EXPRESSION OF INTEREST
Requisition #LBS90030

ARCHITECTURAL / ENGINEERING SERVICES for HYGIENIC LABORATORY FACILITIES

WV DEPARTMENT OF HEALTH & HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH OFFICE OF LABORATORY SERVICES

Introduction

Firm Profile

Resumes

Projects

References

12 February 2009

300 Summers Street, Suite 1200, Charleston, West Virginia 25301-1630
Phone: 304/342-2151 Fax: 304/342-2197 Email: jharris@bastianandharris.com

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	PAGE
LBS90030	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
*506145430 304-342-2151
BASTIAN & HARRIS ARCHITECTS PL
BB&T SQUARE
300 SUMMERS STREET SUITE 1200
CHARLESTON WV 25301

SHIP TO
HEALTH AND HUMAN RESOURCES
BPH - LABORATORY SERVICES

167-ELEVENTH AVENUE
SOUTH CHARLESTON, WV
25303 304-558-3530

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/13/2009				

BID OPENING DATE: 02/12/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-00-00-001		

EXPRESSION OF INTEREST

RECEIVED
2009 FEB 11 PM 4:14
WV PURCHASING DIVISION

EXPRESSION OF INTEREST - ARCHITECTURAL/ENGINEERING

WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES, BUREAU FOR PUBLIC HEALTH, OFFICE OF LABORATORY SERVICES IS SOLICITING EXPRESSIONS OF INTEREST FROM ARCHITECTURAL AND ENGINEERING FIRMS AS PER THE ATTACHED EXPRESSION OF INTEREST.

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.

****** THIS IS THE END OF RFQ LBS90030 ****** TOTAL:

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 304/342-2151 DATE 12 February 2009

TITLE Member, AIA FEIN 55-076-5885 ADDRESS CHANGES TO BE NOTED ABOVE

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

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.

2. The State may accept or reject in part, or in whole, any bid.

3. All quotations are governed by the ***West Virginia Code*** and the ***Legislative Rules*** of the Purchasing Division.

4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required $125 fee.

5. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.

6. Payment may only be made after the delivery and acceptance of goods or services.

7. Interest may be paid for late payment in accordance with the ***West Virginia Code***.

8. Vendor preference will be granted upon written request in accordance with the ***West Virginia Code***.

9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.

11. The laws of the State of West Virginia and the ***Legislative Rules*** of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract

12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.

13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.

14. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (**http://www.state.wv.us/admin/purchase/vrc/hipaa.htm**) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.

15. **WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division

2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications

3. Complete all sections of the quotation form.

4. Unit prices shall prevail in case of discrepancy.

5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.

6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130

RFQ No LBS90030[15]

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

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

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

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

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

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

Vendor's Name: Bastian & Harris, Architects, PLLC

Authorized Signature: _____ Date: 12 February 2009

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SHIP TO
HEALTH AND HUMAN RESOURCES
BPH - LABORATORY SERVICES

167-ELEVENTH AVENUE
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
01/28/2009				

OPENING DATE: 02/12/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

ADDENDUM NO. 1

1. QUESTIONS AND ANSWERS ARE ATTACHED.
2. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.

EXHIBIT 10

REQUISITION NO.: LBS90030

ADDENDUM ACKNOWLEDGEMENT

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 ..X.....

NO. 2 .....

NO. 3 .....

NO. 4 .....

NO. 5 .....

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

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
	304/342-2151	12 February 2009
TITLE Member, AIA	FEIN 55-076-5885	ADDRESS CHANGES TO BE NOTED ABOVE

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

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	PAGE
LBS90030	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
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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

Bastian & Harris, Architects
COMPANY

12 February 2009
DATE

REV. 11/96

END OF ADDENDUM NO. 1

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE | TELEPHONE 304/342-2151 | DATE 12 February 2009

TITLE Member, AIA | FEIN 55-076-5885 | ADDRESS CHANGES TO BE NOTED ABOVE

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

B&H
Bastian & Harris
ARCHITECTS

12 February 2009

Roberta Wagner, Senior Buyer
Purchasing Division
2019 Washington Street, East
PO Box 50130
Charleston, WV 25305-0130

RE: Requisition #LBS90030 Expression of Interest
Architectural Services for
West Virginia Department of Health & Human Resources
Bureau for Public Health

Dear Ms. Wagner and the Selection Committee:

It is indeed a pleasure to submit to you our response to your request for an expression of interest for the architectural and engineering consulting services for the Office of Laboratory Services.

Bastian & Harris, Architects is a Charleston based architectural firm with a wide variety of project experience in health care, higher education, and commercial. Since we are a small firm, we provide a considerable amount of personal attention to each project and the Principals take an active role in problem solving clients' needs. We feel that this has been demonstrated by a track record of quality architectural services that have been provided on time, on budget, and with minimal change orders. These include both private projects and projects for the State of West Virginia. Recent projects include a 500-bed Residence Hall and Dining Facility for Marshall University, the Conference Center addition to Tamarack, and a recently completed Eastern West Virginia Community & Technical College Administration, Classroom and Laboratory Building. Additionally, we have worked on several higher education laboratory facilities including the Marshall University Mid-Ohio Valley Center, West Virginia University Institute of Technology Science Building, as well as laboratory facilities at Pleasant Valley Hospital and Summersville Memorial Hospital. We have worked on a significant number of administrative office spaces both for legal, medical, and commercial clients. Projects include the recently completed Administrative Office Facility for HospiceCare, Go-Mart Corporate Offices in Gassaway, and over 100,000 gsf of tenant build-outs for BB&T.

While our experience has been on a wide variety of projects, we recognize the need for specific consultants on specialized projects such as yours. Accordingly, for your project we have selected the nationally recognized firm of SST Planners out of Alexandria, Virginia to assist in the planning of new and renovated laboratory spaces. Their experience includes Carnegie Institution of Washington at Johns Hopkins in Baltimore, Brain and Cognitive Science Center for the Massachusetts Institute of Technology, and University of Connecticut Cell Sciences Institute. They have most recently served as consultant on the design of the Marshall University Biotech Facility completed in 2006 and the Blanchette Rockefeller Neurosciences Institute for WVU in Morgantown. As an independent lab consultant, they provide expertise in functional arrangement of laboratories and are familiar with all requirements of the Center for Disease Control (CDC), National Institute of Health (NIH), Office of Health Safety (OHS), and other State and Federal agencies. They also have experience with BMBL III Facilities. They will also assist in analyzing existing casework configurations and provide us with efficient planning for necessary upgrades.

300 Summers Street Suite 1200 Charleston, WV 25301-1630 304/342-2151 • (Fax) 304/342-2197
Douglas M. Bastian, AIA, NCARB John M. Harris, AIA, NCARB

Mechanical and Electrical systems are an important part of the design and operation of any laboratory facility. Accordingly, we have selected Scheeser Buckley Mayfield out of Uniontown, Ohio to address these issues. SBM also worked with SST on the Biotech Center at Marshall Likewise, we have worked with SBM on numerous projects over the last 15 years and find their attention to detail and thorough documentation while preparing plans and specifications an asset to any project. They will assist in analyzing recent mechanical system upgrades and integrating new construction with your existing systems. Their goal is to provide cost efficient HVAC systems that offer comfort, safety and ease of maintenance.

For the structural engineering component, we have selected Steven Schaefer Associates out of Cincinnati, Ohio. We have been working with Greg Sliger for the past 17 years and find their structural designs to be efficient and cost effective. They understand local methods of construction and maintain a practical approach to the structural system design. They too understand the need for complete construction documentation and full service construction administration.

Together, the team has worked on similar projects and is experienced in the methodologies necessary to produce a successful project for you. As a local firm, most of our work has been in West Virginia and we are quite familiar with state procedures and review agency requirements for projects of this nature. We will work closely with you and these agencies as the planning process evolves to ensure that there are no surprises when the project is ready to go to bid. Our continued presence during the construction administration phase and the continuity of personnel from the initial design through construction documents and into this construction administration phase translates into smooth communication for the Owner and minimizes unrealized expectations and the need for change orders.

We welcome the opportunity to meet with you and your evaluation committee to discuss in more detail your project needs, our design approach and methodology, and our ability to successfully meet your project goals and objectives.

Sincerely,

John Harris

BASTIAN & HARRIS, ARCHITECTS

Firm Profile

The firm of Bastian & Harris, Architects was established in 1999 by Doug Bastian, AIA and John Harris, AIA. For 27 years, Doug and John worked for the firm of Clint Bryan & Associates in Charleston. During their tenure with this architectural firm, Doug and John participated in the production of a wide variety of projects ranging from higher education, primary and secondary education, health care, churches, commercial office space, retail, recreational, and custom residential. Through this association, they gained valuable experience in all phases of the design and construction process. Their technical expertise in the production of detailed construction documents and hands on approach to contract administration has gained them respect among the construction industry with a reputation for minimal change orders. This practical experience contributes to their ability to match owner's functional needs with economical and constructible design solutions. Detailed cost estimating from conceptual phase through construction documents has led to an excellent track record of delivering projects on time and in budget.

Bastian & Harris offers full service architectural designs to their clients while remaining small and personal. This four man firm, consisting of three registered architects and one associate, can produce projects of various sizes and complexities. By utilizing independent mechanical, electrical and structural engineering consultants as needed, the firm capitalizes on a wide range of technical expertise and support. When specific projects require special expertise, we will call upon specialized architectural design firms or other design consultants and utilize the knowledge and experience of nationally recognized professionals within a specific discipline. This allows them to build a design team specifically geared to the clients individual goals and objectives.

From early project development through programming, budget, design, technical drawings, specifications, and contract administration, a project is handled by the same key individuals. This continuity of personnel from inception to completion results in smooth communication between owner and all members of the project team. This helps to ensure quality control throughout the project and effectively translate owner's original project goals into a successful and complete project.

Recent projects include a 500-bed Student Housing and Dining Facility Complex for Marshall University, new Corporate Offices for Go-Mart, Inc., new Banquet Facility, Training, Educational, and Conference Center Addition at Caperton Center, new offices for Hospice, and various renovations and additions to several schools for Kanawha County. Currently under construction are a new facility for Eastern West Virginia Community & Technical College, Virginia Thomas Law Center for the Performing Arts at West Virginia Wesleyan College, and Auditorium Renovations for Kanawha County Schools. Present projects include Marshall Community & Technical College and providing construction monitoring services for the Owner on a new student housing project as well as a new recreation center for Marshall University being constructed by Mascaro Construction.

Doug and John are committed to providing a high level of professional service with personal attention to detail. It is this reputation that has helped to establish them within the architectural and construction community. They look forward to serving your design needs and appreciate the opportunity to be part of your project.

Bastian & Harris, Architects
300 Summers Street, Suite 1200
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304/342-2151 -- 304/342-2197 (Fax)
bastianandharris.com

B&H
Bastian & Harris
ARCHITECTS

DOUG BASTIAN, AIA, NCARB

Resume

Doug Bastian, AIA, Principal, is a registered architect, licensed since 1988 to practice architecture and has over 35 years experience within the building industry. Doug participated in the production of numerous projects. He continues to focus on design, estimating, construction documents, and construction administration aspects of projects.

Education

Bachelor of Science in Architectural Technology
West Virginia State College – 1968

Registration/License

Licensed in West Virginia 1988
Certification by National Council of Architectural Registration Boards

Affiliations

American Institute of Architects
AIA West Virginia

Project Experience

Marshall University
- Student Housing and Dining Facility Complex
- Renovations to Holderby Hall

Enhancements to Caperton Center (Tamarack)
Eastern WV Community & Technical College
- Classroom / Laboratory / General Support Building

Tri-County YMCA Natatorium and Wellness Center
Blessed Sacrament Church Parish Hall
Ayash Sport Center
Corporate Office for Go-Mart
Kanawha County Schools
- Horace Mann Middle School Renovations
- Grandview Elementary School Addition
- Garnet Adult Center Renovations
- New Windows and Masonry Repairs at Clendenin Elementary
- Dupont Middle School HVAC Renovations
- Auditorium Renovations at Five Area High Schools
- Library/Computer Lab Addition and Fire Code Corrections to Point Harmony Elementary School
- Renovations and HVAC Upgrades to Horace Mann Middle, Dupont Middle, and Chesapeake Elementary
- Renovations to Shawnee Community Education Center
- Renovations and HVAC Upgrades to Stonewall Jackson Middle School

Herman Eye Center New Office Building
Addition and Renovations to Comfort Inn
Bible Center Church Master Plan
Cross Lanes United Methodist Church New Fellowship Hall
Calvary United Methodist Church Addition and Renovations
Virginia Thomas Law Center for the Performing Arts at
West Virginia Wesleyan College

B&H Bastian & Harris ARCHITECTS

JOHN HARRIS, AIA, NCARB

Resume

John Harris, AIA, Principal, is a registered architect, licensed since 1982 to practice architecture. In 1972, John joined the firm of Clint Bryan & Associates. While there, John worked with and assisted in the production of a wide variety of projects. responsibilities include overall project development, design, construction documents, and construction administration.

Education

Bachelor of Science in Architectural Technology
Summa Cum Laude
West Virginia State College – 1973

Registration/License

Licensed in West Virginia 1982 -- Virginia 2002
Certification by National Council of Architectural Registration Boards

Affiliations

American Institute of Architects; AIA West Virginia; West Virginia Society of Architects Board of Directors 1983-85 and 2005-Present;
AIA West Virginia Scholarship Committee;
Council of Education Facilities Planners

Project Experience

Marshall University
- Student Housing and Dining Facility Complex
- Memorial Student Center Lobby Renovations
- Expansion to Mid Ohio Valley Center
- Renovations to Buskirk Hall
- Graduate College Renovations
- Art Department Renovations
- Housing / Wellness Center

Eastern West Virginia Community & Technical College Classroom / Laboratory / General Support Building

Kanawha County Schools
- Ruffner Elementary - Addition and Renovations
- Overbrook Elementary - Addition and Renovations
- Alban / Andrews Heights / Anne Bailey Elementary - Additions and Renovations
- Central Elementary - Addition
- Horace Mann Middle School Renovations

West Virginia Wesleyan College
- Virginia Thomas Law Center for the Performing Arts

Marshall Community & Technical College
Moses Automotive Factory Outlet
Hospice Administrative Office Building
Pleasant Valley Hospital - Emergency Services and Laboratory Renovations
Addition and Renovations to Bible Center Church
Addition to Emmanuel Baptist Church
Mountaineer Imaging Center
Citizens National Bank of Snowshoe
Law Office of Kesner, Kesner & Bramble
BB&T Lobby Renovations
Hampton Inn Addition and Renovations

B&H Bastian & Harris ARCHITECTS

CHRISTOPHER CAMPBELL, AIA, NCARB

Resume

Chris Campbell, AIA, is a registered architect and licensed since 2000 to practice architecture.

In 1996, Chris was employed as a project architect with Williamson Shriver, Architects and was responsible for design, project development, and contract documents with an emphasis on public K-12 educational facilities. Activities included design, progress meetings, technical coordination with consultants, CADD drafting, specification preparation, project reviews with various state agencies, pre-bids, clarifications during bidding process, and bid openings, coordination with construction staff, progress reviews. Primary responsibility on projects included the implementation of design goals with respect to client's program and budget.

In May 2006, Chris joined the firm of Bastian & Harris, Architects. Responsibilities include overall project development, design, construction documents, bidding, and construction administration.

Education

University of Tennessee - 1996

Registration/License

Licensed in West Virginia - 2000
Certification by National Council of Architectural Registration Boards

Affiliations

American Institute of Architects
West Virginia Chapter of the American Institute of Architects

Professional Service

AIA WV Chapter President - 2006 to 2007
AIA WV Executive Committee - 2001 to present
AIA 150 Champion (AIA WV) - 2006 to 2007
Intern Development Program State IDP Coordinator - 2000 to 2005

Project Experience with Williamson Shriver, Architects

University High School - 217,000 sf new facility
Mylan Park and Skyview Elementary Schools - two 80,000 sf facilities
Widmyer Elementary School - 44,000 sf addition and renovation
Philip Barbour High School - 169,000 sf addition and renovation
Erma Byrd Art Gallery, University of Charleston - renovation into new art gallery
Jefferson County Middle School - 88,000 sf new facility
Berkeley Springs High School - 114,000 sf addition and renovation
Ram Stadium, Shepherd College - 2100 seat new facilities /support buildings
Bluefield Intermediate School - 43,000 sf new facility
Princeton Primary School - 56,600 sf new facility

Project Experience with Bastian & Harris, Architects

Overbrook Elementary School Addition and Renovation
Eastern West Virginia Community and Technical College New Classroom / Laboratory / Support Building
West Virginia Wesleyan College
Virginia Thomas Law Center for the Performing Arts
Hospice Administrative Office Building
Kanawha County Schools - Auditorium Renovations at Five Area High Schools
BB&T 14th Floor Tenant Build-Out

B&H Bastian+Harris ARCHITECTS

BENJAMIN ASHLEY, ASSOCIATE AIA, CDT

Resume

Ben Ashley worked as an intern during the summers of 2004 and 2006 for the West Virginia School Building Authority. He worked for Bastian & Harris, Architects during the summer of 2007 and then joined the firm full time in July 2008. Responsibilities include overall project development, design, construction documents, bidding, and construction administration.

Education

University of Tennessee - 2008

Registration/License

Construction Specification Institute -
Construction Document Technologist Certificate

Affiliations

American Institute of Architects - Associate Member
West Virginia Chapter of the American Institute of Architects -
Associate Member
Member of the National Trust for Historic Preservation

Collegiate Awards

Finalist for Bronze Medal - Top Senior Studio Project 2008
Vertical Agriculture: Visualizing Sustainability
Building Wealth: Low Income Residential Community Competition Winner
City of Clarksville, Tennessee
Mary James Park Entrance Design Competition Winner
City of Knoxville, Tennessee

Project Experience

AIG Financial
BB&T - 9th Floor Tenant Build-Out
BB&T - 14th Floor Tenant Build-Out
Bailey & Glasser
Buckhannon Toyota
Comfort Inn Lounge
Daniels Residence
Glenville State College
Hospice - Lewisburg
Hospice - Charleston
Hospice - Kanawha City
Halloran Residence
Hosaflook Residence
KCS - Auditorium Renovations at George Washington, Herbert Hoover, Nitro, Sissonville and South Charleston High Schools
KCS - Overbrook Elementary
Lee Residence
Marshall University Community & Technical College
Wallace Residence
Virginia Thomas Law Center for the Performing Arts for West Virginia Wesleyan College

B&H Bastian & Harris ARCHITECTS

Educational

West Virginia Wesleyan College Center for the Performing Arts
Marshall University
- Student Housing Complex
- Renovations to Holderby Hall
- Renovations to Buskirk Hall
- Renovations to Memorial Student Center
- Housing / Wellness Center
- 6th Avenue Parking
- Mid-Ohio Valley Center
- Art Department Renovations

Marshall University Graduate College
Marshall Community & Technical College
Eastern West Virginia Community and Technical College
- Classroom / Laboratory / General Support Building
- Distance Learning Classrooms

Kanawha County Schools - Renovations:
- Central Office
- Multiple School Auditoriums
- Horace Mann Middle School
- George Washington High School
- Shawnee Community Education Center

Kanawha County Schools - Additions:
- Point Harmony Elementary
- Grandview Elementary
- Alban Elementary
- Andrews Heights Elementary
- Anne Bailey Elementary
- Central Elementary
- Overbrook Elementary
- Ruffner Elementary
- Horace Mann Middle School
- McKinley Middle School
- Garnet Adult Center
- Point Harmony IMC / Computer Lab

Kanawha County Schools - Renovations and HVAC Upgrades:
- Horace Mann Middle, Dupont Middle, and Chesapeake Elementary Schools
- Stonewall Jackson Middle School

Kanawha County Schools - Window Replacement:
- Dunbar Middle School
- McKinley Middle
- Horace Mann Middle School
- Clendenin Elementary School

Commercial

Enhancements to Caperton Center (Tamarack)
South Hills Shopping Center Renovations
Holiday Inn Renovations - Civic Center
Moses Automotive Factory Outlet - Southridge
Joe Holland Chevrolet
Renovations to Bert Wolfe Ford / Toyota
Renovations to Beckley Toyota
Moses Automotive Factory Outlet - Teays Valley
Kanawha County Public Library - Charleston Branch
Kanawha County Public Library - Clendenin Branch
Renovations to Dunbar Public Library
Renovations to St. Albans Public Library
Charleston Acoustics Building Renovations
Ridgeline Development
Southridge Center Development
Soaring Eagle Lodge - Snowshoe
Ayash Development - St. Albans
Comfort Inn Addition and Renovations
Hampton Inn Addition and Renovations
Ramada Inn Renovations

Professional Offices

Kesner, Kesner & Bramble Law Office
New England Financial Renovations
Pleasant Valley Hospital Wellness Center
Go-Mart Office Building
beBetter Networks
Trans Allegheny Building Renovations
Herman Eye Center
Bailey & Glasser
Ranson Law Office Renovations

Banking

Branch Banking & Trust Lobby Renovations
Branch Banking & Trust Tenant Build-Outs - 4th, 6th and 14th Floors
Citizens National Bank - Snowshoe Branch
Pleasants County Bank - St. Mary's

Residential

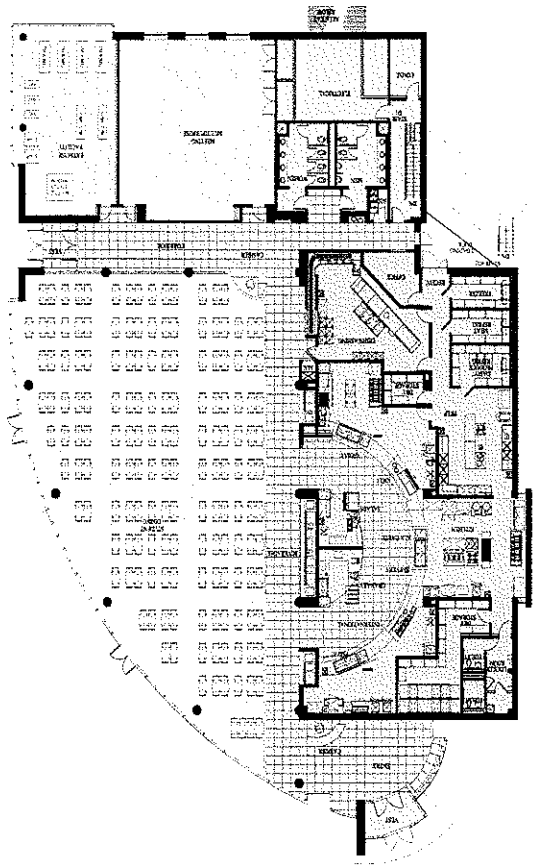
Morgan Residence
Carson Residence
Newbold Residence
Edward Smith Residence
Maxson Residence
Lawrence Residence
Cobb Residence
Kesner Residence
Higgins Residence
Wallace Residence
Brewster Residence
George Residences
Hosaflook Residence
Anderson Residence
Hamady Residence
Akins Residence
Hosaflook Residence
Halloran Residence
Wallace Residence

Churches

Bible Center Church Addition and Renovations
Peoples Baptist Church Fellowship Hall Renovation
Cross Lanes United Methodist Church Addition
Blessed Sacrament Parish Hall
Bible Baptist Church of Danville
Madison United Methodist Church Addition
Emmanuel Baptist Church
First Baptist Church of Eleanor
Calvary United Methodist Church Addition and Renovations
Spring Hill Baptist Church Renovations
Maranatha Baptist Church (Sissonville) Renovations

Health Care

Hospice Administrative Office Building
Greenbrier Clinic Endoscopic Suite
Mountaineer Diagnostic Imaging Center
Pleasant Valley Hospital
- Emergency Services and Laboratory Renovations
- Expansion to Medical Office Building
- New Hydro-Therapy Facility
- Entry Canopy



Student Housing Complex
Marshall University
Huntington, West Virginia

Owner: Marshall University
Ron May, Manager of Project Operations
One John Marshall Drive
Huntington, WV 25755
304/696-6294

Completion Date: 2003

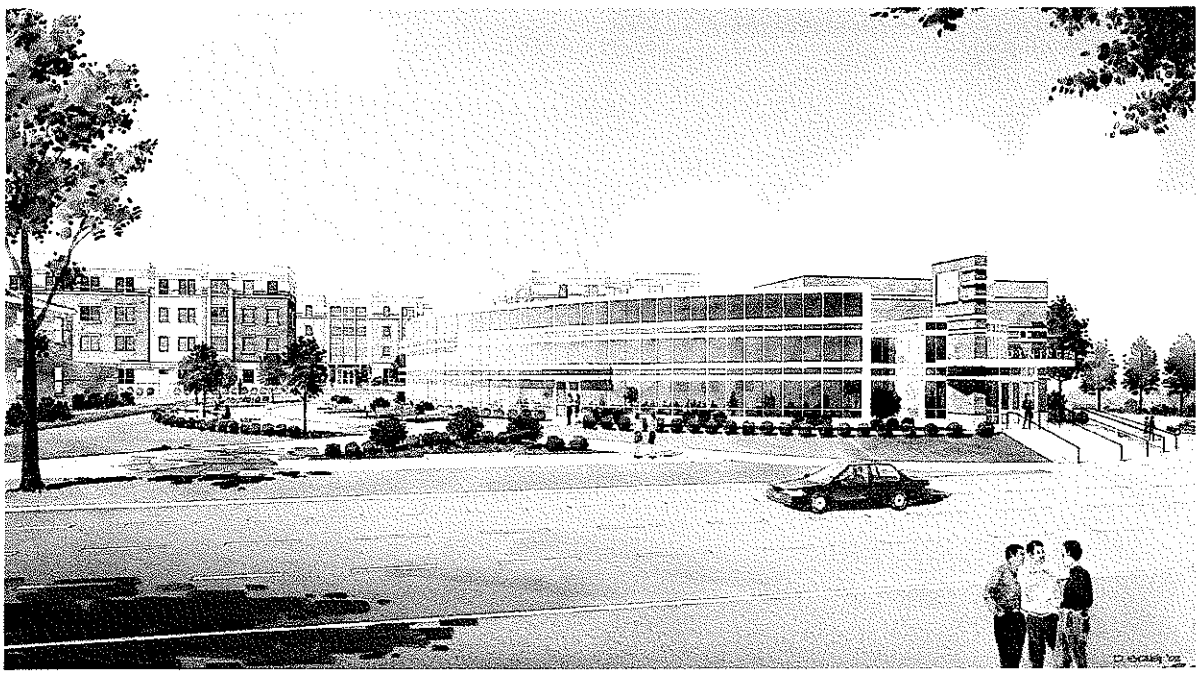
Construction Cost: $28,848,893

Services Provided: Full A/E

Size: 136,000 sf

Project consists of four 125-bed dormitory buildings and a 17,000 sf new dining facility seating 300. Dormitory buildings are comprised of CMU bearing walls with precast concrete plank floors and non-bearing partitions of gypsum board on metal studs. HVAC system is a pipe system with corridor mounted air handlers to minimize intrusion into student occupied spaces. Dining Hall comprised of steel frame and masonry bearing with curved curtainwall in dining area overlooking terrace.

Marshall University
Student Housing - Dining Facilities



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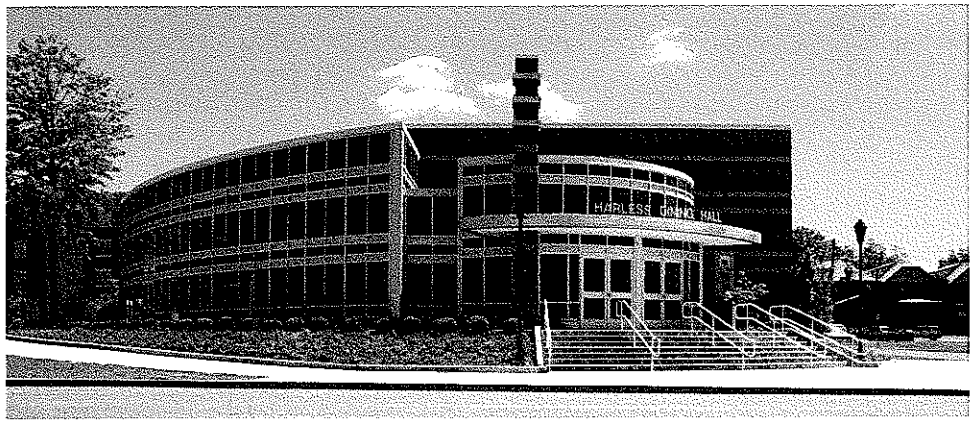
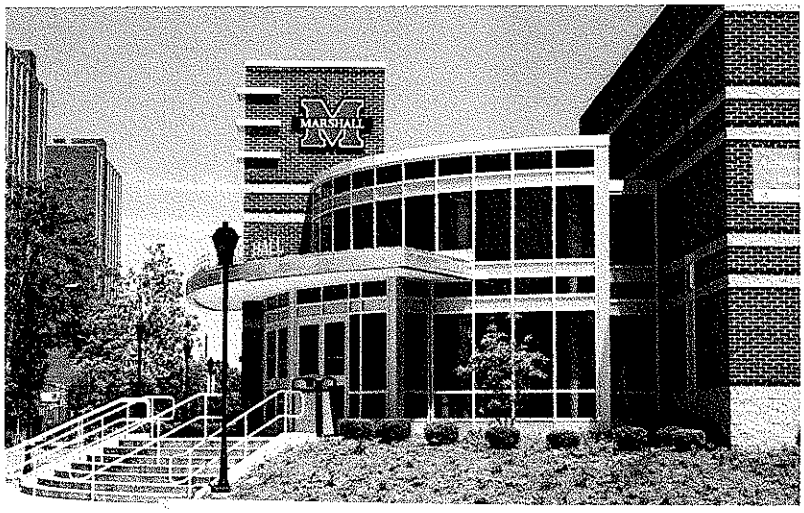
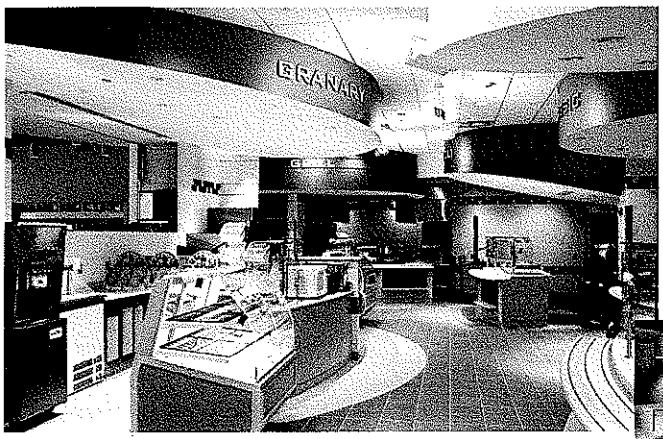
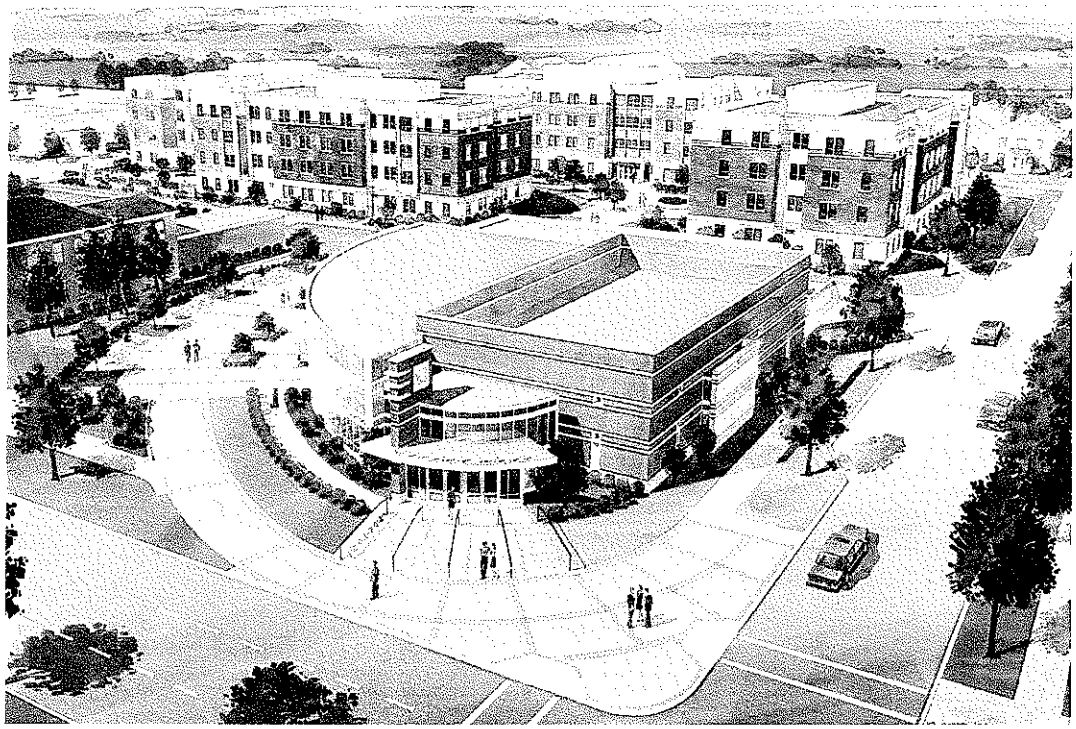
Bastian & Harris
ARCHITECTS



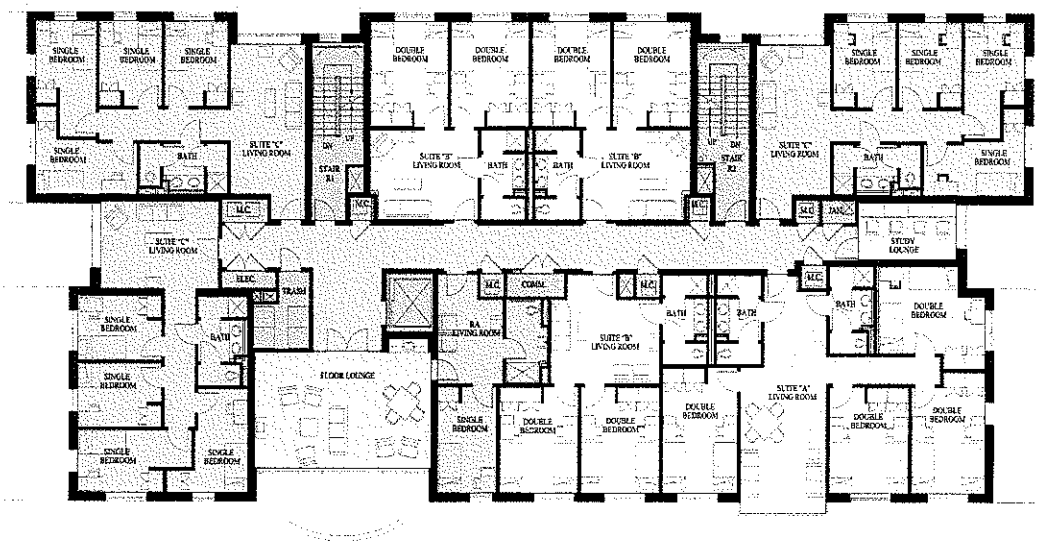
Marshall University
Dining Facility





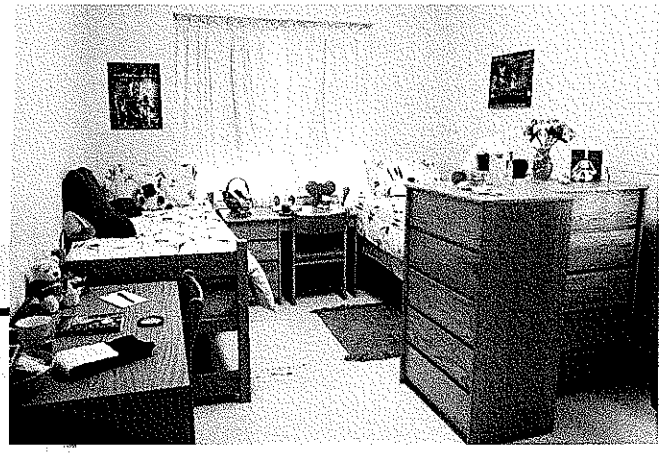


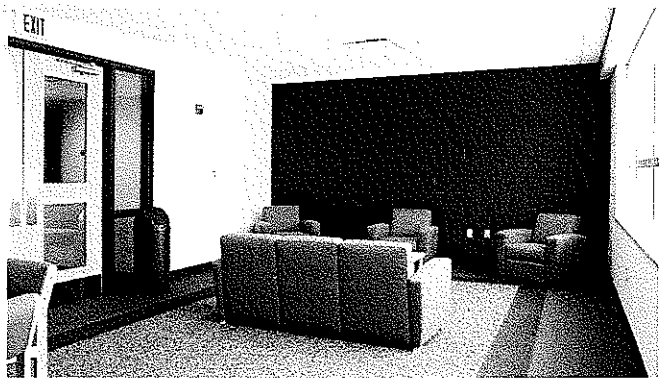
Marshall Student Housing - Residence Hall



Marshall Student Housing - Residence Hall Plan

Marshall University
Student Housing Complex





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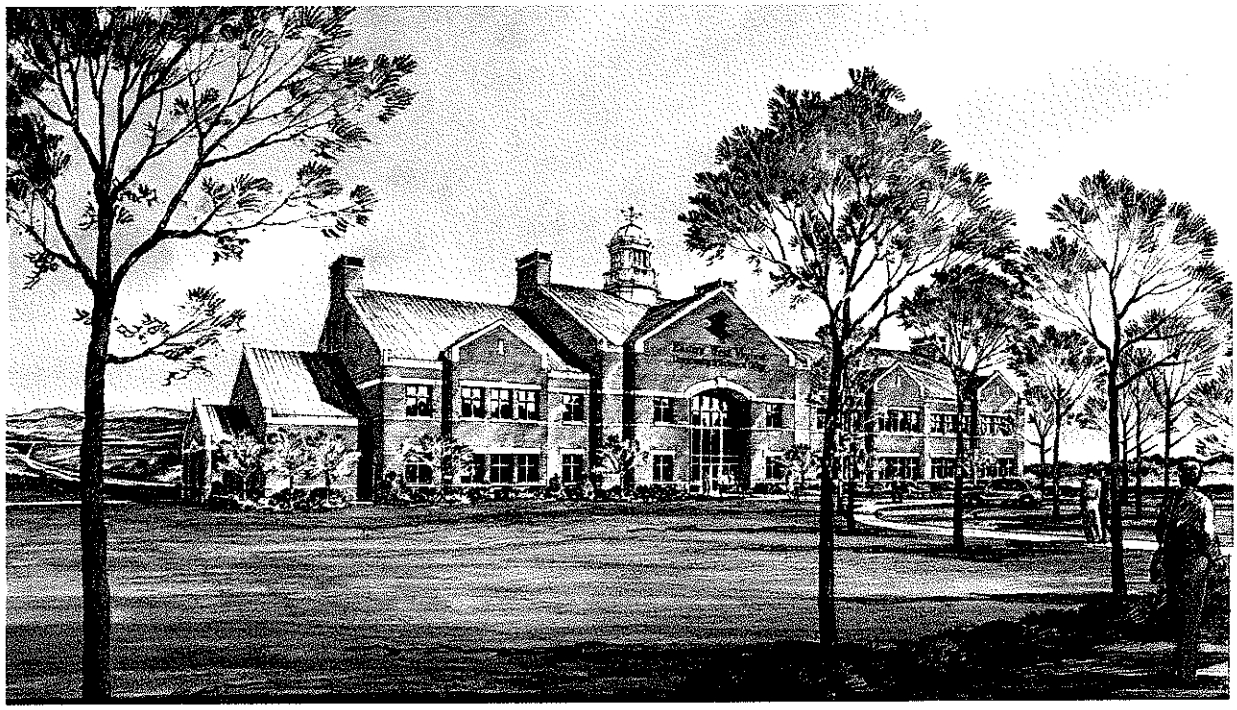
ARCHITECTS

BASTIAN & HARRIS, ARCHITECTS

Project Photos



Classroom / Laboratory / General Support Building
Eastern WV Community & Technical College
Moorefield, West Virginia

Owner: Eastern WV Community & Technical College
Bob Sisk, President
1929 State Road 55
Moorefield, WV 26836
304/434-8000

Completion Date: November 2008 (Substantial)

Construction Cost: $5,805,675

Services Provided: Full A/E

Size: 25,000 sf

Classroom and support facility housing a laboratory, resource lounge, and faculty / administration offices. Building structure is comprised of reinforced load bearing masonry exterior walls with an interior steel frame. Exterior cavity wall veneer consists of face brick and split faced CMU. Roof structure is cold-formed steel trusses which supports the sloped asphalt shingles. Interior spaces are comprised of painted gypsum board over steel stud framing, resilient floor tile or carpet, and a suspended acoustical ceiling system. Facility houses a mechanical room in the attic of the structure which maximized usable floor area. Building was situated at the top of a hill so large arched curtain walls and nicely sized fixed windows are positioned to frame distant views. This is the first phase of a new college campus.

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Virginia Thomas Law Center for the Performing Arts
West Virginia Wesleyan College

Owner: West Virginia Wesleyan College
Pamela Balch, President
59 College Avenue
Buckhannon, WV 26836
304/473-8040

Completion Date: February 2009

Construction Cost: $6,550,000

Services Provided: Full A/E

Size: 19,500 sf

This 374 seat Performing Art Center includes an 1,100 sf reception / rehearsal space, 2,500 sf stage, dressing rooms, costume shop, scenery shop, and orchestra pit. Building structure is comprised of reinforced load bearing masonry supporting steel joists and beam. Walls are supported on a deep foundation system comprised of concrete grade beams and auger-cast piles. Exterior cavity wall veneer consists of face brick and split face CMU. All windows are fixed aluminum storefront / entrance frames with insulated glass. Roofing is EPDM membrane over rigid insulation and sloped structural deck or level deck with tapered insulation. Interior public spaces are comprised of painted gypsum board over steel furring or steel studs, resilient floor or carpet, suspended acoustical ceiling system and exposed structure painted flat black, and hardwood base and trim.

Project Photos

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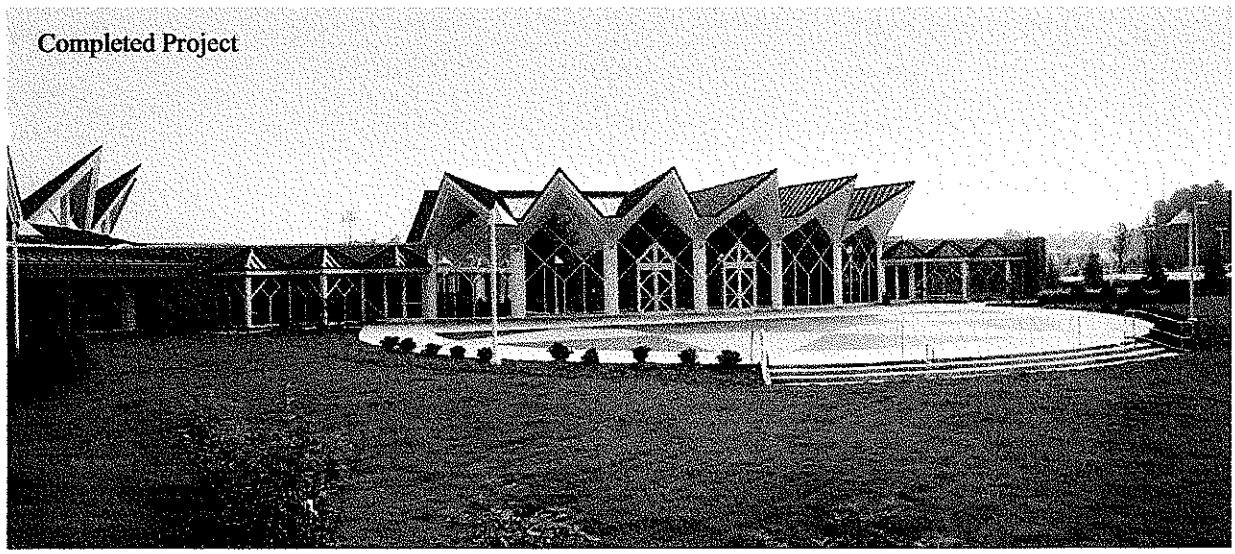
BASTIAN & HARRIS, ARCHITECTS

Project Photos

Rendering

Completed Project



Enhancements to Caperton Center (Tamarack)
Beckley, West Virginia

West Virginia Parkway Authority
Greg Barr, General Manager
PO Box 1469
3310 Piedmont Road
Charleston, WV 25325-1469
304/926-1900

Completion Date: 2003

Construction Cost: $6,188,106

Services Provided: Full A/E

Size: 22,000 gsf

This conference facility is designed to have the widest range of flexibility to accommodate conferences of all sizes and has a dividable space to allow for multiple simultaneous events. Other spaces includes ADA toilets, smaller conference room, offices, storage, pre-function space which opens with a large glass wall onto the plaza, atrium with seating for approximately 100, food service expansion of kitchen, and bus entrance drive with handicapped parking. Structure is steel frame with exterior stone and masonry bearing walls. Interior walls are gypsum board on metal studs. Portion of roof area is single-ply EPDM roofing membrane over tapered insulation system and major roof area of metal system over felt and plywood sheathing over rigid insulation on metal roof deck. Exterior stone, cast stone, windows, etc. matching existing Tamarack building.

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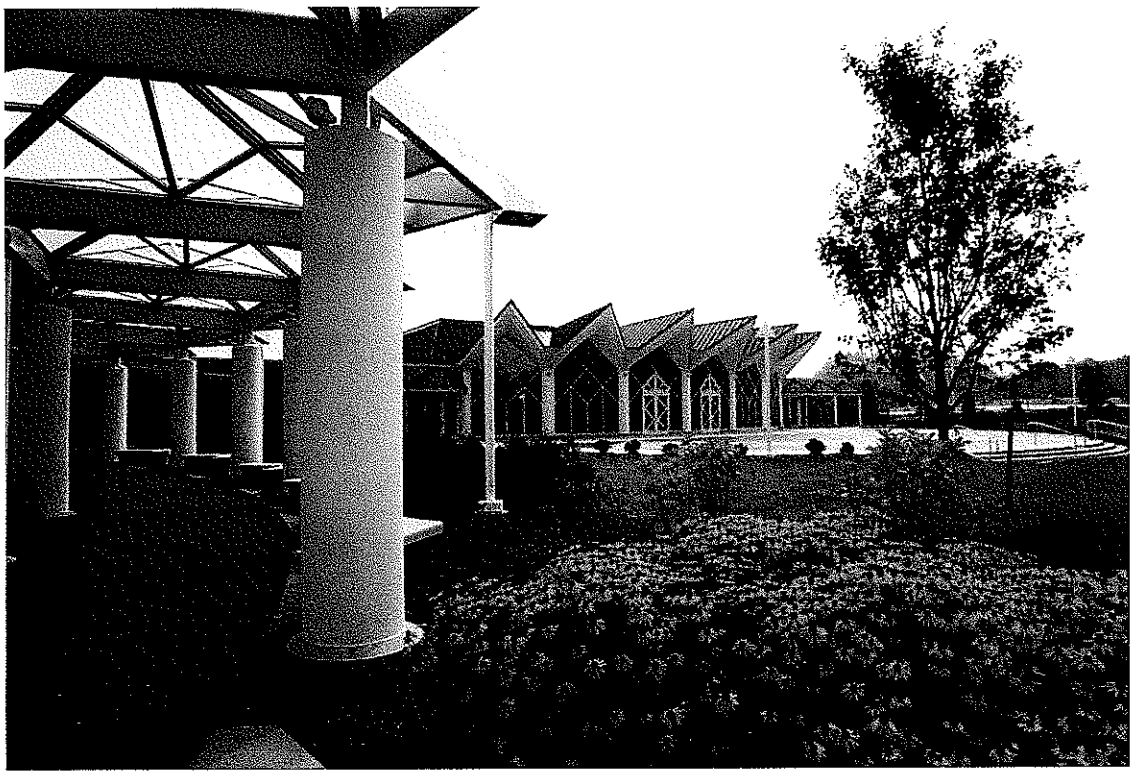
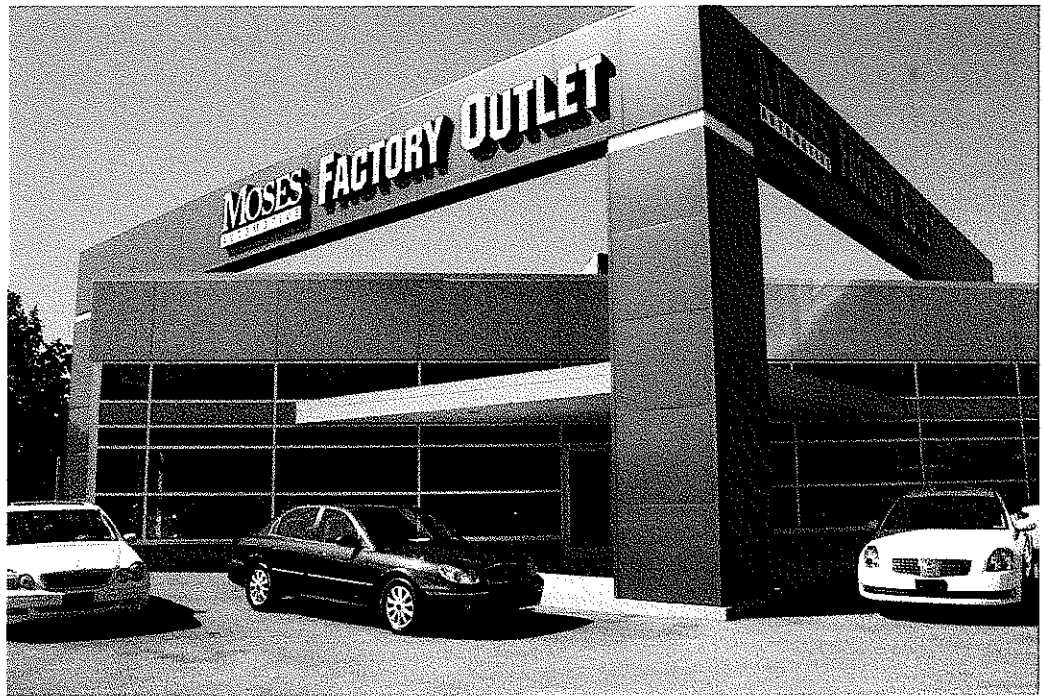
Caperton Center - Canopy





Moses Factory Outlet
Corridor G
Charleston, West Virginia

Moses Automotive
Bob Moses, Owner
1406 Washington Street, East
Charleston, WV 25301
304/343-5534

Completion Date: 2003

Construction Cost: $913,065

Size: 4,500 gsf

Asphalt Portion: 78,500 sf

Moses Factory Outlet
Teays Valley, West Virginia

Moses Automotive
Steve Moses, Owner
2001 MacCorkle Avenue
St. Albans, WV 25177
304/722-4900

Completion Date: September 2008

Construction Cost: $1,425,266.91

Size: 5,100 sf

Asphalt Portion: 96,000 sf

Joe Holland Chevrolet
New Automotive Showroom and Offices
South Charleston, West Virginia

Joe Holland Chevrolet
Joe Holland, Owner
210 MacCorkle Avenue
South Charleston, WV 25303
304/744-1561

Completion Date: 2004

Construction Cost: $1,968,547

Services Provided: A/E of Design Build
w/ Pray Construction

New automobile dealership with a 360 vehicle display lot, 11,750 square foot showroom with office space, and a 4,104 sf canopy on a 121,500 sf site.

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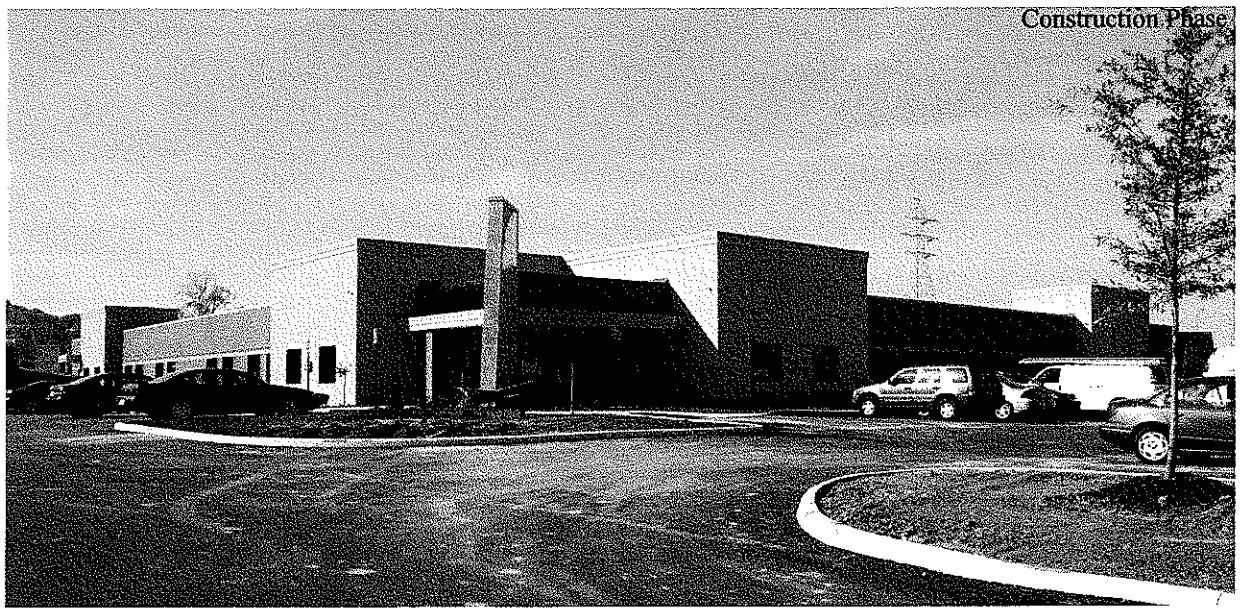
BASTIAN & HARRIS, ARCHITECTS

Rendering



Construction Phase

HospiceCare Administrative Offices
Charleston, West Virginia

17,800 gsf administrative offices for local HospiceCare organization.

HospiceCare
Larry Robertson, Executive Director
1606 Kanawha Boulevard, West
Charleston, WV 25302
304/768-8523

Completion Date: November 2008

Construction Cost: $3,155,585.56

Services Provided: Architectural as part of Design Build w/ Pray Construction

Project Photos

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BASTIAN & HARRIS, ARCHITECTS

Rendering

Completed Project

Go Mart Corporate Offices
Gassaway, West Virginia

Heater Oil Company
John Heater, President
PO Drawer D
915 Riverside Drive
Gassaway, WV 26624
304/364-8000

Completion Date: 2003

Construction Cost: $2,017,269.16

Services Provided: Full A/E

Size: 17,650 gsf

New corporate offices for major West Virginia company.

Project Photos

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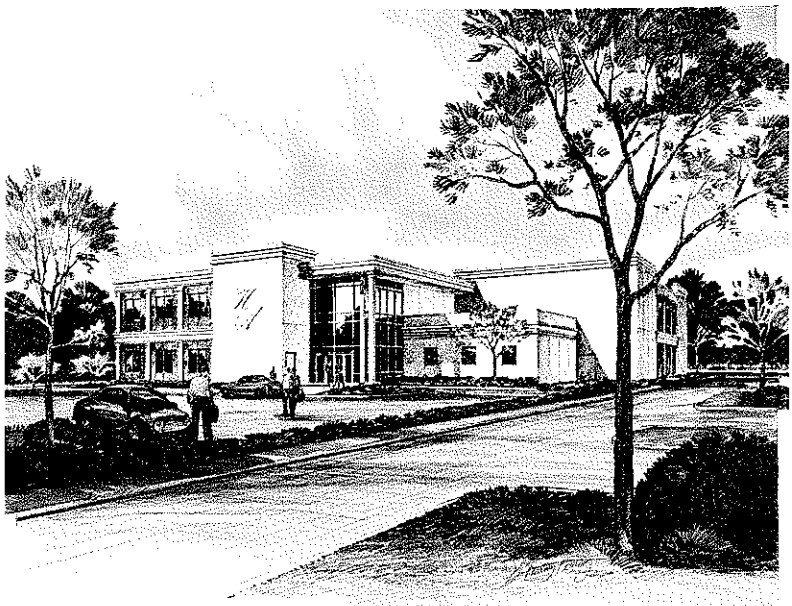
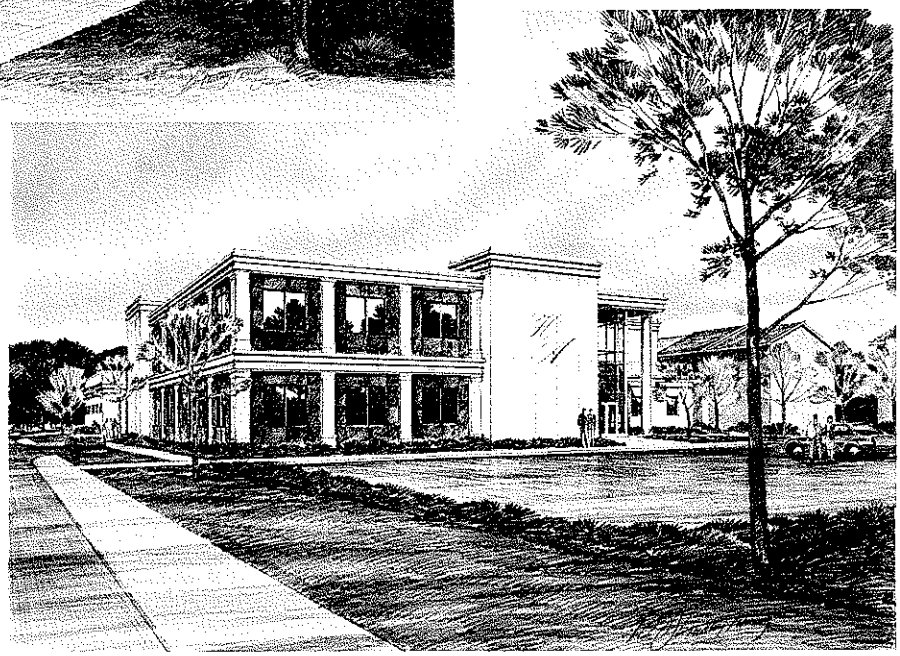
BASTIAN & HARRIS, ARCHITECTS

Project Photos





Ayash Sport Center
Saint Albans, West Virginia

P.T.A. Land Company, Inc.
Karl Ham, General Manager
601 Sixth Avenue, Suite 200
St. Albans, WV 25177
304/722-9323

Completion Date: 2006

Construction Cost: $4,582,054

Services Provided: Architectural

Size: 33,500 gsf

Wellness and recreation facility providing gymnasium and exercise areas, along with boxing dojo space complete with locker rooms and training center.

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Ron May, Acting Director of Facilities Planning and Management
Marshall University
One John Marshall Drive
Huntington, West Virginia 25755
Phone: 304/696-6294

Robert Sisk, Interim President
Eastern West Virginia Community and Technical College
1929 State Road 55
Moorefield, West Virginia 26836
Phone: 304/434-8000

Greg Barr, General Manager
West Virginia Parkways, Economic Development and Tourism Authority
PO Box 1469
3310 Piedmont Road
Charleston, West Virginia 25325-1469
Phone: 304/926-1900

Richard Donovan, Assistant Director of Facilities
West Virginia Higher Education Policy Commission
1018 Kanawha Blvd., East, Suite 700
Charleston, West Virginia 25301
Phone: 304/558-0281

Charles Wilson, Administrative Assistant
Facilities / Operations
Kanawha County Schools
3300 Pennsylvania Avenue
Charleston, West Virginia 25302
Phone: 304/348-6148

Clark Vickers, Director of Support Services
Pleasant Valley Hospital
2520 Valley Drive
Pt. Pleasant, WV 25550
Phone: 304/675-4340

David Sneed, Chief of Architectural Services
WV State Department of Education
School Building Authority
2300 Kanawha Boulevard, East
Charleston, West Virginia 25311-2306
Phone: 304/558-2541

Lee Walker, Business Manager
Bible Center Church
1111 Oakhurst Drive
Charleston, West Virginia 25314
Phone: 304/346-0431

John Thomas, Property Manager
BB&T Corporate Facilities
1007 Bullitt Street
Charleston, West Virginia 25301
Phone: 304/342-5156

Larry Robertson, Executive Director
HospiceCare
1606 Kanawha Boulevard, West
Charleston, West Virginia 25302
Phone: 304/768-8523

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Strategic Science and Technology Planners

Short Firm Profile

SST Planners, Inc. is a Virginia based small business, founded in 1994 that specializes exclusively in providing laboratory planning and design consulting services. Typically we will provide an expert team of individuals to implement programming, planning, and laboratory design for research and teaching based clients in higher education, government, and industry. We understand the issues facing researchers and scientists today as a result of extensive experience in laboratory planning and continuing research into scientific and educational trends that impact facilities. Our research, combined with a constantly updated database of recently constructed laboratory projects, gives SST Planners unmatched insight into the design of effective laboratory spaces. Our proven programming methodology typically involves several highly interactive workshop sessions structured around the specific needs of the project. SST Planners is able to conduct this critical part of the facility design process efficiently and effectively, identifying relevant issues quickly and delivering thorough documentation early in the process. We identify issues in an inclusive and open process designed to reconcile diverse interests. We have successfully used our approach for numerous research, development and teaching-based clients in government, higher education, and private industry.

The core of our business is lab planning. Innovation in laboratory planning is key to a successful building. Laboratories must be planned and designed to meet the critical challenges of rapidly evolving technologies, stricter environmental controls, increased security risks, dynamically changing research and teaching objectives, and spiraling building costs. Yet, laboratories are not just technical spaces but also very human environments that can and should be designed to enhance communication, collaboration, multidisciplinary activities, and the general well-being of researchers, technicians and students, as well as to promote less tangible community or institutional goals. The programming and planning phase addresses these and many other issues early in the process and prepares the framework for a goal-oriented design process. Striving always to create the laboratory against which others are compared, SST's goal is to create labs that are economical to maintain, safe to operate, adaptable to a variety of disciplinary needs, and elegant in the use of space.

SST Planners supports clients in the development of strategies for maximizing the potential use of both existing and proposed science facilities. We specialize in wet and dry laboratories, large and small animal facilities and all necessary spaces and scientific equipment and furniture to support these facilities. Specific services offered by SST Planners include the following: Benchmarking, Equipment Planning, Facilities Planning and Programming, Renovation Planning and Trends Research. SST has LEED accredited staff, is a member of USGBC and a charter member of EPA's Labs21 program for energy efficient lab design. SST is registered with the Virginia SWaM program.

Short narrative describing the Programming Process that SST Planners will use:

SST (Strategic Science and Technology Planners) believes that <u>defining the problem</u> is the single most important step towards designing and constructing a successful facility. This will be the ultimate purpose of the program of requirements. SST uses a strongly interactive **programming process** that engages multiple project stakeholders in open communication. The programming methodology we use depends on interaction and exchange within a systematic process of

establishing goals, collecting facts, uncovering concepts, determining needs, and stating the problem. Programming highly complex science facilities is a basic service offered by SST. We employ a highly communicative, consensus building programming heuristic based upon the process developed by William Peña and described in his book, *Problem Seeking*. Theodore Ruys has referenced this process in the *Handbook of Facilities Planning, Vol. I, Laboratory Facilities* as being the best path to programming research facilities. We will utilize this methodology to establish clear goals and objectives for this project and to develop criteria to measure performance in terms of meeting those goals. Analysis cards developed during the process are posted in a wall display for all to see and comment on. This process allows the entire Team to see where we are and where we are going at any given time, it also points to potential hurdles, conflicts and allows the Team to resolve each as they are uncovered. It builds consensus within the Team and is inclusive to all the diverse groups that will have input into the new facility.

SST's **laboratory database** is a proprietary tool that augments our methodology. It has been used to help our clients quickly compare their facilities with other, peer institutions. With over 100 statistics listed for each of over 150 recently completed laboratories, SST has been able to provide an objective, insightful perspective on many facets of existing or proposed science buildings. This tool has been used in establishing space standards and order of magnitude costs for proposed buildings, and it would serve as a reality check during the programming and planning process.

Trends research is an ongoing activity at SST where we track successful facility planning concepts as a natural part of working with our clients. This activity comes under the general heading of lessons learned, but we actively record and exchange ideas as we serve our clients. Creating floor plate concepts that facilitate multi-disciplinary teams, establishing lab zoning concepts that realize cost and safety goals, and developing planning concepts that encourage not only social but also professional interaction, are all examples of trends that have become regularly applied in our work.

Work Plan Overview

The first workshop is conducted as early in the process as possible. Each subsequent workshop increases in specificity, beginning with achieving a collective understanding of the possibilities and broad goals for the project. The final workshop concludes with a preferred conceptual organization and detailed layouts of the spaces and equipment.

The workshops proposed for this project are the core of our work plan and our programming method. Our method relies on intense, usually multi-day, workshops, sometimes called "squatters". Because of the duration of the workshop we will set up a temporary "camp" using whatever space that can be made available. The focus of these workshops is to concurrently organize facts, needs, goals, competing concepts, and ultimately lead to a unified and consensus statement of the design problem. This will inform what becomes the final program document, which is the basis of design that will guide the architect ultimately selected to complete this project. Ideally, all workshops are conducted in the same space, enabling us to consolidate material as it is gathered, interactively creating graphic representations of material so that, for example, instead of a concept being hidden in a notebook and forgotten, the information is immediately posted and remains visible and available during subsequent workshops to all participants. The effect of the workshops is cumulative, and ideas are able to, and do in fact, cross-fertilize and evolve. The actual physical space that is required for conducting the workshops need only have ample wall space to which material can be pinned or taped. A chalkboard or white board is also helpful. The space should hold up to 15 persons although many sessions will be smaller. It is advantageous to keep the workshop location constant, not only to facilitate keeping information organized, but also to keep the process open. The workspace should be available to all participants at any time during the process to observe or review and perhaps elaborate earlier thoughts. A "neutral" site is preferred.

In addition to the primary workshop sessions, which are organized around prospective laboratories or research categories, the work plan anticipates some need to create additional focus sessions. These sessions will include topics that are common to groups such as strategies

for relating offices to laboratory space, information technology, security, shared amenities such as cafeterias and auditoriums, waste handling, radioisotope needs and biosafety policies. We do not anticipate that every topic will require a focus session and would expect that some topics may be of interest primarily to the department of facilities or administrative staff. Each workshop results in a preliminary program or a detailed set of minutes. The preliminary programs are intended to be informal documents, but they will contain enough information to be useful as the basis for coordination with the design team. They will also serve as progress reports.

Fact Finding - Questionnaires, Documentation of Existing Space and Space Standards

Our programming method depends on the workshops for the most critical information. However, many basic data are best obtained through questionnaires, which can be entered into the electronic record and quickly reviewed in workshops. We make every effort to prepare concise questionnaires. We try not to ask for information that we can easily gather ourselves, for example, material that is readily available to us on a website, and we try not to ask for things that the respondent is not likely to know. We propose that this aspect of the project to be conducted entirely online as part of a project repository of information to simplify the distribution and collection of material. We believe that this will improve the quality and efficiency of communication.

Documentation of existing space (if applicable) is important for understanding the needs of the new facility. The quality and quantity of existing space, including mechanical systems, will be important facts to understand as reference points throughout the process. These will be basic benchmarks to be compared to other facilities and projected future space. Much of the required information may already be available from the department of facilities.

Calibration - Benchmarking and Tours

SST has prepared an in-house database of over 180 research facilities and has compiled statistics for a broad range of laboratory comparisons. We propose that we prepare key benchmarks of selected facilities to use as a kind of calibration tool so that everyone involved understands what is typical and what is exceptional for the types of space being considered. The purpose of benchmarking is to understand how others have chosen to allocate limited resources, not to constrain thinking. It is also a way of understanding facilities in a raw statistical sense that compliments the less tangible qualitative data that are available from actual facility tours.

SST has conducted many facility tours for clients to assist in creating a shared visual vocabulary for discussing research facilities. Our tours have ranged from local tours of relevant facilities to extensive cross-country tours. We usually supplement the actual tour with an additional "armchair" or virtual tour that relies on traditional photographic slides or PowerPoint images. We prepare prior to every tour a briefing book describing what is to be seen and important details that should be noted. Toured facilities are typically a subset of the benchmarked facilities. When preparing a facility tour we are careful to select facilities that represent, as much as possible, the spectrum of the existing state-of-the-art. For example, we typically include facilities representing most of the prototypical laboratory circulation schemes, laboratory depth and module size, strategies for relating offices to laboratory space, or other aspects of the facilities relevant to the particular project. This effort is summarized in a separate Tour and Benchmarking Report.

Strategic Science and Technology Planners

SST Planners Demonstrates Commitment to Energy and Water Efficiency through EPA/DOE "LABS FOR THE 21st CENTURY" Program and through the USGBC LEED Certification Program

SST Planners, along with other corporate, academic, and government pioneers is leading the way to sustainable laboratory design. By becoming a Laboratories for the 21st Century (Labs21) Supporter, and by having LEED AP professionals on staff, SST Planners is actively committed to improving energy and water efficiency, encouraging the use of renewable energy sources, and promoting environmental stewardship in our nation's laboratories.

The Director of the U.S. Environmental Protection Agency's (EPA) Office of Administrative Services whose agency co-sponsors the voluntary program with the U.S. Department of Energy, encourages firms like SST Planners to continue to provide leadership as a Labs21 Supporter. "Public support for Labs21 and the broader goal of sustainable laboratory design helps bring new vigor to our shared vision of environmental excellence."

SST Planners (among the first 50 organizations to join Labs21 as a supporter in June 2004) plans and designs state-of-the-art laboratory space for research and teaching functions. Clients include private, government and academic clients with an emphasis on energy efficient design, the use of renewable resources, and the development of environmentally conscious systems design. Recent major laboratory projects that are designed to include energy efficiency include:

University of South Carolina Next Energy Engineering Building will seek LEED Certification

MUSC Drug Discovery Building currently in design will use the best aspects of LEED and Labs21 to achieve energy efficiency

University of Texas Health Science Center Research Replacement Building currently nearing construction completion, will use the best aspects of LEED and Labs21 to achieve energy efficiency

The Institute for Genomic Research (TIGR), recently completed, used the best aspects of LEED and Labs21 to achieve energy efficiency

The University of Connecticut Health Center Research Building is being designed to meet LEED Silver status

In addition, in 2005, SST Planners participated in a three-day Labs21 international event by presenting The Dr. Paul Janssen Research Center – "A Perfect Solution for Pharmaceutical Discovery" (Belgium)– a recently completed energy efficient drug discovery laboratory building in Europe. Information about the conference and the presentation can be found on the Labs21 Web site at Labs21 2005 Conference -International Case Studies. SST Planners was also an active participant in the recently completed 2007 Labs21 conference.

sst
planners

strategic science and technology planners

David McCullough, PE, RA

Education

M, Architecture, Massachusetts Institute of Technology. 1990
M. Civil Engineering, North Carolina State University, 1982
BS, Civil Engineering, North Carolina State University, 1980
Guidelines for Laboratory Design, Harvard School of Public Health

Registrations

Registered Architect, District of Columbia 005765
Professional Engineer, District of Columbia 008563

Experience

Mr. McCullough is a Principal Laboratory Planner at SST. As programmer and designer, he has been responsible for all aspects of laboratory project development. He is also a frequent reviewer for NIH Alterations and Renovations grant applications. Representative project experience includes the following:

Brain and Cognitive Science Center. Massachusetts Institute of Technology, Cambridge, Massachusetts. Detailed programming and planning for the 200,000 nsf Brain and Cognitive Science Center currently under construction. The facility will house the McGovern Institute for Brain Research, the Picower Center for Learning and Memory, MIT's Department of Brain and Cognitive Sciences, and a functional imaging component provided through the Martinos Center for Biomedical Imaging at MGH. Separate rodent and primate housing and testing facilities will support the center.

Vaccine Research Center, Building 40. National Institutes of Health, Bethesda, Maryland. Programming, laboratory planning, and laboratory design support for the new Vaccine Research Center. Phase I, completed in 2000, is an 85,000 gsf facility emphasizing development of an AIDS vaccine. This building is characterized by large, open laboratory spaces and is supported by a vivarium and specialized spaces including BSL3 laboratories, an x-ray crystallography suite, and a cGMP protein production suite, the first of its kind at NIH.

Robert C. Byrd Biotechnology Science Center, Marshall University, Huntington, West Virginia Programming, planning, and construction documents for this 120,000 gsf research center for the School of Medicine and College of Science. The building, which was dedicated by Senator Byrd on August 25, 2006, is characterized by modular laboratories and is supported by an imaging center and rodent housing facility.

Institute for Critical Technology and Applied Science. Virginia Tech, Blacksburg, Virginia. Programming for 102,000 gsf project to provide flexible lab space for research in biotechnology, nanoscience, materials, and transportation systems. The facility is intended to be highly flexible to support an innovative project based organization. The building will be zoned for low, medium, and high levels of lab services with a section dedicated to less flexible specialized requirements.

David McCullough, PE, RA (Cont'd)

Discovery Research Center. Janssen Pharmaceutica, Belgium. Planning and design for a 90,000 nsf pharmaceutical drug discovery center housing medicinal chemistry labs and bioscience labs in two wings around a central atrium. The primary focus of the facility is central nervous system research, but the modular design is intended to support large shifts in research direction. Currently under construction.

Center for Integrated Science and Technology, Building A3a. James Madison University, Harrisonburg, Virginia. Building from earlier work at CISAT and renovation work at Miller Hall, SST Planners programmed and planned a replacement building for the outdated and crowded chemistry, physics, and geology building. This state-of-the-art facility, now under construction, will further the original goals of CISAT of creating an integrated technology campus and provide opportunities for expanded programs in biochemistry and materials science.

Blanchette Rockefeller Neurosciences Institute. Morgantown, West Virginia. Devised an innovative programming solution for a new brain research center at West Virginia University. A unique project based space model allowed the owner to test multiple development scenarios based the number of projects to be conducted simultaneously. Developed a flexible lab module and lab neighborhood concept that allowed phased growth.

Center for Molecular and Cellular Biology. Queens College, City University of New York, Flushing, New York. Working with research representatives of the director, Dr. Luc Montagnier, to fulfill an urgent need to equip an interim facility for immediate occupancy, SST prepared complete planning and purchasing documentation. Support included preparation of sole source purchase specifications for the State of New York.

Chemical Research Center, Building 250. Janssen Pharmaceutica, Belgium. SST Planners provided programmatic and laboratory planning assistance to renovate an existing medicinal chemistry facility into an analytical development laboratory. This 50,000 gsf facility will consolidate stability testing, characterization, and quality control labs into a single advanced development facility.

UCHC Cell Sciences Institute. University of Connecticut Health Science Center, Farmington, Connecticut. Programming, laboratory planning, and laboratory design for the 112,000 gsf renovation of a pharmaceutical toxicology building into the home of the Department of Genetics and Developmental Biology and the Center for Cell Analysis and Modeling (CCAM). The facility will house a large Human Embryonic Stem Cell Core Lab funded by Connecticut's Stem Cell Research Program and will provide Technology Incubator Labs. Completion is expected in 2010.

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Carnegie Institution of Washington at Johns Hopkins

Building Owner: Carnegie Institution of Washington

Building Location: Johns Hopkins University at Baltimore

Principal Building Function:

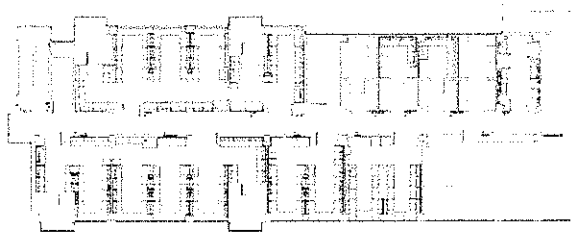
Labs for Embryology research: Functional Genomic methods for the study of cellular, molecular and developmental biology with animal facilities for small animals and aquatic species.

Completion Date: 2005

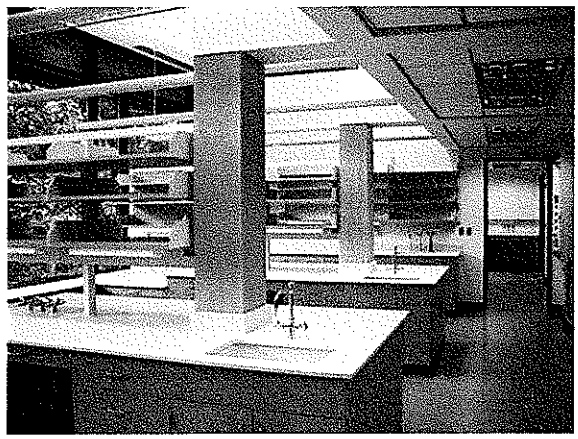
Construction Cost: $20 Million

Total Gross Area: 75,000 square feet

Planning Module: Multiples of 21' x 27'



Lab Wing showing individual lab rooms with associated lab offices between labs. All labs have windows.



Lab rooms have ample natural light and views to the woods surrounding the site. Labs have black tops and white tops to accommodate researcher preference.

Project Overview

The Carnegie Institution of Washington (CIW) and Johns Hopkins University (JHU) have partnered to create a new facility. SST Planners provided programming and laboratory planning services for this new building. The new facility will replace the existing laboratory building from the early 1960's that currently houses the research activities of CIW on the northwest corner of the Homewood Campus. The new lab will help CIW maintain its role in the application of functional genomic methods to the study of cellular, molecular, and developmental biology. Phase I houses the Department of Embryology as well as a parking garage for 450 vehicles. The new facility provides safe, attractive, modular research space that will enable CIW to enhance their scientific leadership and to simultaneously promote a multidisciplinary partnership with JHU. The distribution of space in the proposed building puts a larger emphasis on discrete lab support and animal space relative to dedicated research lab space helping to free individual labs from the burden of carrying in-lab support activities such as equipment and instruments.

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Marshall University Biotech Science Center

Building Owner: Marshall University

Building Location: Huntington, WV

Principal Building Function:
Research and Teaching Laboratories for an alliance of the College of Science & School of Medicine

Project Completion Date: 2006

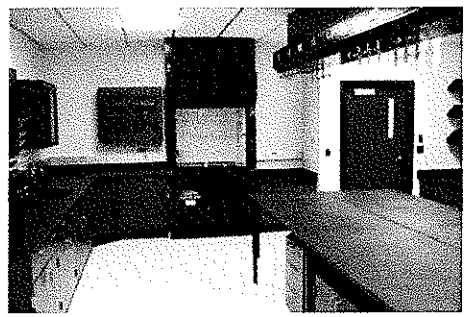
Construction Cost: $25 Million

Total GSF: 120,000

Lab Planning Module: Multiples of 300 nsf

Research lab with overhead service rail and moveable casework being installed

College of Science Research Lab



Project Overview

SST Planners provided extensive strategic planning, programming and laboratory design for the new laboratory at Marshall University. "The Biotechnology Science Center will provide State-of-the-Art facilities for the biomedical research programs, medical education, and the College of Science. By moving these programs into the new facility, educational and research activities in the School of Medicine will be enhanced. The new building will serve as a catalyst to integrate the successful biomedical/forensic programs and their technologies with undergraduate science programs." (Courtesy of Marshall University)

Departments in the new building from the College of Science: Integrated Science & Technology, Chemistry, and Biology. Support spaces include Admin, Vivarium, and an Imaging Core Facility. Programs from the School of Medicine are: Educational Facilities, Anatomy, Biochemistry, Forensic Science, Microbiology, Pharmacology, and Physiology. Funding came in part from appropriations by Senator Bryd.

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National Cancer Center Renovation

Building Owner: National Institutes of Health

Building Location: Bethesda, Maryland

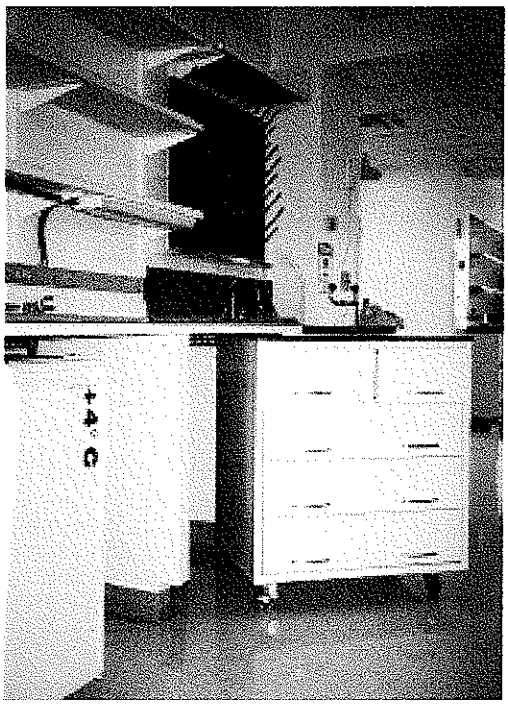
Principal Building Function: Laboratories and support spaces to support basic research into the causes of cancer

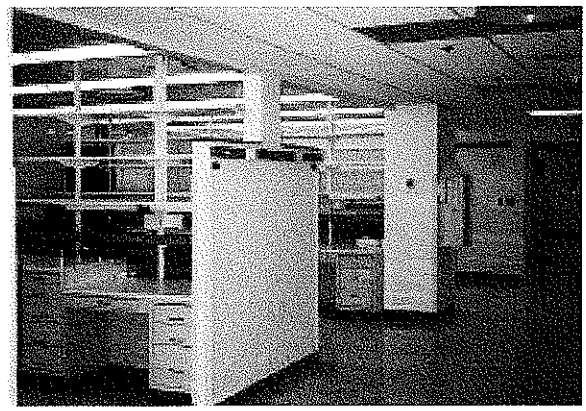
Project Completion Date: 1998

Construction Cost: $ 1,100,000

Total GSF: 4,000

Lab Planning Module: 10'-6" x 28'-0"





Project Overview

SST Planners supported the National Cancer Institute (NCI) in the renovation of Building 10 patient care units into open research laboratories.

These laboratories are intended to be a new standard for the NIH; large open laboratory space that is reconfigurable to support changing research missions of its Institutes. The labs are integrated into the existing infrastructure of Building 10 "C" Wing. The Labs use adjustable casework that allows for flexibility. Lab support zones are provided at the ends and along the central aisle. This renovation is part of a larger revitalization program that is underway in Building 10 to upgrade basic and clinical research spaces.

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University of Connecticut Cell Sciences Institute

Building Owner: University of Connecticut

Building Location: Farmington, CT

Principal Building Function:

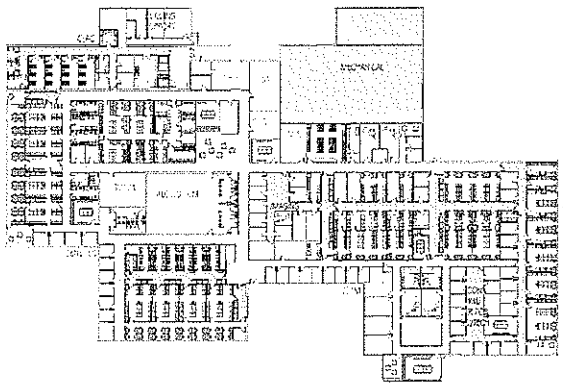
Renovation of labs for Genetics & Developmental Biology, Stem Cell Research, Computational Modeling (Cell Analysis and Modeling), Animal Studies and Incubator labs for public/private partnerships

Completion Date: 2010

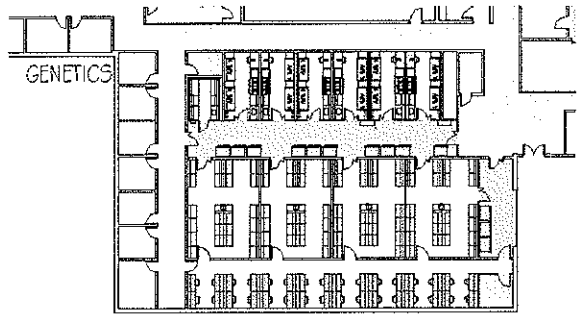
Construction Cost: $32 Million

Total Gross Area: 85,000 square feet plus Mechanical rooftop enclosures (110,000 total)

Planning Module: Varies- Renovation



Floor Plan showing fit of all program elements into existing floor plan with an emphasis on providing open flexible labs with windows were possible



Detail of Floor Plan shows proposed Genetics labs set within existing structure. Labs have associated office and desk areas immediately adjoining labs. Support rooms are also easily accessible from lab bench area.

View of existing single story pharmaceutical lab building to be renovated into new Cell Sciences Institute.

Project Overview

SST Planners provided programming, laboratory planning, and laboratory design for the 55,000 nsf (110,000 gsf) renovation of a 70's era pharmaceutical toxicology building into the new home of the Department of Genetics and Developmental Biology and the Center for Cell Analysis and Modeling (CCAM). The facility will house a large Human Embryonic Stem Cell Core Lab funded by Connecticut's Stem Cell Research Program and will provide Technology Incubator Labs. The renovation will seek to achieve LEED Silver. Existing metal casework and other furnishings will be reconditioned for reuse in the labs where possible. Completion will be in 2010.

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Nutrient Management Research Laboratory

Building Owner: USDA ARS

Building Location: Marshfield Wisconsin

Principal Building Function:

Applied research in related plant and animal sciences

Completion Date: 2008

Construction Cost: $6 million

Total Gross Area: 22,600 square feet

Planning Module: 10.5' X 26'

Open lab with flexible casework. Notice that all cabinets are moveable and that services are accessible from overhead utility rails. This lab can be easily reconfigured.

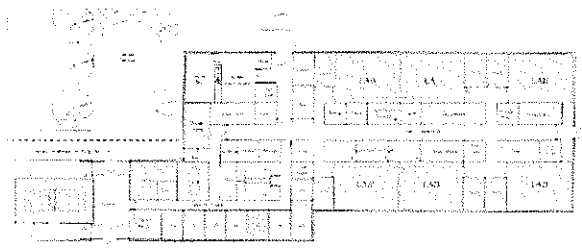
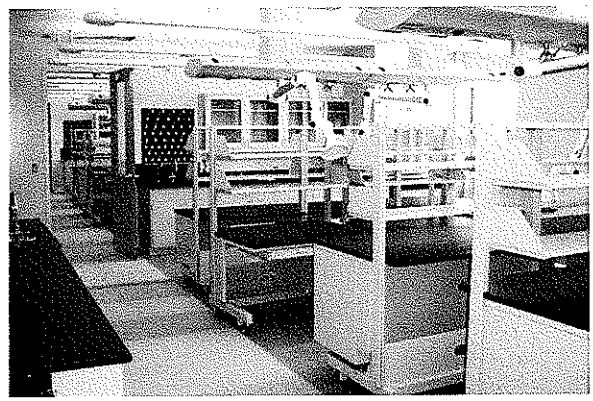


Diagram of Floor Plan showing single double loaded corridor with lab support (green) adjoining labs. Offices are in blue. Both labs and offices have windows.



Nutrient Management wet labs interconnect using a "ghost aisle" which allows scientists to easily move between spaces. Individual labs can also be closed by virtue of the door between each lab module. Fixed casework with sinks are located at the lab perimeter while moveable casework is in the lab center. Windows into the labs contribute to a very pleasant working environment

Project Overview

SST Planners provided programming support for the Nutrient Management Research Lab. Overall research goals are to improve nutrient management, minimize emissions, and control pathogens at all stages in the dairy production system. Interdisciplinary research will be conducted by a Dairy Scientist, Agronomist, Soil Scientist, Environmental (Chemistry) Engineer, Environmental (Microbiology) Engineer, Veterinary Scientist.

The project will also provide space for the National Resource Conservation Service (NRCS) staff members. NRCS is the primary provider of technical assistance to farmers in their development of conservation plans uniquely suited to their land and individual ways of doing business.

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WVU Biomedical & Cancer Research Center

Building Owner: West Virginia University

Building Location: Morgantown WV

Principal Building Function:

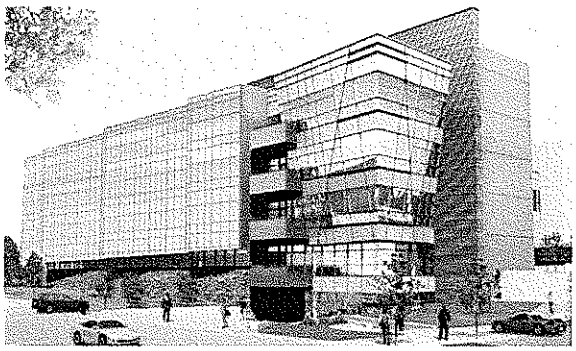
Neuroscience, Biomedical and Cancer research facilities with adjoining expanded vivarium

Completion Date: 2008; vivarium in 2009

Construction Cost: $30 million + vivarium

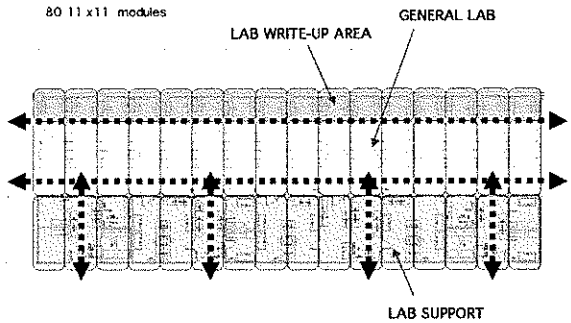
Total Gross Area: 114,000 square feet

Planning Module: 11' x 28'

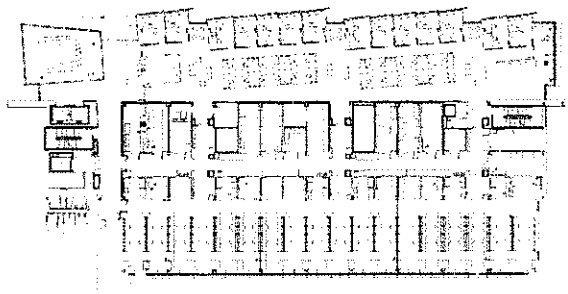


Rendering courtesy of Stanley Beaman & Sears

View of large open lab during installation



Conceptual Laboratory Organizational Plan



Research Floor with open labs and clustered offices

Project Overview

SST Planners provided programming and laboratory & vivarium design services for a new research laboratory building at the West Virginia University Health Sciences Center. The new facility is part of a masterplan initiative for a major expansion of cancer and neuroscience research on the Morgantown campus. The facility will also include updated core labs and link to other research assets at the Health Science Center. The lab planning process included extensive consideration of applicable research facility prototypes and included site visits to peer institutions and case study reviews. The result of the process was a consensus among current investigators that an open lab concept provides working flexibility and a level of interaction not achievable in the existing cellular facilities. The building is expected to establish a new lab design model for subsequent project phases at WVU.

SCHEESER BUCKLEY MAYFIELD LLC

Mechanical, Electrical, Civil and Telecommunication Consulting Engineers

Firm Profile

Scheeser Buckley Mayfield LLC is an Ohio-based Consulting Engineering firm that serves clients throughout Ohio and the surrounding states. The firm was established in 1959 by Walter L. Scheeser and Edwin J. Buckley, specializing in the design of mechanical systems for the construction industry. The firm has enjoyed a steady growth in clients and geographical area served throughout its history, and its services now include electrical, civil, and telecommunication design.

Scheeser Buckley Mayfield LLC has developed an outstanding reputation for both its accessibility to its clients and the clarity and completeness of its documents. The firm has been a leader in the application of new technology. It has extensive experience in the design and analysis of projects of all sizes, which it can draw upon for future projects. Each project requires an analysis of the most cost effective system available based on the client's design parameters. It is also the responsibility of the design team to determine if other options exist which may be beyond the scope of the current budget and which need to be considered on the current project to allow for future growth. Scheeser Buckley Mayfield LLC gives this personal attention to each project by determining the project design which can be implemented within the client's budget while applying innovative design concepts.

Many of SBM's projects originate from clients who have used its services previously and wish to continue a professional association. Scheeser Buckley Mayfield LLC strives to provide very professional and competent engineering services to all of our clients and to develop a personal relationship with these clients. This on-going association with clients provides an opportunity for them to better understand design concepts as well as the logic behind the decisions which may affect their systems for many years after the project's completion.

SCHEESER BUCKLEY MAYFIELD
1959 2009
CONSULTING ENGINEERS
Celebrating 50 Years Of Service

MICHAEL P. WESNER, P.E., LEED AP
VICE PRESIDENT MECHANICAL ENGINEERING

Resume

Mike is a graduate of Ohio State University in Columbus, Ohio. He received a Bachelor of Science Degree in Mechanical Engineering in 1981 and later that year joined the consulting firm of Scheeser Buckley Mayfield LLC which was then known as Scheeser*Buckley*Keyser.

During his first few years with the firm, Mike was heavily involved with the Title III of the National Energy Conservation Policy Act (NECPA). This governmental program was established as a cost sharing energy conservation grant programs. This program provided funds to study the operation of schools and hospitals to determine if there were ways to reduce their energy consumption. The program then funded energy conservation measures identified in the reports. As a result of this involvement in many audits and retrofit programs for public school buildings, college and university buildings and hospitals, Mike gained valuable experience in formulating and implementing energy conservation programs in buildings that result in real world savings. This experience carries on in the work that Mike does today.

Since the mid 1980's Mike's project experience has been concentrated in the following areas:

- Large hospital Expansion and remodeling projects.
- Hospital Boiler Plant / Chiller Plant replacement projects.
- University Laboratory projects, both new construction and renovation.
- University Classroom Facilities
- University Dormitory Facilities
- Animal research facilities.
- Secondary education facilities.
- Industrial facilities.
- Telephone / Communications buildings
- Recreation/Athletic Fitness Centers
- Worship Centers

On all of the above facility types, Mike has acted as the Principal in Charge for the firm. The Principal in Charge (PIC) is the single point of contact and is responsible to make sure the project gets done on time and on budget.

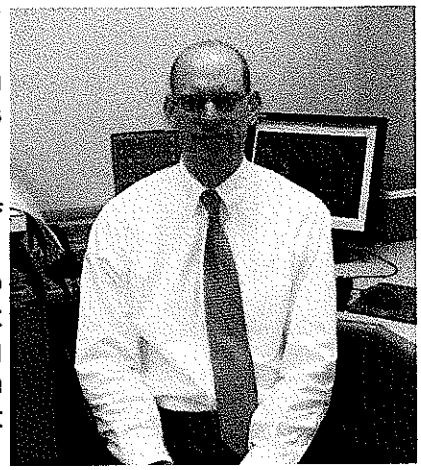
Other types of project experience Mike has had are listed as follows:

- Projects where SBM was the prime design professional hired by the Owner. Typically this has been for chiller plant/boiler plant or other type of main A/C system replacement. This work involved hiring the sub-consultants, preparing the budget/schedule, writing the "front end" specification documents and doing all of the day to day construction administration.
- Projects where SBM was hired to diagnose and correct mechanical system problems
- Projects where SBM was hired to do Mechanical and Electrical Construction Cost Estimating

Mike is a LEED™ 2.0 Accredited Professional and a member of ASHRAE, ASPE, NFPA and BOCA.

KIRBY A. STOLLER, P.E., LEED AP
MECHANICAL ENGINEER

Resume



Mr. Stoller attended the University of Akron and received his Bachelor of Science in Mechanical Engineering, December 1999. Upon graduation, Kirby joined the firm of Scheeser Buckley Mayfield LLC. He passed his Professional Engineering License exam in April 2004.

During college, Kirby was involved in the University of Akron's co-op program and worked at Rubbermaid, Inc, in Wooster, Ohio. He assisted with design projects to support the manufacturing plant and created plant layout drawings for the installation of injection molding machines, automation, and robots. He also met with vendors, obtained quotes, and placed orders to meet project deadlines.

Since working for Scheeser Buckley Mayfield LLC, Kirby has served as the mechanical engineer on a wide variety of projects, primarily for health care facilities and universities and has experience in all aspects of the design of mechanical systems for buildings, including HVAC, Plumbing, and Fire Protection. He has also performed project management tasks within the office on many of his projects to coordinate the design team's efforts.

Larger projects in Kirby's background include a 175,000 square foot Patient Bed Tower and 50,000 square foot Cancer Center Building for Cabell Huntington Hospital located in Huntington, WV with total construction budgets of $55 million and $18 million respectively; 140,000 square foot ($42 million) Bio-Technology Lab building for Marshall University located in Huntington, WV; 80,000 square foot ($18 million) medical office building for Marshall University School of Medicine located in Huntington, WV; 260,000 square foot office building for Fed Ex located in Green, OH; 150,000 square foot church for The Chapel located in Green, OH.

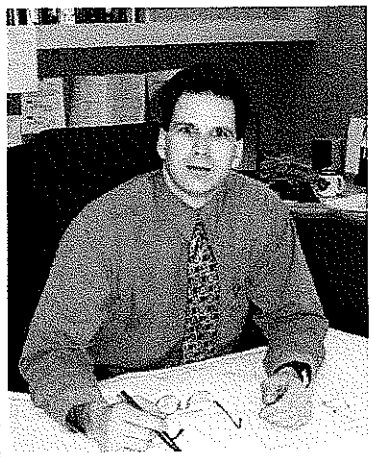
Kirby designed the mechanical systems for the renovation of Douglass High School which is listed in the National Register of Historic Places. The project consisted of a total overhaul of the existing building systems. The interior was renovated to house medical offices and classrooms.

Other projects that Kirby has designed include:

- 15,000 square foot Dialysis Clinic for Cabell Huntington Hospital
- 28,000 square foot facility for St. Timothy's Lutheran Church
- 60,000 square foot office building renovation for the VA
- Additions and renovations to St. Mary's Correctional Center dining facility
- Emergency generator replacement for First Energy
- Multiple boiler, chiller, cooling tower, and air handling unit replacement projects.
- Numerous hospital renovation projects

MARLON C. HATHAWAY, P.E.
VICE PRESIDENT ELECTRICAL ENGINEERING

Resume



Mr. Hathaway attended The University of Akron where, in 1992, he earned his Bachelor of Science Degree in Electrical Engineering. While at The University of Akron, Mr. Hathaway accepted a position through the cooperative education program at the Veteran's Administration Medical Center in Brecksville, Ohio. During this engagement he gained knowledge of the construction industry.

After graduation, Mr. Hathaway began his career as a consulting engineer with Scheeser Buckley Mayfield LLC. He has since been involved with all aspects of electrical design including: lighting, power distribution, telecommunications systems, fire alarm systems, video/security systems, nurse call systems and CATV/MATV distribution systems. Mr. Hathaway's responsibilities include both budget and finish electrical construction estimates. He has worked closely with electrical contractors on recent owner requested design/build projects.

During his consulting career, Mr. Hathaway has designed many hospital and health care related buildings. His experiences cover a wide spectrum in this specific field including O.R. Suites, Pathology Labs, Emergency and Trauma Rooms and Medical Office Buildings. He has prepared contract documents for complex electrical medical equipment including x-ray, CT scanners and digital video processing equipment. He has completed projects in the states of Ohio, West Virginia, Kentucky, Pennsylvania, and Florida.

Mr. Hathaway has extensive experience in the design of complex systems such as fire alarm, audio/video, telecommunications (LAN) systems, and CATV/MATV distribution systems. He is currently a member of the Illuminating Engineering Society (IES), Cleveland Section and has also served as Treasurer in past years.

Mr. Hathaway is registered in the State of Ohio, West Virginia, Kentucky, Pennsylvania and Florida.

DOUG CHAPMAN
ELECTRICAL ENGINEER

Resume

Mr. Chapman attended Bowling Green University and graduated with a Bachelor of Science in Electronic Technology.

Mr Chapman started his career at Dynamix Engineering, Ltd. located in Columbus, Ohio. He was responsible for electrical design at educational facilities, churches, outpatient clinics, tenant occupancies and offices. He also followed projects in to construction by reviewing shop drawing submittals.

Mr. Chapman then relocated to Cleveland, Ohio and worked at Bacik Karpinski Associates, Inc. He assisted with branch circuit design for both new construction and renovation projects. He was also involved in the specification process and assisted with transferring engineering red-lines to AutoCad.

Mr. Chapman joined Scheeser Buckley Mayfield LLC in September 2001 and has been actively involved with many projects. He has been responsible for branch circuit design and configuration of new and renovated facilities including outpatient clinics, hospitals, educational facilities and offices. He has assisted with specification of lighting fixtures and corresponding lamping based on space function and client need and specification of over current, short circuit protection and safety devices for HVAC, plumbing, kitchen and other types of equipment. Mr. Chapman also assists with the design of various electrical systems, including nurse call, local intercom, and dimming.

JOHN A. VARGA, E.I.T.
PLUMBING ENGINEER

Resume

Mr. Varga attended the University of Akron where he received his Bachelor of Science in Mechanical Engineering in 1997. He has attained his E.I.T. Certification.

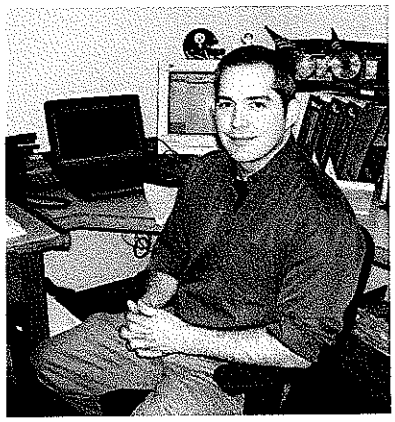
During his senior year in college, he began his engineering career working for a precast concrete manufacturer. His responsibilities included the design, layout, production and installation drawings, and volume calculations of extended aeration sewage treatment plants and pump stations. This included the calculation of treatment design based on Ohio EPA and Ten-State Standard requirements. Plant design included anti-floatation measures, tank capacities, effluent quality, and OSHA compliance. Equipment design included blower and motor sizing, pump sizing, losses through piping systems, electrical requirements, flow measurement, and preparation of specifications.

Mr. Varga joined the consulting firm of Scheeser Buckley Mayfield LLC in May of 1999. Since joining the Plumbing Department, he has performed calculations sizing water lines, sanitary lines, booster pumps, water heaters, mixing valves, medical gas systems, and fire protection systems based on Ohio Basic Building Codes, National Fire Protection Association, and local county and city codes. He has been lead plumbing engineer on several large projects including Kent State University Residential Dormitories, Marshall University Dormitories, Jackson Strausser Elementary School, Heartland Behavioral Health Campus, University of Akron Dormitories, and Huttonsville Correctional Center. These projects included multiple buildings on a campus setting with centralized mechanical equipment plants and utility distribution loops.

Mr. Varga is a member of the American Society of Plumbing Engineers.

JOE HARLESS, RCDD
SENIOR TELECOMMUNICATIONS DESIGNER

Resume



Mr. Harless has been in the telecommunications industry since he left the construction field in 1991 to install security alarms, fire alarms, CCTV systems, access control systems, CATV cabling, UTP and fiber optic structured cabling, voicemail systems, KSU's, and network electronics for GBS Computer & Communication Systems.

In 1993, Mr. Harless became a Project Manager for GBS where he supervised and coordinated all major installations. During this time he received training and certifications from many manufacturers to ensure GBS' ability to offer extended warranties for their installations.

In 1997, Mr. Harless accepted the position as Network Designer at GBS. There, he performed design, engineering and estimating duties for all GBS' structured cabling and networking projects. In addition to these functions, he provided technical training and support to the field technicians and was responsible for the research and selection of all materials, tools and test equipment.

He received the designation of Registered Communications Distribution Designer (RCDD®) from the Building Industry Consulting Services International (BICSI®) organization in 1997.

Mr. Harless joined Scheeser Buckley Mayfield LLC in July, 2002 as the Senior Telecom Designer and performs the majority of our structured cabling designs along with related telecommunications and technology systems.

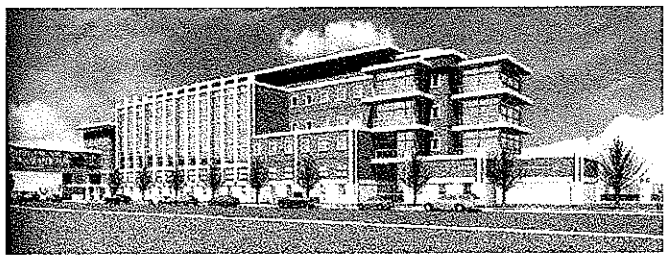
Bicsi™
INDIVIDUAL
MEMBER

Bicsi™
RCDD

SCHEESER BUCKLEY MAYFIELD LLC
LABORATORY FACILITY PROJECT EXPERIENCE

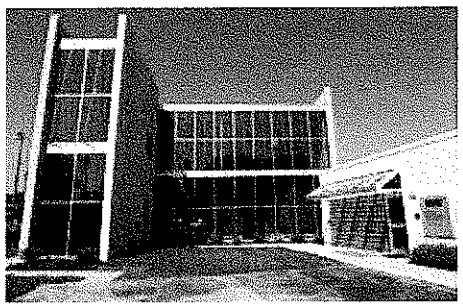
Projects

Marshall University
Bio-Technology Building
Huntington, West Virginia



The Marshall University Bio-Technology Building is located on the north side of the Marshall University campus in Huntington, West Virginia. The building consists of four floor levels with a bridge over 3rd Avenue to the existing Science Building. The project has a 300 seat auditorium, tiered classrooms, faculty offices, animal quarters, student teaching labs and labs dedicated to pure research. The project will also have a BSL3 lab space.

Marshall University
Forensic Science Program
Huntington, West Virginia



Scheeser Buckley Mayfield LLC performed mechanical and electrical design services for renovations, converting the existing field house building into a forensic research lab. Mechanical design included four single zone rooftop air handling units, fume hood exhaust system, and new public restrooms. Rooftop air handling units were equipped with hot gas reheat coils providing the user with a means of adjustable high limit humidity control. A new automatic sprinkler system was designed for the entire building.

Marshall University
Mid Ohio Valley Center
Point Pleasant, West Virginia

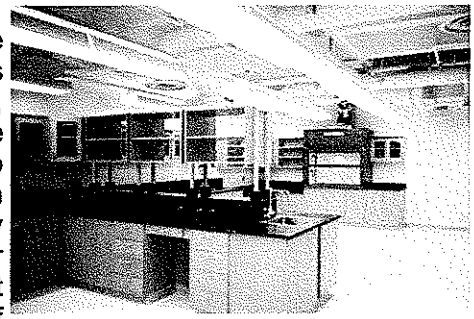
Scheeser Buckley Mayfield LLC performed mechanical and electrical engineering services for the 15,500 square foot learning center. Design included five classrooms, distance learning classroom, library, kitchen area, and multiple office spaces. Two rooftop multizone units were used to ventilate/condition the spaces. Units were designed to comply with ASHRAE 62-89 Ventilation and were capable of maintaining maximum user adjustable space relative humidity. Kitchen unit required design of make-up/exhaust air system for kitchen hood. An automatic fire protection sprinkler system was designed.

SBM designed a telecommunications infrastructure for the center including structured wiring, distance learning, telephone system, ATM backbone and outside plant links to existing campus buildings. In the structured wiring system, the horizontal cabling was based on the Category 5e standard, with both single-mode and multi-mode fiber optic cable in the backbone. A combined single-mode and multi-mode, direct buried fiber optic connection was designed for connection to the existing Point Pleasant Hospital. The infrastructure is linked to Marshall University by an ATM link that provides voice, data, and video connections. The infrastructure is also linked to Point Pleasant Hospital via a fiber optic interconnection to a telephone system remote node for voice, and to the Hospital data system.

SCHEESER BUCKLEY MAYFIELD LLC
LABORATORY FACILITY PROJECT EXPERIENCE

Projects

Kent State University
Cunningham Hall Biology Research Lab Addition
Kent, Ohio

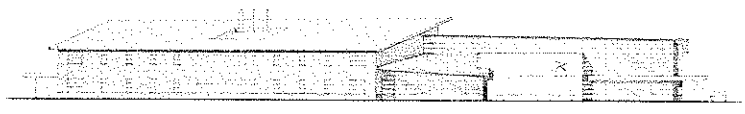


A 45,000 square foot, 3 story research lab addition to the main campus biology building incorporating various aspects of research including aquatics, animal holding, and chemistry based research activity with multiple fume hoods and chemical storage areas. State-of-the-art lab safety and energy conserving ventilation was also design for this building. For this project, Scheeser Buckley Mayfield LLC worked directly for the State of Ohio rather than a local associate Architect. SBM also assisted Kent State University's electrical engineer with the completion of the electrical contract documents for this work.

Kent State University
LCI/Materials Science Building
Kent, Ohio

Performed mechanical and electrical engineering services for this 60,000 sq. ft. laboratory research building. The HVAC system consisted of a 110,000 CFM custom VAV air handling unit providing supply air based upon room temperature and variable fume hood exhaust requirements. A 500 ton centrifugal chiller provided chilled water for the air handling unit. This project included site high pressure steam and pumped condensate distribution piping. The control system monitors and controls the air flow through each of the laboratory fume hoods and sequences the laboratory exhaust fans for maximum energy efficiency. Site electrical work included a major renovation to the Universities underground distribution system including active manhole duct banks and tunnels. The manhole work consisted of replacing an existing, active manhole in place with a new layer manhole. This work required extensive field work design and coordination during construction. Existing, active duct banks were cut back to expose cables in the new manhole. Much of this work was in preparation for the Universities future power plant project tie-in.

Kent State University
Ashtabula Campus
Ashtabula, Ohio

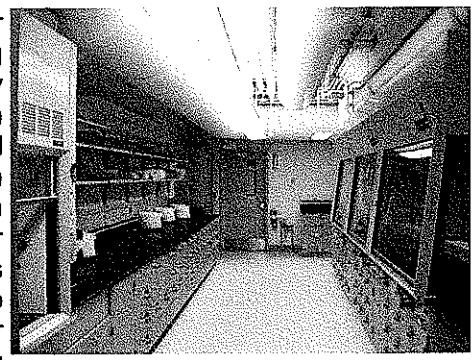


Scheeser Buckley Mayfield LLC performed the electrical, fire protection, HVAC, and plumbing design for a new 55,000 square feet building on the Ashtabula Campus. The building contains laboratories for biology, cadaver anatomy, chemistry, microbiology, and physics. Other spaces include a nursing skills laboratory including a human patient simulator, occupational therapy living skills laboratory, respiratory therapy skills laboratory, radiology technology program with two x-ray rooms, lecture hall, and faculty support spaces. The electrical design includes an emergency generator and power systems for the various mechanical equipment, laboratory casework, and lighting.

The HVAC design includes the installation of a standalone hydronic heating water boiler system for heating coils and perimeter radiant panel and a packaged air-cooled chiller for cooling. Two large indoor variable air volume air handling units were designed for the project utilizing variable air volume terminal units and hot water reheat coils to maintain individual space temperatures while maintaining code minimum outside air quantity requirements. Classrooms and large laboratory areas are provided with occupancy sensors to reduce the airflow when the spaces are unoccupied to conserve energy. All digital controls are designed for the project including communication back to the main Kent Campus Facility Management System. The plumbing design includes a new domestic water and fire protection entrance as well as systems for the various laboratory spaces including domestic hot and cold water, lab air and vacuum, natural gas, sanitary, and vent piping.

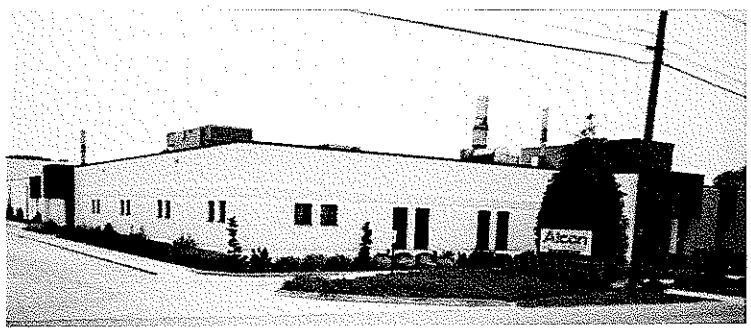
The lighting design includes volumetric, linear pendant, and recessed basket type fixtures. Lighting control in the classrooms incorporates daylighting with occupancy sensors utilizing dimmable ballasts. Lighting control in other spaces consists of occupancy sensors with override switches. The network connections consisted of a wireless design in classrooms and lab areas. Lightning protection design includes a passive system with air terminals located around the perimeter of the roof. The power design includes a main switchboard, emergency generator, distribution and branch panelboards. Fire alarm design includes an addressable system connected to the main campus fire alarm network.

University of Toledo
Bowman Oddy General Chemistry Teaching
Lab Renovation
Toledo, Ohio



This project involved the total gut and renovation of four general chemistry teaching laboratories encompassing 5,400 sq ft of space on the first floor of the Bowman Oddy building. The design included new HVAC, fire protection and plumbing throughout the labs and a new electrical service for the space. HVAC design was intense as each classroom had 12 dual student teaching hoods and an instructors hood requiring a total exhaust flow of over 10,000 cfm for each room. A new air handling unit was designed along with a new secondary chilled water loop to serve the unit. Mechanical systems were designed for future expansion to complete eight additional teaching labs. In addition to the HVAC design for the teaching labs, a separate closed loop cooling system for the instrumentation lab was modified to meet the current needs of the user group. Plumbing design included acid waste system and high purity water systems

Alcon Laboratories
Renovations, Phases 1 and 2
Huntington, West Virginia



These projects consisted of a phased construction to increase the production capacity of this intraocular lens manufacturer. The total new and renovated area is in excess of 50,000 Square feet. The spaces include 15,000 square feet of Class 10,000 (ISO 14644-1 Class 7) clean room spaces, office areas, mechanical and electrical spaces and specialized lens manufacturing spaces.

SCHEESER BUCKLEY MAYFIELD LLC
LABORATORY FACILITY PROJECT EXPERIENCE

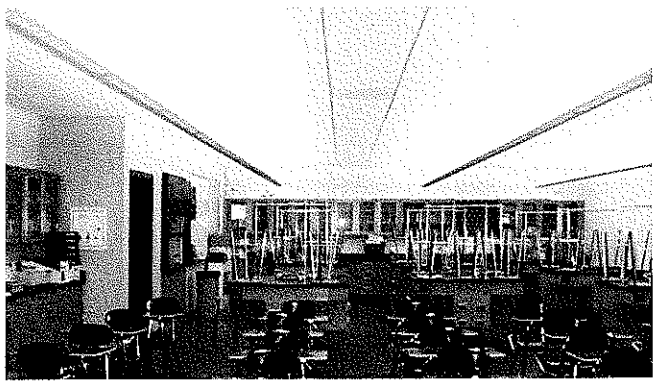
Riverside High School
Quincy, West Virginia

Riverside High School is a 180,000 sq.ft. high school in Kanawha County, West Virginia. This high school has two gymnasiums, a 500 seat auditorium, a full kitchen and cafeteria, a commons area for student and community presentations, and a two story classroom wing. The classroom wing features laboratory space, general purpose classroom, administration offices, and a TV studio. This high school was designed to accommodate approximately 1700 students.

Jackson LSD Local School
2004 High School Add/Reno
Massillon, Ohio

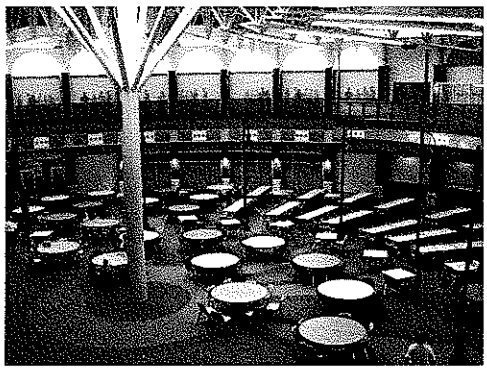
Before the project started Jackson High School was a 300,000 sq. ft. building housing 10th -12th grades. The project consisted of two major building additions and the renovation of the entire existing building. The first addition was a 150,000 sq. ft. classroom wing with school offices, a cafeteria and a kitchen. The second addition was a second auxiliary gym and weight room.

The central plant systems of the building were replaced and now include a new 20,000 MBH hot water boiler plant that consists of 10 modular non condensing boilers with a primary/secondary pumping system. The building chilled water system utilizes two existing 300 ton water cooled centrifugal chillers along with cooling towers and two new 300 ton air cooled centrifugal chillers. The chilled water piping system uses a primary/secondary pumping system with two secondary pumps on variable frequency drives. Each chiller uses its own constant speed primary pump with a piping system that allows each pump to be used for each chiller.



The building additions are heated and cooled by four VAV air handling units with VAV boxes with reheat coils and radiant panels for perimeter heat and one constant volume unit with reheat coils. The VAV units serve the classroom, office and cafeteria spaces. The constant volume unit serves the two kitchen areas. The air handling units utilize the chilled water and heating water from the central plant. The ductwork system was designed to reduce noise levels in the classrooms through the use of sound attenuators and ductwork design.

The renovations are heated and cooled by a combination of existing and new air handling units. The classroom spaces are served by 4 existing air handling units that are being renovated to accommodate the new loads. The existing units have been retrofitted to accommodate new chilled water coils and new supply and return fans. The main gymnasium is served by two new constant volume air handling units. The new auxiliary gym weight rooms are served by a new VAV air handling unit located in the gymnasium. The locker room areas are served by a new constant volume air handling unit with a runaround loop heat exchanger.



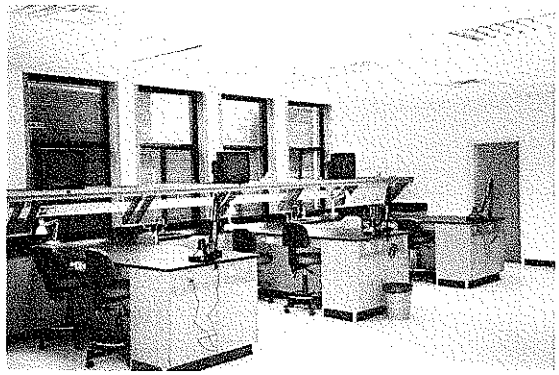
A new Novar temperature control system was installed to control the HVAC systems and for an energy management system.

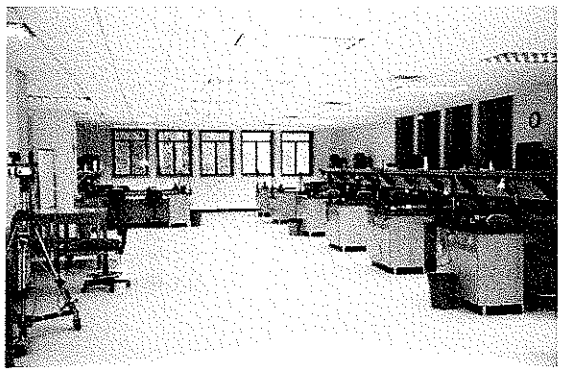
Two new water-to-water domestic water heat exchangers have been installed to provide domestic hot water to the building via an electronic mixing valve installed in the boiler room. The mixing valve provides 120 degree water to the building with multiple secondary mixing valves installed to serve the shower areas and point of use mixing valves installed at all public lavatories.

A new fire protection system including a new fire pump installed in the mechanical room. The system includes standpipes for the additions and sprinklers throughout.

West Virginia School of
Osteopathic Medicine
Main Laboratory Building Renovation
Lewisburg, West Virginia

Performed mechanical and electrical engineering work for renovations to 7200 square feet of the existing laboratory building for the medical college. The renovation consisted of four small classroom areas, a main multi-purpose laboratory, and a prep room. The mechanical work involved the installation of multiple packaged rooftop air handling units equipped with gas heating and electric cooling. Electric duct mounted reheat coils were installed for humidity control. The temperature controls for the project were direct digital control which tied into the existing remote monitoring station at the College. Plumbing work consisted of tying into existing domestic water piping and sanitary piping as required to accommodate new plumbing fixtures. A new gas fired domestic hot water heater was installed in the adjacent storage room. Fire protection work consisted installing sprinkler heads in the renovated areas and tying in to the existing sprinkler system. The electrical work consisted of new lighting, power, and systems design. The lighting design included VDT parabolic light fixtures with multiple light levels along with emergency lighting. The power design included a new 800 amp, three phase distribution panelboard and associated feeder from existing to serve the renovated space. The systems design included extending the existing fire alarm, phone, and data systems to new devices and outlets including 21 new monitors.





SCHEESER BUCKLEY MAYFIELD LLC
LABORATORY FACILITY PROJECT EXPERIENCE

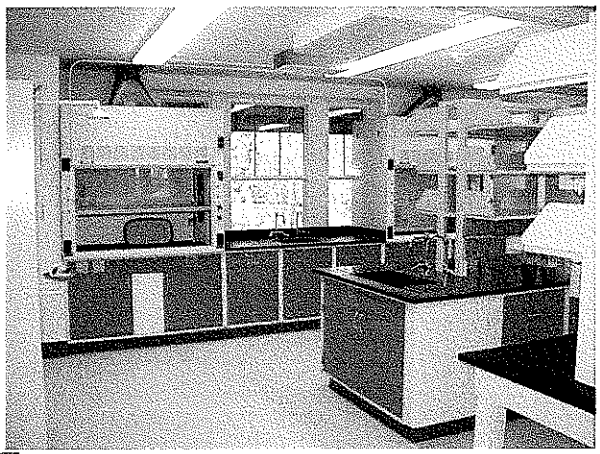
Projects

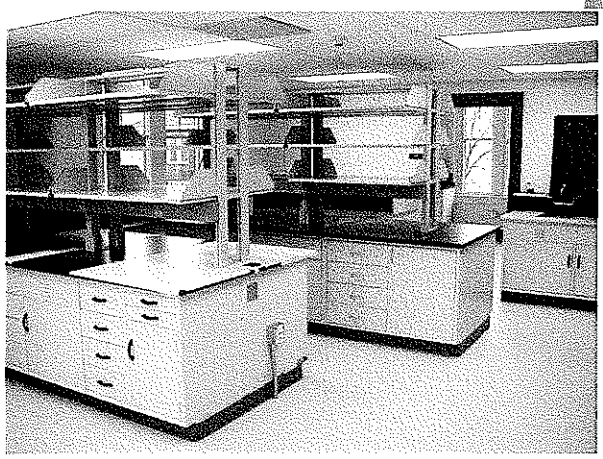
Northeastern Ohio University
College of Medicine
Multidisciplinary Laboratory
Rootstown, Ohio

Scheeser Buckley Mayfield LLC performed the HVAC and electrical design for an 18,000 square feet multidisciplinary teaching laboratories renovation project. The project includes a large 5,600 square feet multidisciplinary teaching laboratory that can be partitioned into four separate rooms, a pharmacy practice lab including a hood instructional room, and multiple study rooms. The HVAC design included the addition of a new air handling unit to serve the large multidisciplinary teaching laboratory. Variable air volume terminal units with hot water reheat coils were installed utilizing the existing air handling unit serving the remainder of the renovation areas to maintain minimum outside air code requirements and individual space temperatures. The design included accommodations to maintain the air and heating water systems during construction to the adjacent areas surrounding the project. The electrical design included the removal and replacement of ten distribution panels that were in the renovation area as well as power systems for the various mechanical equipment, laboratory casework, and lighting. The electrical systems were designed with flexibility to allow for multiple configurations in the large multidisciplinary teaching laboratories. Lighting has been designed to allow the instructor to adjust the lighting level based on his requirements. All teaching areas have been fully integrated with the campus computerized teaching system.

Ohio State University
OARDC – Hayden Hall Renovation
Columbus, Ohio

Scheeser Buckley Mayfield LLC performed the mechanical and electrical engineering services for the renovation to Hayden Hall which included upgrading existing laboratories, refurbish office spaces, install a new elevator and reconstruct restroom facilities. The work also consisted of installing a new HVAC system and a new electrical distribution system. HVAC system features include: digital controls, constant volume air handling unit, fume hood exhaust systems, heating water system, and extension of the existing campus chilled water system.





Thomas Memorial Hospital
Medical Office Pavilion and Hospital Addition
South Charleston, West Virginia

Scheeser Buckley Mayfield provided mechanical and electrical design for the Medical Office Pavilion Building at Thomas Memorial Hospital. This 85,818 sq. ft. office building hospital is a major addition to the facility. The building is a 4-story structure plus basement. The project was constructed in a multiple bid package construction delivery method with the building foundation, shell, and tenant fitouts being issued under separate contracts.

The Basement of the building houses the new hospital laboratory and support offices and also serves as home to the buildings main electrical service, mechanical room, and new data center.

The main entrance on the First Floor was designed with patient comfort in mind. The main lobby serves as registration and contains a Starbucks Coffee Shop.

The First Floor of the building also houses the expanded radiology department and diagnostic cardiology. The new cardiology area is equipped with a state of the art Cath Lab.

The upper floors of the building are tenant office spaces. The last open floor space is currently under construction and is scheduled for completion within the year.

The electrical design for the building included a new generator and emergency distribution along with an extension of the medium voltage service switchgear. The project budget allowed for the use of an extensive architectural lighting package that complimented the overall interior and exterior scheme of the building. Decorative wall sconces, table lamps, and a variety of perforated direct/indirect fixtures were used to accomplish this. The building design also accommodated a Starbucks located in the main lobby. Electrical services were designed to incorporate the café into the building. A new network fire alarm system was put in place for the addition and a major fire alarm upgrade was incorporated into the existing hospital system to allow facilities to have a single point of reference for all alarms. The existing hospital intercom and paging system was removed and replaced with new racks, amplifiers, and communication devices. This service was then extended to the new state-of-the-art lab located in the lower level of the building.

STEVEN SCHAEFER ASSOCIATES, INC.
Consulting Structural Engineers

Firm Profile

Steven Schaefer Associate's knowledge of building codes allows us to select the most appropriate design parameters for optimal structural efficiency and performance, to meet your budget, and avoid excessive construction costs. Clear and well-detailed construction documents take time up front but result in lower construction bids, fewer change orders and faster construction.

We have worked on many LEED® certified projects, providing design options to our clients that offer different levels of sustainability. Our priority is getting involved in the process as early as possible – allowing for integrated design, early definition of the owner's goals, and the level of certification they wish to achieve. From a structural standpoint, we look at the percentage of recycled steel, concrete options, and other available sustainable materials to achieve the owner's LEED® goals. Our internal efforts include technical office meetings to review green materials and design options, recycling programs, and Green Binders to all staff which contain frequently updated materials on the structural aspects of LEED® design.

Our firm has invested extensively in Revit® technology. We have a dedicated, trained team of engineers and detailers that are able to provide 3-D designs in Revit® and contribute to a building information modeling (BIM) project that includes all components and team members.

Founded in 1976, our firm is licensed in every state with thirty-six engineers and a drafting staff of sixteen. We've seen our size grow along with our experience, knowledge and capabilities – giving us the ability to meet your deadlines and the flexibility to respond to change. We have earned a reputation for providing quality documents for projects ranging from simple to complex building structures and provide all aspects of structural engineering – planning, design, inspection, investigation.

Steven Schaefer Associates...We design solutions.

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Vice President,
Technical Leader

J. Greg Sliger
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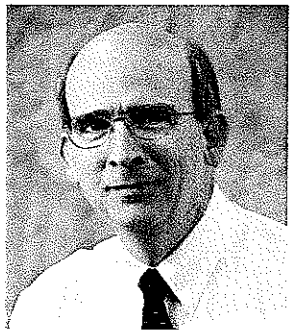
Team Leader

Greg J. Riley
P.E.
Team Leader

John R.
Ashbaugh, P.E
Team Leader

J. GREGORY SLIGER, P.E.
Principal, Team Leader



Joined Steven Schaefer Associates in 1998

Previous Position:
Lantz Jones & Nebraska, Inc.
Project Engineer, 1980 - 1998

Education:
MS Civil Engineering University of Cincinnati (1980)
BS Civil Engineering University of Cincinnati (1979)

Registrations:
Ohio, Kentucky, West Virginia, Texas, Utah, Wisconsin, North Dakota

Affiliations:
American Society of Civil Engineers, American Institute of Architects – West Virginia, American Concrete Institute, Concrete Reinforcing Steel Institute, Structural Engineers Association of Ohio

As team leader, Mr. Sliger oversees the work of his entire technical team. In this role, he has worked on projects of varying sizes, complexity and materials. He both contributed to the structural design and acted as the Project Review Engineer on all of the following projects.

Experience:

Marshall University Student Housing – Huntington, WV

Marshall University Clinical Education & Outreach Center – Huntington, WV

Marshall University Recreation Center – Huntington, WV

Mason Civic Center – Mason, OH

Blue Ash Recreation Center – Cincinnati, OH

Oddfellows Hall / Restoration – Covington, KY

Greenbrier County Public Library – Lewisburg, WV

Marjorie P. Lee Addition / Renovation – Cincinnati, OH

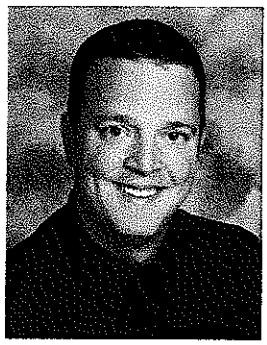
Thomas Memorial Hospital Medical Office Pavilion – South Charleston, WV

King's Daughters Medical Center Outpatient Imaging Center – Ashland, KY

Marshall University Robert C. Byrd Biotechnology Science Center – Huntington, WV

RYAN M. KONST, P.E.

Resume



Joined Steven Schaefer Associates in 2001

Education:

BS Civil Engineering University of Cincinnati (2001)

Registrations:

Ohio, Kentucky, West Virginia

Affiliations:

American Society of Civil Engineers, American Institute of Steel Construction, American Institute of Architects, American Concrete Institute, Structural Engineers Association of Ohio (Board of Directors)

Experience:

Marshall University Campus Recreation Center – Huntington, WV

Marshall University Robert C. Byrd Biotechnology Science Center – Huntington, WV

Thomas Memorial Hospital Medical Office Pavilion – South Charleston, WV

Thomas Memorial Hospital Imaging Center – South Charleston WV

Sycamore Financial Center – Cincinnati, OH

Centre Pointe Building 5 – Cincinnati, OH

Kings Daughters Medical Center - Heart and Vascular Center – Ashland, KY

Kings Daughters Medical Center – Medical Plaza Building B – Ashland, KY

King's Daughters Medical Center Outpatient Imaging Center – Ashland, KY

DOUG R. STEIMLE, P.E.

Resume

Joined Steven Schaefer Associates in 1997

Education:
BS Civil Engineering University of Cincinnati (1997)

Registrations:
Ohio, Kentucky, South Carolina

Affiliations:
American Institute of Steel Construction

Doug is one of our senior level engineers and has expertise is in multi-story, residential, and hospitality buildings, and wood construction. He has the responsibility not only for structural design but also the project management for the following projects.

Experience:

Marshall University Student Housing – Huntington, WV

Village at Stetson Square / Blocks A, E, F and H – Cincinnati, OH

Campus Edge Apartments – Lafayette, LA

The Banks Phase 1A – Cincinnati, OH

Salida del Sol Condominiums – St. Augustine, Florida

De Sales Plaza – Cincinnati, OH

Jordan Park Condominiums – Mariemont, OH

Manuel D. and Rhoda Mayerson Jewish Community Center – Cincinnati, OH

Springfield Township Fire Headquarters – Cincinnati, OH

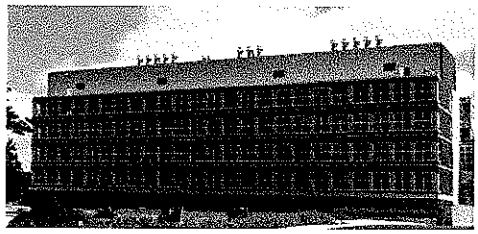
Leblond Recreation Center – Cincinnati, OH

Edwin A. Malloy Education Building – Cincinnati, OH

MARSHALL UNIVERSITY CLINICAL OUTREACH & EDUCATION CENTER – Huntington, WV

The 80,000 sq ft four-story CEOC houses major new medical student teaching facilities and clinical education patient care clinics and expands the teaching space and services currently offered by the School of Medicine. The ground floor contains a state-of the-art facility, including a 125-seat tiered classroom, several smaller classrooms and student study and lounge areas. Three floors of patient care and clinical education space above provide for up to 75,000 patient visits per year.

UNIVERSITY OF KY / BIOMEDICAL / BIOLOGICAL SCIENCES RESEARCH BUILDING – Lexington, KY



This four-story 185,000 sq ft medical facility has an open plan design. The building houses about 400 faculty, staff, and students and includes conference rooms, computer labs, and storage spaces. Due to the sensitive equipment utilized in this building, Steven Schaefer Associates was asked to determine the floor vibration design criteria and provide floor vibration analysis for alternative framing schemes during the preliminary phase of this project.

UNIVERSITY OF CINCINNATI / CLERMONT CAMPUS – Cincinnati, OH

We provided the structural design for this $2.5 million, two-story, 16,000 sq ft addition to the Edith Peter Jones Building at the University of Cincinnati's Clermont College Campus. The addition includes new classrooms, offices, meeting rooms and computer laboratories. The roof framing consists of bar joists framing to steel beams and masonry walls while the floor framing is a composite steel beam system. The new addition is joined to the existing Jones Building by the new 60 foot long walkway bridge.

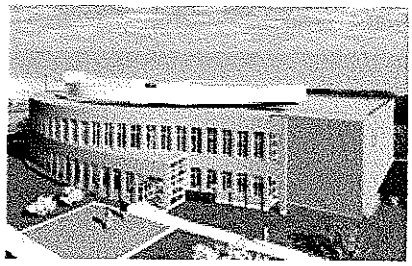
UNIVERSITY OF CINCINNATI / ZIMMER HALL REHABILITATION – Cincinnati, OH

This project rehabilitates Zimmer Auditorium, the corridor/lounge spaces that surround it, and all classroom spaces within the building into high quality learning spaces. The existing auditorium space will be reduced in size by adding two new classrooms in the rear portion. Improvements include new acoustic treatments in the auditorium, and new HVAC, electrical, and finishes throughout. Existing damaged concrete caused by leaks in the roof/plaza floor above will be investigated and repaired, as will the existing cracks in the lower level slab on grade.

MERCY HEALTH AND WELLNESS CENTERS – Anderson and Fairfield, OH

These 200,000 sq ft multi-story health and recreational facilities include an additional 56,700 sq ft for tennis facilities. The exterior of the buildings consists of a combination of pre-cast masonry, concrete masonry and metal studs. Steel x-bracing is used throughout the structure along with composite beams for the floor and bar joists and beams for the roof. The facilities have a lap pool, gym, children's gym, fitness center, 300-seat auditorium, and medical office/examination rooms that include 12,000 sq ft for testing, diagnostic and treatment services.

LINCOLN HEIGHTS HEALTH CENTER – Cincinnati, OH

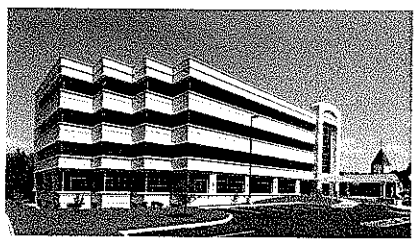


This $5.8 million 42,000 sq ft two-story medical office building has 2,000 sq ft of treatment space and the capacity to serve 15,000 patients per year. Construction consists of bar joist framed floor and roof, and concrete slab over metal form deck at the first and second floors. The curved front façade features metal stud framing supporting stone veneer between punched windows.

THOMAS MEMORIAL HOSPITAL CLINICAL PAVILION / RENOVATION – South Charleston, WV

This 154,000 sq ft project involves renovation of the adjacent space, including a loading dock area which remained operational during construction. Adjacent to four existing buildings, this project proved very challenging. Features include a snow bay to minimize drifted snow loads on the adjacent two-story buildings, a new elevator lobby and penthouse built on top of the adjacent five-story medical office building, and a new corridor built on the roof of another existing building. Due to tight floor-to-floor heights to match the existing building, a 10,000 sq ft area of the new building was designed with cast-in-place construction to minimize the structure depth.

THOMAS MEMORIAL HOSPITAL MEDICAL OFFICE PAVILION – South Charleston, WV



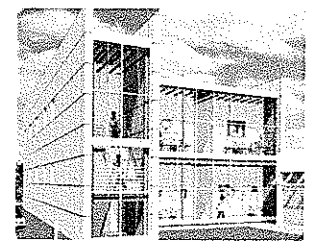
This five-story 85,800 sq ft building is adjacent to the existing hospital and includes a two-story 17,000 sq ft wing connecting it to the main hospital. Underpinning and bracing of some existing building foundations was required in order to provide a new ground floor elevation 14 ft below the ground floor elevation of an adjacent building. Lateral loads are resisted by moment resisting frames in the east-west directions and braced frames in the north-south direction. The foundation system was designed to accommodate a future five-story clinical wing to be constructed adjacent to the Medical Office Pavilion.

McCULLOUGH-HYDE MEMORIAL HOSPITAL – Oxford, OH

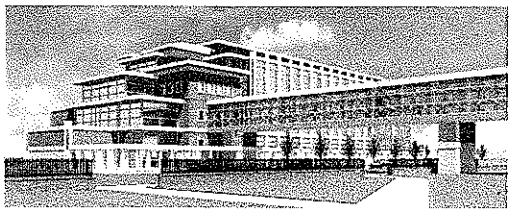
This 47,000 sq ft two-story hospital addition includes a partial basement, a 3,550 sq ft penthouse, and a rooftop helipad. The partial basement provides elevator/stair access to the existing building's basement. The southwest corner of the new building's foundation is a varying height retaining wall, which holds back the sloping grade. The front wall of the building is on a curve with a 13 ft 6 inch cantilevered steel canopy extending along about one-third of its length.

MARSHALL UNIVERSITY FORENSIC SCIENCE CENTER – Huntington, WV

We provided the structural design for this two-story 8,000 sq ft addition to the existing one-story masonry Forensic Science Center. The structure is a steel frame enclosed with precast concrete wall panels, glass, and aluminum curtainwall. The foundation system consists of shallow spread footings.

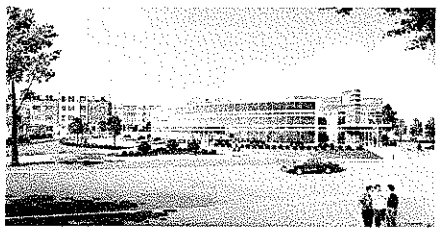


MARSHALL UNIVERSITY ROBERT C. BYRD BIOTECHNOLOGY SCIENCE CENTER – Huntington, WV



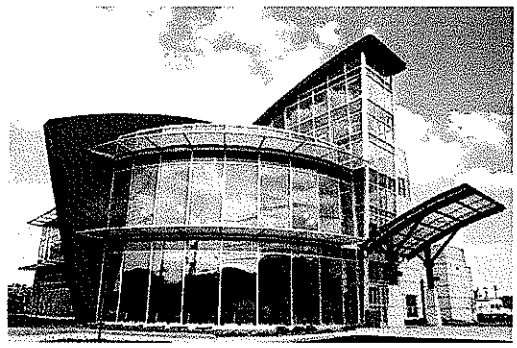
Steven Schaefer Associates provided the structural design for this facility that includes 144,000 sq ft of laboratory space, offices for faculty and staff, two auditoria, animal holding rooms, and support services. HVAC equipment is housed on a penthouse level and on an interstitial floor between the first and second floors. The building is framed with composite steel beams, girders and steel columns. Braced frames and moment frames resist all lateral loads. A deep foundation system consisting of reinforced concrete drilled shafts is utilized. A 200 ft long pedestrian bridge connects the building to the existing science building across the street.

MARSHALL UNIVERSITY STUDENT HOUSING – Huntington, WV



Steven Schaefer Associates provided the structural design for this student housing and dining complex containing housing for 500 students and dining facilities for 300. Student housing is provided in four, four-story residence halls enclosing approximately 160,000 sq ft. The residence halls are framed with precast concrete floor plank bearing on concrete masonry walls. The roof of the dining facility is framed with steel joints and beams bearing on concrete masonry walls and steel columns. Mechanical, electrical and plumbing systems are contained in a basement mechanical room and in a deep rooftop well above the dining facility.

KING'S DAUGHTERS MEDICAL CENTER OUTPATIENT IMAGING CENTER – Ashland, KY



Steven Schaefer Associates provided the structural engineering for this $7 million facility whose futuristic design illustrates the space-age technology available inside. The center is a two-story, 20,000 sq ft building with a steel frame that is designed to accommodate an additional three floors. A composite steel beam and concrete slab system frame the elevated floors. The curved accent wall is a steel tube frame infilled with cold-formed metal framing. Aluminum sun screens on the west-facing wall and lobby wall are attached to a continuous steel tube on the edge of the elevated slabs. Lateral loads are resisted by reinforced concrete shear walls at the stairs and elevators, and by steel strut braces. Poor soil conditions and large column loads necessitated the use of an augercast pile foundation system.

STEVEN SCHAEFER ASSOCIATES, INC.
PROJECT EXPERIENCE

EDWIN A. MALLOY EDUCATION BUILDING – Cincinnati, OH

The Jewish Foundation of Cincinnati International Learning Center is a new facility with two integrated components: a lecture hall, and a graduate seminar room. The lecture hall is a classroom with seating for up to 100. The classroom is equipped to handle satellite transmission and receiving capabilities, enhanced interactive video projection and sound systems, a large video monitor, telephone, fax line, and high-speed internet access. The exterior of the building is stone veneer, curved and cantilevered from the floor structure. At the back of the building is an office suite deck with cantilevered sun screens.

XAVIER UNIVERSITY SCIENCE CENTER / CARL H. LINDNER PHYSICS BUILDING, ALBERS HALL AND LOGAN HALL – Cincinnati, OH

Steven Schaefer Associates provided the structural engineering for the $8.8 million Carl H. Lindner Family Physics Building and the renovation of Albers Hall and Logan Hall biology and chemistry buildings. The three-story, 24,000 sq ft physics building utilized a composite concrete structural steel framing system for economy and ease of future modifications. The renovated buildings were four-story concrete frames with improvements that included: a new basement level connector, new elevator, new stairway for handicap access and code exit requirements, an animal care and research facility, and a movable motorized roof skylight for a top story observatory.

MERCY SIENA HEALTH & WELLNESS CENTER – Dayton, OH

BETHESDA NORTH SERVICE BUILDING ADDITION – Cincinnati, OH

ONCOLOGY HEMATOLOGY CARE OFFICE ADDITION – Blue Ash, OH

SUMMERSVILLE MEMORIAL HOSPITAL ADDITION – Summersville, WV

ST MARY'S INTENSIVE CARE UNIT ADDITION – Huntington, WV

ST MARY'S EDUCATION CENTER – Huntington, WV