

DECATUR PUBLIC SCHOOL DISTRICT #61
SPECIAL BOARD OF EDUCATION
AGENDA

Regular Meeting
Keil Administration Building
101 W. Cerro Gordo Street
Decatur, IL 62523

October 02, 2023
5:30 PM Special Open Session

Legend: AI = Action Item DI = Discussion Item IO = Information Only

Strategic Plan Mission:

The mission of Decatur Public Schools, the destination district of our community, is to unlock students' unique and limitless potential to achieve their personal aspirations as fully prepared, contributing citizens in a global society through learning experiences distinguished by:

- *commitment to the whole person resulting in student growth and confidence*
- *relevant, innovative, personalized academic pathways that promote passion and pride*
- *a learning environment that fosters curiosity and the thirst for achievement and discovery*
- *a culture of diversity, adaptability, and resilience*
- *meaningful and lasting relationships*
- *extraordinary school and community connections*

The Board of Education Parameters that Guide Our Work:

- We will make decisions in the best interest of all students.
- We will treat all people with dignity and respect.
- We will seek input and collaboration throughout our diverse community.
- We will practice responsible stewardship of all our resources.

AI 1.0 CALL TO ORDER

Roll Call

IO 2.0 PLEDGE OF ALLEGIANCE

AI 3.0 APPROVAL OF AGENDA OCTOBER 02, 2023

IO 4.0 PUBLIC PARTICIPATION

- Identify oneself and be brief.
- Comments should be limited to three (3) minutes.
- Any public comments submitted to the Board Secretary will be included in the record.

IO 5.0 PRESENTATIONS

- A. Structural Engineer Klingner & Associates, P.C.
- B. Bacon/Farmer/Workman Engineering & Testing, INC.

DI 6.0 BOARD DISCUSSION

IO 7.0 IMPORTANT DATES

- October** 06 MacArthur High School Homecoming Parade and Game
07 MacArthur High School Homecoming
09 Indigenous People's Day
– **STUDENTS are in SESSION**
11 District-wide Half Day
– Please check with your home school regarding the release time

Please Note: October 16th is the Deadline for the Required Immunizations and Physicals for the 2023-2024 School Year.

NEXT MEETING

The public portion of the next regular meeting of the Board of Education will be at 6:30 PM, Tuesday, October 10, 2023 at the Keil Administration Building.

AI 8.0 ADJOURNMENT



KLINGNER

& ASSOCIATES, P.C.

Engineers • Architects • Surveyors

Your Partner for Structural Building Evaluation

**KLINGNER'S QUALIFICATIONS FOR
DECATUR PUBLIC
SCHOOL DISTRICT #61**

**FOR PROFESSIONAL SERVICES
FOR STRUCTURAL EVALUATION & BUILDING ENVELOPE REVIEWS
SEPTEMBER 8, 2023**

Dr. Mike Curry
Chief Operations Officer
Decatur Public School District #61
400 East Cerero Gordo
Decatur, IL 62523

RE: Structural Evaluation and Building Envelope Reviews

Dear Dr. Curry and Selection Committee:

Klingner & Associates, P.C. (Klingner) is pleased to submit our Statement of Qualifications to Decatur Public School District #61 (DPS) to conduct full structural evaluations and building envelope reviews of each of the District's buildings. Klingner understands the current scope of work, including site visits, visual inspections, meetings with the DPS staff, and comprehensive reports. We will work with you to provide the results you need in a concise and detailed report format.

The following are a few reasons Klingner will serve as one of the best partners for DPS:

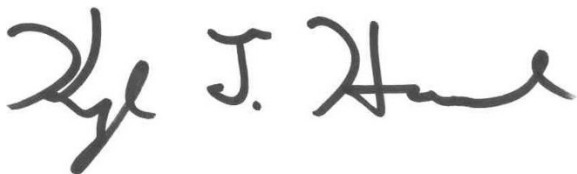
PROVEN EXPERTISE | Klingner's structural team has years of hands-on experience, a commitment to excellence, and a keen understanding of engineering principles, providing invaluable insight into each project we undertake. A sample of our relevant Pre-K-12 clients includes: Abingdon-Avon Community Unit School District #276, Quincy Public School District #172, Mendon Community Unit School District #4, Pikeland Community School District #10, Galesburg Community Unit School District #205, Knoxville Community Unit School District #202, Southeastern Community Unit School District #337, among others. This past summer, our structural engineers completed two, fast-paced emergency structural evaluations for DPS.

STRONG STRUCTURAL SUPPORT | With a robust structural team, Klingner can provide the experts to complete your assessment with uniform professional standards. After each inspection, our documentation will be reviewed by a peer designer not assigned to the project to verify accuracy and compliance with Klingner standards.

THE BEST IN PROJECT MANAGEMENT | Klingner believes in providing authentic engagement, transparent communication, and a clear understanding of your expectations. We pride ourselves on developing and coordinating the project team, creating strong partnerships with clients, and creating implementable plans that stand the test of time. Together with your input, we will create a report that meets your expectations; remains adaptable to changing needs; and provides the information required to move forward.

Our success lies in meeting your expectations, and we look forward to working with you on this project.

Best Regards,



KYLE T. HANNEL, PE, CWI

Project Manager | Structural Engineer

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PRIMARY CONTACT

Kyle T. Hannel, PE, CWI
Project Manager
Office: 217-223-3670
khannel@klingner.com

Klingner & Associates, P.C.
616 N. 24th Street
Quincy | IL | 62301



PAPER BOX BUILDING | FUTURE QUINCY CHILDREN'S MUSEUM EVALUATION

KLINGNER'S FIRM BACKGROUND

With a commitment to excellence and decades of experience, Klingner excels in providing comprehensive structural evaluations and building envelope reviews. Our team utilizes cutting-edge technology and rigorous analysis to deliver accurate insights and enable our clients to make informed decisions about their structures. Because we prioritize precision and reliability in every evaluation we undertake, clients can confidently rely on our extensive knowledge and expertise to guide their decisions.



A TRUE PARTNERSHIP FOR DECATUR PUBLIC SCHOOL DISTRICT #61

Klingner is supported by 118 years of history providing professional services in the Midwest. Originally started in 1905 as Bushnell Engineering, William H. Klingner joined Bushnell and his partner McCann in 1936. In 1985, the firm was incorporated as Klingner & Associates, P.C. Steady growth, along with mergers and expansions, culminated in a diverse firm specializing in architecture, engineering, geotechnical, land surveying, and other supportive specialty services. We routinely serve communities within a 150-mile radius of our locations in Quincy, Galesburg, and Carbondale, IL; Burlington, Pella, and Davenport, IA; and Hannibal and Columbia, MO.

Our experience has proven invaluable in assisting school districts with making informed decisions through precise building evaluations. Through our expertise, we provide accurate insights into the structural integrity, safety, features, and overall structural condition of educational facilities. We help school districts identify potential issues, prioritize maintenance and renovation efforts, and assist in allocating resources effectively. These well-informed decisions enhance the learning environment for students and contribute to the long-term sustainability of school buildings. As a result, our collaborative efforts will help DPS to perpetuate their mission to "Educate for Success".



KLINGNER'S MULTIDISCIPLINARY SERVICES

Klingner is able to provide the following professional services:

- Architecture
- Civil / Site Development
- Construction Material Testing
- Construction Inspection
- Environmental
- Feasibility Analysis
- Geotechnical
- Land Surveying / 3D Scanning
- Landscape Architecture
- Mechanical / Electrical / Plumbing
- Municipal Engineering
- Recreational Planning
- Renewable Energy / Energy Efficient Designs
- Structural
- Building Envelope Review



RELEVANT PROJECT EXPERIENCE

Although the history of Klingner extends back to its origination in 1905, the firm has an extensive record of work with over 100 Pre-K - 12 school districts providing multi-disciplined solutions for various needs. We've also worked with 10 counties and over 70 municipalities during the past 10 years. Services provided include various structural building evaluations and site assessments, needs reporting, master planning, design, rehabilitation, and construction. Included in the following pages are examples of work most relevant to what would be provided for Decatur Public School District #61.

DECATUR PUBLIC SCHOOL DISTRICT #61 KALEIDOSCOPE AND MOSAIC SCHOOLS STRUCTURAL ASSESSMENT

Klingner received an urgent request to provide a site visit to Kaleidoscope and Mosaic schools to perform a structural inspection and obtain applicable field measurements of existing building conditions. The focus of the inspections was on the exterior walls and parapets of the Kaleidoscope School and the interior stair supports of the Mosaic School.

Klingner provided the structural evaluation report documenting structural deficiency observations and provided descriptive photos, including recommendations for repair of pinpointed structural deficiencies, sealed by a licensed structural engineer in the State of Illinois, within a week of the client's authorization to proceed in response to the School Board's needs. Klingner also attended a special board meeting to answer board member's questions regarding the previously provided evaluations and reports for the Kaleidoscope and Mosaic school buildings.

SERVICES:

Structural

CONTACT

Dr. Mike Curry
Chief Operations Officer
Decatur Public School District #61
mcurry@dps
217-362-3021

ABINGDON-AVON CUSD #276 MIDDLE SCHOOL & HEDDING GRADE SCHOOL STRUCTURAL EVALUATION

In 2021, Klingner provided structural services for a visual structural evaluation of the 71-year-old Middle School. Conditions observed included exterior masonry walls; site retaining walls; chimney; roof structures; and floor structure. A written report with 60 descriptive photographs was provided with a structural conclusion that addressed items of particular concern, their causes, cautionary notes, and general steps forward to alleviate the concerns.

Later that same year, Klingner provided a structural evaluation at the Hedding Grade School which consisted of a site visit to observe the structural conditions inside and outside of the building, meeting with district staff to determine the history of the structure and discuss any known structural issues, and providing a report with photos showing structural issues that were observed during the site visit.

SERVICES:

Structural

CONTACT

Dr. Mike Curry
(Former Superintendent during project)
Decatur Public School District #61
mcurry@dps61.org
217-362-3021

QUINCY PUBLIC SCHOOL DISTRICT #172 DISTRICT-WIDE FACILITY NEEDS ASSESSMENT

Klingner provided architectural services for a feasibility study to address campus-wide facility needs for the next 20 years. Included in the study were building analysis reports to address multiple issues, narratives, graphs, and appraisal instruments for review by the District. The provided Building Analysis Report took into consideration 5 grade levels and assessed issues such as structural assessments, site ingress and egress, facility functionality, facility integrity, energy efficiency, ventilation requirements, electrical service / capacity, maintenance costs, historical preservation, facility security and needs, Health / Life-Safety 10 year report, and building operating costs / life cycle cost comparisons. In total, 15 school facilities and other campus support facilities were evaluated, comprising over 1,186,302 SF of inspected and inventoried assets.

Building condition appraisal criteria focused on six areas: educational adequacy; educational environment; school site; building safety and security; structural condition and electrical and mechanical systems; and plant maintainability. Structural aspects included foundation and structural frame condition. Considerations of the building envelope evaluation included the promotion of energy efficiency and sustainability.

SERVICES:

Structural, Architectural, MEP

CONTACT

Roy Webb
(Former Superintendent during project)
Quincy Public School District #172
roy.webb34@gmail.com
217-209-2631

CITY OF QUINCY CITY HALL RENOVATION FEASIBILITY STUDY

Klingner provided architectural, structural, civil / site, surveying, and MEP services for a feasibility study for the renovation of the existing City Hall facility. The City proposed relocating departments for improved space utilization and additional functionality. The study identified existing interior and exterior conditions, evaluated building needs, provided recommendations, and analyzed the practicality of renovating the current building to better meet the needs of the various departments compared to the available space.

Structural tasks included a structural evaluation of the existing facility (both interior and exterior elements of the building and attached lower level parking garage); a structural evaluation report of observations and recommendations; and a preliminary opinion of probable cost.

Architectural tasks included developing an initial space allocation spreadsheet for review; analyzing efficiency; public / private separation; climate control; providing a Code Study (Building, Life Safety, Illinois Accessibility Codes); developing a written assessment report with conceptual plans and recommendations; providing recommendations on the practicality of a new facility as an additional option; and providing a preliminary opinion of probable cost.

Civil / Site tasks included reviewing the existing parking lot; reviewing the renovation of the parking deck; providing a new conceptual layout; and providing a preliminary opinion of probable cost.

Mechanical / Electrical / Plumbing tasks included providing an evaluation of the electrical, mechanical, and plumbing systems (both interior and exterior elements); summarizing the condition of the existing systems and recommendations for any system repairs or replacements; and providing a preliminary opinion of probable cost.

SERVICES:

Structural, Architectural, Civil / Site, MEP

CONTACT

Jeffrey Conte
City Engineer
City of Quincy
jconte@quincyl.gov
217-228-26314527



HENRY COUNTY, ILLINOIS COURTHOUSE COMPLEX FACILITY MASTER PLAN

Klingner provided architectural and structural services for a facility master plan of the four interconnected buildings which comprise the courthouse complex and consist of the old courthouse, county government center, new jail, and old jail. The old courthouse was built in 1978 and the new jail and county government center was constructed in 1997.

The project scope included identifying projects for both regular maintenance and end of useful life replacement and was coordinated with several ongoing and future projects at the complex (both exterior and interior) to create a Facility Master Plan. The exterior building evaluation was previously completed in 2020 by Klingner and the work identified in this evaluation will be incorporated into the Facility Master Plan.

The interior architectural evaluation included observation of interior walls, stairs, flooring, wall finishes, ceilings, potential accessibility concerns, life safety issues, and code compliance concerns.

Elements included in the structural evaluation include the clock tower, bell supports, and the attic area beneath the roof with respect to supporting the existing and new roof top mechanical equipment.

The useful life study will compile a complete list of projects for both ongoing maintenance and end of useful life replacement of all existing building materials and systems, both exterior and interior. The study will span the next 20 years and incorporate a complete list of projects prepared by previous and ongoing evaluations of specific aspects of the facilities.

An annual expense study is also within this scope and will provide an opinion of probable construction cost of all the projects identified in the useful life study.

SERVICES:

Structural, Architectural

CONTACT

Erin Knackstedt
County Administrator
Henry County
eknackstedt@henrycty.com
309-937-3400



CARNEGIE HISTORICAL MUSEUM FACILITY ANALYSIS

The Carnegie Historical Museum, formerly Fairfield's public library, is the first of 1,689 libraries endowed by Andrew Carnegie. Constructed in 1893, this architectural gem is listed on the National Register of Historic Places and houses a museum, classrooms, and administrative space for Indian Hills Community College. To determine how to best preserve the structure's historic integrity, the organization's board and foundation hired Klingner to perform a facilities needs assessment to identify and prioritize critical repairs, mid-range projects, and minor improvements. Klingner evaluated their needs through a series of on-site observations and discussions with museum representatives. Although there were initial concerns of settling, Klingner's engineer discovered evidence of localized thermal movement — a repair that is significantly more affordable. Because of this finding, the museum can refocus fundraising and grant writing efforts to address masonry (brick and sandstone), roofing, parapets, exterior stairs, and window repairs, as well as minor adjustments such as raising railing heights to bring the building to code.

The comprehensive priorities report served as a guiding document during the museum's financial planning. Also outlined were methods to repair and maintain the building, an extensive photo log documenting existing conditions, and an assessment of probable cost.

SERVICES:

Structural, Architectural

CONTACT

Gloria Countryman
Foundation President
Carnegie Library and Museum
gcountryman71@gmail.com
641-472-6193

CITY OF ALEDO, ILLINOIS PUBLIC WORKS BUILDING EVALUATION

Klingner provided architectural, structural, and MEP evaluations for the existing Public Works building to examine feasibility of repairing the building shell and making interior improvements to insulate the building and install a new restroom. Parts of the building not currently served by HVAC were evaluated for becoming conditioned spaces. Another proposed improvement examined was the north truck bays, which would add new concrete floors with trench drains.

Specific structural tasks included inspection of the masonry for overall condition and signs of structural movement and deficiencies; inspection of visible roof framing, including joists, beams, headers, members embedded in masonry, bearing points, bridging, and other visible members; document observed conditions and problems photographically; and prepare a written report of findings, including recommendations.

Klingner prepared construction drawings for the exterior renovation of the building in 2021.

SERVICES:

Structural, Architectural, MEP

CONTACT

Justin Blaser
Director of Public Works and Utilities
City of Aledo
jblaser@aledoil.org
309-582-7241

CITY OF HANNIBAL FORMER FEDERAL BUILDING STRUCTURAL EVALUATION AND REPORT

Klingner provided a visual structural evaluation of the 32,000 SF former Federal Building at 600 Broadway, a 3-story building with a 1-story rear wing and a full basement below both portions.

Various building elements were observed which included the exterior masonry, load bearing walls, structural support systems, building structural systems, roofing, stairs, and window wells. Interior areas examined included the attic, tower, each floor, basement, and visual examination of the elevator shaft.

The inspection and evaluation of the building led to the sale and likely future repair design of the structure. Klingner also provided fieldwork, data processing, modeling, and CAD work required to prepare a 3-D scan, model, exterior image / rendering, and 2-D floor plans of all floors for the Client's use in evaluating possible renovation and pursuit of tax credit assistance for the development of various commercial enterprises which included possible restaurant / deli, non-profit museum / learning center, flexible office spaces, and basement "speakeasy" bar.

SERVICES:

Structural

CONTACT

Lisa Peck
City Manager
City of Hannibal
lpeck@hannibal-mo.gov
573-221-0111



KNOX COUNTY ILLINOIS COURTHOUSE MASTER FACILITY PLAN

Klingner played a vital role in the preservation of the historic Knox County Courthouse with the development of a Master Facilities Plan. Built in 1884, the courthouse was in need of significant upgrades and repairs. Klingner's plan helped Knox County extend the useful life of the building by prioritizing deferred maintenance work and improvements to fit within the county's budget.

An assessment of the building, from foundation to roof, evaluated each major architectural, structural, and mechanical and electrical system. Klingner discovered poor (and in some cases toxic) air quality; a damaged fire escape; significant deterioration on the building's exterior; and a number of internal issues in the second-floor courtroom, including asbestos, ADA accessibility issues, seating deficiencies, and more.

Existing system conditions were documented in both written and photographic form and were ranked according to each item's safety concern level. Klingner also prepared budgetary cost estimates for each major system and subsystem, met with the building committee to discuss options, and established a reasonable year-by-year timeline for proposed improvements.

An additional phased five-year improvement plan was developed to mitigate potential safety hazards. New priorities included reconstruction of the three stone entrances, cleaning masonry, repointing, and spraying the exterior with a water repellent application to prevent further water intrusion. The building committee also chose to replace the existing granite treads with new to match, maintaining the building's original character. To complete the exterior, new aluminum handrails were fabricated and placed at each entrance.

Ongoing phases returned the focus to the courthouse's interior with plans for the replacement of existing electrical and plumbing throughout the building. Other subsequent projects involved the second floor courtroom rehabilitation, courthouse IT room renovation, and a courthouse generator.

SERVICES:

Structural, Architectural, MEP

CONTACT

David Clague,
(Former Sheriff during project)
Knox County
info@knoxcountysheriff.com
309-345-3733



DANVILLE COMMUNITY SCHOOL DISTRICT STRUCTURAL EVALUATION OF HIGH SCHOOL WALL CRACKS

Klingner provided a site visit to the High School to observe a pipe tunnel where cracks and leaks have been observed and the pipe tunnel floods. Cracks have also been observed in the career center office and special education office rooms.

A site visit was conducted to document observations and determine the cause and provide guidance for remedial actions.

SERVICES:

Structural

CONTACT

Mark Dillon
Maintenance Director
Danville Community School District
319-392-4221

TRANSITIONS OF WESTERN ILLINOIS FACILITIES / PROPERTIES ASSESSMENT STUDY

Klingner provided a comprehensive professional facilities assessment for 8 separate facilities to address current facility conditions and deficiencies and corrective / replacement cost estimates. The focus of the assessments included structural evaluations; roof conditions; windows / doors; electrical power and lighting systems; HVAC systems; fire protection systems; plumbing; exterior materials / cladding; interior finishes, exterior amenities; pavements, sidewalks and patios; and site and building accessibility.

The final report consisted of a report for each of the facilities including existing facility and site conditions with relevant documentation; a final assessment report with recommendations for future action per location, including but not limited to a simple upgrade, renovation, or replacement; and hard copy and electronic copies of the deliverable.

SERVICES:

Structural, Architectural, MEP, Civil / Site

CONTACT

Mark Schmitz
Executive Director
Transitions of Western Illinois
mschmitz@twi.org
217-223-0413

SOUTHEASTERN CUSD #337 BLEACHER / FIRE ESCAPE STRUCTURAL EVALUATION

Klingner provided a structural inspection and evaluation for the bleachers at Augusta High School Gymnasium, Augusta baseball field, Bowen Elementary School gymnasium, and Bowen softball field. A report with observations, recommendations, and photo documentation of deficiencies was provided. The inspections were performed on a mixture of fixed and portable bleacher units, and a total of 10 units were evaluated and detailed reports were provided.

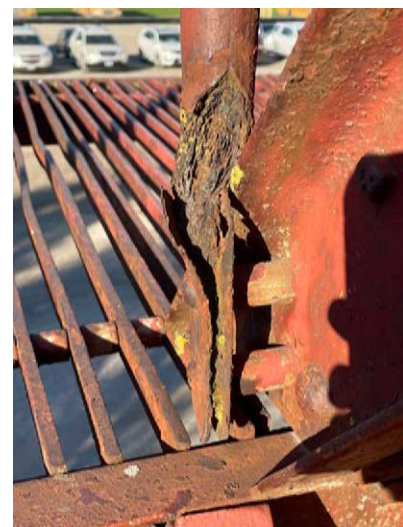
Later that same year, the firm provided an inspection and evaluation of the fire escape stair inspection at Bowen Elementary and a subsequent report of observations and recommendations was provided. The recommendations of this report led to the design and drawings for a replacement of the exterior fire escape stair for the Bowen Elementary School

SERVICES:

Structural

CONTACT

Todd Fox
Superintendent
Southeastern CUSD #337
shsprin@southeastern337.com
217-392-2172



FORMER QUINCY PAPER BOX BUILDING STRUCTURAL INSPECTION AND EVALUATION

Klingner provided a structural inspection and evaluation of the former Quincy Paper Box Company building on N. 3rd and Vermont Streets. A written report of the inspection findings with recommendations on the feasibility of possible future renovation of the building based on the observed structural condition was included. The building is comprised of a main 3-story building with a full basement below, a 1-story middle building addition, a 1-story east building addition, a 1-story south building addition, and a 1-story southwest building addition. The main building was built about 1890, but the age of the additions is unknown.

The evaluation involved a visual evaluation of the following aspects: accessible portions of the interior and exterior load-bearing walls; existing roofing; accessible portions of the existing 1st floor, 2nd floor, 3rd floor, and roof framing; accessible portions of the existing basement walls, foundation, and floor slabs; exterior stoops and loading docks; and interior and exterior stairs.

After the evaluation, a detailed report with photo documentation and recommendations was provided. The inspection and evaluation of the existing buildings led to the sale of the building and the design of repair and renovation for the future Quincy Children's Museum.

SERVICES:

Structural (initially), Architectural, MEP,
Civil / Site

CONTACT

Amy Peters
Director
Quincy Children's Museum
quincychildrensmuseum.com
217-617-2827



KEY PERSONNEL QUALIFICATIONS

The proposed project team for structural evaluation and building envelope reviews will preemptively steer you through common pitfalls and proactively tackle any needs and concerns as they arise. This team will be your support from the initial kickoff meeting through site walkthroughs; and final report completion.



DECATUR PUBLIC SCHOOL DISTRICT #61

KYLE T. HANNEL, PE, CWI
PROJECT MANAGER | STRUCTURAL ENGINEER

STRUCTURAL ENGINEERING | ENVELOPE EVALUATIONS

ALAN D. LUKENS, PE, SE
SENIOR PROJECT MANAGER |
QA / QC

MICHAEL J. FRIES, AIA
ARCHITECT

JEREMY T. STEENHOEK, PE, SE
STRUCTURAL ENGINEER

KLINGNER ADDITIONAL SUPPORT
8 LICENSED STRUCTURAL ENGINEERS
2 STRUCTURAL TECHNICIANS



KYLE T HANNEL, PE, CWI

PROJECT MANAGER

Kyle has been a structural engineer with Klingner & Associates, P.C. since 2009. His experience includes numerous structural evaluation projects. Kyle uses advanced techniques, analysis tools, and extensive knowledge to identify structural deficiencies and promote the safety of occupants and the longevity of the structures. Kyle will serve as the project manager and focus his evaluation on safety, functionality, and compliance with relevant standards and regulations.

Project Highlights

- **Decatur Public School District #61, Kaleidoscope & Mosaic Schools Structural Evaluation, Decatur, IL:** Provided a structural evaluation and report for Kaleidoscope and Mosaic schools focusing on the exterior walls and parapets of the Kaleidoscope School and the interior stair supports of the Mosaic School.
- **Lewis County C1 Schools, Highland High School Mezzanine Evaluation, Lewistown, MO:** Provided project management and inspection and evaluation of mezzanine, including field measurements, report on cause of concrete floor cracking, recommendations for repair, and rated load limit.
- **Brown County Health Department, Building Evaluation, Mt. Sterling, IL:** Provided project management and structural inspection and evaluation of existing 2-story health department building.
- **Carthage Elementary School District #317, Middle School Fire Escapes, Carthage, IL:** Provided project management and inspection and evaluation of two fire escapes at the Middle School, including written report of deficiencies and recommendations for repair.
- **Southeastern CUSD #337, Fire Escape and Bleacher Inspections, Augusta, IL:** Provided project management and inspection and report for bleachers at 4 locations and fire escape at 1 location. Provided subsequent report with observations, recommendations, and photo documentation of notable deficiencies.
- **City of Hannibal, Former Federal Building Inspection, Hannibal, MO:** Provided project management and an inspection and evaluation of the building which included accessible portions of interior and exterior load bearing walls; existing roofing; accessible portions of the existing 1st, 2nd, and 3rd floors and roof framing; existing basement walls, foundation, and floor slabs; and interior and existing stairs. A subsequent report was provided with observations, recommendations, and photo documentation of notable deficiencies.

EDUCATION

Bachelor of Science
Civil Engineering (2008)
Southern Illinois University
Edwardsville, Illinois

REGISTRATIONS

Professional Engineer:
Illinois #062-065269 (2013)
Missouri #2013015531 (2013)
Iowa #21663 (2013)

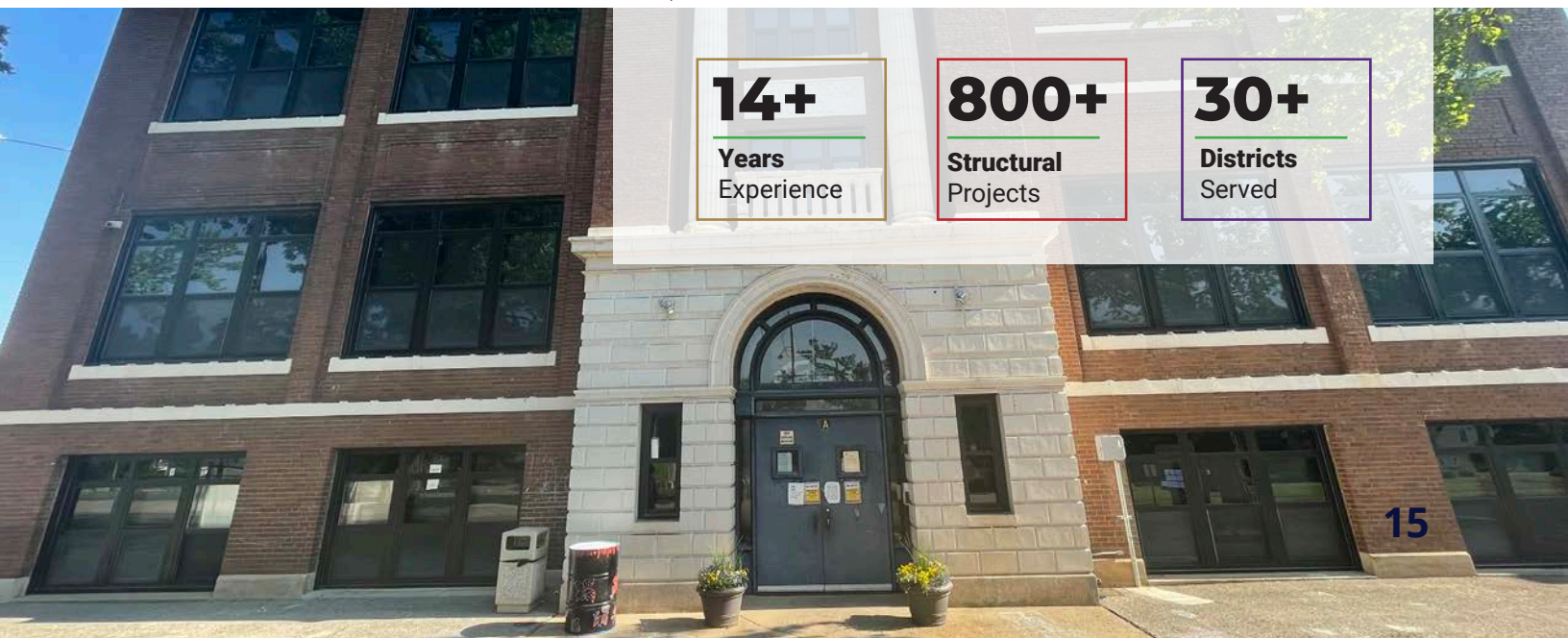
Certified Welding Inspector
American Welding Society (2013)

CONTINUED EDUCATION

U.S. Dept of Labor Mine Safety and Health
Administration Part 48 Surface Miner
Annual Certification of Training (2020)

PROFESSIONAL SOCIETIES

Illinois Society of Professional Engineers
American Welding Society





ALAN D. LUKENS, PE, SE

SENIOR PROJECT MANAGER | QA / QC

Alan has been a structural engineer with Klingner & Associates, P.C. since 1988 and became the Director of Structural Services in 2000. Playing an integral role in several of Klingner's most complex projects, he has a strong background in engineering principles and a meticulous attention to detail. Alan has successfully contributed to numerous high-profile projects, promoting the safety, functionality, and efficiency of buildings and infrastructure throughout his career.

Project Highlights

- **Decatur Public School District #61, Kaleidoscope & Mosaic Schools Structural Evaluation, Decatur, IL:** Provided a structural evaluation and report for Kaleidoscope and Mosaic schools focusing on the exterior walls and parapets of the Kaleidoscope School and the interior stair supports of the Mosaic School.
- **Knox County, Courthouse Master Facility Plan, Galesburg, IL:** Provided structural evaluation for this historic Courthouse to develop a master facilities plan. The assessment featured a complete building assessment of the roof and foundation, and included each major architectural, structural, and mechanical and electrical system.
- **Ralls County Commission, Courthouse Renovation, New London, MO:** Provided structural evaluation and design for a major renovation for the historic courthouse that included exterior preservation work, interior architectural improvements, updating of mechanical and electrical systems, structural stabilization, and some site development.
- **Ralls County Commission, Jail and Sheriff's Office, New London, MO:** Provided structural evaluation and design for an architectural, structural, MEP, environmental, and historic research for the historic Ralls County Jail and Sheriff's Office to address key areas in the rehabilitation design.
- **Saline County Courthouse, Structural Evaluation, Marshall, MO:** Provided structural services for evaluation of foundation settlement and basement floor settlement / heaving.
- **Pella Historical Society, Historic Properties Analysis, Pella, IA:** Provided structural inspection, report, and opinion of probable cost for state historic tax credit application for the Scholte and Wyatt Earp houses.

EDUCATION

Master of Science
Agricultural and Structural Engineering
(1987)
Iowa State University
Ames, Iowa

Bachelor of Science
Agricultural Engineering (1985)
Iowa State University
Ames, Iowa

REGISTRATIONS

Professional Engineer:
Illinois #062-047328 (1992)
Iowa #13201 (1995)
Missouri #2001020814 (2001)
Kansas #22582 (2012)
Tennessee #120937 (2017)
Nebraska #E-16841 (2017)
Kentucky #33752 (2018)

Structural Engineer:
Illinois #081-005167 (1994)

35+

Years
Experience

1,800+

Structural
Projects

43+

DISTRICTS
Served



JEREMY T. STEENHOEK, PE, SE

STRUCTURAL ENGINEER

Jeremy has been a structural engineer with Klingner & Associates, P.C. since 2018. His extensive background includes numerous comprehensive structural building evaluations for a wide range of client types. With a keen eye for detail and a commitment to precision, he brings a wealth of knowledge and expertise to every evaluation, striving to deliver accurate assessments and practical recommendations.

Project Highlights

- **Abingdon-Avon CUSD #276, Middle School Structural Evaluation, Abingdon, IL:** Provided structural evaluation, study, and report for evaluation of the masonry and roof.
- **East Marshall High School, Roof and Parapet Damage Evaluation, LaGrand, IA:** Provided site visit, study, and report for evaluation of structural storm damage to the High School parapet.
- **Grinnell College, Structural Evaluations, Grinnell, IA:** Provided structural services for visual evaluation of settlement and load bearing walls, written report of observations and recommendations, and repair details.
- **City of Fairfield, Arts and Convention Center Evaluation, Fairfield, IA:** Provided a structural evaluation of the existing facility, including a report with photos and maintenance items.
- **Warren County, Courthouse Tower Evaluation, Monmouth, IL:** Provided a structural evaluation and report on an emergency basis to investigate structural integrity and water infiltration issues.
- **Henry County, Courthouse Facility Master Plan, Cambridge, IL:** Provided structural evaluation of exterior masonry walls, roof, the old courthouse, county government center, county jail, and emergency operations center.
- **Soangetaha Country Club, Clubhouse Evaluation, Galesburg, IL:** Provided structural services for a building evaluation report of this 30,000 SF clubhouse facility.
- **Pratt Office, Structural Evaluation, Jefferson City, MO:** Provided a structural evaluation and design of a historic structure that was storm damaged. Designed repair for a collapsed wall to preserve this former residence that now serves as an office.

EDUCATION

Bachelor of Science
Architectural Engineering - 2001
University of Kansas
Lawrence, KS

REGISTRATIONS

Professional Engineer:
Nebraska #E-11664 (2006)
Iowa #P24602 (2018)
Missouri #008710 (2018)

Structural Engineer:
Illinois #081-008151 (2018)
Nebraska #E-11664 (2009)

PROFESSIONAL SOCIETIES

American Society of
Civil Engineers

California Office of Emergency Services
Safety Assessment Program

International Concrete Repair Institute

24+

**Years
Experience**

200+

**Structural
Projects**

10+

**Districts
Served**



MICHAEL J. FRIES, AIA

ARCHITECT

Michael joined Klingner in 2016 as a senior architect and was promoted to Architecture Department Manager in 2019. He has worked in the architectural field since 2002, providing designs for a variety of client types. Michael's experience includes educational, municipal, county, law enforcement, fire / EMS, and industrial facility evaluations. Michael's past experience includes completion of building evaluations for the City of Chicago High Rise Exterior Wall Program. His knowledge of construction and building systems, along with a keen eye, makes him very effective at building evaluations of all types, including historic buildings.

EDUCATION

Bachelor of Architecture (2002)
Iowa State University
Ames, Iowa

REGISTRATIONS

Registered Architect:
Illinois #001-022854 (2015)
Missouri #015806 (2017)
Iowa #07293 (2016)

PROFESSIONAL SOCIETIES

American Institute of Architects

National Council of Architectural
Registration Boards

US Green Building Council Illinois Chapter
N / NW Branch Steering Committee,
2009-2013

AWARDS

2020 American Public Works Association
Illinois Chapter - Building Structure Project
less than \$5M - Aledo City Hall Interior
Phase 1 Renovation

Project Highlights

- **Decatur Public School District #61, Kaleidoscope & Mosaic Schools Structural Evaluation, Decatur, IL:** Served as project manager for a structural evaluation and report for Kaleidoscope and Mosaic schools focusing on the exterior walls and parapets of the Kaleidoscope School and the interior stair supports of the Mosaic School.
- **City of Aledo, City Hall Evaluation, Aledo, IL:** Provided project review and evaluation for assessment of the condition of the existing City Hall and creation of flood plans. Evaluation highlighted egress and elevator deficiencies; structural deficiencies; need for a complete mechanical / electrical replacement; and opportunities for a more effective office layout.
- **Edgar County, Courthouse Needs Assessment, Paris, IL:** Provided project review and evaluation for roof and elevator evaluation. Project involved relocating the existing elevator to an alternate location inside the existing structure, and evaluation of the roof to provide a replacement option, including the possibility of reuse of the original slate shingles. In the summer of 2023, Klingner provided emergency architectural and structural evaluations in response to a high wind event that damaged the clocktower. Klingner is currently designing repairs.
- **Warren County, Jail Building Evaluation; Monmouth, IL:** Provided evaluation of existing building conditions at the jail, including review of architecture, structural, mechanical, electrical, and plumbing systems.
- **Henry County Courthouse, Master Plan Study, Cambridge, IL:** Provided an overall master plan that incorporates several Klingner studies to create a facility master plan to address projects over the next 20 years.

20+

Years
Experience

200+

Architectural
Projects

14+

Districts
Served

PROJECT UNDERSTANDING & APPROACH

Leveraging relevant expertise, a highly collaborative approach, and a commitment to economical solutions, Klingner experts will guide you through the evaluation process by providing crucial insight, dependable support, and analysis.

KLINGNER'S CURRENT PROJECT UNDERSTANDING

The Decatur Public School District #61 has requested a full structural evaluation for 24 District-owned buildings. Klingner can provide structural engineering services to conduct full structural visual evaluations, building envelope reviews, and formal structural evaluation reports for each of

the buildings addressing the observed structural conditions and deficiencies along with providing photos of the structural issues and recommendations on items in need of repair or replacement.

A STEP-BY-STEP PROJECT APPROACH

All structural evaluation site visits and reports will be completed by Klingner structural department staff and the evaluation reports will be signed and sealed by a Licensed Structural Engineer in the state of Illinois. Our focus will be on evaluating the exposed and accessible portions of the building foundations, exterior building walls, interior load-bearing walls, floor slabs, floor framing, ceiling framing, roof support framing and decking, column and header supports, stairs, exterior stoops, foundation pads, and retaining walls.

The Klingner team anticipates meeting with the key members of the District administration and maintenance staff at the beginning of the project to gather their insight on any known deficiencies or issues with the current buildings and to obtain scans or copies of all the relevant building plans available for each of the buildings.

Klingner understands that these evaluations will need to be strategically coordinated through the Decatur Public School District #61 Director of Buildings and Grounds, Mr. Kent Metzger, to gain access to the different portions of the buildings required while also trying to minimize

the disruption and distractions for the students and staff currently occupying some of the buildings. We anticipate that the buildings can be accessed during normal business hours, but Klingner can also work around the school day schedules for accessing portions of the buildings at times when they will be either un-occupied or less occupied in applicable areas like the classrooms, gymnasiums, cafeterias, kitchens, hallways, offices, and garages.

While the inspection times of each building will vary based on the size, condition, and ease of access to the structural portions of the building, Klingner anticipates scheduling up to two building inspections in a day and no more than four building inspections in a week. This schedule will allow Klingner to maximize our site visit trips while also allowing for adequate time to process the inspection information gathered and complete the applicable portions of the evaluation report soon after each of the inspections.

The original construction dates of the buildings range from 1910 to 2021, and many of the buildings have had additions added since the original construction. The buildings vary in height between 1 and 4 stories. Klingner has identified the DPS buildings to be structurally evaluated in the map below, which include:

Pre-K to 8th Grade Buildings:

1. American Dreamer STEM Academy – 2215 S. Taylor Road
2. Baum Elementary – 801 S. Lake Ridge Ave.
3. Dennis – Kaleidoscope – 520 W. Wood St.
4. Dennis Mosaic – 1499 W. Main St.
5. Garfield School/Dennis Lab – 300 Meadow Terrace Place
6. Hope Academy – 955 N. Illinois
7. Johns Hill Magnet School – 1025 E. Johns
8. Montessori Academy for Peace – 4735 E. Cantrell St.
9. Muffley Elementary – 88 S. Country Club Rd.
10. Parsons Elementary – 3591 MacArthur Blvd.
11. Pershing Early Learning Center – 2912 N. University
12. South Shores Elementary – 2500 S. Franklin St.

Middle School Building:

13. Stephen Decatur Middle School – 1 Educational Park

High School Buildings:

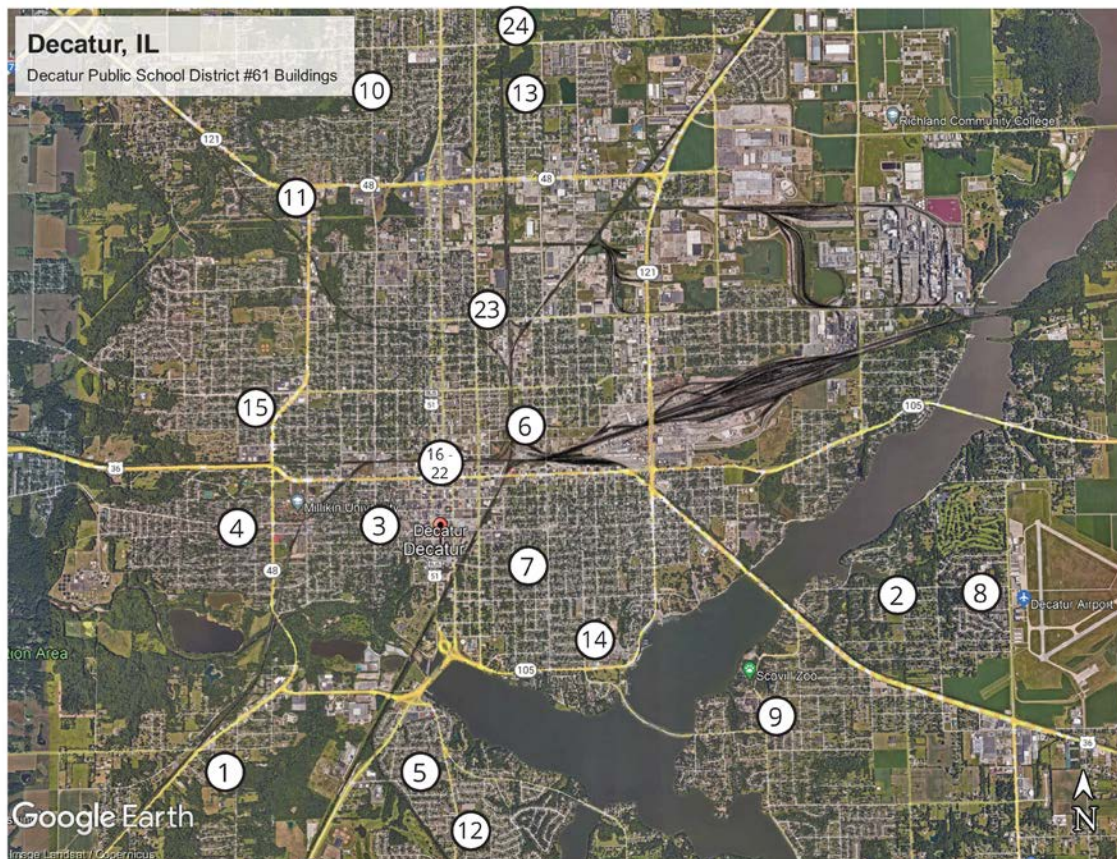
14. Eisenhower High School – 1200 S. 16th St.
15. MacArthur High School – 1499 W. Grand Ave.

Administrative and Support Property Buildings High School Buildings:

16. Keil Administration Building – 101 W. Cerro Gordo St.
17. Alternative Education/Tech Academy – 300 East Eldorado
18. Professional Development Institute – 601 North Church
19. Buildings & Grounds (office & repair garage) – 400 E. Cerro Gordo St.
20. Buildings & Grounds (continental building) – 390 E. Cerro Gordo St.
21. Buildings & Grounds (warehouse) – 400 E. Cerro Gordo St.
22. Buildings & Grounds (truck garage) – 300 E. Cerro Gordo St.

DPS 61 Rental Properties:

23. Harris Elementary / SEAP – 620 E. Garfield Ave.
24. Stevenson Elementary – 3900 Neeley Ave.



KEY CONSIDERATIONS

During the course of numerous building analysis projects, Klingner has developed a tested methodology that we customize to produce a building analysis report that is concise, provides a factual evaluation, and meets the needs of the client.

DISTRICT PRIORITIES

Klingner understands every successful feasibility study begins with a comprehensive understanding of your facilities. Klingner's reputation is built on the quality of the work we provide. When it comes to the structural evaluation of their buildings, Decatur's priorities will focus on:

- ➔ Safety and wellbeing of students, teachers, and staff
- ➔ Budget constraints
- ➔ Resource allocation
- ➔ Educational needs

Over the last few years, Klingner has worked with numerous public and private clients to provide various building and site assessments, needs reporting, master planning, design, and construction projects. Our 85% repeat client base is a testament to our client-focused project management, careful scheduling, and thorough cost analyses. Our reports are more than a list of repairs; they are the groundwork for a tangible way forward.

Klingner can also offer additional planning services that are beyond this scope of work. Working with our professional staff, your organization can develop a reasonable year-by-year timeline for proposed improvements and / or new construction so that your facilities continue to enhance your mission for years to come. This clear and considerate approach to capital enhancements allows clients to phase major investments — and focus fundraising efforts in manageable increments.





Work With Us!

Klingner & Associates, P.C. is a multidisciplinary firm comprised of collaborative engineers, architects, and surveyors who have the expertise to design quality solutions for all of your project needs.

ILLINOIS

QUINCY | 217-223-3670
GALESBURG | 309-343-1268
CARBONDALE | 618-331-4050

MISSOURI

HANNIBAL | 573-221-0020
COLUMBIA | 573-355-5988

IOWA

BURLINGTON | 319-752-3603
PELLA | 515-612-7402
DAVENPORT | 563-359-1348

KLINGNER
& ASSOCIATES, P.C.

Engineers • Architects • Surveyors



Decatur Public Schools District #61 District Wide Structural Evaluation & Building Envelope Review

September 8, 2023



BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.



BACON | FARMER | WORKMAN

ENGINEERING & TESTING, INC.

907 ARROW ROAD, STE 2 | CHAMPAIGN, IL 61821

September 8, 2023

Decatur Public Schools District #61

Attn: Dr. Mike Curry, COO

101 West Cerro Gordo St.

Decatur, IL 62525

Re: District Wide Structural Evaluation & Building Envelope Reviews

Dear Dr. Curry:

Bacon Farmer Workman Engineering & Testing, Inc. (BFW) is pleased to submit our qualifications to the Decatur Public Schools District #61 to provide engineering services for the inspections of the district structures. BFW is both excited and proud to be submitting our qualifications to you for this important and extensive process for your district. On a personal level, I am excited for the opportunity to provide my professional services in the town and community in which I was born and raised.

As you review our qualifications, I hope you will see that we know and understand schools. We have included a list of our school projects just in the State of Illinois. The list includes a vast number of renovations projects, inspections projects, and new construction projects. We believe that this extensive experience gives us a strong understanding of the common challenges that school districts are faced with when using, renovating, planning, or maintaining their structures. Our priorities will align with yours, so we can be the teammate you need during this investment in your school buildings.

In addition to our experience, we utilize the latest technologies and have the best tools available to ensure that we are obtaining the most accurate information from your buildings to help you make the best decisions moving forward. We have provided some information about our Geospatial and Surveying equipment in this qualification packet to illustrate these capabilities, so I want to briefly explain how these could translate to the building inspections. Many of your structures are multiple stories tall and while visual inspections from the ground on the exterior envelop can be useful, it can also be more effective to fly our small drone with HD camera up and down along the perimeter of the building to obtain close-up video evidence of any deteriorations. This footage can be zoomed in and out of and paused to help identify possible issues that cannot be seen from the ground. With similar small drones, we can provide a thermal scan of the exterior and roofs of your buildings to visually show where thermal leaks might be occurring which can also correlate with deterioration many times.

Another very useful tool is to 3D scan a building or portions of the building to determine issues that cannot be easily seen visually. Some examples of this are weak floors that are sagging too much or walls and/or parapets that are leaning or deflecting too much. Without good reference points, sometimes these areas of over-stressed structure cannot be noticed with the naked eye, but the scanning results provide pin-point accuracy and can be analyzed from a computer. These tools do not necessarily need to be used on the initial round of inspections, but possibly as a follow-up to any areas of concern where more information is needed to ensure user safety or determine what fixes might be possible for the future.

Our structural team here at BFW has a local presence and experienced and licensed engineering staff available to take on the task of multiple building inspections. Our structural building department consists of eight (8) licensed structural engineers and support staff in addition to these engineers.

Thank you in advance for reviewing our qualifications and for the opportunity. If you should have any questions as it relates to the content of our submission, please feel free to contact me directly at 217-530-4283 or pholthaus@bfwengineers.com.

Sincerely,
Bacon Farmer Workman Engineering & Testing, Inc.

A handwritten signature in black ink, reading "Phillip Holthaus", is displayed on a light gray rectangular background.

Phillip Holthaus, PE, SE
Structural Engineer / Project Manager



BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.

Bacon Farmer Workman Engineering & Testing, Inc.

(BFW) is a multi-discipline engineering firm with office locations throughout Illinois. BFW offers our clients an all inclusive and collaborative engineering design experience. From civil and site design, structural design and inspections to front end design services including geotechnical, survey, and environmental engineering, we are your full service engineering design partner!

BFW is committed to providing engineering excellence through utilizing the experience of our highly educated and talented engineers and associated staff to offer a standard of exceptional service on every project. Our approach to every project begins with forming committed client and community relationships, and remaining entirely accessible to both customer and/or end user.

As a testament to our commitment to outstanding customer service, BFW was ranked #1 and awarded the 2023 AEC Premier Award for Client Satisfaction from PSMJ. This designation is the only award recognizing firms that deliver a truly exceptional client experience.



FIRM CONTACT
Phillip Holthaus, PE, SE
Structural Engineer
pholthaus@bfwengineers.com

Decatur Public Schools District Wide Structural Evaluations

Asset & Infrastructure Management
Civil Engineering & Site Development
Electrical
Environmental
Geospatial Technologies
Geophysical
Geotechnical
Grant Coordination
Historic Preservation
Industrial
Landscape Architecture & Urban Planning
Mechanical
Parks & Recreation
Port Authority Master Planning
Renewable Energy
Strategic Energy
Structural Engineering
Surveying
Technology
Testing & Inspections
Transportation Engineering
Stormwater & Wastewater Resources

**Bacon Farmer Workman
Engineering & Testing, Inc.**
907 Arrow Road, Suite 2
Champaign, IL 61821
217-530-4283
BFWEngineers.com

4

Illinois Locations

Belleville, IL
618-771-5774

Champaign, IL
217-530-4283

Marion, IL
618-997-9190

Springfield, IL
217-679-6254

Paducah, KY
BFW / 270-443-1995
Marcum / 270-444-9274

Murray, KY
270-753-7307

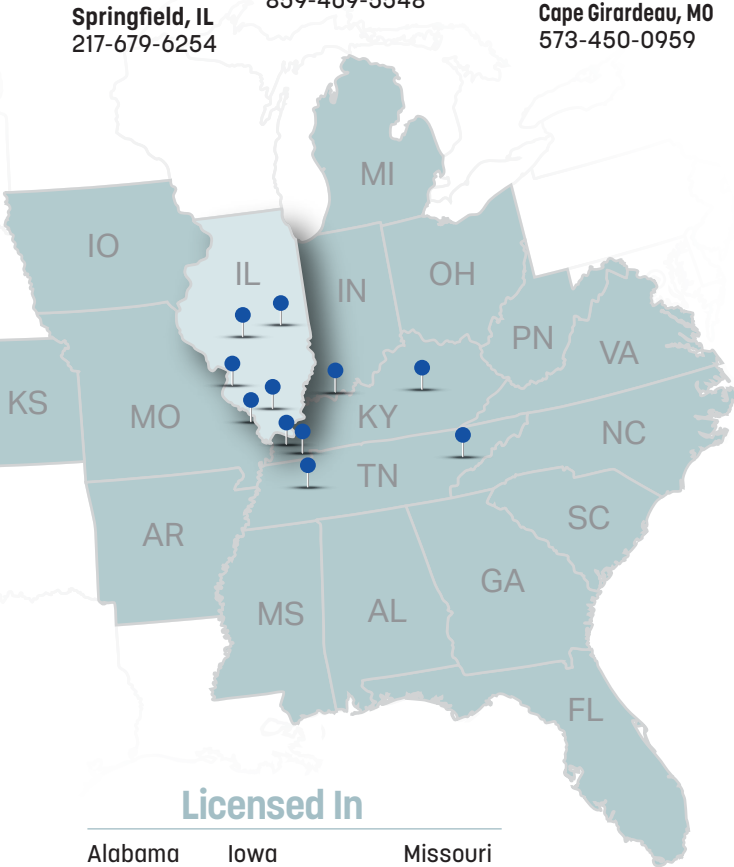
Lexington, KY
859-469-5548

Evansville, IN
812-470-0273

Brentwood, TN
615-693-2744

Knoxville, TN
865-806-1539

Cape Girardeau, MO
573-450-0959



Licensed In

Alabama	Iowa	Missouri
Arkansas	Kansas	Ohio
Arizona	Kentucky	Pennsylvania
Florida	North Carolina	South Carolina
Georgia	Michigan	Tennessee
Illinois	Mississippi	Virginia
Indiana		



Licensed Professionals

- 14 Civil/Site Engineers
- 2 Professional Landscape Architect
- 4 Electrical Engineers
- 7 Mechanical Engineers
- 11 Structural Engineers
- 20 Transportation Engineers
- 6 Geotechnical Engineers:
- 6 Professional Land Surveyors
- 2 Professional Geologist
- 1 Geophysicist
- 1 Environmental Manager
- 2 Aquatic Biologist
- 1 Safety Professional
- 1 Park Specialist
- 1 Legal Counsel/Attorney at Law
- 1 Grants Administrator/
Historic Preservationist

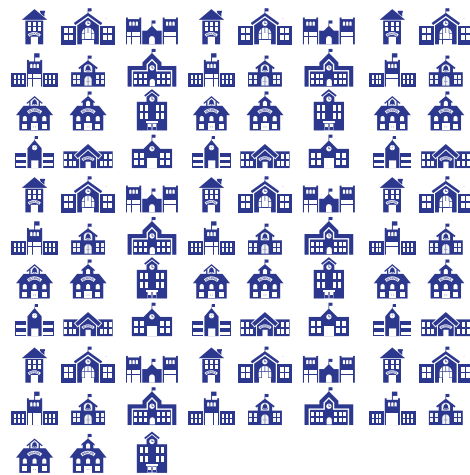
Technical Designers

- 9 Civil/Site Designers
- 5 Structural Designers
- 4 Electrical Designers
- 7 Mechanical Designers

Support Professionals

- 15 Construction Administrator/
Construction Inspections
- 11 Technical Staff
- 7 Survey Crew
- 1 Mobile LiDAR Mapping
- 4 Drill Crew
- 6 Accounting Staff
- 17 Administrative Staff

BFW's schools experience includes engineering design and support services for both new construction and renovation and/or additions. BFW also provides special inspections services to a multitude of districts throughout our geographic footprint.



83
Illinois
Schools
Served



BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.



STRUCTURAL ENGINEERING

Bacon Farmer Workman Engineering & Testing, Inc. (BFW) prides itself on designing effective, and efficient structures. BFW designs range from simple to complex (nonlinear dynamic) structural systems. These structures include educational, institutional, commercial, and industrial buildings plus state/county highway bridges and pedestrian bridges utilizing a variety of materials. BFW excels in providing our clients with timely, cost-effective solutions to their structural design needs.

Service Details:

Our Licensed Structural Engineers (LSEs) have designed structures throughout the United States, with our background and experience makes us uniquely qualified to design all structure types:

- New Buildings
- Existing Building Rehabilitation
- Historic Building Rehabilitation
- Existing Building Improvements
- New Bridges
- Existing Bridge Rehabilitation
- Industrial Structures
- Industrial Construction Support
- Deep Foundations
- Dynamics / Seismic / Vibration Analysis
- Explosion / Hazard Mitigation
- Finite Element Analysis
- Forensic Investigations
- Forensic Engineering
- Litigation Support



GEOSPATIAL TECHNOLOGIES

LiDAR:

Bacon Farmer Workman Engineering & Testing, Inc. (BFW) has the in-house capability of providing 3D Mobile Mapping / LiDAR using the Trimble MX9. This is a vehicle-mounted spatial imaging system which combines state-of-the-art hardware with intuitive field software and a reliable, efficient office software workflow. The data collected offers a wide range of transportation and civil design applications.

3D Laser Scanning:

BFW offers 3D high-density laser scanning services using a Faro Focus 3D laser scanner. The Faro Focus 3D laser scanners use the latest technology available. They are smaller, lighter, 5 to 10 times faster, more precise, and have a longer range than older generation HD scanning technology.

Unmanned Aerial:

BFW uses the Wingtraone dual rotor VTOL drone as well as the Parrot Anafi thermal drone for data capture. The Wingtraone is one of the most exclusive fixed wing mapping drones in the industry. The aircraft has an operating range of 4 miles. With a flight time of over an hour, we can capture over 400 acres in one flight. The 21-megapixel Sony QX1 camera produces crystal clear images allowing our software program to stitch each picture into a single gigapixel image flawlessly. Our Parrot Anafi thermal drone is used to map in smaller areas where a fixed wing drone would not be able to access easily. We also use the Parrot Anafi drone for inspections on bridges, roof HVAC loss, towers, power, and sinkhole locations. The Parrot is equipped with a 21-megapixel camera as well as a FLIR thermal imaging sensor with a range of 14° F to 752° F.

Client Benefits:

- Accuracy and Better Models
- Maximizes Point Data Coverage
- Safer Collection in High Traffic
- Applicable to Sign, Bridge & Pavement Inventories (Asset Management)



SURVEYING

Bacon Farmer Workman & Testing, Inc. (BFW) provides a full range of surveying services including: 3D Mobile Mapping and scanning, horizontal and vertical control surveys, ALTA surveys, boundary and topographic surveys. All surveying is conducted by using modern, state of the art technology. BFW maintains four (4) full-time survey crews to accommodate your schedules.

BFW has the in-house capability of providing 3D laser scanning using “Faro Focus 3D” equipment to supplement conventional survey techniques. These scans provide details that are superior to conventional techniques in developing 3D models of your design projects. Our survey staff receives routine training on this cutting-edge technology and is ready to assist you with all of your survey needs.

Service Details:

- Boundary & Topographic Surveys
- Subdivision Surveys & Platting
- ALTA/NSPS Land Title Surveys
- Industrial Site Surveys and Precision Alignment
- GPS Services
- Utility Corridor Surveys
- Elevation Certificates/Elomas
- Hydrographic Surveys
- All Aspects of Surveying for Transportation Projects
- Volume/Stock Pile Calculations



Phillip Holthaus, PE, SE Structural Engineer

Professional Practice:

Phillip is a registered Illinois Professional Structural Engineer with over 16 years of experience in structural project design and management.

Phillip serves as the Branch Manager of our Champaign, Illinois location, and he specializes in the structural design of commercial and municipal buildings, schools, hospitals, churches, and industrial structures. Phillip has extensive experience with structural inspections and forensic investigations. His specific duties as Structural Engineer include:

- Manages structural engineering projects
- Creates detailed engineering plans, processes, and procedures for engineering staff
- Proposes and oversees budgets and timelines for engineering projects
- Checks and confirms the accuracy of work performed and methods used by engineering staff
- Monitors and determines various staffing and training needs
- Trains and mentor other engineers and supporting staff
- Develops initiatives to identify opportunities for new projects and improved processes
- Communicates and collaborates with other managers, suppliers, contractors and owners
- Prepares and delivers various engineering-related presentations
- Ensures effective interdisciplinary coordination within departments
- Supervises the issue of engineering deliverables and approves the key engineering documents
- Monitors construction administration services

Project Experience (Limited List):

- Dennis Lab School Inspections: Decatur, Illinois
- Argenta-Oreana High School Gym Structural Inspections: Argenta, Illinois
- Edison Middle School Tunnel Ceiling Inspections & Repairs: Champaign, Illinois
- Edison Middle School Addition & Renovations: Champaign, IL
- Danville High School Cracking Inspections/Structural Inspections: Danville, Illinois
- Paxton Buckley Loda High School Crack Monitoring: Paxton, Illinois
- Logan County Correction Center Structural Inspections & Repairs: Lincoln, Illinois
- Eastern Illinois University Structural Inspections: Charleston, Illinois
- Busey Executive Building Historic Renovations with Structural Analysis: Champaign, Illinois
- Monmouth United Methodist Church Structural Analysis: Monmouth, Illinois
- 64 East Chester Building Structural Analysis & 3d Scanning: Champaign, Illinois
- Clara Peterson Elementary School Renovation & Addition: Paxton, Illinois
- Dr. Howard Elementary School New Facility: Champaign, Illinois
- Unity High School Break Room & Classroom Additions: Tolono, Illinois
- Gifford Grade School Structural Inspections and Repairs: Gifford, Illinois
- 51-55 E. Main Buildings Structural Inspections & Assessments: Champaign, IL
- Geological Samples Library Structural Inspections: Champaign, IL
- Southern Illinois University Communications Building Renovation/Addition: Carbondale, Illinois



Education & Experience:
Southern Illinois University-BS-
Civil Engineering, 2007

Southern Illinois University-MS-
Civil Engineering, 2009

Professional Registration:
State of Illinois
Professional Engineer
#062-064557

State of Illinois
Structural Engineer
#081-007503

Years of Experience:
16

Project Assignment:
Structural Engineer



Christopher Whiting, PE, SE, LEED AP Senior Structural Engineer

Professional Practice:

Chris is highly educated in professional engineering having earned both a bachelor's and master's degree in civil engineering from Southern Illinois University at Carbondale.

Chris has concentrated his professional abilities in structural engineering and is a registered professional structural engineer in the state of Illinois, Kentucky, Tennessee, Missouri and Florida. His specific duties as Senior Structural Engineer include:

- Manages all structural engineering projects
- Creates detailed engineering plans, processes, and procedures for engineering staff
- Proposes and oversees budgets and timelines for engineering projects
- Checks and confirms the accuracy of work performed and methods used by engineering staff
- Monitors and determines various staffing and training needs
- Trains and mentor other engineers and supporting staff
- Develops initiatives to identify opportunities for new projects and improved processes
- Communicates and collaborates with other managers, suppliers, contractors and owners
- Prepares and delivers various engineering-related presentations
- Ensures effective interdisciplinary coordination within departments
- Supervises the issue of engineering deliverables and approves the key engineering documents
- Monitors construction administration services

Project Experience (Limited List):

- Southern Illinois University Communications Building Renovation/Addition: Carbondale, Illinois
- Mt. Carmel Schools Various Structural Repairs: Mt. Carmel, Illinois
- Chester High School Retaining Walls and Parking: Chester, Illinois
- Giant City Elementary School New Gymnasium: Giant City, Illinois
- Vienna Elementary School New Gymnasium: Vienna, Illinois
- Cobden Elementary School Various Structural Elements: Cobden, Illinois
- New Simpson Hill Schools Various Structural Repairs: New Simpson Hill, Illinois
- Meridian Schools New Addition: Meridian, Illinois
- Pinckneyville High School Addition/Renovation: Pinckneyville, Illinois
- Massac School Unit Office Building New Facility: Metropolis, Illinois
- Paducah Innovation Hub New Facility: Paducah, Kentucky
- McCracken County High School New Facility: West Paducah, Kentucky
- Paducah Middle School New Facility: Paducah, Kentucky



Education & Experience:

Southern Illinois University-BS-
Civil Engineering, 1999

Southern Illinois University-MS-
Civil Engineering, 2001

Professional Registration:

State of Illinois
Professional Engineer
#062-057232

State of Illinois
Structural Engineer
#081-006219

Years of Experience:

23

Project Assignment:

Structural Engineer



ILLINOIS K-12 SCHOOL EXPERIENCE

Adams School

- Storm Shelter

Albion School

- Crack Evaluation

Anna-Jonesboro Community High School

- Crack Monitoring
- School Entry
- HVAC
- School Roof

Argenta-Oreana

- Gym Inspections

Benton Elementary

- Additions

Bluford High School

- Addition
- Site Evaluation

Carbondale High School

- Stage Lintel

Cartersville Junior High

- Classroom Addition

Casey Middle School

- RTUs
- Gymnasium

Century School

- HVAC

Chester Schools

- New Gymnasium Facility

Chester Schools Continued

- Elementary School RTUs
- Elementary School RTUs
- High School Concessions
- High School Masonry Evaluation
- High School RTUs

Cisne Middle School

- Entry Stoop

Clara Peterson Elementary School

- Addition and Renovation

Cobden High School

- Gymnasium
- RTUs

Crab Orchard School

- Duct Enclosures
- Restroom Renovation
- School Addition

Danville High School

- Bleachers & Football Field
- Parking Lot Rehab
- Stage Renovations
- Structural Inspections

Danville Northeast Elementary School

- Addition & Renovation

Danville North Ridge Middle School

- Structural Inspections

Dennis Lab Schools

- Kaleidoscope Campus Structural Inspection
- Mosaic Campus Structural Inspection

Dr. Howard Elementary School

- New Facility

Edison Middle School

- Addition & Renovation
- Basement Ceiling Reinforcements

Eldorado Elementary School

- Canopy

Emerson Elementary

- Addition

Ewing Grade School

- Gymnasium Addition

Fairfield Community High School

- Hallway Addition
- RTUs

Flora High School

- RTUs

Gallatin County School

- Survey

Geff Grade School

- Restroom Addition

Georgetown Ridge Farm School

- Roof Top Renovations

Giant City School

- Roof Beams

Gifford Grade School

- Gymnasium Inspection

ILLINOIS SCHOOL EXPERIENCE CONTINUED

Goreville Elementary School

- Classroom Addition
- Gym Addition
- Gymnasium HVAC
- RTU Framing

Hanson Elementary School

- New Facility

Herrin Schools

- HVAC Upgrade

Jefferson Elementary School

- Storm Shelter Peer Review

Jonesboro Elementary School

- Metal Stairs
- RTUs

Joppa High School

- Beam Repair

Kenneth D. Bailey Academy

- Addition & Renovation

Lebanon High School

- HVAC Replacement

Lick Creek Community Consolidated School

- Boilers
- HVAC

Lincoln Elementary Grade School

- Safe Room Peer Review
- RTUs

Marion High School

- Correctives
- Stadium Stair Evaluation

Marissa Elementary School

- Crack Monitoring

Mark Denman Elementary School

- Structural Inspections

Massac County Schools

- HVAC
- New Athletic Building
- New Unit Office
- Surveying Services

Meridian School

- Addition

Migrant Head Start

Mt. Carmel High School

- Evaluation
- Lintels

Mt. Vernon Township High School

- Classroom Renovations
- Operations Center

Mohomet Schools

- New Dugout

Muhlenberg County High School

- New Dugouts & Pressbox

Norris City-Omaha-Enfield (NCOE)

- Electrical Service Upgrade
- Mechanical Upgrade
- RTUs

New Hope Elementary School

- Concession Addition

Next Generation School

- Addition

North Side Elementary School

- Cafeteria

Oakdale

- Administration Building Roof

Patoka School

- Addition

Paxton Buckley Loda High School

- Crack Monitoring
- New Lift Installation

Paxton Buckley Loda Junior High School

- Roof Reinforcements for HVAC

Pinkneyville Schools

- High School - New Facility
- High School Bus Garage
- High School Press Box
- Junior High School Vestibule
- Middle School RTUs

Pope County High School

- Bleacher Inspection
- Bleachers
- HVAC

RHHS District 10

- East Bleachers

Rome Elementary School

- RTUs

Schneider Elementary School

- Renovations

Shawnee Schools

- Elementary Settlement Evaluation

Shawnee Schools Continued

- High School Joist Repairs
- High School Lab Renovation
- High School RTUs

Sparta High School

- Canopy Foundation
- Concessions
- Gym Demolition
- Lintels

St. Marks Lutheran School

- Termite Damage Remediation

Steeleville Elementary

- Lintels

Tamaroa

- Cafeteria Addition

Trico Schools

- Athletic Facility
- Elementary School Column Relocation
- Elementary School RTUs
- High School RTUs

Tri-Point Schools

- MEP Renovations

Unity High School

- Addition
- Wrestling Building

Vandalia High School

- Gymnasium

Vienna Schools

- Elementary RTU Support
- Grade School RTUs

Vienna Schools Continued

- Grade School Wall Repair
- High School Gymnasium
- High School HVAC
- High School Roof
- High School Rooftop Units
- High School RTUs

Watseka High School

- Gymnasium Renovations
- Elevator Addition
- Renovations

West Frankfort Central Junior High School

- Renovations

West Frankfort Denning Elementary School

- HVAC Renovation

Edison Middle School Utility Tunnel Inspections Champaign, Illinois



State:
Illinois

Agency:
Champaign Unit 4 School District

Type of Improvement:
Structural Inspections and
Report

Firm's Project Team:
Phillip Holthaus, PE, SE

Project Highlight: Edison Middle School has been a long-standing fixture for Champaign County Schools. Built in 1914, it first served as home to Champaign High School. In 2016, the district started an expansion and renovation project of the building and as a result, BFW was contacted and hired to inspect the steam tunnels in the basement of the building.

Bacon Farmer Workman Engineering & Testing, Inc. was engaged by Champaign County Unit 4 School District to provide a structural inspection and report of the existing utility tunnels underneath the school. The tunnels provide routes for the mechanical and electrical services of the original building and past additions. The existing tunnels are over 100 feet long with structural concrete walls and ceiling. Portions of the ceiling and walls had deterioration, cracking and concrete spalling. BFW prepared a detailed structural inspections report that detailed locations needing immediate remediation and recommended a schedule for future inspections to track possible progress of deterioration.



Logan County Correction Center Lincoln, Illinois



State:
Illinois

Agency:
Illinois Capital Development
Board

Type of Improvement:
Structural Inspections and
Designed Remediation for
Deteriorations

Firm's Project Team:
Phillip Holthaus, PE, SE

Project Highlight: The Logan County Correctional Center is a multi-custody level female institution located in Lincoln, Illinois. This facility can house up to 2,000 female inmates and has a variety of living units within its interior.

This multi-level security Women's Correctional Center is in Lincoln, Illinois, and consists of the renovation of the restrooms in the most deteriorated housing building. When inspecting the structure beneath the restrooms, BFW discovered deterioration in the main floor structure under much of the building and recommended to close the building until repairs could safely be provided.

The existing floor structure is cast-in-place elevated structural concrete slab on concrete beams that bear on concrete columns and concrete perimeter foundation walls. BFW discovered that multiple water and steam leaks over the years lead to constant deterioration of the concrete and its reinforcement.

The worst locations required demo and replacement of structure, while the remaining spaces have had patching and FRP reinforcement designed and applied in the field to strengthen the structure.

Phi Kappa Psi Fraternity Evaluations & Renovation Champaign, Illinois



State:
Illinois

Agency:
University of Illinois

Type of Improvement:
Structural Evaluations &
Renovation

Firm's Project Team:
Phillip Holthaus, PE, SE

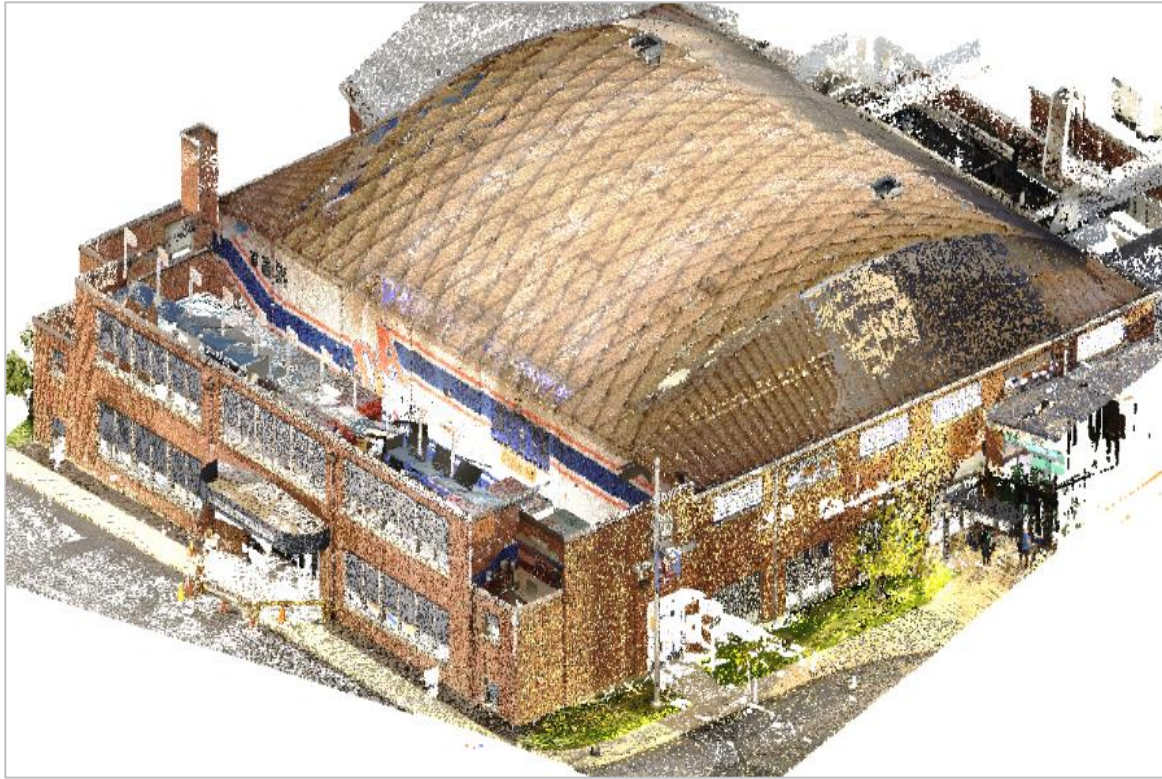
Project Highlight: The Phi Kappa Psi Fraternity House is the first fraternity structure on the campus of the University of Illinois in Champaign. Bacon Farmer Workman Engineering & Testing, Inc. performed the structural engineering design for this renovation & addition, that kept the original structure intact.

This structure consisted of multiwythe brick masonry load-bearing walls with wood framing. The previous additions to the structure were demolished to make room for the new additions. New multi-level additions included more individual rooms, study spaces, and gathering spaces. A portion of the new addition was over new parking space, while the other portion was over new basement space. The design included increasing the height of the existing basement so it could be occupied space, instead of storage. An elevator shaft and new stair towers were also provided. The existing remaining structure was reinforced where needed, to extend the life span of the original structure.



Argenta-Oreana High School Gym Inspections

Argenta, Illinois



State:
Illinois

Agency:
Argenta-Oreana School
District #1

Type of Improvement:
Structural Inspections & Report

Firm's Project Team:
Phillip Holthaus, PE, SE

Project Highlight: BFW was engaged by the school district to investigate structural concerns with a leaning brick façade on the gym walls. After an initial site visit, we recommended further investigations to help determine the safety of the leaning walls and what a possible remediation could be.

BFW scanned the CMU walls to check for grout and reinforcement, and to confirm the wall thickness. We provided some select demo of a few key connection locations to obtain more information on the existing wall construction. To accurately determine the amount of leaning in the walls and to obtain deflection information on the wood arched roof that was over 30ft above the gym floor, we 3d scanned the inside and outside of the gymnasium structure. All the information obtained helped us to more accurately run analysis on the existing structure. It was determined that the existing roof was not worth trying to save if the walls were to be replaced. In the end, BFW had to close off occupancy to the gymnasium and adjacent school spaces until demo of the gymnasium could be successfully completed.



Clara Peterson Elementary School Renovation Paxton, Illinois



State:
Illinois

Agency:
Paxton Buckley Loda CUD 10
School District

Type of Improvement:
New Elementary School

Firm's Project Team:
Phillip Holthaus, PE, SE

Project Highlight: This project resides in an area in Central Illinois that experiences frequent tornadic and strong storm activity. An integral part of this project was to incorporate a safe space for students to shelter in case of a severe weather outbreak. The gym in this new facility fills this need as it doubles as a storm shelter designed to withstand an EF5 tornado.

BFW Engineering provided the structural engineering design for the partial renovation of the existing elementary school and a new 93,000 sf addition to the school. The addition and renovations will help with increased school capacity. The existing school renovations consist of modifications to roof framing and precast floor framing for MEP renovations including new weight distribution, new roof top unit support and new penetrations through roof and floor.



Dr. Howard Elementary School Champaign, Illinois



State:
Illinois

Agency:
Champaign Unit 4 School District

Type of Improvement:
New Elementary School

Firm's Project Team:
Phillip Holthaus, PE, SE

Project Highlight: The gymnasium in this new facility also doubles as a storm shelter designed to keep the students and faculty safe from an EF-5 tornado.

The new Dr. Howard Elementary School completely replaces the old school building and grounds that were present at the same location. Dr. Howard is a K-5 school with a 345 current student enrollment. The design team included BFW Engineering, who provided the complete structural design. The new school design pays respect to the original school building architecture while providing modern layout of flexible classroom spaces with beautiful naturally lit collaboration areas. Nestled in the beautiful west side residential area of Champaign, the new Dr. Howard Elementary will successfully service the community for many years to come.

