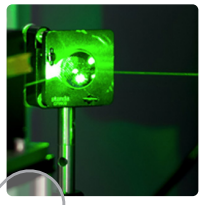
ABD Engineering & Design

Architectural Acoustics ▪ AV Design ▪ Noise & Vibration

Performance Venues

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 = 8
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

Enhancing the Performance Environment

Acoustical Engineering and Audiovisual Design

Critical to any performing environment is a fluid marriage between acoustics and technology, so every seat in the house is a great seat. At ABD Engineering & Design, our consultants are experts at combining enhanced audio and video systems with optimized room acoustics. The result is a fantastic creative environment for performers and an extraordinary experience for the audience. Performing Arts Centers, Theatres, Auditoriums, and Cinemas all require spaces that maximize acoustical performance while minimizing distractions from noise (from inside or outside the room). On the other hand, outdoor performance spaces like stadiums and amphitheaters have an entirely different set of requirements, and often require noise studies to fit into the communities where they're located. As an independent acoustical consulting and AV design firm, we take into account the whole equation, from the performers to the audience, and we design spaces where every expression can be seen and heard with pristine clarity.

Audiovisual Systems Design

Our audiovisual consultants are experts at designing custom AV systems, and we work closely with our clients to determine their specific technology needs. We design systems for every level of production, from intuitive designs for community theatres to sophisticated multimedia systems for dynamic, touring stage productions, along with sports stadiums and major concert venues. Costs are estimated early in the process to bring needs and desires in-line with the budget. We create audiovisual infrastructure drawings and specifications, working with project architects to integrate the equipment into their designs and working with engineers to advise on AV equipment HVAC and electrical loads.

Architectural Acoustics

Great performance venues have great acoustics, optimized for both performed music and the spoken word. At ABD Engineering & Design, we use 3D modeling software to accurately predict the acoustical response of all types of performing arts venues. In existing spaces, we take high tech sound measurements to map the "acoustical fingerprint" of the room. This data enables us to offer detailed recommendations for construction features that optimize reverberation and maximize speech intelligibility, creating an even acoustical response from the front row to the balconies.

BIM Design

Building Information Modeling (BIM) is an intelligent 3D modeling and database-based 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 Cloud-based 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.

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.

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.

LEED Design

The LEED design guidelines set the pace for a higher standard in sustainable facility design. Our professional engineers are well versed at meeting the LEED for prerequisite requirements for reverberation time, sound transmission, and background noise levels, and will guide you through the LEED certification process.

Green Design

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

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Performance Venues

Selected Experience

20 Monroe
Live Nation Events
Grand Rapids, MI

Arcadia Bluffs Golf Club
Arcadia, MI

Berman Center for the Performing Arts
West Bloomfield, MI

Brighton Center for the Performing Arts
Brighton, MI

Calvin College
Recital Hall
Covenant Fine Arts Center
Grand Rapids MI

Catholic Central
Stadium
Grand Rapids, MI

Celebration Cinema and IMAX Cinema
Grand Rapids, MI
Kalamazoo, MI
Lansing, MI

Charlevoix Pavilion Amphitehater
Charlevoix, MI

City of Tallahassee
Cascades Park Amphitheater
Tallahassee, FL

Cornerstone University
Matthews Auditorium
Matthews Performing Arts Center
Christ Chapel
Grand Rapids, MI

CRC Conference Grounds
Grand Haven, MI

Delphi Opera House
Delphi, IN

Detroit Institute of Music Education
Detroit, MI

Detroit Regional Convention Facility Authority
Cobo Hall
Detroit, MI

East Grand Rapids High School
Athletic Complex Stadium
East Grand Rapids, MI

Grand Rapids Christian High School
Eagles Stadium
Grand Rapids, MI

Grand Rapids Community College
Albert P. Smith Music Center
Linn Maxwell Keller Performance Hall
Grand Rapids, MI

Grand Valley State University
Haas Performing Arts Center
Linn Maxwell Keller Black Box Theater
Allendale, MI

Greektown Casino
Event Center
Detroit, MI

Hale Centre Theatre
Mountain America Performing Arts Centre
Sandy, UT

High Star Ranch
The Barn Conference and Events Center
Kamas, UT

Hope College
Martha Miller Center for Global Communication
Holland, MI

Indiana Wesleyan University
Chapel Auditorium
Marion, IN

Kent State Hospital
Conference Center
Kent, OH

Little Caesar's Arena
Detroit, MI

Michigan State University
Community Music Center Detroit, MI
Community Music School Lansing, MI

Mosaic Youth Theatre
Detroit, MI

Motherhouse Retreat House
Bedford, OH

Peralta Hacienda
Oakland, CA

Plainwell High School
Performing Arts Center
Plainwell, MI

Saint Cecilia Music Center
Royce Auditorium
Grand Rapids, MI

Summerfest Festival Park
Milwaukee, WI

Tamarack Camps
Amphitheater
Ortonville, MI

University of Michigan
Earl V Moore School of Music
Ann Arbor, MI

University of Michigan Flint
Conference and Event Spaces
Flint, MI

University of Oregon
Autzen Stadium
Eugene, OR

Urban Institute for Contemporary Arts
Grand Rapids, MI

Village Theater Company
Vanguard Theater
Sewickley, PA

Wayland Union Schools
Performing Arts Center
Wayland, MI

Jamie Hurd Amphitheater
West Des Moines, IA

Western Michigan University
WMUK Radio, Kalamazoo, MI

Woodward Garden Theater
Detroit, MI

Zimmer Amphitheater
Grand Rapids, MI

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

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Museum & Theater Project

Project Name	Chehalem Cultural Center (Phase 3)
Location	Newberg, Oregon
Size and Budget	9,000 SF $5 million
Year Completed	2024

Description

Scott Edwards Architecture, the Chehalem Park and Recreation District (CPRD), and Chehalem Cultural Center (a nonprofit 501(c)(3) organization) brought ABD Engineering & Design in for this adaptive reuse project. The ongoing project reimagined a 1935 WPA elementary school as a community building celebrating the arts, community, education, and heritage to inspire and enrich lives by connecting community and culture.

ABD's acoustical and audiovisual consulting services in the new performing arts wing (phase 3) addressed room acoustics, interior noise isolation, mechanical noise control, and AV design for the flexible and specialized spaces including meeting rooms, art galleries, movement studio, multipurpose arts studio classrooms, and spacious two-story lobby with open stairs. The 215 seat La Joie Theatre with the Jim Halliday Stage features a large screen with rear video projection, high-end audio systems, and acoustical treatment that makes the space sound as good as it looks.

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Performing Arts School

Project Name	**Interlochen Center for the Arts Music Center**
Location	Interlochen, Michigan
Project Size & Cost	65,000 SF, $24 million
Year Completed	2019
Description	ABD Engineering & Design worked with Cornerstone Architects to develop complete acoustical recommendations for the state-of-the-art Music Center. The Music Center includes a variety of acoustically critical listening spaces: teaching studios, practice and ensemble rooms, recording studios and rehearsal spaces. Recommendations for reverberation time, isolation, and background noise extended into classrooms, and offices. "The new Music Center provides the opportunity to incorporate 21st century expectations into our already rich music curriculum. ... Music students will have even greater success and Interlochen as a whole will be able to expand offerings and enhance the curriculum." - Camille Colatosti, Provost, Interlochen Center for the Arts

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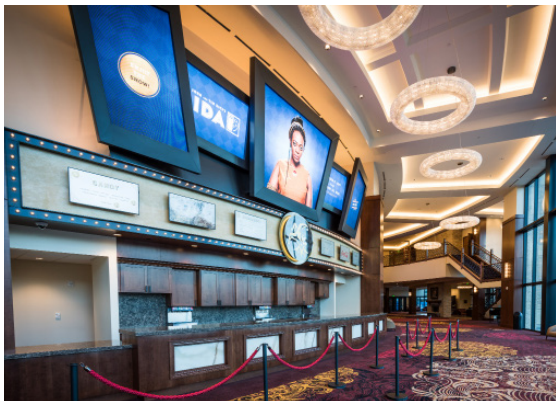
Theater

Project Name	**Hale Centre Theatre and Proscenium Thrust Stage**
Location	Sandy, Utah
Size	1000 Seats + 500 seats
Opening	September 2017
Description	ABD Engineering & Design's Professional Engineers developed recommendations for acoustical treatment, along with construction materials and methods to provide an acoustically rich and pleasing environment. The Hale Centre Theatre's Centre Stage Theatre is set in the round for an old-world feel, with new-world design, while the Jewel Box Stage (proscenium thrust) provides a more intimate experience. ABD Engineering & Design performed an environmental study to help anticipate the noise and vibration from the highway adjacent to the theater, and followed up with complete room acoustics, noise isolation, and mechanical noise control for the theater and proscenium thrust stage. The theater has a complicated system of lifts, positioned in close proximity to the audience, which required extensive noise and vibration mitigation.



Photos courtesy of Hale Centre Theater.

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University Projects

Project Name	Grand Rapids Community College Albert P. Smith Music Center and Linn Maxwell Keller Performance Hall
Location	Grand Rapids, Michigan
Year Completed	2017
Description	The original building was constructed in 1922 and served as a physical education facility for Strong Junior High School, and then Grand Rapids Junior College. It was first renovated for use by the Music Department in 1980. This latest renovation includes a new 100-seat performance space (The Linn Maxwell Keller Performance Hall) with flexible seating and stage, recording studio, private studios, teaching studios, practice rooms, classrooms, and an informal gathering and study area. ABD Engineering & Design worked with AECOM to provide complete acoustical analysis of existing spaces marked for re-use and a variety of new spaces. The design required engineered recommendations for Room Acoustics, Noise Isolation, and Mechanical Noise Control specifically tuned for performance, and teaching. Our consultants created designs to handle the demanding acoustical needs of spaces that would be in constant flux – changing from one use to another throughout the day, and throughout the year.

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University Projects

Project Name	Grand Valley State University Haas Performing Arts Center and Linn Maxwell Keller Black Box Theater
Location	Allendale, Michigan
Year Completed	2017
Description	The addition of a black box theater to the existing performing arts center, along with three new ensemble rooms, and renovations to the existing music and dance department spaces, were of paramount importance for this project. ABD Engineering & Design provided audiovisual design and acoustical engineering throughout the center. Starting with acoustical measurements of the existing conditions, we followed with engineered recommendations for room acoustics, noise isolation and mechanical noise control. The ensemble rooms are dedicated to the type of music or instrumentation they serve, but a priority was placed on adjustable acoustics for personal preference. ABD worked with Stantec to create flexible acoustical environments for the music, dance, and theater departments, along with an integrated audiovisual system design.

Photo courtesy of GVSU

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Concert Venue

Project Name	**20 Monroe Live**
Location	Grand Rapids, MI
Size	2,600 flexible seating
Opened	February, 2017
Description	ABD Engineering & Design worked directly with the Gilmore Group, in Partnership with House of Blues and Live Nation Clubs and Theaters to provide extensive acoustical consulting for this premiere live performance venue in the heart of the city. Of particular concern was managing exterior noise levels, due to the adjacent hotel, high-end condominiums and other residential properties. ABD began with a noise study to predict the noise propagation, and engineered recommendations for the building envelope to minimize the impact of the new facility.

Photos courtesy of 20 Monroe Live

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Music Theater

Project Name **Saint Cecilia Music Center**
Royce Auditorium

Location Grand Rapids, Michigan

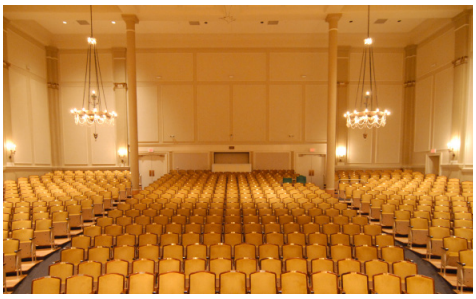
Size 500 seats, 27,700 SF

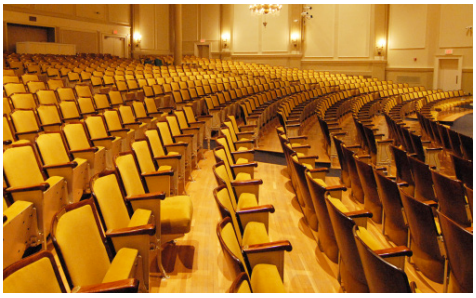
Opening October 2016

Description ABD Engineering & Design worked directly with Saint Cecilia Music Center staff to provide acoustical engineering recommendations for this historic performance venue.

Originally completed in 1894, this beautiful 500 seat auditorium has undergone many renovations, most recently in 2016, to restore the luster of the Gilded Age space. The St. Cecilia Society was founded by a group of nine affluent Grand Rapids women, who started meeting in each other's homes to perform for each other. Considered the "mother of the arts" in Grand Rapids, most of the city's music and theater groups got their start there.

"To this day, the auditorium is considered an acoustical gem, one of the finest recital halls in this country or abroad."
- St. Cecilia Music Center





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Amphitheater

Project Name	Jamie Hurd Amphitheater
Location	West Des Moines, Iowa
Year Completed	2020
Budget and Size	$2.4 Million, 1,550 SF Stage, lawn seating for 2000 people
Description	ABD Engineering & Design worked with Confluence on the City of West Des Moines Jamie Hurd Amphitheater.

Photos courtesy of the City of West Des Moines

Our Acoustical Engineering services included a site noise study. We used the data collected on site for modeling the proposed amphitheater designs to determine sound propagation throughout the site, and from the amphitheater to the community, including the nearby library. ABD's recommendations for noise mitigation to reduce the overall community noise exposure, were also targeted at providing the best outdoor performance environment possible.

As the project moved forward, ABD worked with the architect and city stakeholders to review construction drawings and confirm our recommendations.

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Amphitheater

Project Name **Cascades Park Amphitheater**

Location Tallahassee, Florida

Year Completed 2012 and ongoing

Description The Cascades Park renovation project is a community initiative in Tallahassee, FL to create a social capital center for the community, which will encompass the arts, entertainment, history, education, wellness and pride. When complete, the park will include an amphitheater, a baseball field, historic building renovations, and open green space for trails and community gatherings. ABD Engineering & Design was brought in to conduct a community noise assessment for the amphitheater ensuring proper noise levels. ABD also worked to design an audio-visual system for the amphitheater.
The City of Tallahassee has brought ABD in on a number of occasions to assist with adjustments to the stage, and the park acoustics and sound system.

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Amphitheater

Project Name	**Charlevoix Pavilion**
Location	Charlevoix, Michigan
Year Completed	2008
Size and Cost	Lawn seating for 500, $20 Million
Description	ABD Engineering & Design offered independent consulting services in architectural acoustics and audio-visual design for the newly built, Chalevoix Band Shell Amphitheatre in Charlevoix, Michigan. Our professional engineers developed a comprehensive plan to address all relevant acoustical and audio-visual issues at the site, rendering it fit for a wide variety of performances and events.

Speakers were hidden in the brick columns flanking the stage for aesthetics as well as weather protection. A Christie LX120 projector was installed to provide viewing options for images or films during evening events. Our final report included specifications for the audio, video, and lighting systems as well as specifications for construction features that would maximize the acoustical qualities of the shell. The end result was a classy outdoor performance space that looks great and sounds even better.

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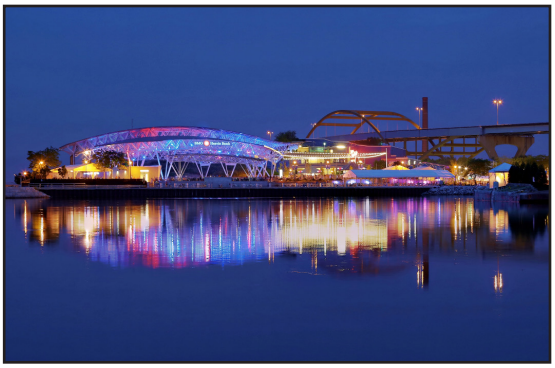
Outdoor Performance

Project Name	**Summerfest** **BMO Harris Pavilion,** **Briggs & Stratton Big Backyard**
Location	Milwaukee, Wisconsin
Year Completed	2011
Description	Summerfest is the world's largest music festival, providing the backdrop for the music industry's hottest stars, emerging talent and local favorites in a world-class festival setting. ABD Engineering & Design worked with Eppstein Uhen Architects to perform a comprehensive acoustical analysis, including a community noise assessment, on two of the premier festival stages – the BMO Harris Pavilion and the Briggs & Stratton Big Backyard. Their efforts, in conjunction with the rest of the design team, resulted in a great-sounding facility, free from excess reverberation, which provides fans with an unforgettable live music experience.



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Event Center

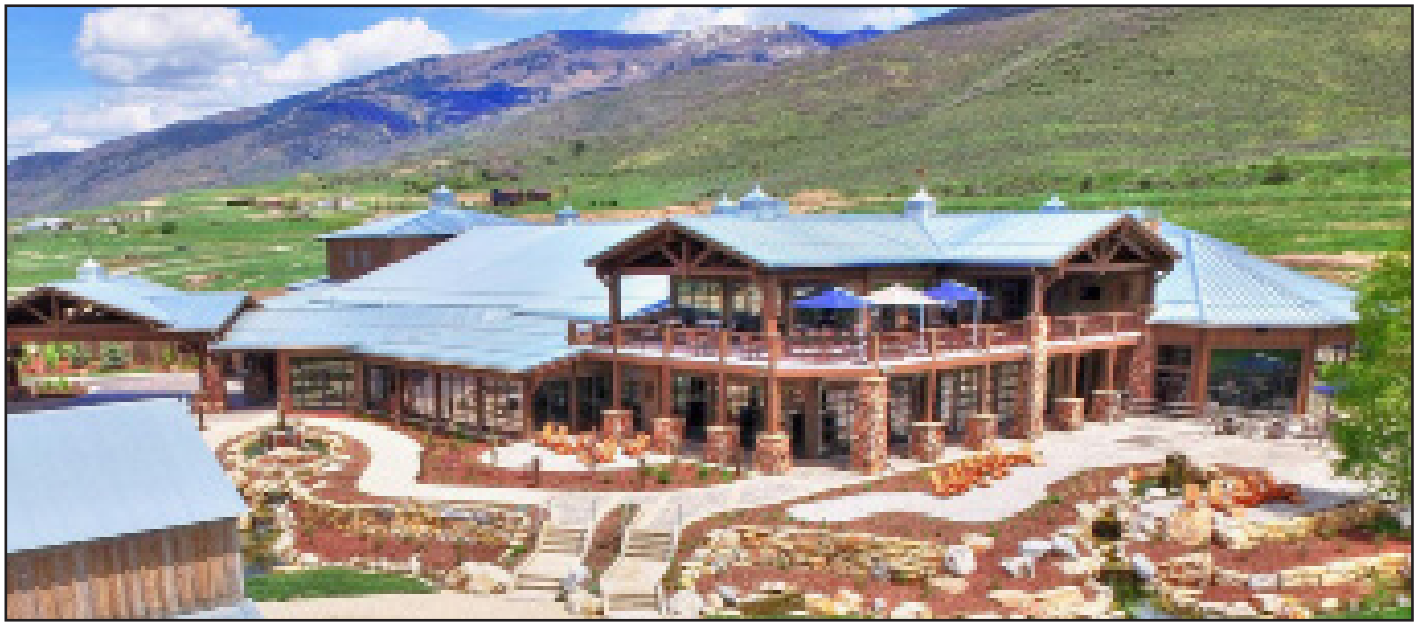
Project Name **High Star Ranch - The Barn**

Location Park City, Utah

Size 1500 Seats

Description ABD Engineering & Design provided complete Audio, Video, Specialty Lighting, and Digital Signage, along with Room Acoustics, Sound Isolation, and Mechanical Noise Control for this barn-themed concert venue and conference center.

Constructed from an actual old barn on the site, this one-time wedding venue is being transformed into a premiere performance space, with support for conferences, and still maintaining a rustic wedding location. All this, part of a planned community designed with high expectations.



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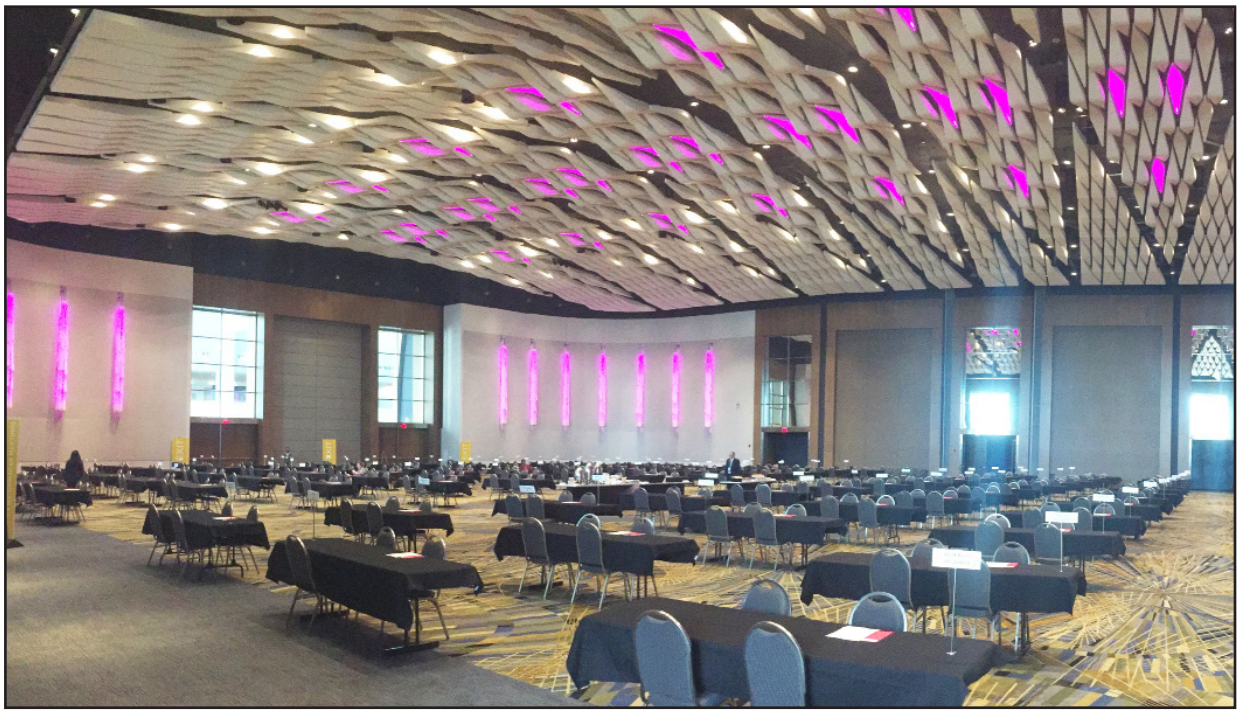
Convention Center

Project Name	**Cobo Center**
Size & Budget	700,000 Sq. Ft. $221 Million
Schedule	2010 - 2015
Description	ABD Engineering & Design provided audio-visual 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.



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University Projects

Project Name	**Cornerstone University Matthews Auditorium**
Location	Grand Rapids, Michigan
Seats	435
Year Completed	2014
Description	Cornerstone University worked with ABD Engineering & Design on an expansion and overhaul of the existing auditorium, renovating it from a simple concrete box to a state of the art university performing arts center. ABD designed integrated audio, video, and theatrical lighting systems with complete acoustical engineering services including room acoustics, noise isolation, and mechanical noise control. The stage needed to perform well for spoken word, music, dance, and theater presenting a common but not inconsequential challenge for an 8,000 square-foot, 435-seat space. The acoustics and audiovisual systems had to be flexible, and easy to use, but still provide professional results for each of the varied uses. In the end, the performance venue sounds as good as it looks.

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University Chapel

Project Name	**Indiana Wesleyan University Chapel Auditorium**
Location	Marion, Indiana
Year Completed	2010
Size and Cost	3,800 seats, $22 Million
Reference	Kevin Scully, NCARB, President Design Collaborative 825 South Barr Street, Suite 100 Fort Wayne, IN 46802 (260) 422-4241
Description	The University Chapel and Auditorium seats 3,800 between the raked main floor and in the two balconies. It is the largest indoor assembly space on campus and will be used for graduation ceremonies, performing arts events, and of course, chapel. ABD Engineering & Design provided full design services for the Chapel's audio-visual systems, including the large rear projection displays which are integrated into the interior architecture.

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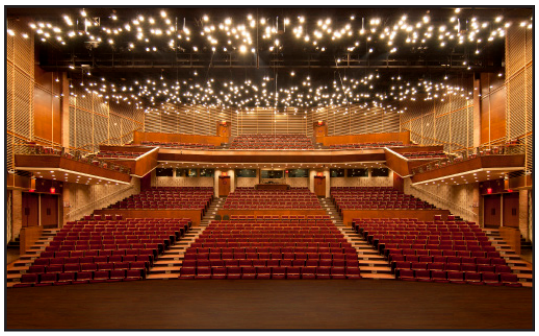
Performance Hall

Project Name	**Calvin College Covenant Fine Arts Center**
Location	Grand Rapids, Michigan
Size & Cost	1100 Seats, 124,000 SF, $15 Million
Year Completed	2010
Description	ABD Engineering & Design provided acoustical engineering and AVL systems design for the Covenant Fine Arts Center at Calvin College. Our work included the 1,100 seat Auditorium, 300 seat Recital Hall, Choir, Band, Rehearsal Rooms, and support spaces. ABD worked closely with GMB Architects + Engineers and the Calvin Staff to design state of the art AVL systems and acoustical features for the FAC. Our professional engineers used a binaural dummy head to measure the acoustical response throughout the auditorium and balcony. This data, combined with a predictive 3D computer model of the space, gave us the acoustical "fingerprint" of the space. Our design included adjustable acoustic features that can optimize the sound for any type of event. The facility has been met with rave reviews and is poised to meet the needs of the school for years to come.



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Performance Hall

Project Name **Calvin College Recital Hall**

Location Grand Rapids, Michigan

Size 300 Seats

Year Completed 2010

Description The brand new Recital Hall at Calvin College's Covenant Fine Arts Center meets a unique need by providing a smaller performance space with great acoustics, technology, and aesthetics. Until its completion, smaller performances (such as student recitals) took place in the large Auditorium, dwarfing the small crowd and killing the mood. ABD Engineering & Design engineered acoustical solutions and AVL systems for the space including a high definition video projection system with operable screens for both upstage and downstage. The 300 seat Recital Hall is optimized to provide a great solution for intimate performances, lectures, and even the occasional movie showing.

The acoustics of the Recital Hall are so pristine that some choir directors have avoided using it as a rehearsal space. Their reason? "It makes us sound better than we actually are!"

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Performing Arts Center

Project Name	**Wayland Union Fine Arts Center**
Location	Wayland, Michigan, 2010
Size & Cost	800 Seats, $8 Million
Description	ABD Engineering & Design provided acoustical engineering and Audio, Video, and Theatrical Lighting Systems Design for the new Wayland Union Fine Arts Center.

Our design included the 800-seat auditorium, cafeteria, and lobby. ABD worked with GMB Architects + Engineers to ensure the spaces sounded as good as they looked. Our professional engineers used a 3D modeling program to predict the acoustical enhancements that have come to characterize the room's acoustical signature. In addition our AVL Designers provided a state of the AVL system and Digital Signage that connects the auditorium to the cafeteria and the existing music rehearsal spaces.

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Performing Arts Center

Project Name	**Plainwell High School, Performing Arts Center**
Location	Plainwell, Michigan
Size	750 Seats, $11 Million
Year Completed	2010
Description	ABD Engineering & Design was selected by GMB Architects + Engineers to design comprehensive acoustical engineering and audio-visual systems for the new Performing Arts Center at Plainwell High School. The two-tier, 750-seat auditorium boasts a sunken orchestra pit, acoustical reflector clouds, scene shop, loading gallery, dressing rooms, and an acoustically optimized lobby with custom display cases for student artwork. Our engineers designed acoustical improvements that enhanced the space for sound including room acoustics, noise isolation, and HVAC noise control in the auditorium and lobby. In addition, our Audio-Video Engineers developed technical systems custom fit to compliment the acoustical enhancements. The result is a pristine auditorium suited to meet the school district's needs for years to come. The Performing Arts Center recently opened to rave reviews from students, teachers, and the community.

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Performing Arts Center

Project Name	**East Kentwood High School Auditorium**
Location	Kentwood, Michigan
Year Completed	2006
Size and Cost	1600 Seats, 300,000 SF, $65 Million
Description	ABD Engineering & Design was hired by GMB Architects and Engineers to consult on comprehensive room acoustics, mechanical noise control, and audio-visual design for the auditorium at East Kentwood High School. The 1600-seat auditorium is used for performing arts events as well as community activities. ABD used a 3D computer modeling program called EASE to predict the acoustical attributes of the space. We then designed a complete audio-visual and theatrical lighting systems to work in tandem with the room's acoustical features.

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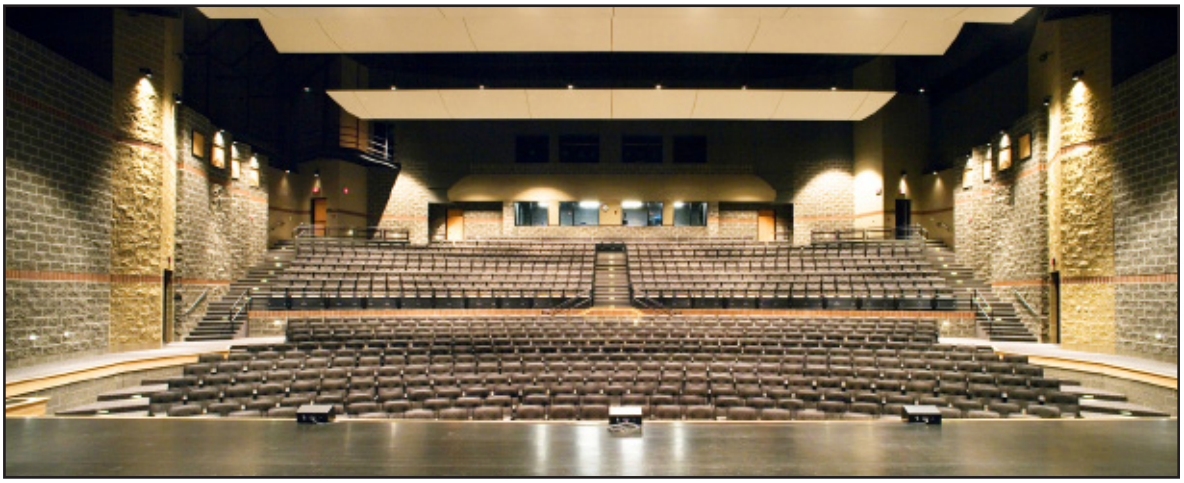
Performing Arts Center

Project Name	**Allendale High School** **Ceglarek Fine Arts Center**
Location	Allendale, Michigan
Year Completed	2005
Size	790 Seats
Description	ABD Engineering & Design worked with GMB Architects and Engineers to design comprehensive acoustical solutions for the new 790 seat Fine Arts Center.



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Cinema

Project Name	**IMAX Theatres at Celebration Cinema**
Location	Lansing and Grand Rapids, Michigan
Year Completed	2002
Description	ABD Engineering & Design was retained to offer consulting services for architectural acoustics in the IMAX Theatre, located inside Celebration Cinema of Lansing, Michigan. Our design services included specifications for proper reverberation time, mechanical noise control, and interior and exterior noise isolation. The project called for exceptional sound quality to meet the high expectations of an IMAX movie experience. Even before construction began, our professional engineers used a 3D computer modeling program called EASE to accurately simulate the room's acoustical attributes. Comprehensive recommendations were made to cover every aspect of acoustical design. Our final report gave Celebration Cinema the information necessary to provide an exceptional IMAX experience for all their movie guests.

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

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.

Project Experience

- Linfield College, Murdock-Graf, McMinnville, OR
- Schirle Elementary School, Salem, OR
- 1122 SE Hawthorne, Residential Mixed Use, Portland, OR
- German Village, Residential Mixed Use, Columbus, OH
- Victory Charter School, Performing Arts, Nampa, ID
- Sprague High School, Salem, OR
- Portland Community College, Cascade Campus, Public Service Education Building, Portland, OR
- Tillamook High School, Auditorium, Tillamook, OR
- Oregon Humane Society, Portland, OR
- Wenaha Baker Schools, Theater, Baker City, OR
- PDX Power Punch, Title Boxing Fitness, Portland, OR
- Oregon State University, Fairbanks Hall Renovation, Corvallis, OR
- Mayo Clinic, Behavioral Health, Albert Lea, MN
- University of Oregon, Autzen Stadium, Eugene, OR

ABD Engineering & Design
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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.

Project Experience

- Portland Community College, Cascade Campus, Public Service Education Building, Portland, OR
- Oregon State University, Fairbanks Hall, Corvallis, OR
- North Eugene High School, Eugene, OR
- City of Ukiah, Council Chambers, Ukiah, CA
- Kaiser Permanente, North Lancaster Medical Office Building, Salem, OR
- Moreland Presbyterian Church, Sanctuary, Portland, OR
- Port of Vancouver, Commission Room, Vancouver, WA
- Clackamas Community College, Barlow Hall, Automotive,Oregon City, OR
- The University of Providence Great Falls, University Center, Great Falls, MT
- Central Michigan University, Center for Integrated Health Studies, Mount Pleasant, MI
- University of Montana, Early Childhood Education Center, Missoula, MT
- Muskegon Community College, Arts and Humanities, Theater Music and Art, Muskegon, MI
- South Christian High School, Grand Rapids, MI
- University of Oregon, Autzen Stadium, Eugene, OR

ABD Engineering & Design
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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.

Project Experience

- Beaverton Health & Science School, Beaverton, OR
- Jesuit High School, Portland, OR
- Kaiser Permanente:
  -Hybrid Operating Room, Clackamas, OR
  -Salmon Creek MRI, Vancouver, WA
  -North Lancaster MOB, Salem, OR
  -Clackamas Eye Care MRI, Happy Valley, OR
- Lakeridge High School, Lake Oswego, OR
- Ron Russell Middle School, Portland, OR
- Tukes Valley K-8 School, Battlegreound, WA
- West End Surgical, Beaverton, OR
- Yates Pointe Mixed Use Development, Bend, OR
- Zoom+, Bridgeport Village Clinic, Portland, OR
- USANA Sciences Company,Packaging Area, Valley City, UT
- TriMet, Columbia 10, Portland, OR
- St John Fisher School, Gym Noise Isolation, Portland, OR
- Bendix, Relocation Noise and Vibration, Avon, OH

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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
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*Some project experience is prior to employment at ABD

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
- 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 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
- 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

Iva Handley

Acoustical Consultant
lhandley@abdengineering.com

Iva Handley is a graduate of Rosenheim University of Applied Sciences in Germany, where she earned her bachelor's degree in engineering, with a focus on interior engineering.

Iva has since worked as an engineer in the building design field, both in Germany, and in the US. She is experienced in acoustical measurements of airborne sound, impact noise, equipment, construction, and traffic noise, as well as building enclosures and field reviews. She also brings a background in carpentry and metal work to her projects.

When Iva isn't out taking acoustical measurements, building acoustical room models, or writing engineering reports, you might find her brewing her own beer.

Professional Experience

- 2019-Present – Acoustical Consultant, ABD Engineering & Design, Inc., Portland, Oregon
- 2018-2019 – Building Science Engineer, EIT, RDH Building Science, Inc., Portland, Oregon
- 2015-2016 – Project Engineer, ig-bauphysik GmbH & Co. KG, Hohenbrunn, Germany

Education

- Bachelors of Engineering: Interior Engineering, FH Rosenheim: University of Applied Sciences (Germany), 2017
- Study Abroad Program, École Supérieure du Bois: Research Wood Science and Technology (France), 2014

Professional Certifications

- EIT Certification for Civil Engineering and Land Surveying in the State of Oregon

Professional Memberships

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

Project Experience

- Zoom+, Bridgeport Village Clinic, Portland, OR
- Hillsboro School District, Mooberry Elementary School, Chiller Noise, Hillsboro, OR
- Godfrey Detroit Hotel, Detroit, MI
- Schirle Elementary School, Salem, OR
- Treasury Resiliency Building, Salem, OR
- Victory Charter School, Performing Arts Center, Nampa, ID
- Hermiston Schools (Theater Lane Elementary School, Rocky Heights Elementary School, High School Classroom Annex and CTE), Hermiston, OR
- Chiller Noise Control, Portland, OR
- Oregon Humane Society, Portland, OR
- Kaiser Permanente, Sunnyside Medical Center, Clackamas, OR
- United Natural Foods, Noise and Vibration Study, Ridgefield, WA
- Sprague High School, Salem, OR
- Northwest Pipe Company, Open Office Acoustics, Vancouver, WA
- Legacy Health, Emanuel Medical Center and Progressive Cardiac Care Unit, Portland, OR
- Casino Road Office Building, Everett, WA
- Oregon State University Cascades, AB2 STEM Building, Bend, OR
- Silco Site Apartments, Portland, OR
- Kaiser Permanente, North Lancaster Medical Office Building, Salem, OR
- University of Portland, Innovation Center, Portland, OR
- Salem-Keizer Public Schools, South Salem High School, Salem, OR
- Scioto Peninsula Apartments, Columbus, OH

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.

Project Experience

- 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, MI
- 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
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Lauren Slattery

Acoustical Consultant
lslattery@abdengineering.com

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
- 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

Architects

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