ABD Engineering & Design

Architectural Acoustics • AV Design • Noise & Vibration

Workplace Experience

Statement of Qualifications Acoustical Consulting & Audiovisual Design



2

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 = 7Audiovisual = 2Leadership/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

Grand Rapids, MI 15 Ionia Ave. SW, Suite 650 Grand Rapids, MI 49503 Local: (616) 241-5810

www.abdengineering.com

Portland, OR 833 SW 11th Ave., Suite 925 Portland, OR 97205 Local: (503) 444-5656

client@abdengineering.com







Room Acoustics and High Tech Spaces for Privacy and Productivity

Acoustical Engineering and Audiovisual Design

Workplace studies cite noise as the most significant distraction impeding ABD worker productivity. At Engineering & Design, we consult with architects, interior designers, and facilities management professionals create office acoustics and to 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, and supporting productivity and privacy in enclosed offices. 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 inline with the budget. We create AV systems infrastructure drawings and specifications, working with architects to incorporate the equipment into their designs—and working with engineers to advise on AV equipment HVAC and electrical loads.

BIM Design

Building Information Modeling (BIM) is an intelligent 3D modeling and databasebased process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure. ABD's design professionals use BIM as a collaborative design process, not just a documentation tool, making use of Cloudbased resources for smoother real-time collaboration with our partners. Our team performs QA/QC within the model for accuracy beyond what appears on a drawing or sheet. We're using Revit families for better visualization. This helps our clients gain insight into system performance, loudspeaker coverage, projection system geometry, and sight lines. ABD's BIM process also provides more accurate coordination with other disciplines including MEPS, lighting, furniture, and specialty equipment.

Experience

The ABD Engineering & 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 & Design is a leader in the acoustical and AV design community creating sustainable facilities. for 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.

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

Workplace



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, South Korea

Aqua Tower Chicago, Illinois

B.P. Oil Chicago Call Center Chicago, Illinois

Blue Cross Blue Shield Steketee Building Grand Rapids, Michigan

Brainium Studios Open Office Portland, Oregon

Brilliance Audio Recording Studio Grand Haven, Michigan

Catalyst Partners LEED for Corporate Office Grand Rapids, Michigan

Commonwealth McCann Open Office 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

Dollar General Center Jonesville, South Carolina

Selected Experience

Erie Insurance Erie, Pennsylvania

Finish Line Indianapolis, Indiana

Flint Auto Auction Flint, Michigan

Ford Motor Company Conference & Event Center - Rotunda-Theater 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

General Motors Corporation Design Center Sterling Heights, Michigan GM Studio Warren, Michigan





Haworth Headquarters Bookend Open Office Acoustics Holland, Michigan

Heifer International Multipurpose Room, Speech Privacy Little Rock, Arkansas

Hemlock Semiconductor Corp. Conference Room Hemlock, Michigan

Herman Miller Project Phoenix Holland, Michigan

Koin Tower Open Office Acoustics Portland, Oregon

Maxim Integrated 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



Motorola Listening Room Morrisburg, Ontario

NCAA 4th Floor Open Office Acoustics Indianapolis, Indiana

Newell Rubbermaid Corporate Headquarters (Green Globes) Kalamazoo, Michigan

NW Natural Corporate Headquarters (Fitwel) Portland, Oregon

Peoples Bank Office Acoustics - Medford, Oregon

Perrigo Corporation Allegan, Michigan

Steelcase Design Studio Leadership Community Space Acoustics Grand Rapids, Michigan

Steelcase, Inc. Chicago VIA showroom Grand Rapids, Michigan

Stryker Instruments Headquarters Portage, Michigan

Target Corporation Headquarters Minneapolis, Minnesota

The Round Fitness Center Acoustics Beaverton, Oregon

The Shops at Nanuet Fitness Center 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

Warner Norcross + Judd Detroit, Michigan Grand Rapids, Michigan Kalamazoo, Michigan

Waters Building Offices and Hotel Renovation Grand Rapids, Michigan

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



Project Name **Downtown Grand Rapids Office** Location **Grand Rapids**, MI

Project Size 148,500 SF Year Completed 2021

> Description ABD Engineering & Design worked with AMDG Architects on this new, world-class corporate headquarters in downtown Grand Rapids. The project took the former Michigan Consolidated Gas Corporation building (later Old Kent Bank and 5/3 Bank), originally opened in Vandenberg Center 1966, down to the steel and concrete structure, and added a 7th story.

> > ABD's acoustical engineering consulting services included recommendations for room acoustics, noise isolation, and mechanical noise control. ABD also provided recommendations to address exterior noise from the emergency generator.







Workplace Headquarters

Project Name Rock Ventures Headquarters

- Architect Ghafari Associates
- Location Detroit, Michigan
- Year Completed 2022 Size 50,000 SF
 - Description Ghafari Associates engaged ABD Engineering & Design to address the acoustical needs of the Rock Ventures headquarters. The HQ space is shared by over 100 different companies, all



under one umbrella. It includes open and closed offices, collaboration spaces, a luxurious boardroom, and a corporate auditorium.

The magnificent spiral staircase in the central atrium is both visually stunning and acoustically challenging. Along with room acoustics, ABD's services included mechanical noise control and noise isolation, especially important for the maker spaces with difficult adjacencies.

Photos by John D'Angelo, featured in Interior Design Magazine.



Conference and Event Center

Project Name Ford Experience Center

- Architect Ghafari Associates
- Location Dearborn, Michigan
- Year Completed 2022
 - Description ABD Engineering & Design worked with Ghafari Associates to renovate the existing conference and event facility into this new state of the art experience center. The Ford EXP includes a large grand hall, rotunda theater and cafe along with a variety of conference rooms and collaboration spaces throughout.



ABD's scope of services included acoustical testing on site to benchmark the existing room's performances and used that data to match and improve the room acoustics. Our recommendations included acoustical finishes that added to and enhanced the aesthetic created by the architect. Meanwhile, our mechanical noise control recommendations achieved clear results to reduce the background noise in the grand hall and multiple conference rooms. Photos by Garrett Rowland, featured in Interior Design Magazine.



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

Resilient Office Building

Project Name	Oregon	State	Treasury
--------------	--------	-------	----------

- Architect GBD Architects Inc.
- Location Salem, Oregon
- Year Completed 2022 Size 35,000 SF
 - Description ABD Engineering & Design worked with GBD Architects on the Oregon State Treasury Office Building. The two-story building is located in the Cascadia Subduction Zone, an earthquake epicenter. As part of its emergency planning, the OST required that its new workplace be built to continue operating after a variety of emergency scenarios. As a result, it is the first USRC base isolated structure in the United States. The project included certifications for United States Resiliency Council (USRC) Platinum, LEED Gold, and International Living Future Institute (ILFI) Net Zero Energy Certification.

ABD's acoustical consulting services included recommendations for the building envelope to address the effects of exterior noise. Our interior recommendations for room acoustics employed a perforated acoustical deck and a variety of other treatment materials. We also consulted on noise isolation and mechanical noise control, plus casing radiated noise and vibration control design of mechanical systems.







Interior photos by Josh Partee

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

Research and Development

Project Name Stryker Instruments Division

- Location Portage, Michigan
- Size 485,000 SF
- Year Completed 2019
 - Description ABD Engineering & Design worked with Tower Pinkster on the Stryker Instruments Division laboratory and workspaces building to provide complete acoustical consulting (Room Acoustics, Noise Isolation, and Mechanical Noise Control) and vibration analysis.

The research and development center is home to technical staff plus sales and marketing, bringing them together under one roof for the first time. The central atrium doubles as presentation space for 175 people, while glass conference rooms, fitness facilities, cafe spaces, and an experience center supplement the collaborative workspaces.

Acoustically designed to meet LEED Silver criteria, ABD also provided vibration isolation for the lab spaces in preparation for sensitive equipment.





Legal Offices

Project Name Warner Norcross + Judd

- Locations Detroit, Michigan Grand Rapids, Michigan Kalamazoo, Michigan
- Year Completed 2019 (Grand Rapids pictured)
 - Description Warner Norcross + Judd occupies the 15th floor of the Warner Building (a 15-story mixed-use tower) in the heart of Grand Rapids, along with other locations throughout Michigan. The offices have an expectation of general privacy plus confidentiality for legal matters. ABD Engineering & Design has enjoyed a long-lasting partnership with WNJ on a variety of individual projects, and has worked with them on the construction of

the new offices as well as renovations. ABD's services have included: noise studies, room acoustics, noise isolation, mechanical noise control, and the design of AV and sound-masking systems.









Project Name NW Natural Headquarters

Size 175,000 SF

- Location Portland, Oregon
- Year Completed 2018

Awards/ IIDAP Oregon People's Choice Award and Certifications Honorable Mention, and Fitwel certified

Description ABD Engineering & Design worked with GBD Architects on this new corporate headquarters. Staff were accustomed to a combination of small open office areas, traditional cubicles, and closed offices. Project stakeholders expressed a desire to reduce distractions, common to larger open office spaces and smaller workstations. ABD recommended a combination of sound absorbing ceiling finishes along with carpet, soft seating and sound masking. This recipe provides reduced reverberation in the open and enclosed spaces, while raising the background noise level just enough to limit distracting sounds from other parts of the office. The offices and conference rooms with higher expectations for privacy needed resilient wall assemblies to accomplish better noise isolation. ABD's expertise in design and during construction visits made sure wall details such as display mounts, back boxes, and penetrations were coordinated to maximize the sound isolation of each assembly.





Photo ©christiancolumbres



Photo ©christiancolumbres

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

Adaptive Re-use

Project Name The Foundry Adaptive Re-use Office Space

- Location Kalamazoo, Michigan
 - Size 53,000 SF
- Year Completed 2018
 - Description This adaptive re-use by Eckert Wordell took a historic iron foundry and steel fabrication facility and re-purposed it as "Kalamazoo's first Living Office® workspace designed to help you reimagine how — and where you work, create and thrive."

ABD provided complete acoustical consulting services that included:

- Room Acoustics to address the general acoustical comfort in the spaces
- Open-Office Speech Privacy to make it easier to concentrate in what are typically difficult spaces





- Noise Isolation allowing for adjacent spaces to operate simultaneously in greater privacy and without interruption from next-door noises
- Mechanical Noise Control managing the structure-borne noise and vibration and airborne sound from HVAC, electrical, and plumbing systems

The variety of spaces (meeting and events, dining, open offices, closed offices) was a particular challenge.



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

Corporate Retreat Center

Project Name Herman Miller Marigold Lodge

- Location Holland, MI
- Year Completed 2017
 - Description GMB Architecture + Engineering hired ABD Engineering & Design to provide acoustical consulting for the special needs of this historic Gold family waterfront home - turned corporate residential conference center. Of utmost importance was to have as little impact as possible on the architectural details, while still providing a comfortable acoustic atmosphere.











Project Name Acuity Insurance

- Size and Budget Nearly 1 Million SF, Over \$100 Million
 - Location Sheboygan, Wisconsin
- Year Completed 2016
 - ABD Engineering & Design worked with Description Eppstein Uhen Architects to design complete Acoustical Consulting, along with Audio-Video and Conference Room Technology for the Acuity Insurance corporate headquarters. Our Professional Engineers developed room acoustics, noise isolation, and mechanical noise control solutions to provide a pleasant working environment, even in the 85' high atrium. Our AV designers designed state-of-the-art technology systems for the high-end demands of the corporate environment, and followed up with complete system testing and commissioning throughout the facility.











Project Name Newell Rubbermaid Design Center

Project Size 40,000 SF,

Location Kalamazoo, Michigan

Year Completed 2015

Description Located on a research campus of Western Michigan University, the Newell Rubbermaid Design Center was created to support collaborative teams of designers to develop new products that are as small as a pen and as large as backyard storage shed. ABD Engineering & Design worked with Byce and Associates to develop acoustical recommendations, including mechanical noise control, noise isolation, and room acoustics. Our consultants also verified implementation of our recommendations to help achieve Green Globes certification. This 2015 AIA Chicago Design Excellence Award winning design provides the popular exposed structure, while adding acoustic treatment to help the spaces sound as good as they look.









Creative Workplace

- Project Name Lowe Campbell Ewald
 - Architect Neumann/Smith Architecture
 - Location Detroit, Michigan
- Project Size 121,000 SF
- Year Completed 2014
 - Description A creative space for a creative company. Neumann/Smith Architecture helped advertising agency, Lowe Campbell Ewald, breathe new life into a 100-year old building, setting a precedent for repurposing long vacant Detroit buildings, shining the light on historic preservation and anchoring the creative sector's place as a strong economic engine for Detroit. ABD Engineering & Design provided complete acoustical measurements and design including room acoustics, open office acoustics, and sound masking. This melding of architectural acoustics and design shows how you can have a space that sounds as good as it looks.











Industrial Office

Project Name Ridgeview Industries

- Location Grand Rapids, Michigan
 - Size 304,920 SF
- Completed 2014
- Description ABD Engineering & Design worked with A.M.D.G. design Architects, lnc., to comprehensive architectural acoustics in the Ridgeview Industries Corporate Headquarters. The office, common areas, and manufacturing facility were designed to flow together as much as possible. The plans included a gymnasium, cafeteria, commons area, and exercise room, as well as a waiting room and meeting room. The facility houses everything from loud sports activities to sensitive office conversations, all under the same roof. To make the challenge greater, the new space would be added onto an existing manufacturing facility, sharing a load-bearing wall.

ABD worked to develop an intricate plan for addressing the multiple acoustical issues. We made recommendations for construction features that would lower the reverberation time in the larger spaces, like the gym, and café', while raising the sound isolation in the smaller spaces, like the waiting room and meeting room. Our design provided Ridgeview Industries with the proper amount of acoustical treatment to meet their needs for years to come.







Photos courtesy of A.M.D.G. Architects.



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

Project Name Corporate Headquarters Project

- Location Milwaukee, Wisconsin
- Year Completed 2014 and ongoing
 - Description ABD Engineering & Design worked with this corporate headquarters to provide comprehensive acoustical engineering and audiovisual systems design for the 50 person board room, product development presentation center, and engineering suite. Our work included:
 - Audio System Design
 - Video System Design & Video-conferencing
 - Platform Lighting System Design
 - Control System Design
 - Acoustical Engineering
 - Noise Isolation
 - Mechanical Noise Control













- Project Name Madison Building
 - Architect Neumann/Smith Architecture
 - Location Detroit, Michigan
- Year Completed 2013



Description Over the course of only six months, Neumann/Smith transformed the historic Madison Building into an exciting, open and colorful space designed to encourage partnership among local entrepreneurs and their budding projects and companies. Offices feature open workspace with a mix of benching and meeting areas. High-energy graphics and furniture and LED lights contrast the exposed vintage structure.

ABD Engineering & Design provided complete Acoustical and Audio, Video, and Lighting consulting and design for the 140 seat auditorium and conference spaces. This award winning building features decorative and functional acoustic treatments integrated with the overall design of the spaces, while the building's roof deck includes multiple flat screens.





Corporate Auditorium

Project Name Corporate Webcast Auditorium

- Costs Technical System Budget \$1 Million
- Year Completed 2011
 - Description ABD Engineering & Design provided audio, video, theatrical lighting, and conference systems design for this sophisticated corporate broadcast auditorium. The client wanted to broadcast interactive presentations to a live audience, on-site video venue room, and viewers around the world. To complicate matters, some of the presenters would be coming in via live video from other continents around the world.

The marque of this project was a huge, 24-screen video wall which replaced an old projector system. The new video wall system allows the presenter complete content flexibility at ultra high resolutions. In addition, it allows the presenter to walk anywhere in front of the screen without creating a silhouette over the content. The client is very happy with the cutting edge audiovisual systems.









Hotel and Conference Center

- Project Name Arcadia Bluffs Renovation
 - Location Arcadia, Michigan
- Year Completed 2010
 - Size 34,000 SF
 - Description The Lodge at Arcadia Bluffs is located on the second level of the beautiful Nantucket coastal estate-style clubhouse, and accommodates 15 comfortably appointed guest rooms. Ten of the rooms face west with breathtaking views of Lake Michigan, while the other five offer sunrise views.

ABD Engineering & Design was hired to design noise isolation similar to a 5-star hotel in a New York City location. ABD also provided room acoustics and mechanical noise control to render a peaceful atmosphere for the guests.









Convention Center

Project Name Cobo Center

- Size & Budget 700,000 Sq. Ft. \$221 Million
 - Schedule 2010 2015
 - Description ABD Engineering & Design provided audiovisual and technical systems design for the complete renovation of Cobo Convention & Exhibition Center, home of the North American International Auto Show. ABD worked with Albert Kahn Associates and SDG Associates to offer comprehensive audio-visual design services including:
 - Audio Systems Design
 - Video Systems Design
 - Digital Signage Systems Design
 - Large Format Video Systems Design
 - Paging Systems Design

Our scope of services addressed the entire facility including the Exhibition Halls, New Ballroom, Meeting and Banquet Spaces, Public Circulation, and Outdoor Public Areas.









Project Name

Delta Dental Corporate Headquarters

Okemos, Michigan

2010

Year Completed

Location

Size and Cost

Highlights

• 50 Person Board Room

271,000 SF, \$60 Million

- Divisible Multipurpose Room
- Distributed Digital Signage
- Training Rooms
- Conference Rooms
- Executive Dining Area

Services Provided

- Audio System Design
 - Video System Design
- Digital Signage System Design
 Acoustics Noise Isolation HVA
- Acoustics, Noise Isolation, HVAC Noise Control









Hotel and Conference Center

Project Name Aqua Tower

- Location Chicago, Illinois
- Year Completed 2009
 - Size and Cost 82 Stories, 1.9 Million SF
 - Description ABD Engineering & Design was brought in by Loewenberg Architects to offer acoustical consulting and noise isolation for Aqua, a new 82-story sky scraper in the heart of Chicago, Illinois. This mixed-use development houses residential condominiums, apartments, and parking space as well as a hotel, fitness center, and movie theatre. Sound isolation between units was a crucial factor for long term success.

Our professional engineers used 3D computer modeling software to thoroughly analyze and predict the acoustical attributes of the spaces. Before ground breaking, we made recommendations for construction features that would provide an appropriate amount of noise isolation between spaces. Our final report offered straight forward solutions for the complex acoustical challenges, and enabled Aqua to offer all the amenities of a classy, mixed-use development.









Project Name Finish Line Corporate Headquarters

- Location Indianapolis, Indiana
- Year Completed 2008

Description

When Finish Line, the popular athletic shoe retailer, decided to connect their new corporate offices to their large manufacturing facility in Indianapolis, Indiana, the plan seemed foolproof. Keeping the headquarters close to the manufacturing plant would encourage fluid communication and accountability amongst all personnel and would improve the overall company environment. The





problem was finding a way to isolate the loud plant noise from the new offices and meeting rooms. ABD Engineering & Design was brought in by Wolfson Young Architects to consult on mechanical noise control and noise isolation for the conveyor system and the air compressors near the demising wall.

Our professional engineers measured the sound levels in the existing facility and analyzed both the airborne and structureborne noise. Next, we developed a solvent noise isolation plan, addressing all angles of sound propagation. Our final report included specifications for the Legal Department Offices, CEO Office, and Conferences Area, all of which were separated from the plant by the demising wall. With our recommendations in place, Finish Line now enjoys the benefits of a connected manufacturing and corporate environment without the normal pitfalls of a noisy office space.



Project Name Lear Corporate Headquarters

Location Southfield, Michigan

- Year Completed 2006
 - Size and Cost 93,000 SF, \$15 Million
 - Highlights
- 300 Seat Auditorium
- Large Boardroom
- Complete Video Production Suite

Services Provided

- Audio System Design
- Video System Design
 Control System Design
 - Control System Design Acoustics, Noise Isolation
- Acoustics, Noise IsolationMechanical Noise Control







- Project Name Consumers Energy Corporate Headquarters and Historic Post Office Renovation
 - Location Jackson, Michigan
- Year Completed 2001
- Project Size and 395,000 SF Cost \$63.8 million
 - Description ABD Engineering & Design worked with Neumann/ Smith Architecture, FTC&H Engineers, and Granger Construction on the historic renovation and adaptive re-use as well as the new construction alongside this beautiful, award-winning project.

The 12-story high-rise corporate headquarters and re-imagined gateway to the facility won several state and national awards for strategic partnership, along with its design and construction elements, achievements in historic rehabilitation and preservation, and environmental stewardship.

The open plan as well as large spaces, both in the new building and historic structure, presented an alltoo-common challenge to control echo/reverberation in the spaces. Our Professional Engineers provided recommendations for room acoustics, noise isolation, and mechanical noise control that would honor the modern construction and historic preservation.









International Projects

Project Name Albert Einstein Hospital Auditorium

- São Paulo, Brazil Location
- Year Completed 2010
 - 750,000 SF Size

•

- Description
- Seeking LEED Gold Certification
- 500 Seat Auditorium
- Large Multipurpose Room
- 15 Training and Conference Rooms
- Video Production and Streaming
- Audio System Design
- Video System Design
- Platform Lighting System DesignDigital Signage System Design
- Control System Design
- Acoustics, Noise Isolation
- Mechanical Noise Control













- Location Zeeland, Michigan
- Year Completed 2001
 - Project Size 100,000SF
 - ABD Engineering & Design was brought in to Description complete an acoustical analysis for the Herman Miller Marketplace, a contemporary office structure in Zeeland, Michigan. The facility incorporates an open office floor plan with conference rooms and a large lobby, thus presenting a complex acoustical environment. Our professional engineers took measurements of the background noise levels, HVAC noise levels, and reverberation times throughout the building. Finally, we generated a report with recommendations for noise mitigation solutions including construction features that would reduce reverberation time and a sound masking system that would cover conversational noise and offer additional levels of privacy for the workers.

The emphasis on green building design utilized during this project promotes energy efficiency, indoor environmental quality and conservation of materials and resources. The Marketplace was submitted for and received one of the highest rankings from the U.S. Green Building Council the Gold Level of LEED Certification.









Convention Center

Project Name DeVos Place Convention Center

Size & Budget 1,037,905 Sq. Ft. \$220 Million

Schedule 2004

Description Architect's Challenges:

- Provide a convention and exhibit facility that increases the ability of the Grand Center to attract new and larger groups, maintain the current growing businesses, and more readily serve multiple events.
- Over 1 Million square foot, state-of-the-art convention and exhibition facility that meets the needs of users, now and into the future.
- Function spaces were enlarged and reorganized to increase convenience and ease of use for both the public and the exhibitor.
- Major components of the expansion and renovation include 162,000 square feet of column free exhibit space, a 40,000 square foot sub divisible ballroom, 35,000 square feet of flexible meeting rooms, and a parking garage.
- A Grand Gallery links the Grand River through the convention center to a main downtown plaza.







• Each end is a front door

Melinda Miller, PE Principal Engineer LEED AP BD+C, EDAC, INCE Bd. Cert. mmiller@abdengineering.com



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.

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



Erik J Geiger, CTS-D Director of Audiovisual egeiger@abdengineering.com



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.

- People's Bank Headquarters, Medford, OR
- Warner Norcross + Judd, Legal Offices, Detroit and Grand Rapids, MI
- Abbott Labs, Experience Center, Green Oaks, IL
- Ally Financial, One Detroit Center, Detroit, MI
- Borg Warner, Auburn Hills, MI
- Johnson Controls World Headquarters, Milwaukee, WI
- Mayer Brown Rowe & Maw, Chicago, IL
- Mayer Brown Rowe & Maw, Chicago, IL
- Northern Trust, Conference Center, Chicago, IL

- Perkins+Will Chicago, Chicago, IL
- Presence Health Headquarters, Chicago, IL
- Pritzker/Hyatt, Corporation Headquarters, Chicago, IL
- Roche Diagnostic, VIP & Training Center, Indianapolis, IN



Peter Allen, PE Senior Engineer INCE Bd. Cert. pallen@abdengineering.com



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.

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



Jeremy Bielecki Senior Acoustical Consultant jbielecki@abdengineering.com



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
- *St. John Hospital, Detroit, MI
- *Detroit Pistons Performance
- Center, Detroit, MI
- *Greektown Casino Hotel, Detroit, 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
- *Central Michigan University, Mount Pleasant, MI Grawn Hall Ronan Hall

- *Michigan State University, East Lansing, MI Broad Art Museum
 - STEM Power Plant Renovation
- *Henry Ford Community College, Recording Studio, Dearborn, MI
- *Kendall College of Art and Design, Grand Rapids, MI
- *Davidson Foundation Development, Bloomfield Hills, MI
- Romeo High School, Auditorium, *Romeo, MI
- *Byron Center High School, Byron Center, MI
- *Ann Arbor School of the Performing Arts, Ann Arbor, MI
- *Toyota Technical Center, Quiet Room, Ann Arbor, MI

- *Charles H Wright Museum of African American History, Detroit, MI
- *Emagine Theaters, Royal Oak, MI
- *Residence Inn by Marriott, Grand Rapids, MI
- *Bharatiya Temple, Troy, MI
- *The Mid: Co-Living, Detroit, MI
- *New Beginning Baptist Church, Waterford, MI
- *Cobo Center, Detroit, MI
- *Patrick V. McNamara Fitness Center, Detroit, MI
- *Theodore Levin U.S. Courthouse, Detroit, MI

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

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

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.

- South Cooper Mountain Apartments, Beaverton, OR
- Wood Village Mixed Use, Wood Village, OR
- Farmdale Apartments, North Hollywood, CA
- L&M Industrial Fabrication, Lot Expansion Barrier Calculations, Tangent, OR
- USANA Sciences Company, Packaging Area, Valley City, UT
- TriMet, Columbia 10, Portland, OR

- Hermiston Schools (Theater Lane Elementary School, Rocky Heights Elementary School, High School Classroom Annex and CTE), Hermiston, OR
- Dry Creek Landfill, Noise Study, Eagle Point, OR
- Kaiser Permanente, Sunnyside Medical Center, Clackamas, OR
- United Natural Foods, Noise and Vibration Study, Ridgefield, WA
- Threemile Canyon Farms, Generator Exhaust, Boardman, OR

- Northwest Pipe Company, Open Office Acoustics, Vancouver, WA
- Columbia Shores Townhouses, Overlay Noise Study, Vancouver, WA
- Wood Village Mixed Use, HUD Noise Study, Wood Village, OR
- Clackamas Federal Credit Union, Corporate Headquarters, Oak Grove, OR



Quincey Smail Senior Acoustical Consultant INCE Bd. Cert. qsmail@abdengineering.com



QUINCEY Small 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
- Courtyard Marriott, Detroit, MI
- Essity Operations Gennep, Netherlands
- Tri County Area Schools, Cafetorium, Howard City, MI
- Nestle Production Studio, Solon, OH
- Bendix, Relocation Noise and Vibration, Avon, OH
- Western Michigan University, Dunbar Hall, Kalamazoo, MI
- Western Michigan University, College of Aviation, Battle Creek, MI

- Riverview Church, Auditorium, Holt, MI
- 212 River Residential Mixed-Use, Holland, MI
- Jefferson Lofts Condominium Association, Noise Isolation, St. Joseph, MI
- West Ottawa Public Schools, Performing Arts Center, Holland, MI
- Warner Norcross & Judd, Office Acoustics, Detroit, Grand Rapids, and Kalamazoo, MI
- Tommy Car Wash Systems, Car Wash Noise Study, Hudsonville and Flint, MI

- Forslund Condominium, Impact Isolation, Grand Rapids, MI
- Domino's Pizza, Boardroom and Warehouse Open Office, Ann Arbor, MI
- Interlochen Center For The Arts, Kresge Amphitheater, Interlochen, MI
- Grand Valley State University, Product Design and Robotics Studio, Grand Rapids, MI
- Ford Motor Company, Conference & Event Center, Dearborn, MI
- Opera Grand Rapids, Grand Rapids, MI

ABD Engineering & Design

coostics in pesign moise a mototion

John Kramer

Acoustical Consultant jkramer@abdengineering.com



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.

- Oregon State University Fairbanks Hall Corvallis, OR
- Minot State University Hartnett Hall Minot, ND
- Sinclair Community College Distance Learning Dayton, OH
- Grand Rapids Community College Secchia Institute for Culinary Education Grand Rapids, MI
- Oregon Health and Science University Dispatch Portland, OR

- Corewell Health Ambulatory Grand Rapids, MI
- PeaceHealth Riverbend Springfield, OR
- Portland Providence Medical Center Main Emergency Department Portland, OR
- Interlochen Center for the Arts Interlochen, MI
- Jackson Hole Classical Academy New High School Jackson Hole, WY
- Hudsonville Christian School Hudsonville, MI
- Wheaton Academy West Chicago, IL

- Kellogg's Headquarters Battle Creek, MI
- LinkedIn Detroit Detroit, MI
- Disability Advocates of Kent County Grand Rapids, MI
- Wolverine Worldwide Broadcast Studio Rockford, MI
- Cannon Muskegon Noise Study Muskegon, Ml
- Grand Rapids Public Museum Grand Rapids, MI
- Southtown Guitar Grand Rapids, MI



Faulkner Bodbyl-Mast, CTS Audiovisual & Acoustical Consultant fbodbylmast@abdengineering.com



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
- Oregon State University Fairbanks Hall Corvallis, OR
- Oregon State University Student Success Center Corvallis, OR
- Columbia Gorge Community College Nursing SIM Lab The Dalles, OR
- Hillsboro Civic Center Hillsboro, OR
- Chehalem Cultural Center Newberg, OR

- City of Troy Council Chambers
 Troy, MI
- Portland Art Museum Rothko Pavilion, Portland, OR
- Rogue Credit Union Community Complex Sports and Events Medford, OR
- Wheaton Academy West Chicago, IL
- St Paul Center Steubenville,OH
- Ben Davis High School
 Indianapolis IN
- Potter Elementary School Flint, MI
- Illiana Christian High School Lansing, IL

- Amity Middle School and High School Amity, OR
- Spokane Pubic Schools Lewis and Clark High School Spokane, WA
- NAMI Oregon Portland, OR
- Peace Church Middleville, MI
- Gardens of Sun City Senior Living, Sun City, AZ
- Senior Living Peoria AZ
- Happy Valley Library Happy Valley, OR
 - ABD Engineering & Design

Architectural Acoustics • AV Design • Noise & Vibration

Lauren Slattery

Acoustical Consultant Islattery@abdengineering.com



LƏUFEN SIƏTTEFY 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

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



References

Grand Rapids, MI 15 Ionia Ave. SW, Suite 650 Grand Rapids, MI 49503 Local: (616) 241-5810 Portland, OR 833 SW 11th Ave., Suite 925 Portland, OR 97205 Local: (503) 444-5656 client@abdengineering.com

www.abdengineering.com

Architects

Peter Baldwin President AMDG Architects 25 Commerce Ave. SW Ste. 300 Grand Rapids, MI 49503 (616) 454-1600 pbaldwin@amdgarchitects.com

Larry Banks, AIA Principal PIVOT Architecture 44 W Broadway Ave. Eugene, OR 97401 (541) 762-1622 Ibanks@pivotarchitecture.com

David Wilkins Vice President GMB Architecture + Engineering 85 East Eighth St., Suite 200 Holland, MI 49423 (616) 392-7034 davidw@gmb.com

John Shorb Partner Opsis Architecture LLP 920 NW 17th Ave Portland, OR 97209 (503) 943-6215 john@opsisarch.com Carla Day-Dziubek, RA, CDT Architect Engberg Anderson 320 East Buffalo Street, Suite 500 Milwaukee, WI 53202 (414) 640-7887 carlad@engberganderson.com

Chris Spurgin Architect LSW Architects 610 Esther Street, Suite 200 Vancouver, WA 98660 (503) 866-0459 chris@lsw-architects.com

Michael Krebs Vice President Ghafari Associates 17101 Michigan Ave. Dearborn, MI 48126 (313) 436-8642 mkrebs@ghafari.com

Direct-Clients

Mark A. Dietlein CEO Hale Centre Theatre 3333 S. Decker Lake Drive West Valley City, UT 84119 (801) 984-9000 markd@hct.org or tammym@hct.org

Dan VanBrabant Staff Project Manager Kaiser Permanente Daniel.A.VanBrabant@kp.org (503) 484-0273

Elaine Dabrowski Healthcare Projects SPM, Regulatory Compliance Liaison Oregon Health & Science University Center for Health & Healing dabrowsk@ohsu.edu (503) 720-4264

Todd Switzer Vice President of Human Resources Semblex 900 N. Church Rd, Elmhurst IL 60126 (630) 617-2635 tswitzer@semblex.com

