



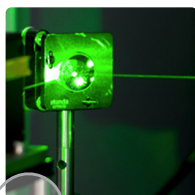
ABD Engineering & Design

Architectural Acoustics ▪ AV Design ▪ Noise & Vibration

Operations and Command Centers

Statement of Qualifications

Acoustical Consulting & Audiovisual Design



ABD Engineering & Design

ABD Engineering & Design is an independent acoustical engineering and audiovisual design firm, proud to be a nationally and state (OR, WA) certified Women Owned business. We work with you to provide practical solutions with options that allow for informed decisions. Our timely communications and responsiveness give you the right information at the right time. The cornerstones of ABD's work include data collection on site, research, and calculations to deliver evidence-based designs. With decades of experience across multiple markets, and a team of consultants from varied backgrounds, you can count on ABD to bring you the best in audiovisual design and acoustical consulting.

At ABD, we strive to create a future where every day spaces meet the acoustical and audiovisual needs of every person. We are committed to providing an open, inclusive workplace where everyone, no matter what their background or where they come from, can learn and grow to their full potential.

Certifications

WBENC: WBE1701950

OR-COBID-WBE: 11342

WA-OMWBE: W2F0027557

WI-WBE: WI-13264



Professional Memberships

Acoustical Society of America

Institute of Noise Control Engineering

American Society of Testing and Materials

National Council of Acoustical Consultants

AVIXA (CTS-D)

Staff Count

Acoustics = 7

Audiovisual = 2

Leadership/Admin = 2

Contacts

Principal Engineer: Melinda Miller, PE mmiller@abdengineering.com

Contracts/Billing: Marci Boks, COO mboks@abdengineering.com

New Projects: Brian Atkinson, client@abdengineering.com

Incorporated: S-Corp incorporated 10/30/2001 in the State of Michigan

EIN: 38-3631490

DUNS: 104088682

NAICS Code: 541330

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Grand Rapids, MI 49503
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Portland, OR 97205
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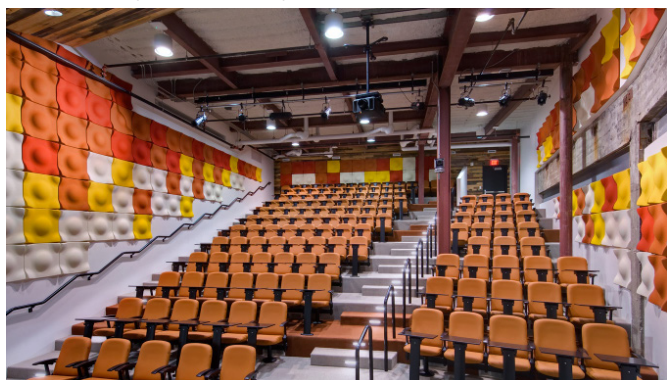
ABD Engineering & Design

Architectural Acoustics • AV Design • Noise & Vibration

High Tech and Room Acoustics for Privacy and Productivity

Acoustical Engineering and Audiovisual Design

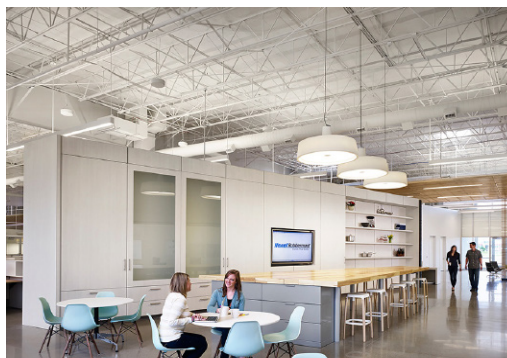
Workplace studies cite noise as the most significant distraction impeding worker productivity. At ABD Engineering and Design, we consult with architects, interior designers, and facilities management professionals to create office acoustics and work environments that support performance, productivity, and collaborative workplace objectives. We design and engineer acoustical solutions to manage sound and control noise while preserving the productive, collaborative culture of open office plans, supporting productivity and privacy in



enclosed office plans, and the appropriate balance in mixed-use office designs. Our experience includes acoustical consultation and solutions for new construction, remodeling, and retrofit projects as well as consulting with office furniture industry leaders – testing and evaluating the acoustical performance of new office systems, products, and materials.

Objective Recommendations

As an independent acoustical and AV consulting firm, we have no affiliations with or affinity for any particular brands, products, technologies, or suppliers. We bring objectivity and unbiased recommendations that are best suited to your facility – procured through a competitive bid process to ensure superior designs at or below budget.



Workplace Acoustics

Our consultants use an integrated approach to design office acoustical solutions that consider meeting and workspace functions, utilization, levels of desired employee and team interaction, as well as office speech privacy and confidentiality needs. We consider architectural spaces, ceiling, wall, and floor coverings and materials and wall and partition heights, furniture systems, and sound masking technology. Using measured noise and vibration data and ray tracing computer modeling technology, we analyze sound transmission, reverberation, absorption, reflection, diffusion, vibration, and other acoustical challenges to develop solutions that control, isolate, or mitigate noise and distractions from background speech, mechanical systems, technology, equipment, phones, paging systems, and other sources.

Audiovisual Systems Design

Our AV consultants are experts at designing meeting spaces that integrate custom AV systems into a comprehensive communications system. We work closely with clients to determine their specific technology needs and desires. We design systems for every level of utilization, from intuitive designs for casual users to sophisticated multimedia systems for dynamic stage productions and presentations. Costs are estimated

early in the process to bring needs and desires in-line with the budget. We create technical systems drawings and specifications, working with project architects to incorporate the equipment into their designs—and working with engineers to advise on AV equipment heat and electrical loads.

Experience

The ABD Engineering and Design team has extensive acoustical design and engineering experience. In addition, staff members have held teaching and research positions at various colleges and universities and regularly conduct educational seminars, conferences, workshops, and institutional training sessions on acoustics, and environmental noise and vibration control.

Green Design

ABD Engineering and Design is a leader in the acoustical and AV design community for creating sustainable facilities. Our professional engineers are well versed at meeting LEED prerequisite requirements for reverberation time, sound transmission, and background noise levels, and will guide you through the LEED certification process. Our own Green Initiatives put theory into practice to reduce our own corporate carbon footprint. Every employee's "green ideas" help to improve energy efficiency and environmental quality of life. These organic solutions improve all of our offices, further solidifying our commitment to the environment.



Corporate/Office

Selected Experience



ADP
Workstage Call Center
Grand Rapids, Michigan

Alfred Taubman Center for Design Education
Argonaut Building
Detroit, Michigan

Ali Jawad Building
Oman, Jordan

Apple Listening Room
Morrisburg, Ontario

April Music, Inc.
Reference Room and Comparison Room
Seoul Facility Testing
Seoul, South Korea

Aqua Tower
Chicago, Illinois

B.P. Oil
Chicago Call Center
Chicago, Illinois

Blue Cross Blue Shield
Steketee Building
Grand Rapids, Michigan

Brilliance Audio
Recording Studio
Grand Haven, Michigan

Catalyst Partners
LEED for Corporate Office
Grand Rapids, Michigan

Commonwealth McCann
Open Office
and Conference Room Acoustics
Detroit, Michigan

Consumers Credit Union
Video Teller Speech Privacy
Kalamazoo, Michigan

Consumers Energy
Corporate Guidance Suite
Jackson, Michigan

Delta Dental
Farmington Hills, Michigan

Eckert Wordell
Foundry Reuse as Offices
Kalamazoo, Michigan

Erie Insurance
Headquarters
Erie, Pennsylvania

Finish Line
Indianapolis, Indiana

Flint Auto Auction
Acoustics and Audio
Flint, Michigan

Ford Maintenance and Operations
Dearborn, Michigan

Forest City
Key Tower Corporate Headquarters
Cleveland, Ohio

Foth Engineering
Open Office Speech Privacy
De Pere, Wisconsin

Gerber Life
White Plains, New York

GM Design Center
Equipment Measurements
Sterling Heights, Michigan

GM Studio
Warren, Michigan

Haworth
Headquarters Bookend Open Office Acoustics
Holland, Michigan

Heifer International
Multipurpose Room
Closed Office Speech Privacy
Open Office Speech Privacy
Little Rock, Arkansas



Hemlock Semiconductor Corp.
S-10 Conference Room
Hemlock, Michigan

Herman Miller
Project Phoenix
Holland, Michigan

Maxim Integrated
Roof Top Unit
Mechanical Noise and Vibration
Beaverton, Oregon

Meridian
Conference Room Closed Office Speech Privacy
Grosse Pointe Farms, Michigan

Michigan Turkey
Offices and Conference Rooms
Wyoming, Michigan

Mid America Asset Management
Spa/Urgent Care Noise Isolation
River Forest, Illinois

Motorola
Listening Room
Morrisburg, Ontario

NCAA 4th Floor
Open Office Acoustics
Indianapolis, Indiana

Newell Rubbermaid
Corporate Headquarters (Green Globes)
Kalamazoo, Michigan

Peoples Bank
Office Acoustics
Medford, Oregon

Perrigo Corporation
Allegan, Michigan

Steelcase Design Studio
Leadership Community Space Acoustics
Grand Rapids, Michigan

Target Corporation
Headquarters
Minneapolis, Minnesota

The Round
Fitness Center Acoustics
Beaverton, Oregon

The Shops at Nanuet
Fitness Center Noise and Impact
Isolation
Nanuet, New York

Toyota Technical Center
Saline, Michigan

Triangle Associates Inc.
Corporate Office Remodel
Grand Rapids, Michigan

US Bank
Rookery Open Office
and Conference Room Acoustics
Chicago, Illinois

Waters Building
Offices and Hotel Renovation
Grand Rapids, Michigan

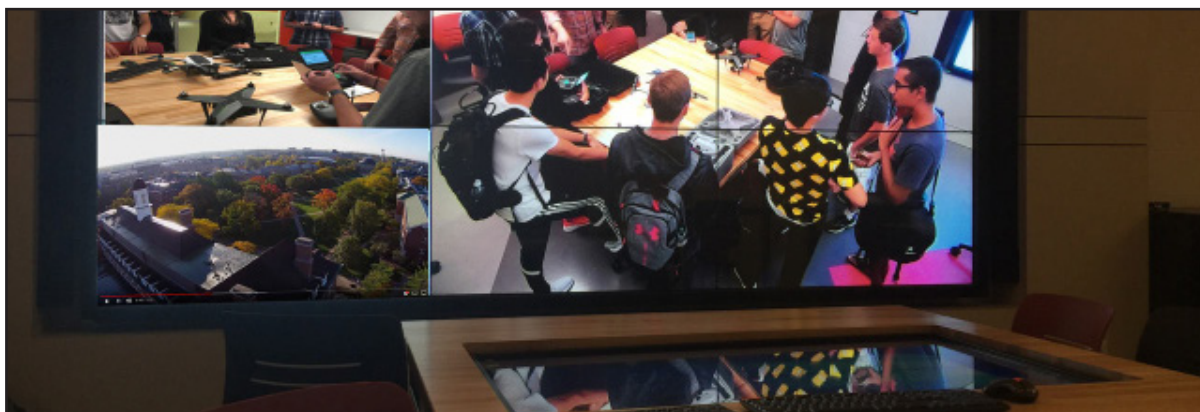
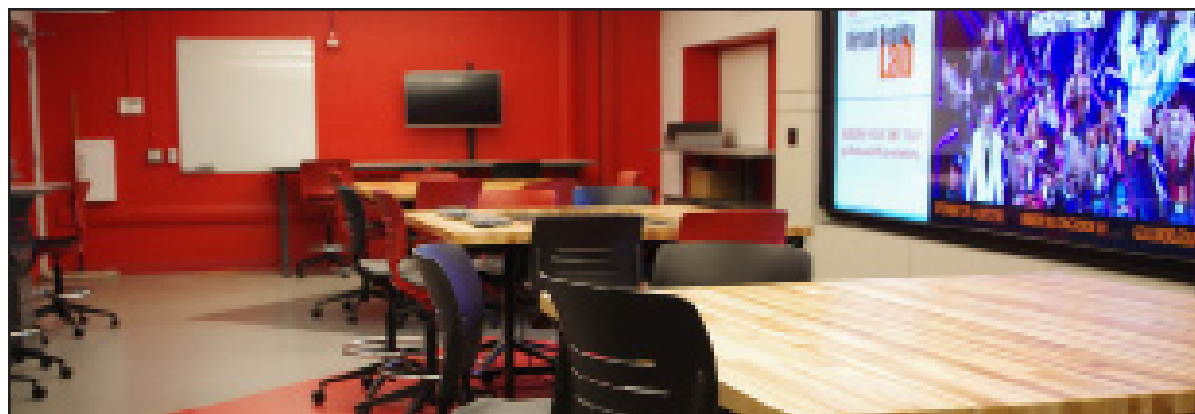
Zune The Depot
Los Angeles, California

This listing represents portions of the collective career experience of the ABD Engineering and Design Staff.

Operations Command Centers

Project Name	University of Illinois – Center for Innovation in Teaching & Learning: Armory Innovation Studio
Location	Urbana-Champaign
Year Completed	2017
ABD Staff	Erik J. Geiger
Description	The Innovation Studio has been designed to collect and analyze data about student learning in collaborative, project-based environments. Working with students and faculty to design and develop research initiatives aimed at understanding how students learn through peer interaction, self-directed exploration, and purposeful metacognitive reflection, the systems in this space will allow for high level ideation and visualization of concepts, along with fostering collaboration between those in the room and across the world.

Much the like the DMDII space above, the CITL Innovation Studio functions much like a traditional Command & Control Center by allowing faculty and students to share and monitor multiple sources of information simultaneously, using an interactive video-wall display, and interactive touch-table which can be displayed on the multi-window display or used to control information on the video-wall, and used simultaneously to connect remote students and faculty in-session using audio and video-conferencing. Activities may be captured via local cameras and recorded for later review or de-brief.



Operations Command Centers

Project Name **Ally Financial – One Detroit Center**

Location Detroit

Year Completed 2016

ABD Staff Erik J. Geiger

Description When Ally relocated from the GM Renaissance Center to One Detroit Center, the Network Operations Center moved too. To accommodate this move, a larger videowall was planned that incorporated much of Ally's existing infrastructure and back end. The addition of comprehensive room-wide audio conferencing and better control integration allowed for better room systems management and information display as well as allowing collaboration with other teams and locations without any NOC users needing to leave their workstations to participate.



Operations Command Centers

Project Name **UI Labs, Digital Manufacturing and Design Innovation Institute: Connect Center**

Location Chicago, IL

Year Completed 2015

ABD Staff Erik J. Geiger

Description This space functions as a collaborative interface for users of the DMDII facility and spaces, which includes public/private partnerships between the University of Illinois – UI Labs, private enterprise and technology industries such as Rolls Royce and Lockheed-Martin, as well as the DoD and other public research entities. This system allows for in-depth sharing of information, with simultaneous tie-in of local and remote computers and servers with multiplatform video and audio conferencing and on screen multi-touch control, annotation and storage of content – while meeting UI Labs’ and their partners’ security requirements. Rather than a typical command and control space for a system or infrastructure, the UI Labs space can be thought of as a command and control space for projects.



Operations Command Centers

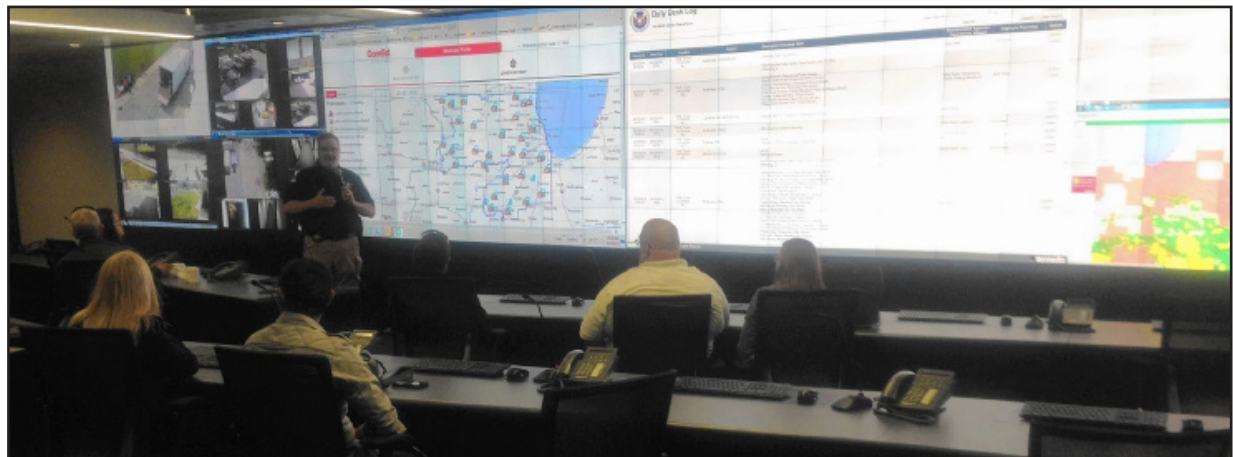
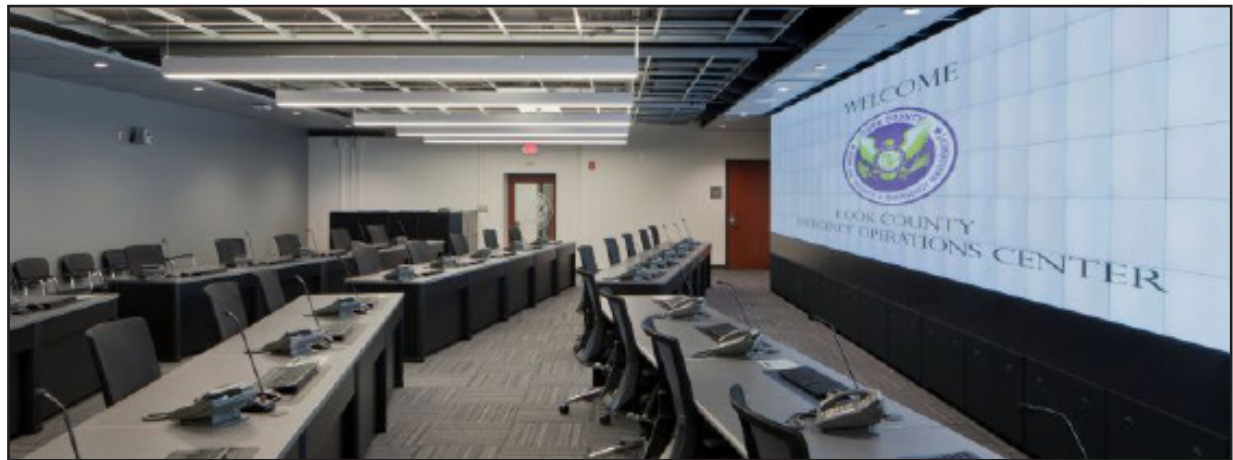
Project Name **Cook County Emergency Operations Center for Department of Homeland Security (DHSEM)**

Location Oak Forest, IL

Year Completed 2014

ABD Staff Erik J. Geiger

Description Cook County relocated their EoC to a historic building on the Oak Forest campus of one of the county's former hospitals. The new center, funded in part by the DHS, included a new operations center with attendant break-out rooms for planning, logistics, executive conference rooms and JIC for media briefings. My role was project management and oversight of the design team handling the AV and acoustics for the center.



Operations Command Centers

Project Name	Detroit Public Schools
Location	Detroit, Michigan
Scope	18 Schools and 1 Security Command Center
Year Completed	2011
Description	ABD Engineering & Design was brought in by Albert Kahn Family of Companies to design comprehensive classroom technology solutions for 6 new schools, 12 school renovations, and the Security Command Center. The district wanted the technology to remain uniform across all the schools, and they wanted it to interface seamlessly with the new high-tech Security Command Center.

As part of our schematic design, ABD Engineering & Design made renderings of the Security Command Center video control booth (below) and the press release room (above). In the event of an emergency, Detroit Public Schools will be able to host live press conferences that broadcast to local television stations as well as the other schools in the district.





Melinda Miller brings her passion for all things sound and 20 years of experience to her role as Principal Engineer of ABD Engineering & Design. Her expertise includes diagnosing and preventing noise problems, designing acoustically optimized environments, and using evidence-based design practices. Melinda has consulted on projects involving architectural acoustics, noise isolation, mechanical noise control, and occupational noise exposure. Her experience includes higher education, K-12 schools, performance and worship spaces, healthcare facilities, industrial facilities, hotel and multi-family residential buildings.

A Professional Acoustical Engineer, licensed by the State of Oregon, Melinda earned her Bachelor's Degree in Mechanical Engineering from the University of Idaho, and Master's from the University of Illinois, Chicago. She has continued her education and training, earning her INCE Board Certification (INCE Bd. Cert.), Evidence-Based Design Accreditation and Certification (EDAC), and LEED AP BD+ C. As an Assistant Professor of Acoustics for Columbia College, she taught undergraduate junior and senior level classes in HVAC design, vibrations, acoustical testing, building noise control, and musical acoustics.

Melinda has chaired sessions on various topics at Noise-con and Inter-noise since 2013, and has served INCE as the Co-Chair of Building Acoustics Technical Activities committee, on the Certification Board since 2018, and the Board of Directors (2021-2024). Likewise, she has presented technical papers and education sessions for the Acoustical Society of America, the American Institute of Architects, and the Chicago Chapter of the Audio Engineering Society.

Professional Experience

- 2011-Present – Principal Engineer, ABD Engineering & Design, Inc., Portland, Oregon
- 2006-2009 – Acoustical Consultant, Listen Acoustics, Inc., Portland, Oregon
- 2003-2005 – Assistant Professor, Audio Arts and Acoustics Department, Columbia College Chicago, Chicago, IL
- 2001-2003 – Graduate Assistant, Acoustics and Vibrations Laboratory, Department of Mechanical & Industrial Engineering, University of Illinois Chicago, Chicago, Illinois

Professional Licenses and Memberships

- Acoustical Society of America
- Evidence-Based Design Accreditation and Certification (EDAC)
- Institute of Noise Control Engineering (INCE), Board-Certified Member
- Institute of Noise Control Engineering (INCE), Certification Board, and Board of Directors
- National Council of Acoustical Consultants
- State of Oregon, Professional Engineer, #88158PE
- U.S. Green Building Council LEED AP BD+C

Education

- Master of Science in Mechanical Engineering, University of Illinois at Chicago, Chicago, Illinois, 2003
- Bachelor of Science in Mechanical Engineering, University of Idaho, Moscow, Idaho, 1998.

Project Experience

- | | | |
|---|--|---|
| • Acuity Insurance, Corporate Headquarters, Sheboygan, WI | • GM Studio, Global Technical Center, Warren, MI | • PacificSource Health Plans, Headquarters, Springfield, OR |
| • Brainium Studios, Open Office, Portland, OR | • Meijer, Corporate Headquarters, Grand Rapids, MI | • Varonis Systems, Open Office, Portland, OR |
| • Finastra, Workplace, Portland, OR | • Newell Rubbermaid, Design Center, Kalamazoo, MI | • Warner Norcross + Judd, Legal Offices, Grand Rapids, MI |
| • Ford Motor Company Conference & Event Center, Dearborn MI | • NW Natural, Headquarters, Portland, OR | |



Erik J Geiger has designed and consulted on audio, video, and technical systems for over 20 years. He has served as an Audiovisual discipline leader and project manager, and carries a wealth of technical system consulting and design experience. Erik brings the heart of a teacher to every project, helping clients and end-users to understand a rapidly changing environment — having held a position at Columbia College, Chicago for many years.

Erik specializes in planning, budgeting and needs analysis studies for audiovisual and media technology-based systems, with a focus on facilities and infrastructure planning to provide life cycle value and long-term cost savings through accommodating future technologies, some of which may only be emergent.

Erik has designed large scale facility-wide audio, video and media distribution systems, leveraging IT network topologies and convergence, as well as high performance sound-reinforcement and large-scale video display systems, recording and media post-production facilities. He has designed interactive and collaborative communications environments, that both augment and move beyond the traditional audio and video conferencing space.

He has worked on projects in healthcare, university, K-12 education, and corporate environments, along with auditoriums, convention centers and hospitality venues around the world.

When Erik isn't designing technical systems, he enjoys playing the piano, backpacking, cycling, and photography.

Professional Experience

- 2016-Present – Director of Audiovisual, ABD Engineering & Design, Inc., Portland, Oregon
- 2011-2016 – Senior Associate, Shen, Milsom & Wilke, LLC – Chicago, Illinois
- 2007-2014 – Adjunct Professor, Audio Arts & Acoustics, Columbia College – Chicago, Illinois
- 2009-2011 – Owner, Geiger Design Consultants – Chicago, Illinois
- 2004-2009 – Associate, Shen, Milsom & Wilke, LLC – Chicago, Illinois
- 1998-2004 – Arnold & O'Sheridan, Inc. – Madison, Wisconsin
- 1995-1998 – Hammel Green & Abrahamson, Inc. – Minneapolis, Minnesota

Professional Certifications and Memberships

- AVIXA (InfoComm International), Certified Technical Specialist
- CTS-D
- AVIXA (Infocomm) Infrastructure Standards working group

Education

- Mass Communications, University Of Wisconsin – Madison, Wisconsin
- Audio Recording and Production, Musicians Technical Training Institute – Minneapolis, Minnesota.

Project Experience

- | | | |
|---|--|---|
| • People's Bank Headquarters, Medford, OR | • Borg Warner, Auburn Hills, MI | • Perkins+Will Chicago, Chicago, IL |
| • Warner Norcross + Judd, Legal Offices, Detroit and Grand Rapids, MI | • Johnson Controls World Headquarters, Milwaukee, WI | • Presence Health Headquarters, Chicago, IL |
| • Abbott Labs, Experience Center, Green Oaks, IL | • Mayer Brown Rowe & Maw, Chicago, IL | • Pritzker/Hyatt, Corporation Headquarters, Chicago, IL |
| • Ally Financial, One Detroit Center, Detroit, MI | • Mayer Brown Rowe & Maw, Chicago, IL | • Roche Diagnostic, VIP & Training Center, Indianapolis, IN |
| | • Northern Trust, Conference Center, Chicago, IL | |

Some experience listed is while employed by SMW.



Peter Allen is a senior acoustical engineer with a Master of Engineering degree in Acoustics and over 20 years of experience in the field of acoustics. Peter has been with ABD Engineering & Design since 2016 and provides consulting services on a wide-range of projects types, including education facilities, healthcare facilities, worship spaces, hotels, and multi-family housing, while also specializing in vibration testing and analysis.

Peter uses an evidence-based, data-driven approach to provide acoustical recommendations to clients. Whenever possible, his recommendations include multiple options to help clients meet their aesthetic and budgetary constraints. He has presented his work at various industry symposia as well as at the annual conference for the

Institute of Noise Control Engineering.

Prior to joining ABD, Peter worked as an acoustical consultant at Daly-Standlee & Associates for eight years, where he learned to apply his skills from a research environment to the field of acoustical consulting. He began his career at Southwest Research Institute (SwRI), where he worked for ten years. There, he managed technical projects in vibration analysis, noise control, and environmental testing for clients in the electric utility, telecommunications, aerospace, automotive, and building industries. He taught technical courses within the organization to further develop the skills of others in the organization.

In 2005, Peter obtained his Master's Degree of Engineering in Acoustics from Pennsylvania State University, and he has used his additional education to focus his efforts on the use of field testing and analysis to solve noise and vibration problems. In his personal time, Peter enjoys climbing, yoga, riding his motorcycle, and SCUBA diving.

Professional Experience

- 2016-Present – Senior Acoustical Engineer, ABD Engineering & Design, Inc., Portland, Oregon
- 2008-2016 – Senior Acoustical Engineer, Daly-Standlee & Associates, Portland, Oregon
- 1998-2008 – Senior Research Engineer, Southwest Research Institute, San Antonio, Texas

Professional Licenses and Memberships

- Acoustical Society of America
- Institute of Noise Control Engineering (INCE), Board-Certified Member
- National Council of Acoustical Consultants
- State of Oregon, Professional Engineer #84392PE

Education

- Master of Engineering in Acoustics, Pennsylvania State University, State College, Pennsylvania, 2005
- Bachelor of Science in Engineering, Electrical Emphasis, Texas Christian University, Fort Worth, Texas, 1998.

Project Experience

- | | | |
|---|---|--|
| • OR Treasury Resiliency Project, Salem, OR | • Applied Materials, Portland, OR | • Daimler Wind Tunnel Facility, Portland, OR |
| • Community Transit Casino Road Facility, Everett, WA | • Brewery Blocks Building 1, Portland, OR | • Sælfeld Griggs Law Firm, Salem, OR |
| • TriMet Columbia 10, Portland, OR | • Hatfield Courthouse, Portland, OR | |
| • Cabot Microelectronics, Hillsboro, OR | • Maxim Integrated, Beaverton, OR | |



Jeremy Bielecki is a Senior Acoustical Consultant with over 20 years of experience as a consultant, and as a project manager for over 300 building projects. Jeremy has worked in acoustics in the Midwest and Pacific Northwest on projects including healthcare, higher education, workplace, performance spaces, K-12 education, athletics, and multi-family residential.

Jeremy possesses a strong work ethic and creative problem solving skills that have served him and his clients well. Knowing he always wanted to be in engineering and involved with music, Jeremy found acoustics to be the marriage of the two. He gains tremendous satisfaction from being part of a project that starts with lines on a screen and words on a page, eventually becoming a physical space you live within, and get enjoyment from.

Over his career, Jeremy has developed expertise in performing field measurements, creating complex computer prediction models, and analyzing data and drawings to identify primary causes and contributors to noise and vibration problems. He also determines sound isolation ratings, HVAC system noise ratings, and room acoustic performance using reverberation time, acoustical clarity, and speech intelligibility metrics.

In his spare time, Jeremy is a skilled piano tuner and repair technician, musician, and coaches soccer and robotics. He also enjoys 3D printing, and cooking with his family.

Professional Experience

- 2022-Present – Senior Acoustical Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2005-2022 – Acoustical Consultant, Kolano and Saha Engineers, Inc., Waterford, Michigan
- 2001-2004 – Acoustical Engineer, Michael R. Yantis Associates, Inc., Seattle, Washington

Professional Memberships

- Acoustical Society of America
- Institute of Noise Control Engineering (INCE)
- American Society of Testing and Materials
- National Council of Acoustical Consultants

Education

- Bachelor of Science in Mechanical Engineering, University of Michigan, Ann Arbor, 2000.

Project Experience

- | | | |
|--|--|---|
| • Munson Medical Center
Traverse City, MI | • *Michigan State University, East
Lansing, MI
Broad Art Museum
STEM Power Plant Renovation | • *Charles H Wright Museum
of African American History,
Detroit, MI |
| • *St. John Hospital, Detroit, MI | • *Henry Ford Community College,
Recording Studio, Dearborn, MI | • *Emagine Theaters, Royal Oak,
MI |
| • *Detroit Pistons Performance
Center, Detroit, MI | • *Kendall College of Art and
Design, Grand Rapids, MI | • *Residence Inn by Marriott,
Grand Rapids, MI |
| • *Greektown Casino Hotel,
Detroit, MI | • *Davidson Foundation
Development, Bloomfield Hills,
MI | • *Bharatiya Temple, Troy, MI |
| • *University of Michigan, Ann
Arbor, MI
Law School: Hutchins Hall,
Jeffries Hall
Student Union
Central Campus Recreation
Building
Beyster Building Addition
Munger Student Residences | • Romeo High School, Auditorium,
*Romeo, MI | • *The Mid: Co-Living, Detroit, MI |
| • *Central Michigan University,
Mount Pleasant, MI
Grawn Hall
Ronan Hall | • *Byron Center High School,
Byron Center, MI | • *New Beginning Baptist Church,
Waterford, MI |
| | • *Ann Arbor School of the
Performing Arts, Ann Arbor, MI | • *Cobo Center, Detroit, MI |
| | • *Toyota Technical Center, Quiet
Room, Ann Arbor, MI | • *Patrick V. McNamara Fitness
Center, Detroit, MI |
| | | • *Theodore Levin U.S.
Courthouse, Detroit, MI |



Benjamin Wolf

Senior Acoustical Consultant
INCE Bd. Cert. bwolf@abdengineering.com



Benjamin Wolf is a Senior Acoustical Consultant with a Master of Science in Architectural Acoustics from Rensselaer Polytechnic Institute. He specializes in analysis and recommendations for the spaces and structures needed to provide acoustically effective and comfortable environments.

Ben joined ABD Engineering & Design, Inc. in 2016 after four years with Daly-Standlee & Associates. He has worked on architectural projects, including field testing of wall and floor/ceiling systems, HVAC noise analysis, the specification and design of acoustic partitions, and acoustical treatments in churches, movie theaters, offices, apartment buildings, hospitals, and schools. His environmental noise studies include mine and quarry sites, light rail, highway and roadway noise, along with power and industrial facilities.

Ben uses 3D acoustic modeling software to provide a detailed analysis and recommendations for room acoustics, sound distribution, and speech intelligibility. As part of his master's thesis, he modeled accurate acoustical representations of several famous music performance venues allowing musicians to hear their performance simulated in those spaces, in real time, as if they were standing on stage.

In his spare time, Ben plays bass trombone with a wide variety of local groups. He enjoys web design and recording live sound.

Professional Experience

- 2016-Present – Senior Acoustical Consultant, ABD Engineering & Design, Inc., Portland, Oregon
- 2012-2016 – Acoustical Consultant, Daly-Standlee & Associates, Portland, Oregon

Professional Memberships

- Acoustical Society of America
- ASTM International, E33 Committee on Building and Environmental Acoustics
- Institute of Noise Control Engineering (INCE), Board-Certified Member
- National Council of Acoustical Consultants

Education

- Master of Science in Architectural Sciences, Emphasis in Architectural Acoustics, Rensselaer Polytechnic Institute, Troy, New York, 2012
- Bachelor of Arts in Physics, Gustavus Adolphus College, St. Peter, Minnesota, 2011
- Bachelor of Arts in Music Performance, Gustavus Adolphus College, St. Peter, Minnesota, 2011.

Project Experience

- | | | |
|---|---|---|
| • South Cooper Mountain Apartments, Beaverton, OR | • Hermiston Schools (Theater Lane Elementary School, Rocky Heights Elementary School, High School Classroom Annex and CTE), Hermiston, OR | • Northwest Pipe Company, Open Office Acoustics, Vancouver, WA |
| • Wood Village Mixed Use, Wood Village, OR | • Dry Creek Landfill, Noise Study, Eagle Point, OR | • Columbia Shores Townhouses, Overlay Noise Study, Vancouver, WA |
| • Farmdale Apartments, North Hollywood, CA | • Kaiser Permanente, Sunnyside Medical Center, Clackamas, OR | • Wood Village Mixed Use, HUD Noise Study, Wood Village, OR |
| • L&M Industrial Fabrication, Lot Expansion Barrier Calculations, Tangent, OR | • United Natural Foods, Noise and Vibration Study, Ridgefield, WA | • Clackamas Federal Credit Union, Corporate Headquarters, Oak Grove, OR |
| • USANA Sciences Company, Packaging Area, Valley City, UT | • Threemile Canyon Farms, Generator Exhaust, Boardman, OR | |
| • TriMet, Columbia 10, Portland, OR | | |



ABD Engineering & Design
Architectural Acoustics • AV Design • Noise & Vibration



Quincey Smail is a Senior Acoustical Consultant, with a Master of Engineering in acoustics from Penn State. Quincey's expertise includes acoustical design, modeling and testing to provide thoughtful recommendations for a variety of project types from residential and mixed use to K-12, higher education to healthcare, workplace, environmental, and industrial facilities. Quincey earned his Board Certification by the Institute of Noise Control Engineering (INCE) in 2022.

His projects include noise studies of manufacturing equipment in the US and Europe, car wash sites with residential adjacencies, and high-profile commercial locations.

Quincey's musical background has served him and his projects well in performance spaces including the Interlochen Center for the Arts, as well as other public and private music schools, music stores, event centers, plus the particular needs of worship spaces. Quincey is regularly called upon to assist with hotel acoustical needs during design and construction, along with post-occupancy needs. He has also worked with hospitals, hospice, counseling centers, dental offices, and residential healthcare to address FGI and HIPAA requirements.

In his free time, Quincey – a talented baritone – sings in community and church choirs. He can be found enjoying the Grand Rapids local craft-brewery and cocktail culture, trivia nights, and playing tabletop games.

Professional Experience

- 2016-Present – Senior Acoustical Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2015-2016 – Lead Producer, Penn State University, State College, Pennsylvania
- 2012-2013 – Physics Lab Assistance, Central College Physics Department, Pella, Iowa

Professional Memberships

- Acoustical Society of America
- American Society of Testing and Materials
- National Council of Acoustical Consultants
- Institute of Noise Control Engineering (INCE), Board-Certified Member
- Boy Scouts of America, Eagle Scout

Education

- Master of Engineering in Acoustics, Pennsylvania State University, State College, Pennsylvania, 2016
- Bachelor of Arts in Physics, Minors in Mathematics, Music, and German, Central College, Pella, Iowa, 2013.

Project Experience

- | | | |
|--|--|---|
| • Public Museum, Grand Rapids, MI | • Riverview Church, Auditorium, Holt, MI | • Forslund Condominium, Impact Isolation, Grand Rapids, MI |
| • Courtyard Marriott, Detroit, MI | • 212 River Residential Mixed-Use, Holland, MI | • Domino's Pizza, Boardroom and Warehouse Open Office, Ann Arbor, MI |
| • Essity Operations Gennep, Netherlands | • Jefferson Lofts Condominium Association, Noise Isolation, St. Joseph, MI | • Interlochen Center For The Arts, Kresge Amphitheater, Interlochen, MI |
| • Tri County Area Schools, Cafetorium, Howard City, MI | • West Ottawa Public Schools, Performing Arts Center, Holland, MI | • Grand Valley State University, Product Design and Robotics Studio, Grand Rapids, MI |
| • Nestle Production Studio, Solon, OH | • Warner Norcross & Judd, Office Acoustics, Detroit, Grand Rapids, and Kalamazoo, MI | • Ford Motor Company, Conference & Event Center, Dearborn, MI |
| • Bendix, Relocation Noise and Vibration, Avon, OH | • Tommy Car Wash Systems, Car Wash Noise Study, Hudsonville and Flint, MI | • Opera Grand Rapids, Grand Rapids, MI |
| • Western Michigan University, Dunbar Hall, Kalamazoo, MI | | |
| • Western Michigan University, College of Aviation, Battle Creek, MI | | |





John Kramer is an acoustical consultant, with a Master of Architectural Engineering from University of Nebraska, Lincoln. John's passion for music and performing arts led to his interest in acoustics and helping to create efficient, comfortable, and healthy acoustical environments. John leverages his experience in acoustics and building systems with an applied background in noise and vibration control in his project work.

John has excelled with both professional and student design teams, including a 1st place finish in the 2020 ASHRAE Student Design Competition (System Selection). He has designed mechanical systems on projects including secure government facilities, corporate headquarters, large scale healthcare, and education. Since joining ABD, John has begun working on projects across the country from wind turbine noise studies to residential acoustics. John is building his experience with acoustically sensitive spaces including: Healthcare, K-12 Schools, Churches, Corporate Offices, and Social Halls, and is quickly developing as a consultant.

In John's spare time he enjoys playing guitar and singing, playing chess, collecting comic books, and is learning his way around West Michigan.

Professional Experience

- 2021-Present – Acoustical Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2019-2021 – Mechanical Engineering Intern, HDR, Omaha, Nebraska

Professional Memberships

- Acoustical Society of America
- Institute of Noise Control Engineering (INCE)
- American Society of Testing and Materials
- National Council of Acoustical Consultants

Education

- Master of Architectural Engineering, University of Nebraska, Lincoln, NE, 2021.
- Bachelor of Science of Architectural Engineering, University of Nebraska, Lincoln, NE, 2020.

Project Experience

- | | | |
|---|--|--|
| • Oregon State University
Fairbanks Hall
Corvallis, OR | • Corewell Health Ambulatory
Grand Rapids, MI | • Kellogg's Headquarters
Battle Creek, MI |
| • Minot State University
Hartnett Hall
Minot, ND | • PeaceHealth Riverbend
Springfield, OR | • LinkedIn Detroit
Detroit, MI |
| • Sinclair Community College
Distance Learning
Dayton, OH | • Portland Providence Medical
Center Main Emergency
Department
Portland, OR | • Disability Advocates of Kent
County
Grand Rapids, MI |
| • Grand Rapids Community
College Secchia Institute for
Culinary Education
Grand Rapids, MI | • Interlochen Center for the Arts
Interlochen, MI | • Wolverine Worldwide Broadcast
Studio
Rockford, MI |
| • Oregon Health and Science
University Dispatch
Portland, OR | • Jackson Hole Classical Academy
New High School
Jackson Hole, WY | • Cannon Muskegon Noise Study
Muskegon, MI |
| | • Hudsonville Christian School
Hudsonville, MI | • Grand Rapids Public Museum
Grand Rapids, MI |
| | • Wheaton Academy
West Chicago, IL | • Southtown Guitar
Grand Rapids, MI |



Faulkner Bodbyl-Mast is an audiovisual and acoustical consultant, having earned a bachelor's degree in Sound Engineering, with a minor in Electrical Engineering. Faulkner is an AVIXA Certified Technical Specialist (CTS). You might work with him in either or both capacities at ABD.

Faulkner's interest in sound came from his passion for music. He started attending Grand Rapids Symphony Orchestra concerts as a child and developed as an instrumentalist through grade school and high school, picking up the euphonium and carrying it into college. Once exposed to electronic music, Faulkner's interest shifted from performance to technical arts. He combined his early musical training with technology and blossomed into composing, recording, and music production. Faulkner provided sound design for live theater productions and began 3D sound modeling to

create sound design for video games.

Acoustics and AV go together, as the inherent quality of the built environment is designed and tuned by engineering and supported and enhanced by the electronics. Faulkner notes the acoustics of a space and systems within it must compliment each other or they will undermine each other.

Aside from his work in acoustics and audiovisual design, Faulkner is passionate about music. Gifted in composing, performing, and recording electronic pieces, you might find his compositions on SoundCloud.

Professional Experience

- 2022-Present – Audiovisual & Acoustical Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2022 - Acoustical Intern, Kirkegaard, Chicago, Illinois
- 2019-2022 – Media Assistant, Duderstadt Center, Ann Arbor, Michigan
- 2019-2022 – Audio Director, Composer, Sound Designer, Wolverine Soft Studio, Ann Arbor, Michigan

Professional Memberships and Certifications

- AVIXA (InfoComm International), Certified Technical Specialist
- CTS
- Audio Engineering Society
- American Institute of Architects, Professional Affiliate
- National Council of Acoustical Consultants

Education

- Bachelor of Science in Sound Engineering, minor Electrical Engineering, University of Michigan, Ann Arbor, 2022.

Project Experience

- | | | |
|---|---|---|
| • Hope College
Dewitt Center for Economics and Business, Holland, MI | • City of Troy Council Chambers
Troy, MI | • Amity Middle School and High School
Amity, OR |
| • Oregon State University
Fairbanks Hall
Corvallis, OR | • Portland Art Museum Rothko Pavilion, Portland, OR | • Spokane Pubic Schools
Lewis and Clark High School
Spokane, WA |
| • Oregon State University
Student Success Center
Corvallis, OR | • Rogue Credit Union Community Complex Sports and Events
Medford, OR | • NAMI Oregon
Portland, OR |
| • Columbia Gorge Community College Nursing SIM Lab
The Dalles, OR | • Wheaton Academy
West Chicago, IL | • Peace Church
Middleville, MI |
| • Hillsboro Civic Center
Hillsboro, OR | • St Paul Center
Steubenville, OH | • Gardens of Sun City Senior Living, Sun City, AZ |
| • Chehalem Cultural Center
Newberg, OR | • Ben Davis High School
Indianapolis IN | • Senior Living
Peoria AZ |
| | • Potter Elementary School
Flint, MI | • Happy Valley Library
Happy Valley, OR |
| | • Illiana Christian High School
Lansing, IL | |



Lauren Slattery is an acoustical consultant newly located in Portland, OR. She is a graduate of Belmont University where she earned her bachelor's of science degree in Audio Engineering Technology, with a Physics minor.

Lauren comes to ABD Engineering & Design directly from her internships at NASA Ames Research Center and NASA Marshall Space Flight Center, where she performed acoustical testing and assisted with acoustical aspects of aircraft, satellites, engines, and their components. Lauren is building her architectural acoustical experience through mentoring with ABD staff. She is proving to be a quick study and is taking on her own project work.

Lauren describes herself as outdoorsy and enjoys hiking, climbing, and kayaking. She loves road trips and travel, reading, and baking - especially pastries.

Professional Experience

- 2024-Present – Acoustical Consultant, ABD Engineering & Design, Inc., Portland, Oregon
- 2024 – Acoustic Support Intern, NASA Ames Research Center, Mountain View, California
- 2023-2024 – Acoustic Test Support Intern, NASA Marshall Space Flight Center, Huntsville, Alabama
- 2021-2024 – Audiovisual Technician, Columbus Zoo and Aquarium, Columbus, Ohio
- 2022 – School of Music Audio Crew, RF Technician, Stagehand, Belmont University, Nashville, Tennessee

Education

- Bachelors of Science: Audio Engineering Technology, Physics Minor: Belmont University, Nashville, TN, 2023

Professional Certifications

- ProTools User Certified
- Dante Certification 3

Professional Memberships

- Audio Engineering Society
- Women in Audio
- Acoustical Society of America
- Institute of Noise Control Engineering (INCE)
- American Society of Testing and Materials
- National Council of Acoustical Consultants

Project Experience

- | | | |
|--|---|---|
| • Oregon State University
Corvallis, Magruder Hall,
Corvallis, OR | • Colonia de Valle Prospero,
Affordable Housing,
Albany, OR | • Wind Tunnel Acoustic Data
Processing,
Mountainview, CA |
| • Sous La Rose Social Club and
Event Space,
Portland, OR | • RogueX Credit Union Community
Complex, Aquatics, Sports, and
Events Center
Medford, OR | • Ocean Way Recording Studios,
Final Recording Project for
Studio Recording II
Nashville, TN |
| • Micronesian Islander
Community's Voyagers' Village,
Affordable Housing,
Salem, OR | • Acoustic Test Stand Design,
Mountainview, CA | • Foley and ADR group recording
project
Nashville, TN |

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