Wetland mitigation design
- Park and recreation planning
- Urban design studies
- Waterfront design
- Golf course design and resort planning
- ADA design
- Visual impact/viewshed studies
- Historic landscape studies
- Redevelopment planning
- Forest conservation plans
- Land use studies
- Campus planning
- Project signage and thematics
- Irrigation design
- Regional planning studies
- Beautification plans
- Rail-to-trail conversions
- Greenbelt protection plans
- Design guidelines and ordinances
- Master planning
- Conceptual design/design development
- Construction plans/cost estimates
- Presentation graphics
- Public involvement and consensus building
- Bid specification packages
- Bid services
- Construction assistance services
- Maintenance guidelines

For each new opportunity, our mission continues to be creating enriching and extraordinary spaces where communities can live, work, and participate in recreational activities. By considering implementation and maintenance throughout the design, we ensure lasting quality.

We also provide in-house planning and design support to other GAI professionals in the areas of storm-water management facilities, road alignment, environmental studies, and construction cost estimates.

Local, state, and federal regulatory agencies have recently placed an increased emphasis on sustainable design concepts promotion as part of the land development process. These may range from large-scale initiatives such as the 1991 Intermodal Surface Transportation Enhancement Act (ISTEA) which seeks to promote alternative transportation methods, greenways, and highway beautification, to small-scale local initiatives such as tree preservation and hillside protection ordinances. By keeping up with these recent trends, GAI's landscape architects work with review agencies and the public to ensure cost-effective design solutions for the client that also satisfy public-issue concerns.



GAI utilizes computer technology programs designed to assist landscape architecture and land use planning studies, including:

- GIS for land use and natural systems mapping
- CADD for landscape and hardscape construction design
- Computerized landscape specification and cost estimating software
- 3-D terrain modeling capability
- Plant materials and landscape product databases

By combining the latest technology with a hands-on, pro-active approach to project design and management, GAI's team of landscape architects promote wise stewardship of natural resources and achieve the client's goals and objectives.

Environmental Service Brief

Overview

Since the advent of NEPA, RCRA, CWA, and other environmental laws passed in the 1960s and 1970s, GAI Consultants, Inc. (GAI) has worked closely with its clients to provide practical, cost-effective solutions to environmental challenges.

Our diverse range of engineering, planning, environmental, and construction services include environmental site assessments, transmission line permits, abandoned mine abatement, brownfield site development, environmental compliance, safe disposal of hazardous materials, wetland delineation, assessment of threatened and endangered species, application of computer technology and state-of-the art environmental analysis and management techniques using GIS.

Environmental Studies

- Wetlands determination & delineation
- Wetland mitigation
- Natural stream restoration
- Environmental inspection
- Rare, threatened, & endangered species surveys
- Air & noise studies
- FEMA floodplain map revisions
- Watershed management
- Environmental impact statement
- Environmental assessment

Utilities Management

- Gas/electric transmission line permit applications
- Route evaluation/selection
- FERC compliance
- Tower line feasibility study

Brownfield Site Development

- Environmental site assessment
- Comprehensive planning
- Site planning/development
- Transportation access evaluation

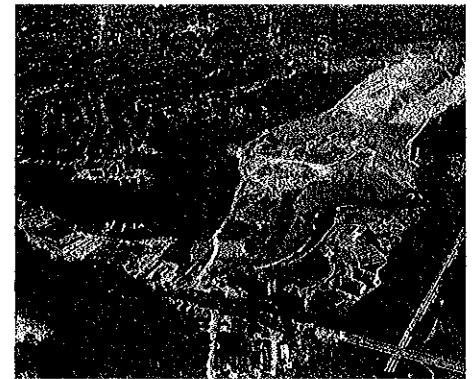
- Industrial site re-use using voluntary action plan

Permitting & Compliance

- Water quality permit
- NPDES permit
- Groundwater and surface water modeling
- Wastewater treatment
- Oil spill modeling/SPCC plans
- Air quality modeling
- Stormwater management plan
- Erosion & sedimentation control
- FERC permit
- 404/401 permitting
- State power siting board certification

Environmental Site Assessment

- Phase I & II assessments
- UST/AST investigations
- Soil & groundwater remediation design/oversight
- Hazardous waste management
- Remediation investigation & feasibility study



Abandoned Mine Issues

- Abandoned mine land stabilization and reclamation
- Mine fire abatement
- Stream reclamation & restoration/watershed restoration
- Highwall reclamation/coal refuse reclamation

Environmental Compliance / Management Systems

- Operation & maintenance plans
- Risk management plans
- Compliance plan preparation
- Regulatory requirement analysis
- ISO 14000 preparation (environmental management)
- Environmental database management of solid / hazardous waste & air emissions
- Waste minimization / pollution prevention

Environmental Health & Safety

- OSHA compliance consultation
- Industrial hygiene surveys
- Asbestos assessment services
- Lead assessment services
- Risk assessment
- Indoor air quality assessment
- Health & safety training classes

Our Analytical Tools

- Geographical Information System (GIS), a computer -based system used to capture, analyze, manage and display referenced information geographically. This allows for large quantities of data to be synthesized efficiently, resulting in high quality, easy to follow maps and graphs
- Global Positioning System (GPS) is a valuable field survey tool that uses satellites to enable GPS receivers to determine their precise location

Major Project Accomplishments

GAI has completed a diverse range of environmental projects, many of which have been recognized by leading industry experts:

Edwardsport IGCC Plant Gas Line (King, Edwardsville, IN)

Environmental evaluation and feasibility of alternate routes to connect an existing natural gas pipeline to an Integrated Gasification Combined Cycle (IGCC) plant

Client: Duke Energy; Completion: 2008

- In addition to providing an important connection to convey fuel to the new IGCC plant, GAI's involvement in the project helped to avoid and minimize potential impacts to water resources, endangered species, land use and cultural resources in the project area.

Demolition of Frick Park, Pittsburgh, PA

Brownfield restoration redevelopment site design – 230-acre site developed into 713 housing units

Cost: \$269M;

Estimated Build-out Completion: 2010

Client: Urban Redevelopment Authority

- 2002 ESWP, Award for Project of the Year in Environmental
- 2003 Governor of Pennsylvania, Award for Environmental Excellence in Land Use
- 2003 ACEC/PA, Diamond Award for Engineering Excellence

Monongahela South No. 3, Washington County, PA

Abandoned mine/highwall reclamation services

- 2006 Eastern Region Abandoned Mine Reclamation Award, Office of Surface Mining

Integrity and Experience

Our academic training combined with our experience in research and practical engineering provides the foundation for solutions to complex environmental problems.

Our highly qualified and diverse staff of engineers and scientists include:

- Civil & Environmental Engineers
- Geologists & Hydrogeologists
- Industrial Hygienists
- Soil Scientists
- Chemists & Chemical Engineers
- GIS Specialists
- Environmental Scientists
- Biologists & Ecologists
- Planners & Landscape Architects
- Environmental Technicians

"The staff from GAI has always been very professional, knowledgeable and has performed exemplary work. Based on my experience with GAI Consultants, Inc., I would recommend that GAI be considered for any consulting services associated with the abatement of health and safety hazards or environmental problems associated with abandoned mining operations located anywhere throughout Appalachia."

Eric E. Cavazza, Chief, Design Section, Cambria District Office, Bureau of Abandoned Mine Reclamation, PA Department of Environmental Protection

Site Development Service Brief

Overview

Critical to a project's viability, public resistance, environmental issues, local zoning issues, site topography and regulatory hurdles cause Land Development to be a challenging industry. From environmental impacts and public review to a variety of technical constraints, permitting and plan approval can hinge on any number of preliminary planning and design considerations. Furthermore, failure to anticipate problems can result in substantial and even insurmountable delays in a project's timetable and its economic viability.

GAI Consultants, Inc. (GAI)'s primary focus is producing superior projects on time and on budget. Our experience includes dozens of land development and redevelopment projects on residential, commercial, industrial and mixed-use properties. From conceptual site design through final construction, we not only know the process, we possess the needed experience to help you succeed. Through the interaction of our various engineering disciplines, we are able to provide comprehensive services for every phase of each project. These include:

- Land surveying
- Feasibility studies
- Facilities planning and design
- Land use studies
- Master planning
- Landscape architecture
- Permit acquisition
- Impact fee studies
- Traffic impact assessments
- Site design
- Stormwater management systems
- Streetscape design
- Subdivision design
- Roadway and infrastructure design
- Construction layout surveying
- Utilities assessments, rehabilitation and design
- Water and sewer design
- Construction documentation and monitoring

We base our understanding and appreciation of land development potential on the knowledge of the local development climate and work experience in the area.

To help you achieve your goals, GAI employs professional engineers, environmental scientists, planners, registered land surveyors and field technicians who are all supported by expert technicians and state-of-the-art CAD systems. GAI makes meeting your needs our top priority.



Planning and Site Design Service Brief

Overview

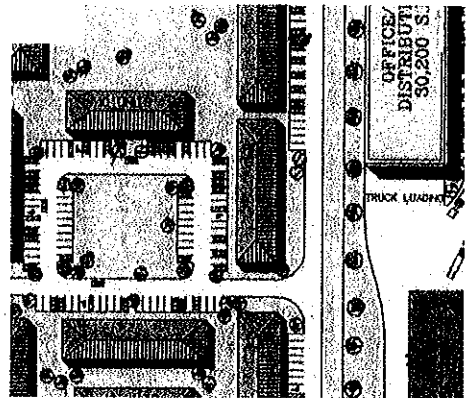
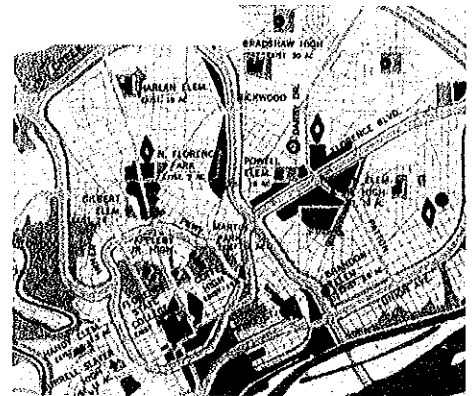
GAI Consultants, Inc. (GAI) provides a full complement of comprehensive urban and site planning and design services. We have a solid core of professional planning personnel with expertise in a wide range of planning and growth management applications, grantsmanship, and plan implementation processes.

Our corporate culture fosters a stable, talented and service-oriented staff to provide integrated strategies and solutions to meet project-specific needs and to help solve neighborhood, community and regional development issues, and to provide a strong sense of community.

Our Planning Services Include:

- Comprehensive planning and urban design
- Community planning and redevelopment
- Land use and development regulations
- Due diligence and land use entitlements
- Master plan and site selection studies
- Corridor alternatives analyses
- Developments of regional impact
- Project development and environmental studies
- Historic architecture analysis and community
- Design standards
- Public participation, visioning and consensus building

We provide our clients with a comprehensive understanding and efficient approach to their program with our in-house civil, landscape architecture, transportation, structural, survey, and CEI capabilities.



Comprehensive Planning

Comprehensive planning includes all phases of information gathering, analysis, and documentation including:

- Database development for land use, economic, facility conditions, housing and demographic, and transportation analyses
- Opportunity/obstacle identification including blight, facility needs, land use suitability, and land development potential analyses
- Evaluation of plan alternatives including resolution of conflicts, consensus building, and impact analysis related to social, political, environmental, economic, and physical issues
- Plan implementation including the organization and development of governmental growth management tools. These include growth management plans, land development regulations, and architectural and engineering guidelines

GAI's comprehensive planning team has been instrumental in helping federal, state, county, and city governments meet the growing needs of their constituencies. Our planning services promote a safe and orderly economic development.

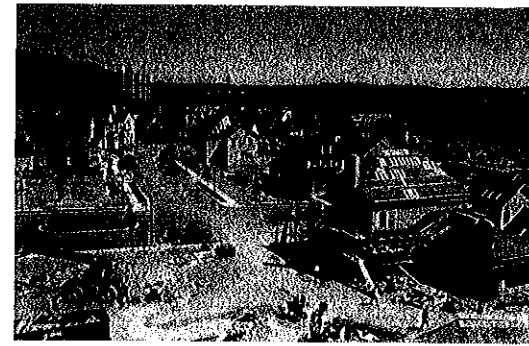
Urban Planning and Design

Urban planning and design services focus on the community, neighborhood, and site-specific levels. Streetscaping, area redevelopment, land use and development controls, and special-use developments are all important aspects of our services. These types of planning services include:

- Evaluation and review of development controls
- Preparation of urban streetscape programs
- Preparation of transportation improvements, and utility and infrastructure corridor studies
- Alternatives analyses, project development, and environmental studies
- Preparation of environmental assessments and studies

GAI's team approach is comprehensive and includes expertise in planning, engineering, construction, and surveying. With these capabilities our clients receive responsible, economically feasible solutions. Our team members are also experienced in architectural design, landscape design, and funding grantsmanship. We have solutions to meet site-specific needs and to help solve regional development issues.

These solutions meet criteria including: legal constraints, social sensitivity requirements, economic requirements, and optimization of the development potential of existing and future communities and neighborhoods.



Site Planning and Design

GAI has experience in site planning for individual, public, and private developments. We frequently team with financial consultants for complete site development feasibility analysis. This work usually includes a market analysis, market strategy, and growth strategy. Our comprehensive list of services includes:

- Development of regional impact studies
- Site development feasibility analysis
- Zoning analysis and change consultation
- Site selection studies, engineering and environmental evaluations, and master planning
- Site planning, layout, and design
- Eminent domain technical services for property analysis, cost-to-cure analysis as a result of public condemnation proceedings, and expert witness testimony

Public and private site development demands the full optimization of investment capital and strict attention to detail in permitting, site layout design, circulation, site egress and ingress, and surrounding land use development. GAI's team achieves these goals with reliable planning and design solutions.

Within these three planning service areas, GAI's process provides thorough and economical solutions for land use, growth management, and capital investment challenges faced by federal, state, county, and municipal agencies and private developers.



GAI's Project Delivery System for Design Projects

Overview

GAI is structured to demonstrate quality and professionalism in all that we do. Through strategic hiring and by promoting from within, project management positions are assigned to individuals who are knowledgeable technically, and who understand the importance of providing our clients with quality services and delivering project documents on time and within budget. GAI is committed to empowering our Project Managers to "think outside of the box" in their project management efforts and be responsive to our client's needs.

GAI makes a significant investment in management and leadership programs, and offers GAI University courses designed to help promising individuals reach their fullest potential. The Management and Leadership Skills Class coaches potential leaders in developing problem-solving and conflict-resolution techniques. GAI's Project Management Workshop and Advanced Project Management Training programs provide a comprehensive, in-depth study of project management at GAI.

A successful planning process for design projects begins with the most critical decision: Identifying the Team. Assembling a solid design team to support the needs of the project and to meet or exceed the client's expectations is the foundation for quality engineering and timely project delivery. Every GAI team comprises the following professionals:

- ◆ **Accomplished Project Manager:** GAI assigns seasoned project managers, who remain with their assignments to completion, and who have the ability to provide substantial technical knowledge to the project. Their contribution to the project also includes a proven reputation for providing effective leadership, motivation, and encouragement to the staff. This is the backbone of a successful project.
- ◆ **Competent Task Managers:** The project manager is a project leader and team builder, and understands the need to select the appropriate staff to manage specialty tasks associated with the project. Qualified task managers are appointed by the project manager to guide specialty teams and strengthen the core management structure.
- ◆ **Quality Sub-Consultants.** GAI teams with competent and skilled sub-consultants, when appropriate, to fill key project roles and assist GAI's in-house staff. GAI uses firms that meet or exceed GAI and client expectations, and this facilitates development of a strong project team. Many of our sub-consultants have partnered with GAI before, providing a seamless complement to the team.

Immediately upon receiving authorization to proceed, the project team follows GAI procedures for project development, as described below. These activities identify and establish administrative procedures for managing and executing the project.

1. **Project Work Plan:** The Project Manager prepares a work plan that identifies the sequence of major project activities from project inception through completion for design and construction.
2. **Project QA/QC Plan:** The Project Manager selects a QA/QC level for the project that considers the complexity of the project, and any risks or uncertainties identified with the project. GAI's benchmark for ascribing an appropriate level of quality control ranges from project reviews, internally and with the client at specific stages, to preparation of a Project Specific Quality Assurance Plan (PSQAP).
3. **Project Kick-Off Meeting.** The Project Manager holds a project kick-off meeting with the design team and the client. The most critical of all meetings, it is the Project Manager's opportunity to promote confidence in the project team by exhibiting a well-organized plan for project execution and discussing the client's expectations. The project schedule is developed, the work plan and quality control procedures are

communicated, and the roles of all team members are clearly identified. "Rocks in the road" and potential problems are discussed to identify possible contingency solutions. At this meeting, the project contract and budgets are thoroughly reviewed, and communication and correspondence plans are discussed.

4. **Project Records Management:** Adherence to GAI's document, e-mail, and electronic file control and records management procedures is emphasized at the beginning of the project, and throughout.
5. **Accurate Project Data Determination.** The project team builds the project's foundation, consistent with the scope of its services, by obtaining accurate information about the project site, especially survey, right-of-way, utilities, and environmental impacts. These are the four most critical elements to the success of any design project, and are essential to the development of practical and economical designs.
6. **Design Criteria Development.** The project team establishes the project design parameters, investigates right-sizing measures, and gets concurrence from the client, before proceeding with design. This essential process enhances matching client expectations and reduces the potential for unnecessary rework.
7. **Internal Constructability Review.** The Project Manager investigates constructability issues, consulting with seasoned engineers that have construction experience. Detecting constructability issues at the preliminary design stage lessens the chance of pursuing a potentially flawed design concept.
8. **Schedule Maintenance.** The Project Manager develops a project schedule that includes a logical sequence of tasks, task durations, and internal quality assurance, agency, and client review(s). This action is paramount to meeting project goals. In the event of a delay, it is the team's objective to initiate a recovery plan, if needed, to deliver submissions and construction documents on time. GAI's goal is to meet or

beat project milestone dates.

9. **Project Budget Monitoring.**

The Project Manager is always aware of

the budgetary challenges GAI's clients face. By determining effective procedures for performing the work, the Project Manager is able to keep the project on track. Consequently, GAI is committed to completing scopes of work within agreed upon design budgets.

10. **Quality Assurance/Quality Control.** GAI's entire project team is responsible for every submission, report, specification, and calculation undergoing quality-assurance review(s) in accordance with the quality control measures established for the project. Adherence to providing documentation, maintaining organized files, and following records management procedures provides for seamless retrieval of project documents and keeps the team focused.

11. **Client Responsiveness.** As a contributing partner, GAI takes ownership of every project along with the client and is responsive to their needs. GAI knows that responding promptly and in a professional manner builds and strengthens client relationships, and other members of the GAI project team stand ready to address client needs when the Project Manager is unavailable.

12. **Client Follow-Up.** GAI's managers are encouraged to seek feedback from our clients to gauge what went right or wrong throughout the project delivery process. This information is shared with all GAI project managers in a formal "lessons learned" coaching session.



Transforming ideas into reality for over 50 years, GAI is a 650-person, employee-owned, multidisciplinary engineering and environmental consulting firm, serving our clients worldwide in the energy, transportation, real estate, water, municipal, government, and industrial markets from offices throughout the Northeast, Midwest, and Southeastern United States.

Surveying Service Brief

Overview

GAI Consultants, Inc. (GAI) offers a full range of surveying services to meet the land documentation needs of public and private land owners, developers, and government agencies. Our surveying services are comprehensive, covering almost all surveying applications.

Boundary Surveys

Boundary surveys are developed for a wide range of uses. These include: land title/ownership purposes; real estate financing; as-built delineations; insurance purposes; real estate appraisal and sales; encroachment delineation; boundary line dispute resolutions; subdivision plats; condominium plats; and rezoning/ variance purposes.

Construction Surveys

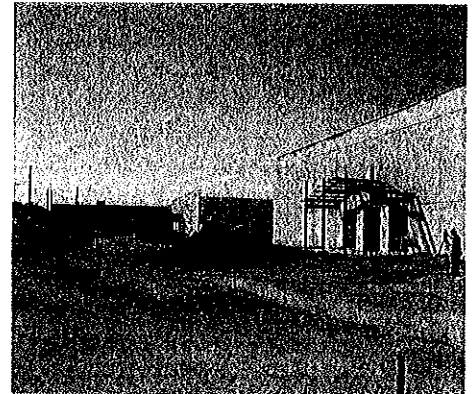
Construction surveys can save valuable time and cost in the field. Surveys conducted on site during the initial stages of construction preparation are critical to establish location (horizontal) and elevation (vertical) placement of designed improvements. Our survey teams have saved our construction/contracting clients thousands of dollars in potentially damaging lost time and litigation liability.

Control Surveys

Control surveys employ a series of grid lines and points to accurately pinpoint physical features. The process consists of establishing horizontal and vertical control points to develop a series of independent triangulation measurements. This network is then verified and compared to develop reliable and accurate control grids.

Design Surveys

Design surveys provide the foundation upon which all design for manmade improvements must rely on for design development. Boundary lines' location, topography, site physical features (rock outcroppings, trees, etc.), as well as any on-site buildings, utilities, encroachments, and easements are recorded. From this foundation design plans can be effectively produced. The GAI surveying team has developed design surveys for all types of design assignments including bridges, highways, buildings (residential, commercial, industrial, institutional), utilities (electric power, gas, water, sewer, cable TV, phone) and transportation facilities (airports, railroad, truck and bus facilities).



Hydrographic Surveys

GAI has the trained staff, equipment, and experience to survey bridge structures, lake and river shore lines, ocean tide lines/elevations, and wetland mitigation areas.

Topographic Surveys

Topographic surveys incorporate ground run, aerial, tree, utility location, wetland, floodplain and hydrographic surveying and mapping. GAI uses state-of-the-art field equipment, electronic record recorders and computer mapping technology to produce accurate topographical mapping documents for use in design development, storm-water management, and construction.

Wetland Mitigation Surveys

Wetland mitigation surveys include not only wetland delineation but also surveys for plant identification, planting, construction staking, fill material calculations, and storm-water management. GAI's wetland mitigation surveys support both wetland creation and enhancement projects.

Specialized Surveys

GAI's survey teams' specialized surveys include a wide range of applications. These include archaeological, cultural/historical, utility location, legal determination, and eminent domain technical services support.

GAI can assemble an experienced, fully equipped survey team to handle almost any survey project assignment. In addition to our field survey crews, our in-house mapping specialists use an extensive library of computerized mapping software including Terramodel, Arc-Info, GRASS, Microstation and AutoCAD. GAI has the experience, the assembled team, and the organization for quick response. Our company is committed to satisfying each client's individual survey needs.



Global Positioning System (GPS)

GAI employs state-of-the-art GPS equipment for horizontal and vertical control surveys. GAI operates Trimble 5700 Series Global Positioning System Total Stations that are accurate to within two centimeters on the horizontal axis and three centimeters on the vertical axis. GAI also employs a mobile Real-time Kinematic (RTK) System that permits instant gathering and processing of information from either known or established points. By combining GPS technology with conventional survey methods, GAI saves the client time and money by eliminating the need to double back survey control networks to assure a closed survey. GPS technology also allows the surveyor to reference a global datum to assure control points can always be easily recreated if destroyed.

FIRM QUALIFICATIONS

GAI is an 800-person, employee-owned, multi-discipline engineering and environmental consulting firm, serving our clients worldwide in the energy, transportation, real estate, water, municipal, government, and industrial markets from offices throughout the Northeast, Midwest, and Southeast United States. This section provides further information regarding the firm and presents our overall landscape design capabilities.

Services Offered:

Environmental Engineering and Studies; Civil Engineering; Land Development; Transportation Engineering and studies; Geotechnical Engineering; Structural Engineering; Cultural Resources; Construction Engineering & Inspection; Surveying; GIS; Landscape Architecture; Electrical Engineering; Mechanical Engineering; Water Resources Management.

Markets Served:

Energy, Transportation, Real Estate, Water, Municipal, Government, Institutional, and Industrial.

Founded:

October 1958, Pittsburgh, PA; consolidated in 2003

Staff:

Over 800 employees corporate-wide

Revenue:

Over \$70 million annually

Ownership:

100 percent Employee-owned (ESOP) firm with a 7-member board

Vision:

The Company of Choice... Transforming Ideas into Reality©

Mission:

To Continue Growing as an Integrated Consulting Firm, Creating Value for Our Clients and Employees

Core Values:

- + Honest, Fair, and Ethical Behavior
- + Quality Work Culture
- + Company Loyalty and Support
- + Equal Employee Opportunities
- + Mutual Employee Respect

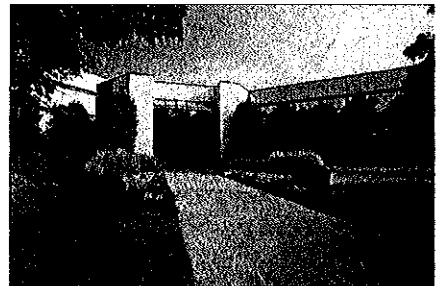
Awards (www.gaiconsultants.com/awards):

- + 56 Engineering Excellence Awards
- + Top 500 Design Firms - Engineering News-Record (ENR) Magazine: 2006, 2007, 2008, and 2009
- + Top 200 Environmental Firms - Engineering News-Record (ENR) Magazine: 2008

Website www.gaiconsultants.com

GAI Professional and Staff Resources

Archaeologist		25
Architectural Historian	✦	9
Biologist		7
CADD Technician	✦	54
Civil Engineer	✦	55
Construction Inspector	✦	41
Construction Manager		22
Electrical Engineer		7
Environmental Engineer	✦	33
Environmental Scientist		32
Foundation/Geotechnical Engineer	✦	14
GIS Specialist		11
Geologist		7
Land Surveyor		23
Landscape Architect	✦	6
Mechanical Engineer		10
Planner: Urban/Regional		3
Structural Engineer		36
Technician / Analyst		157
Transportation Engineer		21
Water Resources Engineer		9
Other Employees		224
Total		806



✦ Staff Resources expected to be used for the ADA Compliant Access Ramp

GAI Team Member	Project Role
David Gilmore, RLA, ASLA	Overall Project Manager, Lead Landscape Architect
James Hemme, P.E., LRS	Senior Engineering Manager, Site/Civil Engineer
Jared Tuk, M.A.	Cultural Resources
Mark Shawl	Landscape Architect
Shannon Shank	Environmental Specialist
Joe Prine, EI	Engineering

Scope of Services

Phase I: Project Initiation

The following Scope of Work is based upon our years of experience in working with clients to provide comprehensive design, landscape architecture and engineering services.

This scope of services is based on the preparing construction drawings for an ADA compliant access ramp to the Kanawha River Levee and future floating boat dock. It is understood that after a thorough review of the project scope, adjustments will be made to accommodate the Owner's schedule etc.

Task 01: Pre Planning Meeting / Initial Site Visit / Establish Goals and Objectives

Initial Stakeholder Meetings:

GAI CONSULTANTS will facilitate an initial programming meeting to introduce our firm to the core team and project representatives. This meeting will serve to establish regular monthly meeting dates or as required, review the scope of work, review the design objectives, discuss issues in a preliminary fashion to develop a sense of steering committee familiarity with study area, design issues and concepts, and finalize any logistics in the preparation of the design.

Initial core team meetings will be conducted to solicit input. Suggested core team group could include, but not limited to:

- Representatives of GAI project management team
- Representatives of Department of Administration
- Representatives of WVDOH and SHPO
- Representatives of the boat dock design team

Initial Site Visit:

The GAI CONSULTANTS Team will undertake an initial site visit with the Department of Administration team. The purpose of the visit is to broaden the team's understanding of the project and the issues which are unique to the project site. This initial walk - through will improve the team's understanding of the project site and the issues surrounding the development of the ADA ramp and will enable the design team to better communicate with the Core Team and other interested parties.

Following the site visit, the GAI CONSULTANTS Team will conduct a kick-off meeting with the Core Team. The intent of this meeting will be to:

- Gain an in depth understanding of project mission and short and long-term goals for the ADA Ramp
- Define the project schedule, including:
 - Milestone dates
 - Core Team meeting dates
- Begin to assemble and evaluate existing available data for the full range of planning issues and identify any significant lack in key data requirements
- Confirm and identify roles of the team members
- Establish the framework and general strategy regarding methods of presenting the research and other efforts of the GAI CONSULTANTS Team to the Department of Administration
- Establish the decision making approval process for the project

Phase II: Due Diligence / Programming

Task 02: Programming

Prior to beginning in-depth analysis, the GAI CONSULTANTS Team proposes to conduct one (1) Vision Session with Core Team. This facilitated work session is structured to be a highly participative meeting in which various representatives can explore critical aspects of the design.

The purpose of this meeting is to:

- Review goals, objectives, and elements of the Department of Administration.
- Review all available mapping and pertinent studies from the Owner in digital format.
- Identify unique cultural considerations
- Identify opportunities: constraints and issues
- Build consensus

This phase of work will establish the framework for developing physical planning concepts. We go to great lengths to avoid preconceptions, challenge our own assumptions, and look with a fresh and inquisitive eye at each individual project. **We take nothing for granted**, making each planning effort a search for appropriate guidelines that accurately reflects the current and future trail needs of the facility.

During the first weeks of the study, GAI CONSULTANTS shall review and analyze all available data, including the information gathered during the kickoff meeting. This information will include review of any additional planning objectives identified in the vision session.

The following major program elements will be identified:

- Identification and location of major vehicular circulation patterns and entrance nodes / conflicts.
- Identification and location of major pedestrian circulation patterns and entrance nodes / conflicts.
- Identification and location of major utility conflicts.
- Identification and location of specimen trees and vegetation to remain undisturbed.
- Identification and general location of major facility types, interesting natural features, cultural and historic attributes, and other unique opportunities.
- Identification and view corridors and visual blight

Task 03: Data Collection and Evaluation

GAI Consultants will obtain available mapping (aerial photography, city topography, USGS topographic mapping, etc.) and previous planning studies/documents from Department of Administration. We will contact various utility companies and authorities in the area to obtain information concerning existing utility infrastructure and general right of way issues as needed. We will analyze obtained data, mapping, and interview relevant utility personnel.

For purposes of this scope, we assume that will be working from an Owner supplied base map and no additional surveying will be required. If additional surveying is required to finalize the base mapping, GAI CONSULTANTS offers complete surveying services.

Review of Relevant Reports:

The GAI Team will review all relevant previous planning studies that have been conducted by the Department of Administration including but not limited to:

- Capital Master Plan
- Current development proposals
- Zoning Ordinance
- Development Guidelines for the project area

Phase III: Site Analysis

Task 04: Site Analysis

The GAI CONSULTANTS team will perform the necessary analysis of the base map data collected and shall determine the appropriate location for the proposed use areas included in the project scope. Our analysis will include a review of the provided base mapping and a site visit and walkover by team members, including the Project Manager. Additional information provided by the Owner will also be reviewed if applicable for the preparation of the design development drawings.

GAI CONSULTANTS anticipates the following as necessary elements to be researched and analyzed for the subject property:

Physical Attributes:

- Hydrology
- Floodplain
- Topography & Slope Aspect
- Soils
- Geology

Biological Attributes:

- Wildlife
- Vegetation
- Wetlands

Cultural Attributes:

- Adjacent & Intrinsic Land Use
- Land Use Regulation (Federal, State, Local)
- Infrastructure and Utilities
- Perceptual Qualities: Visibility, Views, and Noise
- Historical Quality
- Existing Structures

Phase IV: Design

Task 05: Design Package

Schematic Design Concepts:

Working with the stakeholders and their representatives, GAI CONSULTANTS will evaluate the desired scope of development for the site to identify specific design requirements that may be required to complete the master plan and presentation drawings. This will require several scope development meetings to identify and refine all the elements in the scope of work.

We anticipate developing several scenarios to address the requirements of the project scope. We will work with your described vision of the site and suggest creative and aesthetic options to enhance the property image while still being functional.

Preliminary Design/ Design Development:

After the provided and collected data has been analyzed in Task 1 and 2 and the appropriate elements for the project have been determined, GAI CONSULTANTS shall develop a working design for the ADA compliant ramp that shall address the primary goals of the scope of work. This working design shall be presented to you for review and consideration. The working design will incorporate your comments from the initial programming meeting and will be presented to the Owner for review.

Final Design:

After the Owner and various stakeholders have reviewed and commented on the preliminary design, it will be modified accordingly to produce a final site plan. We understand that during the design development stage this will be a fluid process and we have assumed one significant round of comments to the working plan and two minor rounds of comments during this stage of the design.

GAI CONSULTANTS will prepare the final design and presentation drawings which will convey the team's objectives in a clear and imaginative manner. A color rendered final master plan as well as digital files will be presented and become the property of the Department of Administration.

Preliminary Cost Opinion Preparation:

A preliminary cost opinion in a spread sheet format reflecting quantities and unit rates derived from the final design shall be submitted for review and discussion.

Task 06: Construction Package

Construction Drawings

GAI CONSULTANTS shall prepare a construction package for the above referenced project. The construction package shall reflect and refine the design elements arrived at design development stage. We anticipate the following drawings to be included in the package:

- Cover Sheet
- Erosion and Sediment Control Plan
- Existing Conditions Plan
- Demolition Plan
 - Corridor Clearing
 - Vegetation Protection Zones
 - Soil Protection Zones
 - Limits of Disturbance
- Proposed Site Grading and Drainage Plan
- Dimension & Layout Plan
- Landscape Plan / Plant Schedule / Planting Details
- Site Related Details
- Ramp Construction Details and Typical Cross Sections
- Special Storm Water Management Details

Project Specifications and Maintenance Guidelines:

GAI CONSULTANTS shall provide the Client with the appropriate technical specifications and maintenance guidelines in Masterspec format and front end documents in AIA format to complete the work.

Task 07: Final Cost Opinion Preparation

A final engineers cost opinion reflecting phasing, quantities and unit rates derived from the construction plans shall be submitted. This can be used for comparison purposes by the Owner in reviewing bids received.

Task 08: Permitting & Environmental Review

GAI CONSULTANTS shall prepare and submit required permit applications to applicable regulatory agencies based upon the research conducted in Task 1 and final design generated in Task 5. For purposes of this proposal we have assumed this will include erosion and sediment control plan and a general NPDES Construction storm water permit submittal to the West Virginia Department of Environmental Protection and Improvements within the ordinary high water mark of the Kanawha River will require nationwide permitting with the Corps of Engineers. We also anticipate a submittal to the City of Charleston for a site work building permit. If additional submittals are determined or if an individual permit application to the Corps is required we will immediately notify the Owner and update this task accordingly. Normal regulatory comments are considered incidental to this task and will be handled under this scope.

Task 09: Construction Administration

GAI CONSULTANTS can perform construction administrative duties for the project elements with regard to:

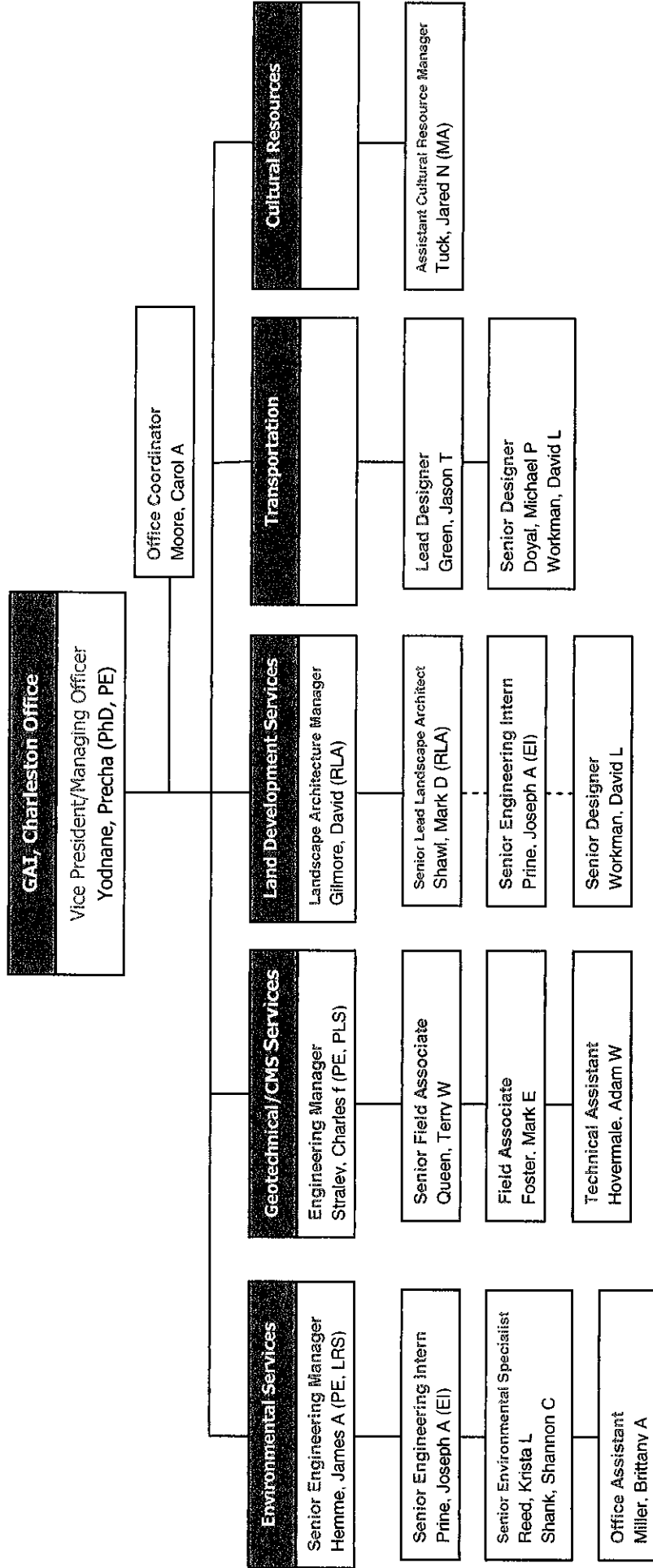
- Performing a pre-construction meeting with the selected contractor.
- Review and approval of shop drawings.
- Perform weekly site visits and bi-weekly progress meetings during construction to confirm progress and compliance with construction documents and specifications.
- Preparation of meeting minutes.
- Pay request review and approval.
- Change order preparation.
- Final site inspection / punch list development.
- Project close-out.

Task 10: Construction Monitoring

GAI CONSULTANTS can provide full or part time construction monitoring services consisting of soil compaction testing, concrete sampling and testing, aggregate sampling and testing and other services on an as requested basis. For purposes of this proposal we have assumed that the contractor will be responsible for hiring their own third party testing agent for daily testing. GAI CONSULTANTS will perform periodic "checks" of the contractor's results should any be in question and for determining consistency.

PROJECT ORGANIZATION

Organizational Chart



Key Leadership



**David Gilmore, RIA, ASLA,
Corporate Practice Area Leader - Landscape Architecture Services**

Mr. Gilmore joined GAI Consultants in 2005 to manage the firm's land development and landscape architectural services. The central focus of his practice is on the continued development of the firm's site design and landscape architecture projects throughout the eastern United States, while providing landscape architectural support to all of GAI's offices and clients. He will serve as the overall project manager for the project overseeing scheduling, personnel, design and client communication.

Prior to joining GAI Consultants, Mr. Gilmore worked for a multi-disciplinary A&E firm in Charleston, South Carolina, providing architectural, engineering, landscape architectural design services. While working in South Carolina, Mr. Gilmore was involved with campus master designs for many colleges and universities, large downtown streetscapes and subdivision layout and design. Mr. Gilmore later worked with a landscape architectural and design firm in Charlottesville Virginia, where he continued his professional development working on a wide range of projects for both the public and private sector. After returning to West Virginia in 1991, Mr. Gilmore has been in private practice specializing in site design, land planning, streetscapes and parks and recreational design for numerous public and private clients in West Virginia and Eastern United States.

Mr. Gilmore currently serves as the Corporate Practice Area Leader for Landscape Architecture services for GAI Consultants. In this role, he coordinates projects and marketing activities for all of GAI's offices throughout the region. He maintains professional registrations in West Virginia, Pennsylvania, Ohio, Indiana, Maryland, North Carolina, Virginia and Kentucky. In this capacity, Mr. Gilmore brings 22 years of experience on a diverse range of projects covering all aspects of landscape architectural design in both the public and private sector. Mr. Gilmore's experience includes but is not limited to Public outreach and programming, construction document and technical specification preparation, site analysis, schematic design, construction administration, master and land use design (riverfronts, resorts, parks, recreational, residential, industrial, and commercial), streetscape and municipality improvements, landscape and hardscape design, and graphic presentation drawing.



**James Hemme, P.E., L.R.S.
Senior Engineering Manager
Environmental Services Manager**

Mr. Hemme specializes in site engineering, planning, permitting and stormwater management, with emphasis on parks and recreation areas and infrastructure. He brings a multi-disciplinary background to projects that enables him to see the "big picture" of what will be needed to take a project from start to finish. Mr. Hemme is competent in general civil engineering, geotechnical engineering, environmental disciplines including NEPA compliance, and transportation services. He has worked extensively with private developers, architects, municipalities and government agencies.

Mr. Hemme volunteered his time and knowledge to assist with preparation of the Greater Charleston Greenway Initiative by the West Virginia Land Trust Company in Charleston, West Virginia. Mr. Hemme is a current volunteer with the Riverside South Committee promoting riverfront improvements along the south side of the Kanawha River.

Relevant recent experience includes: engineering manager and engineer of record for the Charleston Riverfront Improvements; site engineer for the National Youth Center for Science Education master plan development, a proposed 110 acre sustainable education development endeavor on the banks of the Blackwater River; and project manager for the award winning Kanawha Trestle Rail Trail Master Plan.



Jared N. Tuk, M.A.
Culture Resources

Mr. Tuk specializes in historic architectural surveys, National Register nominations, Section 106 compliance-related surveys, and historic preservation planning. He has been involved with efforts to identify, evaluate, and preserve historic buildings, districts, and sites, and is a skilled architectural historian specializing in 19th- and early 20th-century architecture.



Mark D. Shawl, RIA, LEED AP
Lead Landscape Architect

Mr. Shawl has 16 years of experience on a diverse range of projects encompassing all aspects of landscape architectural design in both the public and private sector. Experience includes, but is not limited to: project management, construction document and technical specification preparation, site analysis, schematic design, construction administration, master & land-use planning (parks, recreational, residential, institutional, commercial), streetscape and municipality improvements, landscape and hardscape design, graphic presentation drawing. He is also knowledgeable with low-impact development with respect to stormwater and site construction.



Joseph A. Prine, EI
Senior Engineering Intern

Mr. Prine has a wide variety of experience in environmental engineering, civil engineering, site development, streetscape, and planning projects while at GAI and through previous employments. He has worked with private developers, architects, municipalities and governmental agencies. He has substantial experience in site engineering, and storm water management. He has worked on various construction project sites including landfills, abandoned mines, and industrial and commercial facilities. Some of his environmental engineering projects include; Phase 1 reports, environmental monitoring, permitting, and design. Some of his civil engineering/site design projects include; design of storm water management systems, earth work estimating, water and sewer line extensions, design of both large and small sites ranging in size 1 to 40 plus acres, assisting in the preparation of design/construction plans, reports, and cost estimates for projects, and highway/roadway design. He has also contributed to planning and design in several community improvement and streetscape projects.



Shannon Shank
GIS Specialist

Mr. Shank has a wide variety of experience in GIS analysis and mapping, environmental permitting, site development, streetscape, and planning projects while at GAI and through previous employments. He has worked with architects, municipalities and governmental agencies. He has worked on various construction project sites including abandoned mines. Some of his site design projects include; digital terrain, cross-sections, vertical profiles, site detailing, earthwork estimating, the preparation of design/construction plans, reports, and cost estimates for projects. He has also contributed to planning and design in community improvement master plans and streetscape projects.

Preliminary Schedule *(based on starting 11.01.10)*

Task 1:	Pre-planning meeting / Initial Site Visit:	11.01.10 – 11.10.10
Task 2:	Programming:	11.10.10 – 11.20.10
Task 3:	Data Collection and Evaluation:	11.20.10 – 11.31.10
Task 4:	Site Analysis:	12.01.10 – 12.30.10
Task 5:	Design Package:	12.16.10 – 12.30.10
Task 6:	Construction Package:	01.01.11 – 01.31.11
Task 7:	Final Cost Opinion Preparation:	01.01.11 – 01.31.11
Task 8:	Permitting and Environmental Review:	01.01.11 – 01.31.11
Task 9:	Construction Administration:	02.01.11 – close of project
Task 10:	Construction Monitoring:	02.01.11 – close of project

Resumes

David Gilmore, RLA, ASLA

Land Development Services Manager / Corporate Practice Area Leader for Landscape Architecture

Education

BSLA, College of Agriculture & Forestry, 1988 West Virginia University

Professional Affiliations

American Society of Landscape Architects, ASLA
WV Chapter of American Society of Landscape Architects
Council of Landscape Architectural Review Board, CLARB

Professional Development

WVASLA State Licensing Board Member, 2003-2006
Past President, WVASLA
Executive Committee Member, WVASLA
Chairman, WVASLA Licensing and Sunset Review Committee
Judge, Senior Design Awards, West Virginia University

Registrations

American Society of Landscape Architects
Council of Landscape Architectural Registration Board Certified
West Virginia Professional Landscape Architect No. 247
Indiana Professional Landscape Architect No. LA 20700137
Pennsylvania Professional Landscape Architect No. LA 002737
Ohio Professional Landscape Architect No. LA 0801200
Kentucky Professional Landscape Architect No. LA 768
Maryland Professional Landscape Architect No. 3574
North Carolina Professional Landscape Architect No. 1632

Awards

- Merit Award (WVASLA): 'Hyper' Employee Plaza, Main Entrance Improvements
Client: Dupont Company
- Merit Award (WVASLA): Florida Street Revitalization Master Plan
Client: West Side Neighborhood Association

Professional Experience

Mr. Gilmore joined GAI Consultants in 2005 to manage the firm's land development and landscape architectural services. The central focus of his practice is on the continued development of the firm's site design and landscape architecture projects throughout the eastern United States, while providing landscape architectural support to all of GAI's offices and clients.

Prior to joining GAI Consultants, Mr. Gilmore worked for a multi-disciplinary A&E firm in Charleston, South Carolina, providing architectural, engineering, landscape architectural design services. While working in South Carolina, Mr. Gilmore was involved with campus master designs for many colleges and universities, large downtown streetscapes and subdivision layout and design. Mr. Gilmore later worked with a landscape architectural and design firm in Charlottesville Virginia, where he continued his professional development working on a wide range of projects for both the public and private sector. After returning to West Virginia in 1991, Mr. Gilmore has been in private practice specializing in site design, land planning, streetscapes and parks and recreational design for numerous public and private clients in West Virginia and Eastern United States.

Land Development Services Manager / Corporate Practice Area Leader For Landscape Architecture

Mr. Gilmore currently serves as the Corporate Practice Area Leader for Landscape Architecture services for GAI Consultants. In this role, he coordinates projects and marketing activities for all of GAI's offices throughout the region. He maintains professional registrations in West Virginia, Pennsylvania, Ohio, Indiana, Maryland, North Carolina, Virginia and Kentucky. In this capacity, Mr. Gilmore brings 22 years of experience on a diverse range of projects covering all aspects of landscape architectural design in both the public and private sector. Mr. Gilmore's experience includes but is not limited to Public outreach and programming, construction document and technical specification preparation, site analysis, schematic design, construction administration, master and land use design (riverfronts, resorts, parks, recreational, residential, industrial, and commercial), streetscape and municipality improvements, landscape and hardscape design, and graphic presentation drawing.

Mr. Gilmore was recently honored by being 1 of 16 people chosen to be included in the inaugural class of GAI's "Leader's to Watch" program. He has also completed the companies Harvard Leadership Training program as well as GAI Universities Advanced Project Manager Training. Mr. Gilmore is also very active in the Landscape Architecture community, having served as the past president of the West Virginia Chapter of the American Society of Landscape Architects (WVASLA) and the State Licensing Board from 2000-2003. Mr. Gilmore also remains active with the WVU School of Landscape Architecture and has won multiple awards from the West Virginia Chapter of the American Society of Landscape Architects for his work.

Representative Professional Experience

Stormwater Management and Low Impact Design (LID):

- Work on or managed over 100+ stormwater management systems including run-on and run-off control utilizing infiltration best management practices, sediment ditches/traps, storm sewers, culverts, drop structures, ponds, energy dissipaters, etc. Work has included the detailing of special features, creation of technical specifications, development of cross sections, profiles, site grading and hydrologic and hydraulic modeling.
- Site Design for 100+ different projects throughout West Virginia, Ohio, Kentucky and Pennsylvania. NEPA compliance for wetlands, streams, cultural resources, and endangered species.
- Project manager for projects involving detailed Erosion and Sediment (E&S) control plans for 100+ sites throughout West Virginia, including site developments, subdivisions, coal mines, quarries, highways, landfills and brownfield sites.
- Project manager for projects involving National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit Applications for 100+ sites throughout West Virginia, Pennsylvania, Virginia and Ohio.
- In-house landscape architecture consultant for development of the City of Charleston MS4 Stormwater Manual. Manual has been developed to meet the specific needs of construction and stormwater management within City limits taking into account local soils, topography and demographics.
- Project manager of record for site related analysis and master planning for the National Center for Youth Science Education to be located in eastern Tucker County. This facility located on land at the mouth of Canaan Valley has been planned using strict LID principals including limiting clearing, clustering of buildings, promotion of stormwater infiltration and groundwater recharge and preservation of existing special features such as wetlands and well established older groves of trees.
- Project manager of record for Chesapeake Energy Regional Headquarters in Charleston, West Virginia (LEED Project). This project originally slated for construction in North Gate Business Park was designed to minimize required parking, maximize greenspace and promote infiltration of stormwater runoff through the application of specially designed landscape beds and dispersion of stormwater as sheet flow into the adjacent forest. Water quality units designed to remove

oils/greases and sediments were designed within the parking areas and stormwater features for detention and general architectural aesthetics were designed into the roof drain system.

- Team member for Chesapeake Energy Field Offices in Jane Lew, West Virginia; Mount Morris, Pennsylvania; Mansfield Pennsylvania and Honey Branch, Kentucky. All of these facilities have included engineering controls to promote infiltration and to reduce the concentration of water and returning it to sheet flow. In Mansfield PA, infiltration trenches were constructed on the downgradient edge of the new storage yard to completely infiltrate rain events of 1" or less in volume.

Streetscape / Urban Revitalization:

- Charleston Riverfront Park, Charleston, WV
- Kanawha Boulevard Streetscape, Charleston, WV
- Court Street Overlook, Charleston, WV
- Pennsylvania Street, Carmel, IN
- St. Albans Master Plan, St. Albans, WV.
- St Albans Phase I, St. Albans, WV.
- St. Albans Phase II, St. Albans, WV.
- Pennsylvania Avenue Gateway, Charleston, WV
- Florida Street Revitalization Master Plan, Charleston, WV.
- Williamson Master Plan, Williamson, WV.
- MacCorkle Avenue Greenspace Improvements, Kanawha City, WV.
- Kanawha Valley Rapid Transit Shelter/Plaza Design, Charleston, WV
- City of Charleston Storm Water Manual, Charleston, West Virginia
- John Adams Middle school Rain Garden Design

Parks & Recreation:

- Charleston Riverfront Park, Charleston, WV.
- Court Street Overlook, Charleston, WV.
- Shoenbaum Performance Stage, Charleston, WV.
- Stonewall Jackson State Park Master plan, Roanoke, WV.
- Berry Hills Country Club Master Plan, Charleston, WV.
- Twin Falls State Park, Twin Falls, WV.
- Dow Heritage Park, Charleston, WV.
- Charleston Area Medical Center General Division Employee Park, Charleston, WV.
- Dupont 'Hyper' Plaza, Belle, WV.
- Ohio to Erie Trail, Multiple Counties, OH.
- Coonskin Park, Charleston, WV.

Hospitals / Institutional / Campus Planning:

- National Youth Science Camp
- Dow South Charleston Plant, WV.
- Beckley Federal Courthouse Security Upgrades, Beckley, WV.
- Charleston Area Medical Center Memorial Park, WV.
- King's Daughters Medical Center, Ashland, KY.
- WVU Gateway Study, Morgantown, WV.
- Morgan County Courthouse, Berkeley Springs, WV.
- Raleigh County Courthouse, Beckley, WV.
- Town of Fayetteville Cemetery Master Plan, Fayetteville, WV.
- Trinity Lutheran Church Columbarium Master Plan, WV.
- First Presbyterian Church Columbarium Master Plan, WV.
- Elkview Baptist Church, Elkview, WV.

David Gilmore, RLA, ASLA

4

Land Development Services Manager / Corporate Practice Area Leader For Landscape Architecture

- St. Timothy Lutheran Church, Charleston, WV.
- St. John's Baptist Church, Spencer, WV.
- Yeager Airport Master Plan, WV
- The Church of Jesus Christ of Latter-Day Saints, Multiple Projects / Multiple States
- Marshall University Dormitory / Alumni Center
- West Virginia University Dormitory, Evansdale Campus, WV.
- West Virginia University Dormitory, Downtown Campus, WV.
- Potomac State Dormitory
- West Virginia State Student Housing, Institute, WV.

Development / Site Planning:

- Moses Residence
- Chesapeake Energy Regional Headquarters, Charleston, West Virginia (LEED Project)
- Chesapeake Energy Field Office, Mount Morris, Pennsylvania
- Cheat Landing Office Park, Morgantown, WV.
- The Villages at Cheat Landing, Morgantown, WV.
- Morgan County Courthouse, Berkeley Springs, WV.
- Raleigh County Courthouse, Beckley, WV.
- The Pines Country Club, Morgantown, WV.
- Stonegate at Cranberry, Cranberry Township, PA
- Bloomingdale Land-use Study, Hurricane, WV.
- Chesapeake Energy Regional Headquarters, Charleston, WV.(LEED Project)
- Chesapeake Energy Field Office, Jane Lew, WV.
- Chesapeake Energy Field Office, Mount Morris, PA.
- Chesapeake Energy Field Office, Honey Branch, KY.
- Ridge Run @ North Camp, Wisp Ski Resort, Deep Creek, MD.
- Cambridge Place Office Park, Bridgeport, WV.
- Stonewall Jackson State Park Masterplan, Roanoke, WV.
- Land-use Study / Development Alternatives, Aspen Corporation, Lewisburg, WV.
- Commerce Park Mixed-use Development Masterplan, Huntington, WV.
- Fort Boreman Mixed-use Development Masterplan, Parkersburg, WV.
- Wilkerson Dental Office, Charleston, WV.
- Ocean Isle Beach Resort Masterplan, Ocean Isle, SC.
- 5/3 Bank, Cross Lanes, WV.
- Banc One, Teays Valley, WV.

Residential Planning & Landscape Design:

- < 500 Projects

James A. Hemme, P.E., L.R.S.

Senior Engineering Manager

Education

B.S. Civil Engineering 1989, West Virginia University Institute of Technology
Marshall University Graduate College, Environmental Engineering Coursework

Registrations/Certifications

West Virginia Professional Engineer No. 12195
Kentucky Professional Engineer No. 25437
Ohio Professional Engineer No. 72851
Indiana Professional Engineer No. 10809277
Pennsylvania Professional Engineer No. 75494
New York Professional Engineer No. 85794
West Virginia Licensed Remediation Specialist No. 003

Relevant Training/Courses

Harvard Leadership Development Training, GAI Consultants, Inc. (In Progress)
Advanced Project Management Training, GAI Consultants, Inc., 2009
Leaders to Watch Program, GAI Consultants, Inc., May 2008
OSHA 40 hour HAZWOPER Training
NICET 1 Geosynthetics Installation Inspection (expired)
Nuclear Density Gage Training, DOT and NRC (expired)
MSHA Safety Training (expired)

Previous Employment

Environmental Design Group (now Floyd Browne Group), 2000-2006
Potesta and Associates, 1997-2000
Terradon Corporation, 1995-1997
Joyce Engineering, 1990-1995
Dewberry and Davis, 1989-1990

Summary

Mr. Hemme specializes in site engineering, including planning, permitting and stormwater management, with emphasis on parks and recreation areas and streetscapes. He brings a multi-disciplinary background to projects and this enables him to see the "big picture" of what will be needed to take a project from start to finish. Mr. Hemme is also competent in geotechnical engineering, environmental disciplines including NEPA compliance, and transportation services. He has worked extensively with private developers, architects, municipalities and government agencies.

Mr. Hemme has worked on landfills, quarries, mines, industrial and commercial sites and facilities. He has performed numerous Phase 1 Environmental Site Assessments (ESAs) providing solid waste, industrial waste, and Erosion and Sediment (E&S) control permitting. Mr. Hemme designs storm water management systems, site developments ranging from 1 acre to over 60 acres in size, and wetland mitigation areas. He prepares geotechnical reports, flood plain modeling, highway and roadway designs, right-of-way plans, detailed construction plans, and cost estimates for projects ranging from \$10,000 to over \$2 million in construction cost.

Mr. Hemme volunteered his time and knowledge to assist with preparation of the Greater Charleston Greenway Initiative by the West Virginia Land Trust Company in Charleston, West Virginia. He authored the analysis section of the report and peer-reviewed the entire document. Mr. Hemme is a current volunteer with the Riverside

South Committee, which is working with the Charleston Land Trust to beautify and possibly promote pedestrian access on the south side of the Kanawha River. He has developed schematic plans and reviewed narratives for inclusion into several progress updates to the Land Trust.

Professional Experience

Civil Engineering and Permitting

- Site Design for over 100 different projects throughout West Virginia, Ohio, Kentucky and Pennsylvania. NEPA compliance for wetlands, streams, cultural resources, and endangered species. Phase 1 Environmental Site Assessments for a wide range of facilities.
- Designed over 50 stormwater management systems including run-on and run-off control utilizing ditches, berms, sumps, sediment ditches, storm sewers, culverts, drop structures, ponds, energy dissipaters, etc. Work included technical specifications, cross sections, profiles, site grading detail development and hydrologic and hydraulic modeling.
- Developed detailed designs for over 100 different ponds at multiple sites throughout West Virginia and other states, including sediment ponds, treatment ponds, leachate storage ponds, and stormwater detention ponds. Work included hydrologic and hydraulic routing calculations, volume estimates, embankment design, treatment efficiency, dewatering calculations, etc.
- Prepared over 50 detailed Erosion and Sediment (E&S) Control Plans for various sites throughout West Virginia, including coal mines, quarries, highways, landfills and site developments. Work included technical specifications, re-vegetation plans, temporary control details and sequencing plans.
- Prepared numerous National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit Applications for sites throughout West Virginia and Ohio.
- Prepared a complete set of construction plans and specifications consisting of a detailed grading plan, a storm sewer system consisting of 34 drop inlets and over 3,800 feet of piping, and parking lot layout.
- West Virginia State College. Design of a revised stormwater system around the student union to help alleviate basement flooding issues.
- Town of Buffalo. Phase I storm sewer design and construction administration for over 2,000 ft. of storm sewer with discharge to the Kanawha River, that included permitting work with the Corps of Engineers.
- Analyzed various culvert scenarios consisting of modeling existing culverts and potential new corrugated metal pipe, steel pipe, concrete pipe and concrete box culverts to prevent upstream flooding from fill placement for Marietta Industrial Enterprises, Parkersburg, West Virginia.
- Designed an extensive stormwater management system consisting of several thousand feet of ditch and storm sewers, and two sediment ponds designed to limit inflow to pre-existing conditions for the 2-, 10-, 50-, and 100-year storm events for Hanover County Sanitary Landfill, Virginia.
- Melinda Street Stormwater Improvements. Underground stormwater detention system and storm sewer improvements design for the City of Parkersburg, West Virginia.

Site Development and Planning

- Coldwater Creek Distribution Center in Parkersburg, West Virginia. Wetland mitigation for a 7.5-acre area that required a detailed planting plan, pavement design and an engineers' cost estimate.
- Ft. Boreman Development in Parkersburg, West Virginia. Utility master planning, site preparation, roadway design, permitting, and stormwater management for the proposed 170-acre Fort Boreman mixed-use development near Martown Road interchange off U.S. Route 50 in Parkersburg.
- Chesapeake Energy Regional Headquarters in Charleston, West Virginia (LEED Project). Chesapeake Energy Field Offices in Jane Lew, West Virginia; Mount Morris, Pennsylvania; and Honey Branch, Kentucky.
- The Pines Country Club in Morgantown, West Virginia.
- Dow Chemical South Charleston Plant Entrance, Parking and Pedestrian Improvements in West Virginia.
- Tamarack Phase 2 Expansion in Beckley, West Virginia.
- Morgan County Courthouse Replacement in Berkeley Springs, West Virginia. Greenbrier County Courthouse Annex and Expansion in Lewisburg, West Virginia.
- Marshall University Clinical Outreach and Education Center, Huntington, West Virginia.

- Cheat Landing Office Park in Morgantown, West Virginia. The Villages at Cheat Landing in Morgantown, West Virginia
- Almost Heaven Habitat for Humanity, South Fork Crossing Subdivision, Pendleton County, West Virginia.
- Stonegate at Cranberry Development in Cranberry Township, Pennsylvania.

Parks and Recreation Areas

- April Dawn Sprayground and Park in Huntington, West Virginia. Lead Engineer for the continued development of the park consisting of an in-ground computer controlled fountain covered by suspended concrete pavers, a unique "Teays Valley Monster" concrete dragon over 8'-tall integrated into the design with slide and cool steam nostrils and a special soft surface design. The project won awards from the West Virginia Sections of the American Society of Landscape Architects and the American Consulting Engineers Council.
- Rotary Park Improvements Project in Huntington, West Virginia. Lead Engineer responsible for new parking areas, unique picnic shelter, utilities, and a new entrance that blended with existing facilities.
- Reviewed multiple playground components for compliance with the "Handbook for Public Playground Safety" published by the U.S. Consumer Product Safety Commission.
- Assisted with designing ballfields, park facilities, and a large parking lot incorporating Bio-Retention/Treatment swales for treatment of stormwater in Stark County, Ohio.
- Golf Club House and Lodge Site Development at Stonewall Jackson State Park in West Virginia. Project Manager for infrastructure including site design of the 100+-room lodge, parking, sewage lift station, extensive landscaping, and all aspects of construction administration.
- Cedar Creek State Park Camp Ground Expansion, Glenville, West Virginia. Dow Heritage Park in Charleston, West Virginia. Fort Boreman Historic Park in Parkersburg, West Virginia.
- Dupont 'Hyper' Plaza in Belle, West Virginia.

Streetscape and Trails

- Kanawha Trestle and Rail Trail Master Plan. Project Manager and Lead Engineer responsible for development. The plan covered the existing CSX trestle crossing the Kanawha River in Charleston and approximately 2 miles of Norfolk and Southern rail corridor through the West Side of Charleston.
- Project Manager or Design Engineer on multiple streetscape projects throughout West Virginia including Phase 1 Florida Street Streetscape, and Washington Street East Phase 2 and Pennsylvania Avenue streetscapes in Charleston, West Virginia.
- North Bend Rail Trail. Prepared construction documents to repair flood damage to almost 50 miles of trail.
- Florida Street Master Plan for the City of Charleston, West Side Neighborhood Association.
- City of Richwood, West Virginia Streetscape Master Plan and Phase 1 Construction.
- City of Charleston East End Design Cheret and "Think Tank" Design Cheret.

Solid Waste Management and Engineering

- Design and permitting for 50 different solid waste facilities in West Virginia, Virginia, and Ohio.
- Berkeley County Solid Waste Authority. Siting Study regarding suitability of property.
- North Fork Landfill. 50-acre landfill over previously deep mined area.
- Nicholas County Landfill. Small rural landfill expansion with special steep slope design.
- Disposal Service Landfill. Unique multi-stage expansion of a landfill including steep slope design.
- Boone County Commission. Permitting of various solid waste transfer stations.
- Page County, Virginia comprehensive countywide search for a regional landfill.
- Anker Energy Conceptual Study to determine feasibility of fly ash disposal facility.
- Elkem Metals fly ash landfill utilizing a geosynthetic clay liner and special slope design.

Waste Water and Potable Water Design

- National Radio Astronomy Observatory. Designed unique, non-mechanical, award-winning treatment system that uses no electricity and treats the entire campus wastewater load.
- Manufactured Housing Development Waterline Replacement. Designed over 5 miles of water line within an existing 1000+-unit manufactured housing development.
- Huttonsville Correctional Facility. Provided retrofit design for temperature, grease and trash issues.
- Anthony Correctional Center. Designed package water treatment plant for correctional facility.
- St. Mary's Correctional Facility. Retrofit design to address trash and grease issues.
- Pocahontas County Landfill. Modular trickling sand filters with aeration pond and polishing wetland.
- Multiple Landfills. Pre-treatment system design to remove high BOD levels prior to WWTP.
- Storage Tank Design. Multiple bolted or welded steel tanks primarily for leachate storage.

Abandoned Mine Land (AML) Reclamation and Acid Mine Drainage (AMD) Treatment

- Richard Mine Acid Mine Drainage. Treatment Alternatives Report, Monongalia County, West Virginia.
- Richard Mine Flow Monitoring Study. Design, installation, full time flow monitoring and reporting for a 1 year period on drainage from a substantial AMD discharge.
- East Branch Raccoon Creek Acid Mine Drainage (AMD) Treatment Design for the Ohio Department of Natural Resources.
- Vens Run Landslide Reclamation No. 2 Design and Permitting in Harrison County, West Virginia.
- Whites Run Reclamation Permitting in Randolph County, West Virginia.

Project Awards

National Radio Astronomy Observatory (NRAO) Wastewater Treatment Plant Design, West Virginia ACEC Gold Award, Project Manager

Florida Street Streetscape Masterplan, West Virginia ASLA Honor Award, Senior Engineer

Dupont Hyper Plaza Design, West Virginia ASLA Honor Award, Senior Engineer

Kanawha Trestle Rail Trail Masterplan, West Virginia ASLA Merit Award and West Virginia ACEC Silver Award, Project Manager

April Dawn Park Sprayground "Teays Valley Monster," West Virginia ASLA Honor Award and West Virginia ACEC Gold Award, Senior Engineer

Coldwater Creek Distribution Center Site Preparation, West Virginia ACEC Gold Award, Project Manager

Jared N. Tuk, M.A.

Assistant Cultural Resources Manager

Education

M.A. Public History/Modern U.S. History 1998, West Virginia University

B.A. History 1997, West Virginia University

Relevant Training/Courses

Management and Leadership Skills Training, GAI Consultants, Inc., February 2010

Advanced Project Management Training, GAI Consultants, Inc., 2009

Leaders to Watch Program, GAI Consultants, Inc., May 2008

ASFE Fundamentals of Professional Practice, 2007

Affiliations

National Trust for Historic Preservation

Westmoreland County, Pennsylvania Historical Society

Scottsdale, Pennsylvania Historical Society

Previous Employment

Historian at Chesapeake and Ohio Canal National Historical Park

Summary

Mr. Tuk specializes in historic architectural surveys, National Register nominations, Section 106 compliance-related surveys, and historic preservation planning. He has been involved with efforts to identify, evaluate, and preserve historic buildings, districts, and sites, and is a skilled architectural historian specializing in 19th- and early 20th-century architecture.

Professional Experience

Pennsylvania

- Architectural Survey. Supplemental Phase I Cultural Resources Survey (Addendum IV), USA Storage Project, Sabinsville Wells and Lines, Tioga County, Pennsylvania, for Dominion Transmission, Inc.
- Architectural Survey. Phase Ib Cultural Resources Investigation, Bell Bend Nuclear Power Plant, Luzerne County, Pennsylvania, for UniStar Nuclear Development, LLC.
- Architectural Survey. Phase IA Cultural Resources Reconnaissance, Berwick PA NPP-1, Areas 6, 7, and 8, and Confers Lane Parcel, Luzerne County, Pennsylvania, for Areva NP, Inc. and UniStar Nuclear Development, LLC.
- Pennsylvania Historic Bridge Recordation for Mosside Boulevard Bridge, located within the SR 0048 highway project in Monroeville, Allegheny County, Pennsylvania for the Pennsylvania Department of Transportation. The recordation included black-and-white photography and presentation of findings in a narrative report format for a 1930 highway bridge.
- Historic structures survey and National Register evaluation for 12 historic resources located within the viewshed of a proposed generating facility near Dawson, Fayette County, Pennsylvania, for Allegheny Energy Supply Co., LLC.
- Historic structures survey and National Register evaluation of historic resources located within the proposed SR 0208-Grove City Interchange highway project near Grove City, Mercer County, Pennsylvania for the Pennsylvania Department of Transportation.
- Historic structures survey and National Register evaluation of historic resources located within the proposed I-70-Smithton Interchange highway project near Smithton, Westmoreland County, Pennsylvania for the Pennsylvania Department of Transportation.

- Historic structures survey and National Register evaluation of historic resources located within the proposed Chalk Hill-Ohio-Pyle Road/National Road highway project in Chalk Hill, Fayette County, Pennsylvania for the Pennsylvania Department of Transportation.
- Historic structures survey and National Register evaluation of historic resources located within the proposed Erie East Side Access highway project in Erie, Erie County, Pennsylvania for the Pennsylvania Department of Transportation.
- Historic structures survey and National Register evaluation of historic resources located within the proposed Preserve Planned Residential Development in Cranberry Township, Butler County, Pennsylvania for Brodmerkel-LBHB.
- Historic structures survey and National Register evaluation of historic resources located within the proposed SR 0980 Realignment project area in Venice, Washington County, Pennsylvania for the Pennsylvania Department of Transportation.
- Historic structures survey and National Register evaluation of historic resources located within the proposed SR 0981 improvement project area near Latrobe, Westmoreland County, Pennsylvania for the Pennsylvania Department of Transportation.
- Historic structures survey and National Register evaluation of historic resources located within the proposed Gas-Fired Combustion Turbine project area in Penn Township, Westmoreland County, Pennsylvania for Allegheny Energy Unit 6 and Unit 7, L.L.C. The survey included an examination of historic maps and records of Penn Township and a survey of six historic resources.
- Architectural Survey and National Register evaluation of resources located within proposed Royal Tartan Golf Course, Washington County, Pennsylvania for a private client. Survey determined effects of construction of a golf course facility on several nineteenth and early twentieth-century farmhouses and associated buildings.

Florida

- Architectural Survey of West Palm Beach Local Historic Districts of Prospect Park/Southland Park for the City of West Palm Beach Historic Preservation Division.
- Historic Structure Survey, City of Bunnell, Flagler County, Florida for the City of Bunnell.
- Resurvey of Marina Historic District, City of Delray Beach, Palm Beach County, Florida, for City of Delray Beach Planning and Zoning Department.
- Architectural Survey, local and National Register evaluations, and boundary updates for 250 resources in Old School Square Historic District, Delray Beach, Florida, for the City of Delray Beach.
- Architectural Survey and local and National Register evaluations for 768 architectural resources in the City of Sarasota, Florida, for the City of Sarasota Planning and Redevelopment Department.
- Architectural Survey, local and National Register evaluation, and National Register district nomination for 248 architectural resources in the vicinity of the City of Sarasota, Florida, for Sarasota County.
- Architectural Survey, local and National Register evaluation, and local and National Register district nominations for 760 architectural resources in the City of Sarasota, Florida, for the City of Sarasota Planning and Redevelopment Department.
- Architectural Survey and National Register and local historic register evaluations for 300+ buildings in the unincorporated areas of the Florida Keys, Monroe County, Florida, for the Historic Florida Keys Foundation.
- Architectural Survey and National Register and local historic register evaluations for 321 resources in the Brownsville Section of Pensacola, Escambia County, Florida, for the Escambia County Redevelopment Authority.
- Historic structures survey and local historic register nominations for 1200+ buildings in four historic districts in Lake Worth, Palm Beach County, Florida, for the City of Lake Worth.
- National Register nomination for the 1949 Osborne Elementary School in Lake Worth Florida--the city's only historically African-American school building.

West Virginia

- Architectural Survey. Phase Ib Cultural Resources Investigation, Lightburn Extraction Plant, (TL-593, TL-594, TL-595), Lewis County, West Virginia, for Dominion Resources Services, Inc.

- Architectural Survey and National Register Evaluation of 21 resources within the Romney Bridge Replacement project area, Hampshire County, West Virginia for the West Virginia Department of Transportation.
- Architectural Survey and National Register Evaluation of 10 resources and a Rural Historic District within the Headsville Bridge Replacement project area, Mineral County, West Virginia for the West Virginia Department of Transportation.
- Architectural Survey and National Register Evaluation of three resources within the APE of the Fink Capacity Maintenance Project, Lewis County, West Virginia for Dominion Transmission, Inc.
- Architectural and Historic Resources Survey of 19 resources within American Electric Power Wyoming-Jacksons Ferry 765 kV Transmission Line project area, Priority Section 4, Wyoming and McDowell Counties, West Virginia for American Electric Power.
- Architectural Survey and National Register Evaluation of Four Resources within the APE of the Hastings Pipeyard and Storage Area Project, Wetzell County, West Virginia for Dominion Transmission, Inc.
- Architectural Survey and National Register evaluation of 19 resources within the proposed Gauley Bridge Main Street Historic District, Gauley Bridge, West Virginia, for the Town of Gauley Bridge.
- Architectural Survey and National Register evaluation of resources within Route 35 Wetland Mitigation project area, Mason County, West Virginia, for Kimley-Horn and the West Virginia Department of Transportation.
- Historic Structures Report and state-level recordation of the Marion County Children's Shelter, Fairmont, West Virginia for HNTB and the West Virginia Department of Transportation
- Historic Structures Report for the former West Virginia State Penitentiary in Moundsville, Marshall County, West Virginia for the Moundsville Historic Landmark Commission and the Moundsville Economic Development Council.
- National Register nominations for eight historic properties located throughout, Berkeley County, West Virginia, for the Berkeley County Historic Landmarks Commission.
- National Register nominations for Camp Mad Anthony Wayne and Huntington Rotary Parks, located in and near Huntington, Cabell County, West Virginia, for the Greater Huntington Parks and Recreation District.
- National Register nomination for the Ranson City Hall, Ranson, West Virginia. The nomination included research, writing, presentation, and defense of the nomination to the West Virginia Archives and History Commission.
- Comprehensive Architectural Survey of 72 historic resources in the Gypsy Historic District, Harrison County, West Virginia for the Harrison County Historic Landmark Commission and the Harrison County Planning Commission.
- Historic Architectural Survey for the Raleigh Street Extension, located within the Martinsburg Bypass Corridor, Martinsburg, Berkeley County, West Virginia for the West Virginia Division of Highways.
- Historic Architectural Survey for 9-mile Martinsburg Bypass Corridor, Martinsburg, Berkeley County, West Virginia for the West Virginia Division of Highways.
- Historic structures survey and National Register nominations for 440 buildings in two historic districts in downtown Martinsburg, Berkeley County, West Virginia, for the Berkeley County Historic Landmarks Commission.
- Survey Update and National Register evaluation of resources located within the proposed Thurmond Bridge Replacement project area in Thurmond, Fayette County, West Virginia for the West Virginia Department of Transportation.
- Historic structures survey and National Register evaluation of an area west of Alderson, Greenbrier County, West Virginia for the proposed Muddy Creek Bridge Replacement project for the West Virginia Department of Transportation.
- Survey and National Register evaluation for historic cemeteries located within the Tolsia Highway study area in Wayne and Mingo Counties, West Virginia, for Kimley-Horn and Associates and the West Virginia Department of Transportation.
- Historic structures survey and National Register evaluation of resources located within the proposed Twelvepole Creek Bridge project area near Kenova, Wayne County, West Virginia for the West Virginia Department of Transportation.

- Comprehensive Architectural Survey of 90 historic resources in the Spring Mills and North Mountain areas, Berkeley County, West Virginia for the Berkeley County Historic Landmarks Commission.
- Historic structures survey and National Register evaluation of resources located within the proposed West Run Expressway project area in Morgantown, Monongalia County, West Virginia for Kimley-Horn and Associates and the West Virginia Department of Transportation.
- Historic structures survey and National Register evaluation of resources located within the proposed Melissa-Huntington Road project area near Huntington, Cabell County, West Virginia for the West Virginia Department of Transportation.
- Sabraton, West Virginia. Developed preservation plan for adaptive reuse of Sabraton School, Monongalia County, West Virginia for West Virginia University. The project required presentation of research findings and proposed uses to a community action group.

Ohio

- Architectural Survey. Phase I Cultural Resources Survey and Geomorphology Investigation, Proposed V-382 Pipeline Project, Belmont County, Ohio. Client: Columbia Gas Transmission.
- Architectural Survey. Phase I Cultural Resources Survey, Franklin 20-inch Storage Pipeline Project, Wayne and Summit Counties, Ohio, for Dominion East Ohio Gas.
- Virginia
- Architectural Survey. Phase I Cultural Resources Survey, VA State Line--Meadowbrook Substation and Meadowbrook Substation--Appalachian Trail Segments of the Trans-Allegheny Interstate Line (TrAIL) Project, Frederick and Warren Counties, Virginia for Power Engineers, Inc.
- Phase I/II Cultural Resources Investigation, Clinch River-Possum Hollow Landfill, Russell County, Virginia, for American Electric Power Company (Lead Agency: USACOE-Norfolk).
- Architectural and Historic Resources Survey of 75+ resources within American Electric Power Wyoming-Jacksons Ferry 765 kV Transmission Line project area, Priority Sections 1-3, 5, Tazewell, Bland, and Wythe Counties, Virginia for American Electric Power.
- Architectural Resource Survey, Hardy Transmission and Virginia Looping Project, Shenandoah County, Rockingham County, Page County, Greene County, Louisa County, Virginia, for Columbia Gas Company, Inc.
- Architectural Survey, Mid-Atlantic Project, Quantico Compressor Station/Pipeline and Leesburg Compressor Station, Loudoun and Fairfax Counties, Virginia for Dominion Transmission, Inc.

Maryland / Washington D.C.

- Development of Historic Resource Guide for the Chesapeake and Ohio Canal, for the National Park Service. The guide was used by the National Park Service to assist future researchers in location of information pertaining to the Chesapeake and Ohio Canal, especially pertaining to its western terminus at Cumberland, Maryland.

New York

- Historic Structures Report for the Plum Island Light Station, Plum Island NY for the US Department of Agriculture. The report included a history of the Plum Island Light Station and comparisons with other historic light stations of Long Island Sound, a conditions assessment, and code compliance study.
- Historic Preservation Plan for the Fort Terry complex, Plum Island NY for the US Department of Agriculture. The plan included a study of the complex of buildings on the site of Fort Terry, a historic military complex.

Indiana

- Historic structures survey and National Register evaluation of historic resources located within the viewshed of a proposed generating facility near New Carlisle, St. Joseph County, Indiana, for Allegheny Energy Supply Co., LLC and Duke Engineering Co. The project included identification of the APE, a survey and NRHP evaluation of architectural resources, and an evaluation of potential visual effects from a proposed generating facility.
- National Register nomination for the Geneva Downtown Historic District, Geneva, Adams County, Indiana, for the Town of Geneva and Geneva Proud.

Mark D. Shawl, RLA, LEED® AP

Lead Landscape Architect

Education

B.S. Landscape Architecture 1994, College of Agriculture and Forestry, West Virginia University

Registrations/Certifications

Professional Landscape Architect, WV No. 316, NC No. 1051,
Leadership in Energy and Environmental Design (LEED) 2.0 Accredited Professional, U.S. Green Building Council

Relevant Training/Courses

High Performance Management Training, GAI Consultants, Inc., June 2009
Advanced Project Management Training, GAI Consultants, Inc., 2009

Affiliations

American Society of Landscape Architects, ASLA
WV Chapter of American Society of Landscape Architects

Previous Employment

Terradon, Inc., 2005-2006
Woolpert, 2001-2005
W.K. Dickson, 1998-2001
Concord Engineering and Surveying, Inc., 1996-1998
Greenscape, Inc., 1994-1996

Summary

Mr. Shawl specializes in all aspects of landscape architectural design with 15 years experience working on a diverse range of projects in both the public and private sectors. His experience includes, but is not limited to, project management, construction document and technical specification preparation, site analysis, schematic design, construction administration, master and land-use planning (parks, recreational, residential, institutional, commercial), streetscape and municipality improvements, landscape and hardscape designs, and graphic presentation drawings. Mr. Shawl has provided residential planning and landscape design services for over 50 projects.

Professional Experience

Streetscape / Urban Revitalization

- Richland County Gateway Revitalization, Columbia, South Carolina
- Tuckaseegee Road Streetscape, Charlotte, North Carolina
- Troutman Pedestrian Corridor Study, Troutman, North Carolina
- Little Sugar Creek Greenway, Charlotte, North Carolina

Parks & Recreation

- Burke County Regional Park, Burke County, North Carolina
- Manchester Soccer Complex, Rock Hill, South Carolina
- Cane Creek Park Phase 2, Union County, North Carolina
- Jessie Helms Park, Union County, North Carolina
- Triad Park Phase 5 and 7, Guilford County, North Carolina

- Gayle Community Park, Chester County, South Carolina
- U.S. Fish and Wildlife Service – Waccamaw National Wildlife Refuge, Georgetown, South Carolina
- Paramount Parks Master Planning, North Carolina, Virginia, Ohio, California
- Paramount Parks Carowinds, Animation Station, Charlotte, North Carolina
- Paramount Parks Carowinds, Stealth Coaster, Charlotte, North Carolina
- Salisbury Community Park Greenway, Salisbury, North Carolina
- Jack D. Hughes Park Master Plan/Phase 1, Pineville, North Carolina

Institutions

Hospitals

- Friendship Baptist Church Phase 2, Charlotte, North Carolina
- Bible Center Church Master Plan and Bible Center Church Phase 1, Charleston, West Virginia
- Trinity Lutheran Church Columbarium Master Plan
- First Presbyterian Church Columbarium Master Plan
- The Church of Jesus Christ of Latter-Day Saints, Multiple Projects
- Tazewell Community Hospital Master Plan, Tazewell, Virginia
- Four Seasons Wellness Center, Tazewell, Virginia
- Cabell County EMS Facility, Huntington, West Virginia

Schools and Universities

- North Carolina Arboretum Baker Exhibit Center, Asheville, North Carolina
- Western Carolina University Tennis and Softball Center, and Western Carolina University Infrastructure Improvements, Cullowhee, North Carolina
- Winston-Salem State University Central Quad, Winston-Salem, North Carolina
- North Carolina Central University Pearson Cafeteria, Durham, North Carolina
- Duke University Central Water Plant, Site Design, Durham, North Carolina
- Fairmont State University Inner Campus Renovations, Fairmont, West Virginia
- Capitol High School Athletic Facilities Improvements, Charleston, West Virginia
- University High School, Morgantown, West Virginia
- Moorefield Intermediate School, Moorefield, West Virginia
- Mountain State University Health Sciences Center, Beckley, West Virginia
- Marshall University Dormitory / Alumni Center
- West Virginia University Dormitory, Evansdale Campus
- West Virginia University Dormitory, Downtown Campus
- Potomac State Dormitory
- West Virginia State Student Housing, Institute, West Virginia

Development / Site Planning

- Yeager Airport Master Plan
- Cheat Landing Office Park and The Villages at Cheat Landing in Morgantown, West Virginia
- The Pines Country Club, Morgantown, West Virginia
- Stonegate at Cranberry, Cranberry Township, Pennsylvania
- Chesapeake Energy Regional Headquarters in Charleston, West Virginia and Field Offices in Jane Lew, West Virginia; Mount Morris, Pennsylvania; and Honey Branch, Kentucky
- Shawnee Point Mixed-Use Residential Master Plan, Lake of Egypt, Illinois
- Whitehall Retail Development and Stonecrest Development, Charlotte, North Carolina

Shannon Shank

Environmental Specialist

Education

B.S. Landscape Architecture, College of Agriculture & Forestry, Minor in Geography/Geographical Information Systems (GIS), 2005 West Virginia University

A.S. Architectural Drafting 2001, West Virginia State College

Registrations/Certifications

American Council of Exercise Personal Trainer, 2005

Relevant Training/Courses

ArcGIS 9 Certified

ArcGIS 9 Spatial Analyst Certified

ArcGIS Schematics Certified

Summary

Mr. Shank has a wide variety of experience in GIS analysis and mapping, environmental permitting, site development, streetscape, and planning projects while at GAI and through previous employments. He has worked with architects, municipalities and governmental agencies. He has worked on various construction project sites including abandoned mines. Some of his site design projects include; digital terrain, cross-sections, vertical profiles, site detailing, earthwork estimating, the preparation of design/construction plans, reports, and cost estimates for projects. He has also contributed to planning and design in community improvement master plans and streetscape projects.

Professional Experience

Water Studies

- Water Feasibility Study, Wallace CR4, 20/3, 6, 5/4, 20/11, 21 Feasibility Study (ID#353) for Shortline Public Service District in Harrison and Wetzel Counties, West Virginia. Work included interviewing local residents; collecting surface and private water supply samples; preparation of drawings representing existing and proposed remedial measures; and assisted in the preparation of the feasibility report. Work was completed on a "fast track" schedule.
- Water Feasibility Study, Wallace Rt. 20 Feasibility Study (ID#354) for Shortline Public Service District in Harrison County, West Virginia. Work included interviewing local residents; collecting surface and private water supply samples; preparation of drawings representing existing and proposed remedial measures; and assisted in the preparation of the feasibility report. Work was completed on a "fast track" schedule.

GIS Analyst

- Analytical processing and creation of GIS data.

Environmental GIS Mapping

- Collaborate with the Environmental Health and Safety department to design various maps.

Gas Pipeline Integrity GIS Mapping

- Collaborated with corrosion engineers to design maps which show the integrity of the pipeline for given areas.

Special GIS Mapping

- Collaborated with diversity of customers within my company of employment to creatively design maps that will be used to solve problems or graphically show areas of interest.

GIS ArcGIS Knowledge Sharing

- Educate people to maximize use of tools and extensions in ArcGIS.

Streetscape / Urban Revitalization

- Charleston Riverfront Park, Kanawha County, West Virginia

Abandon Mine Lands

- Duck Creek (Jenkins) Landslide, Harrison County, West Virginia
- Route 60 Drainage, Fayette County, West Virginia
- Lynch Run Highwall #6, Gilmer County, West Virginia

Residential Planning & Landscape Design

- Moses Residence, Putnam County, West Virginia

Joseph A. Prine, EI

Senior Engineering Intern

Education

- A.S. Drafting and Design, 2001 West Virginia University Institute of Technology
- A.S. Civil Engineering Technology, 2001 West Virginia University Institute of Technology
- B.S. Engineering Technology w/ Civil Emphasis, 2001 West Virginia University Institute of Technology
- M.S. Various Courses in Engineering Management, Currently Attending Marshall University

Registrations

- E.I. # 8334
- NICET Certified, Engineering Technology, #103538

Professional Development

- OSHA 40 hour Hazwopper Training
- OSHA 10 hour Construction Industry Training Program

Awards

First Coalition Force Design Team - Commander, Tallil Air Base, Iraq

Professional Experience

Mr. Prine has a wide variety of experience in environmental engineering, civil engineering, site development, streetscape, and planning projects while at GAI and through previous employments. He has worked with private developers, architects, municipalities and governmental agencies. He has substantial experience in site engineering, and stormwater management. He has worked on various construction project sites including landfills, abandoned mines, and industrial and commercial facilities. Some of his environmental engineering projects include; Phase 1 reports, environmental monitoring, permitting, and design. Some of his civil engineering/site design projects include; design of stormwater management systems, earth work estimating, water and sewer line extensions, design of both large and small sites ranging in size 1 to 40 plus acres, assisting in the preparation of design/construction plans, reports, and cost estimates for projects, and highway/roadway design. He has also contributed to planning and design in several community improvement and streetscape projects.

Representative Project Experience:

Environmental Engineering

- American Electric Power – John Amos FGD Landfill Construction Monitoring, Winfield, WV
- WVAML – Wolfpen Landslide, Charleston, WV
- WVAML – Heizer Creek Landslide, Poca, WV
- WVDOC - Anthony Correctional Center – Package Water Treatment Plant, Neola, WV
- WVDOC - Huttonsville Correctional Center – Waste Water Treatment Plant, Huttonsville, WV
- Richard Mine AMD Flow Monitoring Study, Morgantown, WV
- WVDOH – Romney Bridge, Romney, WV
- WVDOH – King Coal Highway (US 52), Logan County, WV
- Spill Prevention Control and Containment (SPCC) Plans, CSX Railroad National Contract
- Facility Response Plans (FRP) Plans, CSX Railroad National Contract
- Rockport Terminal Tampa, FL Storm Water Management Redesign, CSX Railroad
- Oil Discharge Contingency Plans for State of Virginia, CSX Railroad National Contract
- Facilities upgrade design for Homeland Security, CSX Railroad National Contract
- Redesign of CSX Railroad Waster Water Treatment Plant, Clifton Forge, VA
- Environmental Emergency Responder to Train Derailment, Handley, WV
- Site Monitoring and Cap Design for Remediation Site, Huntington, WV

- QA/QC for Installation of New Groundwater Monitoring Wells, Scary Creek, WV
- Brownfield Way Ground Water Monitoring Reports, South Charleston, WV
- Nicholas County Landfill- Design and Permitting New Landfill Cells, and General Site Engineering
- Melinda Street Storm Water Improvements, Parkersburg, WV

Land Development / Site Planning

- Chesapeake Energy Field Office, Mansfield, Pennsylvania
- Huttonsville Work Release Camp – Site Design & Permitting, Huttonsville, WV
- Chesapeake Energy Regional Headquarters, Charleston, West Virginia (**LEED Project**)
- Chesapeake Energy Field Office, Mount Morris, Pennsylvania
- Chesapeake Energy Field Office, Honey Branch, Kentucky
- Detailed Site Design Aspen Village, Davis, WV
- Ft. Boreman Development–Master Plan Site Preparation and Roadway Design, Parkersburg, WV
- Golf Club House and Lodge Site Development, Stonewall Jackson State Park, WV
- Family Carpet Plaza-Site Design & Permitting, Parkersburg, WV
- Storm Water Detention System – Melinda St., Parkersburg, WV
- Site Design for Schools Hannan, Wahama, New Haven, and Pt. Pleasant, Mason County, WV
- Design of Storm Water Management System, Western Management, Parkersburg, WV
- Preparation of Detailed Erosion and Sediment Control Plans
- Preparation of NPDES Construction Stormwater Permit Applications
- Sugar Grove Site Design, Habitat for Humanity, WV
- Starlite Industrial Park, OH
- Great Lakes Truckland Site Improvements, Cross Lanes, WV

Streetscape and Trails

- City of Mount Hope Streetscape, WV
- City of Charleston, East End Design Charrette, WV
- Florida Street Master Plan for the City of Charleston, West Side Neighborhood Association, WV
- City of Richwood, West Virginia Streetscape Master Plan and Phase 1 Construction

Correctional and Judicial Facilities:

- Huttonsville Work Camp, Huttonsville, WV
- Huttonsville Correctional Facility, Huttonsville, WV
- Anthony Correctional Center, Neola, WV
- Morgan County Courthouse Replacement, Berkeley Springs, WV

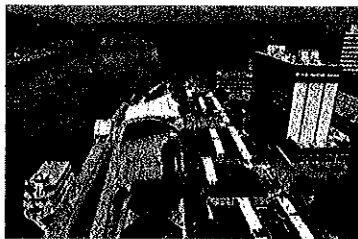
RELEVANT EXPERIENCE

GAI's record of performance is best reflected in our work for repeat clients that comprise approximately 75% of our workload. Our performance on projects mandates that we provide services which consistently meet schedule and budget constraints while providing a high quality end product.

The proposed project team has experience with a number of past municipal projects with respect to urban renewal, roadway enhancement and streetscape experience. In addition to the design of the projects, GAI has also been involved with construction administration as well as construction monitoring. Our experience includes:



- + **Charleston Riverfront Park**, Charleston, West Virginia
- + **Morgantown Riverfront Park**, Morgantown, West Virginia
- + **North Shore Riverfront Park**, Allegheny County, Pennsylvania
- + **PNC Park – River Bulkhead Wall Design**, Pittsburgh, Pennsylvania
- + **PNC Park Baseball Stadium**, Pittsburgh, Pennsylvania
- + **Vilano Beach Streetscape**, Vilano Beach, Florida
- + **Lewisburg Streetscape and ADA Upgrades**, Lewisburg, West Virginia
- + **Uptown Altamonte**, Seminole County, Florida
- + **Hills of Lake Mary**, Lake Mary, Florida
- + **Monongahela River Comprehensive Study**, Marion and Monongalia Counties, West Virginia
- + **David L. Lawrence Convention Center**, Pittsburgh, Pennsylvania



Detailed project descriptions for many of these projects are included at the end of this section. GAI Consultants, Inc.'s experiences with these projects have direct correlation to the services requested by the Town of Barrackville. The projects show the level of professional expertise that is available to GAI's local office to utilize and draw upon as needed.

References

Andrew N. Blackwood, Ed.D, Executive Director

National Youth Science Foundation

P.O. Box 3387

Charleston, West Virginia 25333

304.552.1171

David D. Molgaard, Charleston City Manager

City of Charleston

PO Box 2749

Charleston, West Virginia 25330

204.348.8014

Chris Knox, Charleston City Engineer

City of Charleston

105 McFarland Street

Charleston, West Virginia 25301

304.348.8014

Mary Jean Davis, Charleston City Council

City of Charleston

PO Box 2749

Charleston, West Virginia 25330

304.348.8014

Tom Potts, Principal

Silling Associates

405 Capitol Street

Upper Atrium

Charleston, WV 25301

304.346.0565

Shawn Casey, Vice President, Land

Triana Energy

500 Virginia Street East

Charleston, West Virginia 25301

304.380.0133

Project Profiles

Haddad Riverfront Park *Kanawha County, West Virginia*



Brief Project Description

GAI Consultants, Inc. (GAI) was selected to provide master planning, public participation services, design, construction and engineering solutions for the renovation of the Haddad Riverfront Park, which is a popular concert, festival and leisure site in downtown Charleston, West Virginia.

Among the City of Charleston's project requirements were a retractable canopy to provide protection and visual interest, an overlook plaza and pavilion that extends Court Street to the Kanawha River, an extension of the lower wharf area, a new streetscape design along Kanawha Boulevard and an event stage for concerts.

GAI Project Manager:
David Gilmore, RLA, CLARB

Project Team:
GAI Consultants, Inc. (Prime)
Silling Associates (Subconsultant)

Client:
The City of Charleston

Client Contact:
David Molgaard, City Manager
304.348.8014

Construction Cost:
\$3,900,000

Completion Date:
Summer 2010

Work Tasks/Services

- Conceptual design and master plans
- Public outreach/information
- Landscape architecture
- Geotechnical engineering
- Structural engineering
- Construction administration

Value Added Innovations

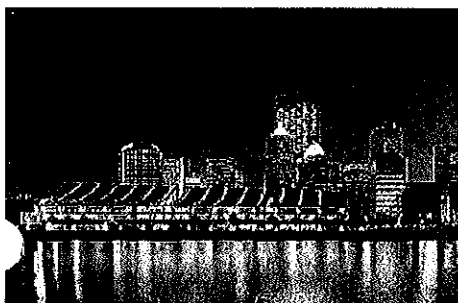
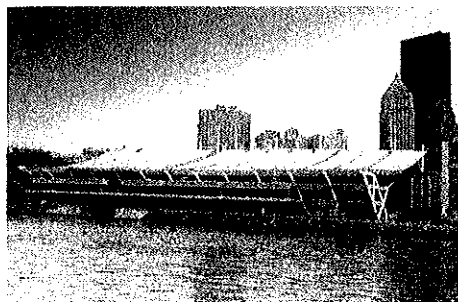
Taking a different approach, GAI presented an initial design encompassing and connecting all four parts of the entire project. The design was highlighted by a grand staircase leading to the proposed amphitheater, which acts to open the park to Kanawha Boulevard, making it an integrated part of downtown Charleston.

Lasting Benefits

GAI was successful in meeting an aggressive 18 month planning, design, and construction schedule. Change orders during construction amounted to less than .5% of the total cost.

#E080952

David L. Lawrence Convention Center *City of Pittsburgh, Pennsylvania*



Brief Project Description

GAI Consultants, Inc. (GAI) created the site plan utility design for a water supply to the new David L. Lawrence Convention Center (Expansion), to include permit and design of new separate storm and sanitary sewers for the new building and streetscape.

The Fort Duquesne Boulevard roadway infrastructure project at the David L. Lawrence Convention Center required special designs and details with respect to vaults and utility conflicts with proposed water lines, sewer lines, and appurtenances for a new convention center.

Work Tasks/Services

- Civil Engineering and Permitting
- Project management
- Field survey
- Erosion control plans
- Permitting
- Permits processing
- Hydraulic river modeling
- Storm and Sanitary Sewers
 - Utility and water supply design
 - Storm and sanitary sewer separation
 - Erosion and sediment control
 - River wall penetration design
 - Environmental permitting
 - Hydrologic and hydraulic investigations
- Roadway Improvements
 - Preliminary Erosion and Sediment Control Plans and permits
 - Separate water distribution system replacement plan and profile
 - Structural and hydraulic analysis of existing sewer system

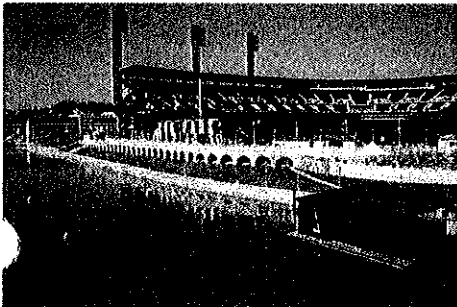
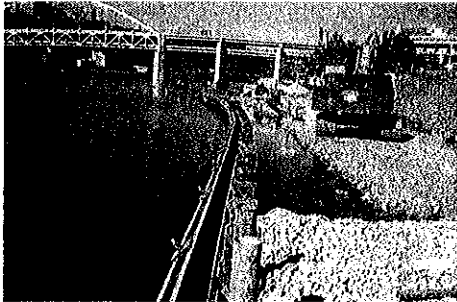
Value Added Innovations

Design and permits for separate sewers reduced combined sewer overflows to the Allegheny River.

GAI Project Manager:
Anthony F. Morrocco, P.E.
Project Team:
GAI Consultants, Inc. (Prime)
Client:
DMJM Harris
Client Contact:
John S. Prizner
412.395.8888
Completion Date:
2002

#C990327

PNC Park - River Bulkhead Wall Design *Pittsburgh, Pennsylvania*



Brief Project Description

GAI Consultants, Inc. (GAI) was retained to provide final design and construction monitoring for a 1,110-foot-long anchored sheet pile wall to support an attractive riverwalk area between the PNC Baseball Park and the Allegheny River. The curved alignment, while aesthetically pleasing, increased design and construction complexity. The tie-back system consisted of 142 inclined soil anchors at eight-foot intervals, each with a 42-ton capacity and embedded 51 feet into the soil.

Work Tasks/Services

- Designed reliable and cost-effective wall and tie-back system
- Monitored construction of sheet pile wall and anchors
- Prepared plans and specifications for wall construction
- Monitored and recorded anchor load testing
- Prepared layout of complex water support system to accommodate the curved-wall alignment
- Specified double corrosion protection system for anchors to enhance useful life of the wall

GAI Project Manager:
Anthony F. Morrocco, P.E.

Project Team:
GAI Consultants, Inc. (Prime)

Client:
L. D. Astorino & Associates, Ltd.

Client Contact:
Christopher R. Haupt
412.765.1700

Completion Date:
1999

#C990244

PNC Park Baseball Stadium
Pittsburgh, Pennsylvania



Brief Project Description

Involvement in the 39,000-seat PNC Park project by GAI Consultants, Inc. (GAI) began with the demolition of the old North Side neighborhood, required to make way for the project, and continued throughout construction. GAI determined detour routes, relocated public utilities, and obtained all necessary permits, including the NPDES Permit for industrial discharge and Joint 105/404 Permit for construction.

During the design development phase, GAI provided site and utilities engineering design of the River Bulkhead Wall, the Sewage Facilities Planning Module, conducted a flood risk assessment including hydrological and hydrogeological studies, coordinated all field surveying activities with the project surveyor, and designed a reliable and cost-effective 1,110-foot-long anchored sheet pile wall to support an attractive riverwalk area between the baseball park and the Allegheny River. The curved alignment of the wall increased design and construction complexity. The tieback system consisted of 142 inclined soil anchors at 8-foot intervals, each with a 42-ton capacity and embedded 51 feet into the soil.

Similar services were provided by GAI during the final design phase, including design modifications to two existing ALCOSAN diversion chambers to accommodate the construction of the new ballpark, and design of the underdrain system and flood control vault.

GAI monitored construction of the Allegheny River bulkhead wall and the abandonment of the existing 120-inch diameter canal sewer through the site.

GAI Project Manager:
Anthony F. Morrocco, P.E.

Project Team:
GAI Consultants, Inc. (Prime)
L.D. Astorino & Associates, Ltd.
(Subconsultant)

Client:
Hellmuth, Obata & Kassabaum, Inc.
(Site Planning)
L. D. Astorino & Associates, Ltd.
(Final Design)
Pittsburgh Pirates (Bulkhead Wall)

Client Contact:
Robert L. Watson (HOK)
816.221.1576
Dennis Astorino (LDA)
816.221.1576

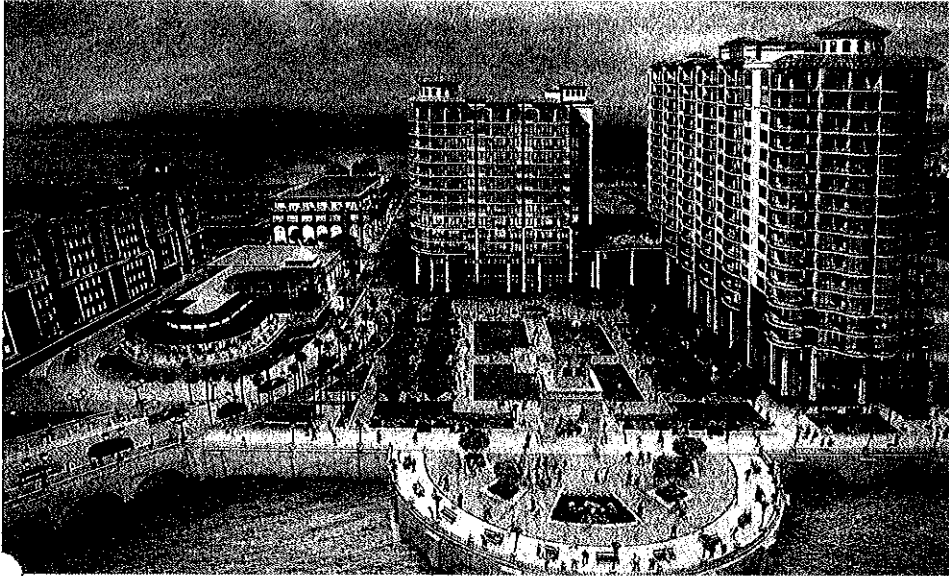
Completion Date:
2001

#C980426 (HOK) #C980491 (LDA) #C990244 (Pirates)

Work Tasks/Services

- Civil site layout
- Flood risk assessment
- Hydrologic and hydraulic studies
- Utility design
- Site design and grading
- Permitting
- Hydrogeologic investigations
- Flood control system
- Regulatory agency coordination
- NPDES Permit for industrial discharge
- Building demolition documents and specifications
- Phase I and II Environmental Assessments
- Complex wall and tieback system design and construction
- Anchor load test monitoring
- Sheet pile wall and anchor construction monitoring

Uptown Altamonte
Seminole County, Florida



GAI Project Manager:
Grace Harrison, RLA

Project Team:
GAI Consultants (Prime)
Ibarra - Architects (Subconsultant)

Client:
Altamonte Springs

Client Contact:
Frank Martz
407.571.8178

Completion Date:
July 2006

#A040250.00

Brief Project Description

GAI Consultants, Inc. (GAI) completed a major landscape architectural design project for the picturesque community of Altamonte Springs, Florida, located just north of Orlando. The \$25 million project was the largest and most innovative landscape design project to date for GAI.

GAI provided design development and construction plans for this imaginative town center project, which borders beautiful Crane's Roost Lake. The thirty-seven acre lake includes one mile of continuous boardwalk and sidewalk. GAI designed the streetscapes, park amenities, amphitheater improvements, and event venues that totaled \$16M in construction.

Working closely with Wharton-Smith Construction Company for more than 24 months, GAI also provided utility coordination, traffic, structural and civil engineering, and irrigation plans for the new development. With GAI at the design helm and Wharton Smith implementing construction, the project faced many site challenges both for construction and to meet city and state ADA requirements. Together the team transformed the vision of Uptown Altamonte into an award-winning recreational urban hub for the city of Altamonte Springs and its visitors.

Work Tasks/Services

- Landscape architecture
- Civil engineering
- Traffic engineering
- Structural engineering
- Survey

Value-Added Innovations

Design/Build concept was chosen as the most cost-effective option.

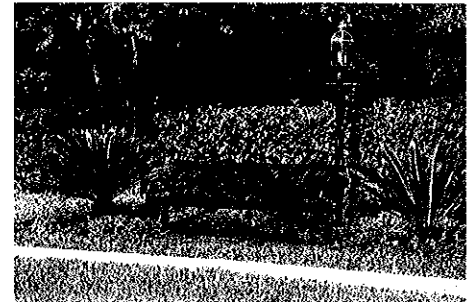
Lasting Benefits

Recreational urban hub for the City of Altamonte Springs and their visitors.

Major Accomplishments

Southeast Construction Magazine awarded the project a "Best of 2006" in the Best Parks/Recreational category. Only 24 projects received a "Best of" award by the McGraw Hill Construction publication.

Hills of Lake Mary Lake Mary, Florida



GAI Project Manager:
Grace G. Harrison, RLA

Project Team:
GAI Consultants

Client:
Seminole County, Florida

Client Contact:
Steve Krug
407.905.3170

Construction Cost:
\$25,000

Completion Date:
2002

A020052.00

Brief Project Description

GAI Consultants, Inc. (GAI) greatly enhanced the two entrances to the Hills of Lake Mary subdivision during the 46A roadway widening project. The concerned homeowners needed an irrigation design and a revised landscaping plan to incorporate new sidewalks featuring handicap accessible ramps. The existing brick fountains set a beautiful image at the end of the brick wall that buffers the community from outside traffic. A palette of yellow and dark green was chosen as a bold contrast against the brick wall. Red and yellow annuals, changed seasonally, were selected to compliment new bromeliads planted under the mature oaked canopy with variegated ginger accenting the corners of each fountain pool.

Work Tasks/Services

- Landscape architecture
- Irrigation design
- Lighting design
- Visioning and consensus building

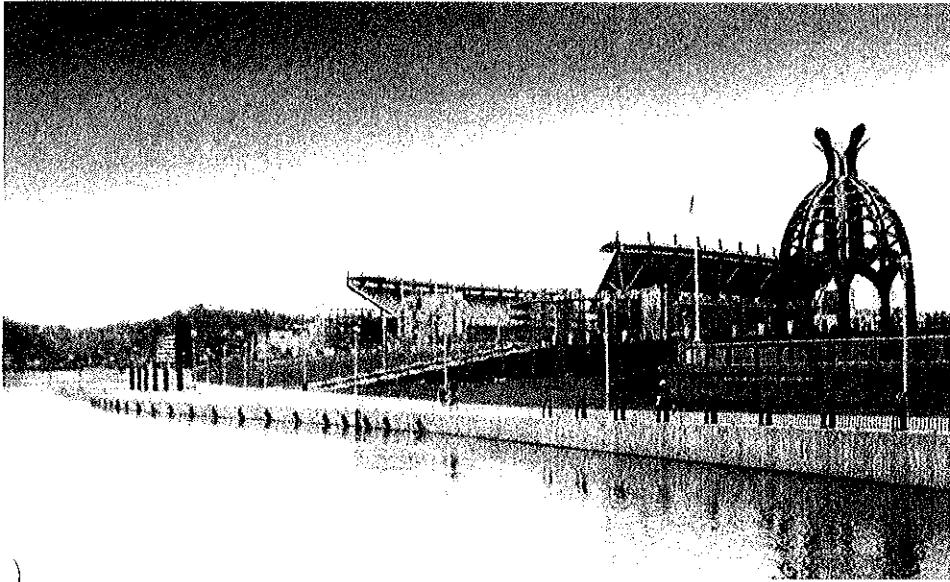
Major Accomplishments

The county engineer stated he had received more positive calls on this project than he had in 10 years of service.

Lasting Benefits

After several discussions with homeowners and County staff, the vision for the entrance was themed "WOW."

North Shore Riverfront Park *Allegheny County, Pennsylvania*



GAI Project Manager:
Contact: Patrick M. Gallagher
Project Team:
GAI Consultants, Inc. (Prime)
Client:
EDAW Inc.
Client Contact:
Leslie Bartnik
703.836.1414
Construction Cost:
\$48,000,000
Completion Date:
2000

#C000494

Brief Project Description

North Shore Riverfront Park (also known as Clemente Park) sits on a 4,000 I.F. parcel of land stretching from the West End Bridge to the Fort Wayne Railroad Bridge in the City of Pittsburgh. Development took place in three phases, Esplanade West and Great Lawn (Phases I and II), and Belvedere (Phase III). A Vietnam Veterans Memorial and a memorial to law enforcement were erected during the first two phases. Phase III included design and construction of an ornamental overlook situated on an existing pier. It was designed to have an "old steel town" theme. Boat docks, lawns, gardens, piers and watersteps accent the park.

GAI Consultants, Inc. (GAI) was retained to provide civil engineering and permitting services for Phases I, II, and III of this North Shore project. Each phase required walkways, lighting, utilities, and permitting. GAI's services were again requested when structural engineering services were required for a later phase of the project. Phase IV involved designing a causeway at the park, and GAI developed a half-moon shaped pedestrian structure that extends into the river.

Value Added Innovations

The park links the city's two sports stadiums, Heinz Field and PNC Park, and has improved access to the Fort Duquesne Bridge pedestrian walkway that connects the North Shore area with Point State Park. This and other efforts to develop parks, trails, and open spaces, have made Pittsburgh one of the leading cities in developing greenways for recreation and transportation.

Work Tasks/Services

- Hydrologic and Hydraulic (H&H) river modeling
- Field survey
- Erosion control plans
- Utility design
- Permitting
- Geotechnical engineering
- Structural engineering
- Cost estimating

Morgantown Riverfront Park *Morgantown, West Virginia*



GAI Project Manager:
Robert J. Houston

Project Team:
GAI Consultants, Inc. (Prime)

Client:
U.S. Army Corps of Engineers

Client Contact:
Jack Goga
412.395.7200

Project Cost:
\$82,900

Completion Date:
1998

#C940424.18

Brief Project Description

GAI Consultants, Inc. (GAI) provided Phase 1A and Environmental Assessment services to the Morgantown River Park project in Morgantown, West Virginia. This included analyses of features associated with the expansion and development of the existing Morgantown Park. New facilities at the park included an accessible parking lot, an ornamental arbor, paved walkways, a restroom/storage facility, an amphitheater, trails, an overlook, and a boat access ramp. The Environmental Assessment (EA) was carried out according to the requirements of the National Environmental Policies Act (NEPA) and state and local resource management regulations. Potential impacts were assessed with regard to land use, socioeconomics, farmlands, air quality, noise, vegetation, wildlife, water resources, wetlands, threatened and endangered species, floodplains, historic and archaeological resources, hazardous waste, groundwater and geology, aesthetics, and secondary and cumulative impacts.

Work Tasks/Services

- Phase I archaeological survey
- Environmental impact studies
- Biological studies
- Report and recommendations

Monongahela River Comprehensive Study
Marion and Monongalia Counties, West Virginia



GAI Project Manager:
Robert J. Houston

Project Team:
GAI Consultants, Inc. (Prime)

Client:
U.S. Army Corps of Engineers

Client Contact:
Jack Goga
412.395.7200

Completion Date:
1998

#C940424.05

Brief Project Description

GAI Consultants, Inc. (GAI) conducted a comprehensive study related to the potential for development along 37 miles of the Monongahela River, from Fairmont, West Virginia to the West Virginia-Pennsylvania state line. Conceptual plans ranged from the reuse of abandoned railroad yards and corridors to the expansion of community parks and recreation areas. Sixteen projects were completed under this IDIQ contract with the Pittsburgh District of the U.S. Army Corps of Engineers, with tasks orders ranging from \$14,000 to \$330,000.

Work Tasks/Services

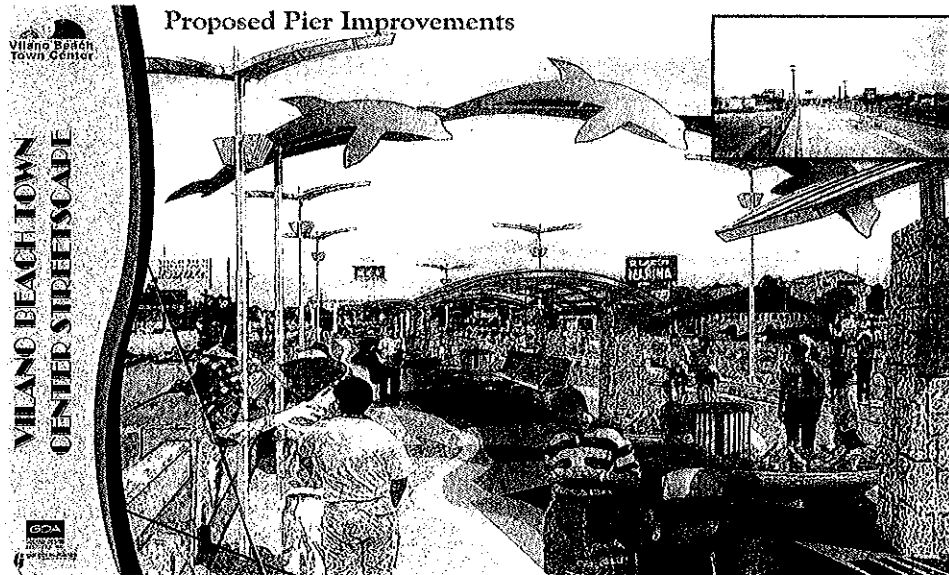
- Studies, analyses, and consequent Riverfront Development Conceptual Plans for eight sites adjacent to the Monongahela River
- Comprehensive inventory of existing and potential waterfront uses
- Natural resources agency coordination
- Public meetings

Value Added Innovations

GAI exceeded the subcontracting goals of the workplan, placing 36 percent with small businesses, including five percent with small disadvantaged businesses.

Vilano Beach Streetscape

Vilano Beach, Florida



GAI Task Manager:
Ron Hoogland, P.E.
Grace Harrison, RLA (Task Manager)

Project Team:
GAI Consultants, Inc. (Prime)

Client:
St. Johns County

Client Contact:
Greg Caldwell
904.209.0587

Completion Date:
October 2004

#8040408.91

Brief Project Description

GAI Consultants, Inc. (GAI) assisted in the development of the Vilano Beach streetscape and enhancement project. Historic Vilano Beach is positioned beautifully between the Atlantic Ocean and St. Johns River just outside of St. Augustine, Florida. The community wanted to keep their unique flavor and improve their streetscape to encourage commercial development. GAI assisted in creating three concepts to capture the fun, family-oriented Florida character of this town. The "overhead dolphins" are planned to be shade structures for walkers on the pier. The whimsical sea life will identify the entrance to this walkable shopping district for boaters and vehicular traffic.

Work Tasks/Services

- Public involvement
- Streetscape
- Landscape architecture

Lasting Benefits

The beautification of this festive community now has a united identity and support facilities to promote economic development of tourism.

Major Accomplishments

This project enabled the community to come together to develop this central streetscape. It provided on street parking in a narrow right of way that is shaded and convenient for Vilano Beach visitors.