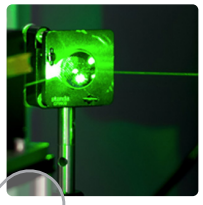
ABD Engineering & Design

Architectural Acoustics ▪ AV Design ▪ Noise & Vibration

K-12 Education

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.

Certifications

WBENC: WBE1701950
OR-COBID-WBE: 11342
WA-OMWBE: W2F0027557

Professional Memberships

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

Staff Count

Acoustics = 7
Audiovisual = 3
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 Communications in K-12 Education

Acoustical Engineering and Audiovisual Design

New media and technologies are enriching the K-12 education experience with more aural and visual communication options. Designing architectural spaces that create engaging campus environments and embrace and integrate these options into the pedagogy and learning techniques are paramount for encouraging creativity, ingenuity, and discovery at progressive institutions.

At ABD Engineering & Design, our acoustical engineers develop expert solutions to enhance communications in all types of college and university educational facilities. We help design and engineer audiovisual communications systems and the architectural environments in which they perform to optimize speech intelligibility and acoustical performance – so communications are delivered with acoustical clarity.

Audiovisual Systems Design

Our AV consultants are experts at designing and integrating custom AV solutions for each type of setting – from classrooms, lecture halls, distance learning, active learning classrooms, and e-learning centers to conference facilities, assembly halls, and performing arts centers. We understand the performance capabilities of multi-media, entertainment, and critical listening technology and its relationship and integration in varying environments.

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.

Acoustics for the Built-Environment

Capital programs directors, facilities directors, architects, engineers, and contractors consult us, often early in the pre-construction phase, for expert acoustical analyses and solutions. Using measured noise and vibration data, sophisticated computer modeling software, our acoustical engineers draw upon their professional experience to assess and predict potential noise problems. We analyze sound transmission, reverberation, absorption, reflection, diffusion, vibration, and other complex acoustical challenges. We help engineer the design of building partitions – shaping spaces of all sizes to negate distracting noise for adjacent spaces and exterior sources to ensure that building mechanical systems won't mask vocal communications. We work with architects to select surfaces and finishes that naturally amplify speech and reduce vocal efforts while complementing architectural aesthetics.

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 For Schools

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

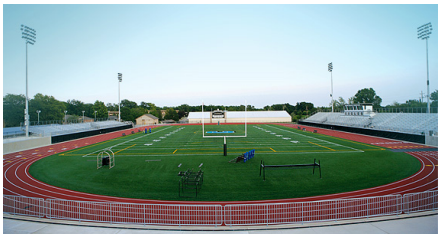
Green Design

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.

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

K-12 Education

Selected Experience



Aloha Park Elementary School
Aloha, Oregon

Avondale Schools
Avondale, Michigan

Beaverton Health & Science School
Beaverton, Oregon

Bellaire High School Auditorium
Bellaire, Michigan

Bloomfield Hills High School
Bloomfield Hills, Michigan

Buchanan Elementary School
Grand Rapids, Michigan

Burton Elementary-Middle School (LEED)
Grand Rapids, Michigan

Canton South High School (PAC)
Canton, Ohio

Catholic Central High School
Grand Rapids, Michigan

Central Catholic High School
Portland, Oregon

David Douglas School District
Ventura Park Elementary
Portland, Oregon

Dayton School District
Dayton, Oregon

Dearborn High School Auditorium
Dearborn, Michigan

Detroit Institute of Music Education
Detroit, Michigan

Detroit Public Schools
Detroit, Michigan

East Grand Rapids Public Schools
East Grand Rapids, Michigan

Farmington Schools
Farmington North High School
Farmington, Michigan

Franklin High School
Rooftop Chiller Noise
Franklin, Wisconsin

GB Academy
Gresham, Oregon

Grand Haven Public Schools
Athletic Complex
Grand Haven, Michigan

Grand Rapids Christian Schools
Pre-K
High School
Middle School
South Christian High School
Grand Rapids, Michigan

Grandville Middle School
Grandville, Michigan

Holland Public Schools
Holland High School
Performing Arts Center and Gym
Holland, Michigan

Hudsonville High School
Hudsonville, Michigan

Hood River Valley High School
Hood River, Oregon

Interlochen Music Center
Interlochen, Michigan

Jesuit High School
Portland, Oregon

Kalamazoo Regional Educational Service Agency
Special Education Building
Kalamazoo, Michigan

Kent Intermediate School District
Kent Career Technical Center E-Wing
Grand Rapids, Michigan

Lakeridge High School
Lake Oswego, Oregon

Lansing Catholic High School
Auditorium
Lansing, Michigan

LaPorte High School
Performing Arts Center
La Porte, Indiana

Lincoln Consolidated High School
Ypsilanti, Michigan

Livonia Public Schools
Fine Arts Centers
Livonia Churchill High School
Performing Arts Center
Livonia Franklin High School
Livonia Stevenson High School
Livonia, Michigan

Mason County Central Schools
High School Auditorium
Scottville, Michigan

Northview Public Schools
High School
Grand Rapids, Michigan

Ogden Middle School
Oregon City, Oregon

Oregon Episcopal School
Portland, Oregon

Pella Christian High School
Pella High School
Pella, Iowa

Rehoboth Christian School
Band and Gymnasium
Rehoboth High School
Rehoboth, New Mexico

Rockford High School
Performing Arts Center
Rockford, Michigan

Ron Russell Middle School
Portland, Oregon

Sam Barlow High School
Gresham, Oregon

Shawnee Park Elementary
Grand Rapids, Michigan

Southridge High School
Kennewick, Washington

Timothy Christian Middle School
Elmhurst, Illinois

Tukes Valley K-8 School
Battlegreound, Washington

Unity Christian High School
Hudsonville, Michigan

Walla Walla Valley Academy
College Place, Washington

Woodburn High School
Band and Chorus Rooms
Woodburn, Oregon

Wyoming Public Schools
Stadium and Gym
Wyoming, Michigan

Zeeland East High School
Auditorium
Zeeland, Michigan

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

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

K-12 Performing Arts Center

Project Name	**Ben Davis High School**
Location	Indianapolis, Indiana
Year Completed	2023
Description	ABD Engineering & Design worked with Schmidt Associates to provide acoustical engineering and audiovisual design services for renovating the existing 1200 seat auditorium and 480 seat theater. ABD's acoustical engineers performed acoustical testing in the existing spaces to measure the existing conditions. Data collected on site was combined with the architectural drawings to model the auditorium and theater, and make recommendations for new acoustical surfaces, treatments, and finishes. Our Audiovisual consultants evaluated the existing AV infrastructure and systems to determine what portions and components could be kept and re-used. Interviews with the school stakeholder revealed how the spaces would be used and how they wanted the new systems to operate. ABD developed a plan and budget for the new systems and designed to those. The resulting new AV systems, infrastructure to support them and acoustics result in state-of-the-art spaces that sound as good as they look.

ABD Engineering & Design
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K-12 Performing Arts

Project Name	**Fremont Ross High School Performing Arts Center**
Location	Fremont, Ohio
Year Completed	December, 2021
Size	700 Seats
Budget	$3.5 Million
Description	ABD Engineering & Design worked with Thendesign Architecture on complete acoustical consulting for this new high school performing arts center.

ABD's acoustical engineering services included room acoustics, noise isolation, and mechanical noise control to address the theater, band, orchestra, chorus, and practice rooms in the music suite, plus the dance rehearsal studio. The district is pursuing LEED Gold certification for the new high school as part of a 5-school project.

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

K-12 Performing Arts

Project Name **South Salem High School Performing Arts Center**

Location Salem, Oregon

Year Completed 2021
Project Size 152,000 SQ FT

Description ABD Engineering & Design worked with Anderson Shirley Architects and Salem-Keizer Public Schools to provide acoustical consulting and audiovisual design for the performing arts auditorium and music rooms renovation.

The existing auditorium had several sound problems. Sound from the stage didn't project well, and student performers couldn't hear themselves. AV technology was almost completely lacking, and the school relied on portable equipment for events. The band and chorus spaces both had tiered floors, limiting flexibility, and the band room was particularly difficult to manage during marching band or jazz band rehearsals. The adjoining music spaces made simultaneous rehearsals challenging.

The design team worked together to build acoustically balanced environments in the auditorium, band, and chorus spaces with a program for robust technical theater systems that are easy to deploy and use. South Salem High School's new performing arts building now supports three music spaces for band, orchestra, and chorus, plus added practice rooms, while adding a black-box theater to supplement performances in the auditorium.

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

K-12 Project

Project Name	**Sam Barlow High School**
Location	Gresham, Oregon
Year Completed Size and Budget	2020, 181,000 SF, $290-million
Description	ABD Engineering & Design worked with Opsis Architecture and the Gresham-Barlow School District to provide acoustical and audiovisual design of Sam Barlow High School. The school focuses on STEM and Career Technical Education (CTE) with a new science wing and maker spaces. The project covered AV and acoustics for the stadium, classrooms, labs, administration and guidance. The performing arts center includes a teaching theater (blackbox), chorus and band rooms, plus a full auditorium.

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Architectural Acoustics • AV Design • Noise & Vibration

K-12 Auditorium

Project Name **Tillamook High School Auditorium**

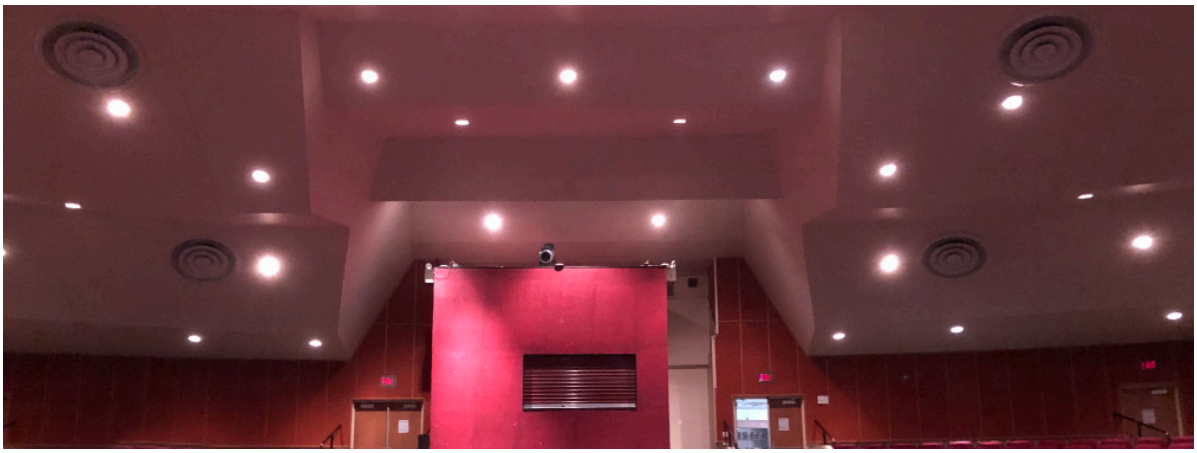
Location Tillamook, Oregon

Year Completed 2020

Description ABD Engineering & Design worked with ZCS Engineering & Architecture on their seismic upgrade and renovation of the Tillamook High School Auditorium. The articulated ceiling needed to be removed and replaced while improving the room acoustics in the space for plays, music performances, lectures, and assemblies.

ABD's acoustical consultants performed reverberation time measurements in the auditorium prior to ceiling demolition. Data collected on site was used with architectural drawings to create a computer model. This modeling gave us the information needed to provide recommendations for the acoustical treatment materials, square footage, and locations to maintain the acoustical performance in the space while meeting the tight project budget. The new acoustical ceiling features curved reflectors designed to evenly distribute sound throughout the seating area.

Articulated Ceiling before demolition and removal



New acoustical ceiling featuring curved reflectors

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K-12 Private School

Project Name	**South Christian High School**
Location	Byron Center, Michigan
Year Completed	2019
Description	ABD Engineering & Design partnered with AMDG Architects to develop acoustical and audiovisual designs for this new campus. The school includes 56 classrooms, performing arts center around a 1,100-seat auditorium featuring fixed and flexible seating and balcony, commons, STEM classrooms and labs, industrial arts, competition/performance gymnasium, along with administrative spaces. South Christian High School offers classes for nearly 700 students from 9-12th grades. SCHS is affiliated with Moline Christian School, Byron Center Christian School, Dutton Christian School, Legacy Christian School, all of which provide K-8 Education

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K-12 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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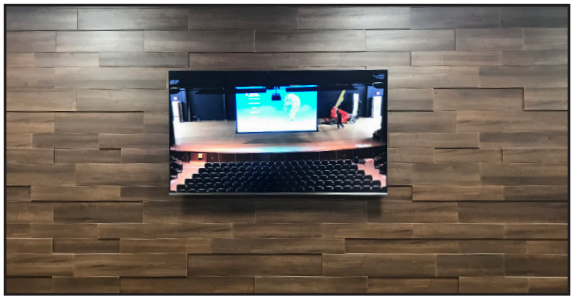
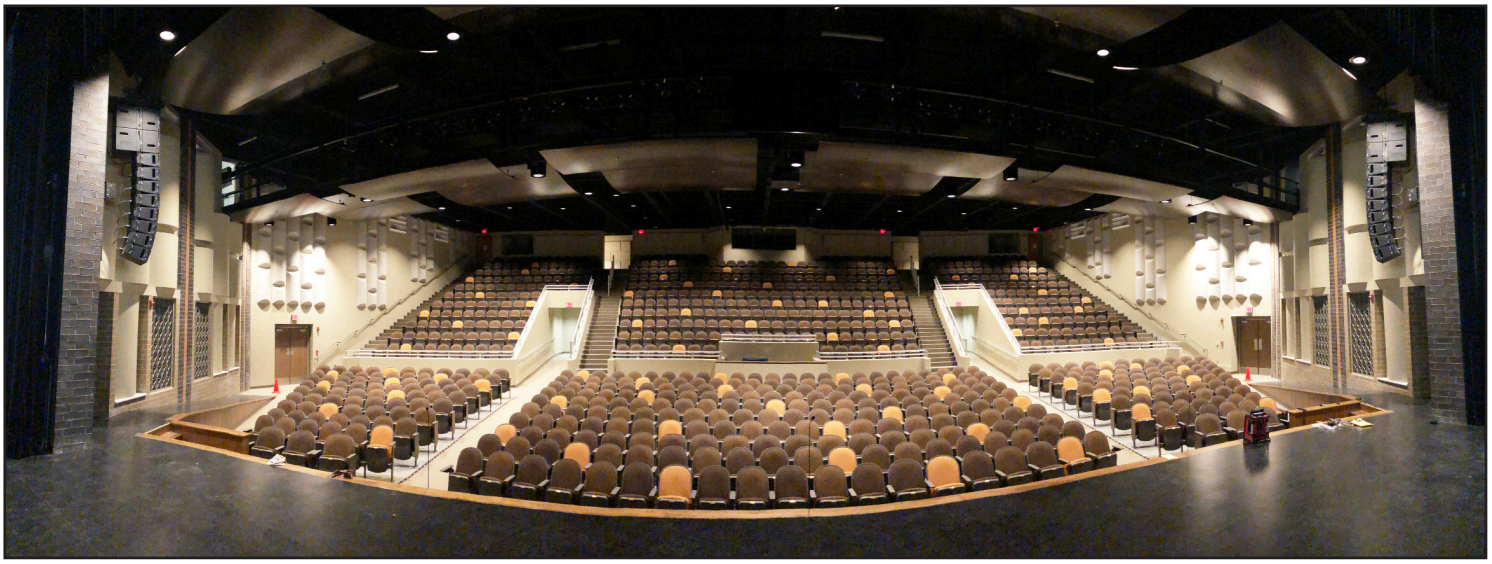
K-12 Performing Arts

Project Name	**La Porte High School Performing Arts Center**
Location	La Porte, Indiana
Year Completed	2018
Description	ABD Engineering & Design worked with Schmidt Architects on complete acoustical consulting and audiovisual design for this auditorium and support spaces renovation project. Rotating an existing auditorium 90 degrees to provide a wider approach to the stage comes with a unique set of challenges. Add to that a fixed ceiling height requiring creative solutions to the performance space. Back of house and lobby audio and video systems were added to allow patrons and backstage personnel alike to see and hear stage activities. The acoustical materials and audiovisual systems blended seamlessly into the modern and durable design.





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K-12 Performing Arts

Project Name	**Winston Churchill High School Auditorium**
Location	Livonia, Michigan
Year Completed	2018
Description	ABD Engineering & Design worked with French Associates, Inc. on a complete renovation of the existing auditorium.

Our work on the project included room acoustics to properly deliver sound from the stage to all seating areas, noise isolation from adjacent spaces, and mechanical noise control to avoid interruptions from HVAC systems.

ABD's audiovisual designers developed infrastructure designs to provide the necessary drawings for the General Contractor, Electrical Engineer, MEP Contractor, and Structured Cabling Contractor with clear delineation of scope for each discipline. Our delayed bid process for equipment specification brought the project in on time and nicely under budget.

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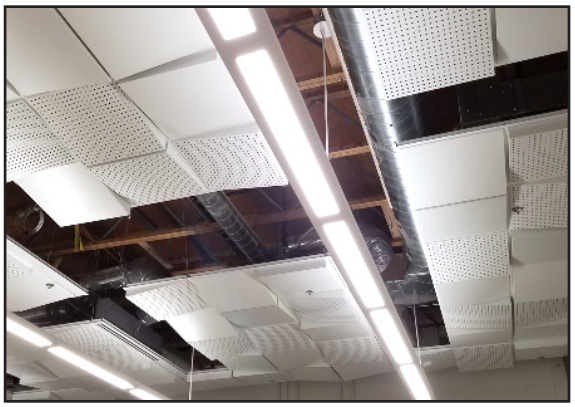
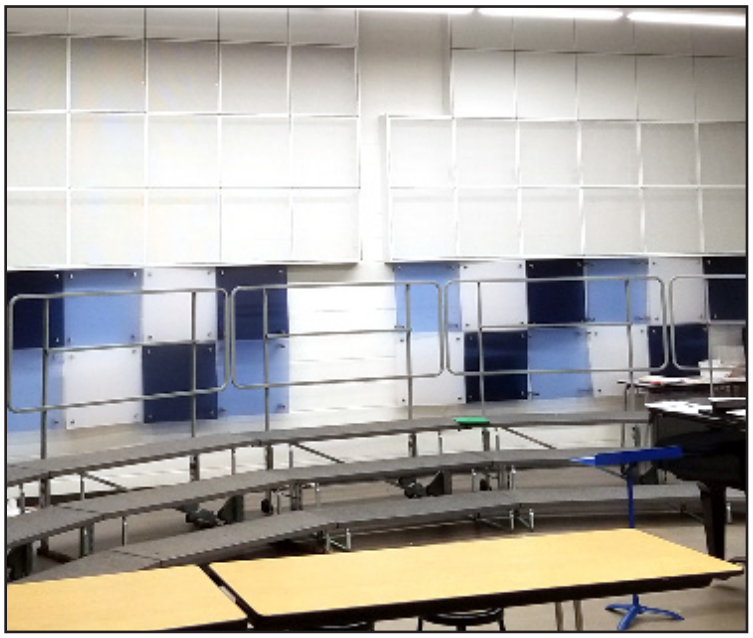
K-12 Performing Arts

Project Name	**Woodburn High School** **Band and Chorus Rooms**
Location	Woodburn, Oregon
Year Completed	2018
Description	ABD Engineering & Design worked with BBL Architects to develop room acoustics and noise isolation recommendations for the Woodburn High School performing arts classrooms. Band and chorus rooms are often placed next to each other in performing arts centers, and are planned to be used simultaneously. Noise isolation is key for these uses, as well as for adjacent classrooms and in this case – quiet study spaces. The room acoustics are designed to make it easier for student-musicians to hear themselves, and focus the sound enabling the music directors to hear adequately as well. ABD provided initial testing and recommendations, with follow up acoustical testing between adjacent band and chorus rooms.





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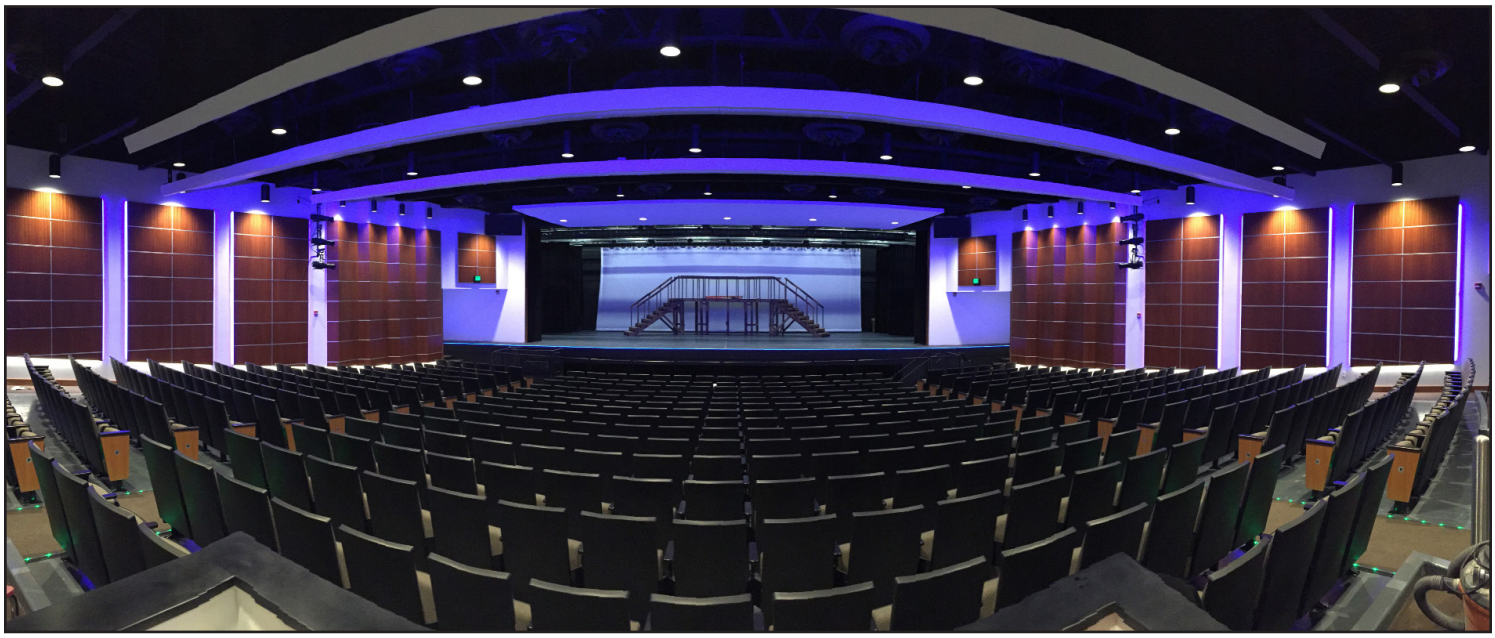
K-12 Performing Arts

Project Name	**Traverse City Area Public Schools** **Central High School**
Location	Traverse City, MI
Year Completed	2016
Services Provided	Audio-Video System Design Theatrical Lighting System Design Room Acoustics Noise Isolation Mechanical Noise Control
Description	Cornerstone Architects, Inc, P.C. hired ABD Engineering & Design to develop complete acoustical engineering recommendations and AVL designs for the auditorium renovation. Our Audio, Video, and Theatrical Lighting utilized LED lighting with digital sound and video for a top-of-the-line system on a school budget. Acoustical consulting services included mechanical noise control to provide quiet, noise isolation for separation of spaces, and room acoustics that look as good as the auditorium sounds.



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K-12 Projects

Project Name	**Unity Christian High School**
Location	Grand Rapids, Michigan
Year Completed	2015
Size and Cost	147,000 SF, $30 million
Services Provided	Audio-Video System Design Theatrical Lighting System Design Room Acoustics Noise Isolation Mechanical Noise Control

Description

Unity Christian High School features a two-story, three-court, 1800 seat gymnasium - auditorium. New music rehearsal spaces, along with updated classrooms, technology, and shop spaces. GMB Architects brought ABD Engineering & Design onto the project to provide acoustics and technical systems design throughout. Brightly colored common spaces, large windows, and open spaces create a vibrant hub for students and faculty. Acoustics and noise control was especially important to maintain the learning environment, supported by modern technology.

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K-12 Projects

Project Name	**Detroit Institute of Music Education (DIME)**
Architect	Neumann/Smith Architecture
Cost	$7,000,000
Year Completed	2014
Description	British music industry veterans Kevin Nixon, Sarah Clayman, and Bruce Dickinson founded the first of these modern music education schools in England, and expanded to Detroit. The 1897 historic Bamlett building now houses the new DIME campus in the heart of downtown Detroit's Capitol Park. Special attention was needed to preserve the original architectural character of the building, including its arched corridors, memorable curved brick, and stone façade. Neumann/Smith Architecture brought ABD Engineering & Design into the project to provide complete acoustical consulting services. All six floors of the building had experienced decay and no longer met city building codes. Previous offices were transformed into classrooms, music practice studios, and a 300-seat live music venue for weekly concerts. Along with special considerations for room acoustics, additional sound insulation was required between each floor due to the nature of DIME's music business. The special entertainment and acoustic needs of the school required an elaborate material installation, and the latest and most effective noise control materials available on the market today.

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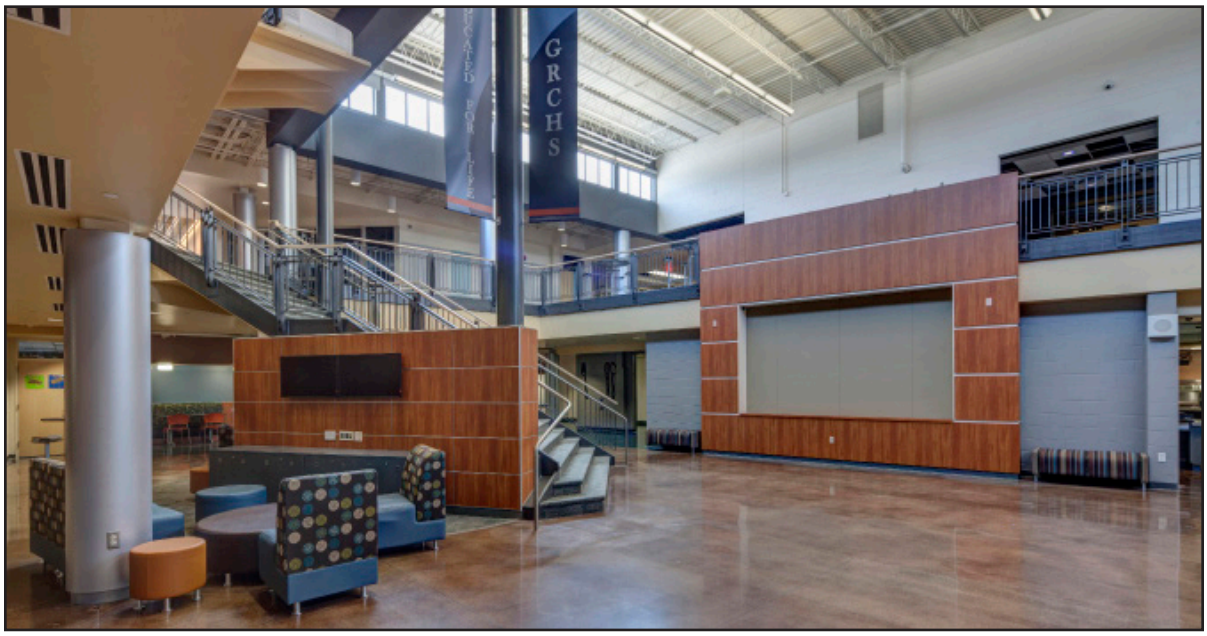
K-12 Projects

LEED Certified
by the U.S. Green Building Council

Project Name	**Grand Rapids Christian High School**
Location	Grand Rapids, Michigan
Year Completed	2013
Size and Cost	165,000 SF, $22 million
Services Provided	Audio-Video System Design Digital Signage System Design Room Acoustics Noise Isolation
Description	The Grand Rapids Christian High School project included the renovation of existing classrooms, science labs, commons, town hall, multipurpose room, and specialty rooms. ABD Engineering & Design was retained by A.M.D.G. Architects and Grand Rapids Christian Schools to offer comprehensive acoustical engineering and audio-visual design for the school. The school now uses state of the art AV throughout to facilitate flexible instruction methods with an emphasis on student collaboration.



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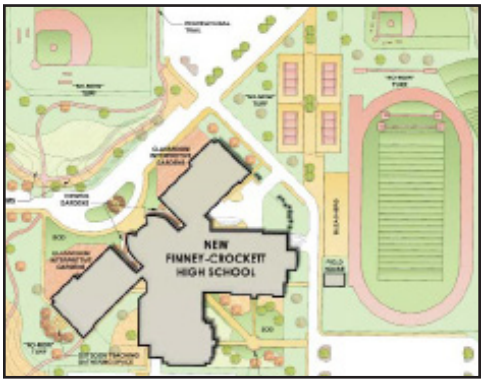
K-12 Projects

Project Name **Detroit Public Schools: Finney-Crockett High School**

Location Detroit, Michigan, 2012

Size and Cost 221,000 Sq. Ft., $46.3 Million

Description ABD Engineering & Design worked with Albert Kahn Associates to provide comprehensive IT/AV design and classroom technology consulting for Detroit Public School's 6 new schools, 12 school renovations, and the new Security Command Center. The technology and audio-visual systems were designed to remain uniform across all the schools and to integrate seamlessly with the new high-tech Security Command Center (which is linked to all schools in the district).



Services
- Audio-Visual System Design
- IP Based Video Distribution System
- Paging & Clock System design
- IT System Design
- Security System Design

ABD Engineering & Design
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K-12 Projects

Project Name	**Detroit Public Schools**
Location	Detroit, Michigan
Scope	18 Schools and 1 Security Command Center
Year Completed	2011
Description	ABD Engineering & Design was brought in by Albert Kahn Family of Companies to design comprehensive classroom technology solutions for 6 new schools, 12 school renovations, and the Security Command Center. The district wanted the technology to remain uniform across all the schools, and they wanted it to interface seamlessly with the new high-tech Security Command Center. As part of our schematic design, ABD Engineering & Design made renderings of the Security Command Center video control booth (below) and the press release room (above). In the event of an emergency, Detroit Public Schools will be able to host live press conferences that broadcast to local television stations as well as the other schools in the district.

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

K-12 Projects

LEED Gold Certified
by the U.S. Green Building Council

Project Name	**Kalamazoo Linden Grove Middle School**
Location	Kalamazoo, Michigan
Year Completed	2010
Size and Cost	142,000 SF, $24 Million
Description	Linden Grove is slated to be only the second school in Michigan to be certified under the LEED for Schools program. ABD Engineering & Design was retained by TowerPinkster and Kalamazoo Public Schools as acoustical consultants for the project. The school uses state of the art architectural methods throughout and has been the winner of numerous architectural and construction awards. ABD Engineering & Design carefully surveyed the acoustical environment throughout the school to ensure that it met the requirements for the reverberation time, background noise levels, and sound isolation properties of LEED. The school design incorporates many open classrooms, pod learning environments, and laboratory spaces. The LEED for Schools Rating System recognizes the unique, "green" nature of the design and construction of K-12 schools, and is designed to ensure that every student has equal access to learning.

ABD Engineering & Design
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K-12 Projects

Project Name **Wayland Union Fine Arts Center**

Location Wayland, Michigan

Size & Cost 800 Seats, $8 Million

Year Completed 2010

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. The building recently opened, and the school district is excited that their new Fine Arts Center will help them attract students who are as passionate about the arts as they are.

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

K-12 Projects

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. 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 an 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.

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

K-12 Projects

Project Name	**The Quest Center at Grand Rapids Christian High School**
Location	Grand Rapids, Michigan
Year Completed	2008
Size	48,000 SF, 1,800 Seats
Description	ABD Engineering & Design was brought in by AMDG Architects to provide comprehensive acoustical engineering and audio systems design for the new Quest Center at Grand Rapids Christian High School. Our professional engineers modeled the spaces in 3D to predict their reverberation time. We advised on acoustical building features and professional audio systems to optimize the space for a fantastic sport environment. Our design included the gymnasium, mezzanine, cafeteria, aux gym, wrestling room, and weight room.

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

K-12 Projects

Project Name	**Pattengill School Auditorium**
Location	Lansing, Michigan
Year Completed	2007
Size and Cost	700 Seats, 175,000 SF, $68 Million
Description	ABD Engineering & Design was brought in by GMB Architects & Engineers to offer comprehensive AVL design for this new auditorium. The school district uses the space for many different types of events, so the AVL system needed to be versatile enough for sophisticated productions, yet user-friendly enough to be operated with ease for more simple events. Our final design capitalized on both needs by providing an audio, video, and theatrical lighting system design that functioned fluidly for high-production shows, yet intuitively for smaller events.

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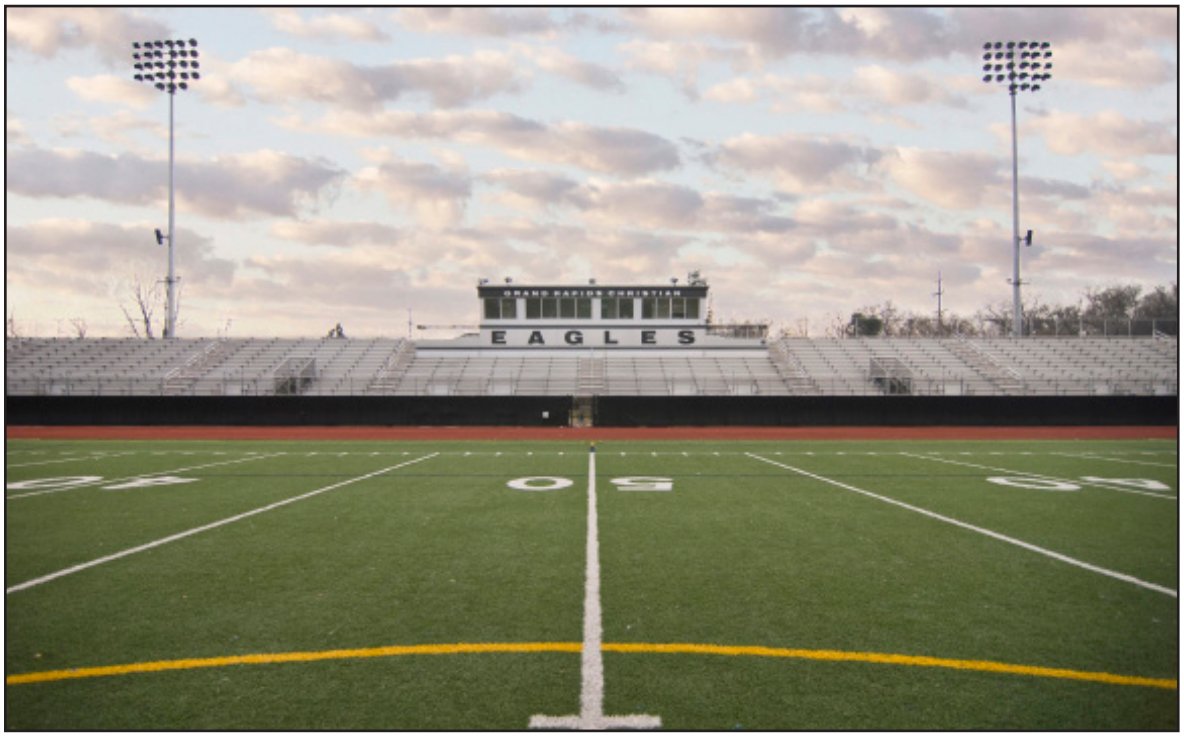
K-12 Projects

Project Name	**Eagle Stadium at Grand Rapids Christian High School**
Location	Grand Rapids, Michigan
Year Completed	2007
Size	3,200 Seats
Description	ABD Engineering & Design developed an advanced audio system design for the stadium renovation at Grand Rapids Christian High School. The project was spearheaded by AMDG Architects and features synthetic turf, improved lighting, as well as a new track, home and visitor locker rooms, concessions, and public rest rooms. The design provides a pedestrian plaza raised above the playing fields to maximize viewing opportunities, and reinforce the overall experience.



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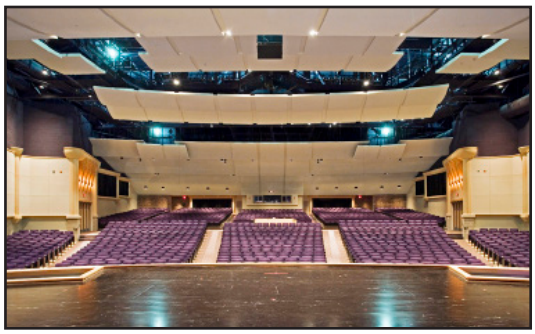
K-12 Projects

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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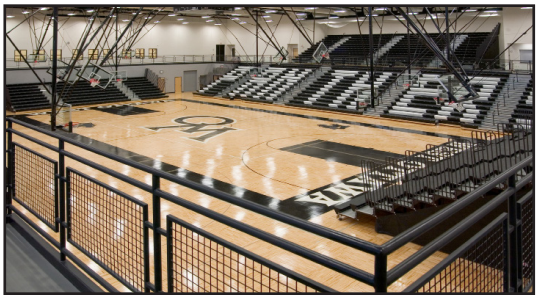
K-12 Projects

LEED Certified
by the U.S. Green Building Council

Project Name	**West Ottawa Public High School**
Location	Holland, Michigan
Year Completed	2005
Size and Cost	$38 Million
Description	As a LEED Certified project, West Ottawa incorporated numerous acoustical enhancements to create a sustainable educational facility. ABD Engineering & Design was brought in to consult on comprehensive architectural acoustics, mechanical noise control, and noise isolation throughout the facility. Our professional engineers made recommendations for the Band, Choir, and Orchestra Rehearsal Rooms, Practice Rooms, TV Studio, Cafeteria, Gymnasium, Media Center, Large Group Instruction, and Concourse. The improvements were designed to minimize reverb time and maximize speech intelligibility. We used advanced acoustical modeling software to predict how each room would respond aurally. This information enabled us to develop a design that met the performance criteria without going over budget.



ABD Engineering & Design
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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

- Arts & Communications Magnet Academy, Portland, OR
- Bloomfield Hills High School, Bloomfield Hills, MI
- Detroit Institute of Music Education (DIME), Detroit, MI
- Grand Rapids Christian Schools, Grand Rapids, MI
- Harriet Tubman Middle School, Portland, OR
- LaSalle Catholic College Preparatory, Milwaukie, OR
- Rockford High School Performing Arts Center, Rockford, MI
- Sam Barlow High School, Gresham, OR
- Traverse City Central High School, Traverse City, MI
- Unity Christian High School, Grand Rapids, MI
- Walla Walla Valley Academy, Walla Walla, WA

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 – Senior AV Consultant, 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

- Benito Juarez High School PAC, Chicago, IL
- Buchanan Elementary, Grand Rapids, MI
- Farmington North High School, Farmington Hills, MI
- GEMS World Academy, Chicago, IL
- Hood River Valley High School, Hood River, OR
- Sam Barlow High School, Gresham, OR
- Westinghouse Magnet High School, Chicago, IL
- North Eugene High School, Eugene, OR
- South Christian High School, Grand Rapids, MI
- Portland Community College, Cascade Campus, Public Service Education Building, Portland, OR
- The University of Providence Great Falls University Center, Great Falls, MT
- Clackamas Community College, Barlow Hall, Automotive, Oregon City, OR

Some experience listed is while employed by SMW.

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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
- Christ the King Montessori, Richland, WA
- Lakeridge High School, Lake Oswego, OR
- Ron Russell Middle School, Portland, OR
- Tukes Valley K-8 School, Battleground, WA
- Oregon Episcopal School, Portland, OR
- Bilquist Elementary School, Lake Oswego, OR
- Maplewood Elementary School, Portland, OR
- Moobery Elementary School, Hillsboro, OR
- St John Fisher School, Portland, 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

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*Some project experience is prior to employment at ABD

Scott Storteboom

Senior Audiovisual Consultant
Scott@abdengineering.com

Scott Storteboom is a senior audiovisual consultant with over 20 years experience. He has consulted on a wide range of project types, from educational spaces and auditoriums to workplace and convention centers, enabling him to view projects from many different perspectives.

After graduating from Calvin University, Scott studied film in California and worked in several key video production roles in the industry. Returning to Michigan for an AV role, Scott became the Video Director for the mega-church (8,500 attendees), NorthRidge. Scott co-designed their $1 Million broadcast and I-mag (image-magnification) digital video system. In addition, he led an extensive tech team producing weekly video segments, directing multi-camera live broadcasts, and traveling the throughout the US and Middle East to shoot video specials.

As a funding consultant for Capital for Compassion projects, Scott went deeper into the challenges associated with keeping a project on budget. Additionally, from his years of leading volunteers, Scott developed a passion for educating and helping others succeed. As a consultant, his clients appreciate Scott for his experience, his caring approach, and his clear, concise communication.

In his personal time, Scott enjoys spending time with his family, volunteering, and water-skiing.

Professional Experience

- 2023-Present - Senior Audiovisual Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2013-2023 - VP, AHP Funding, Capital for Compassion, Holland, Michigan
- 2008-2013 - Audiovisual Consultant, ABD Engineering & Design, Inc., Grand Rapids, Michigan
- 2007-2008 - Technical Director, Ridge Point Community Church, Holland, Michigan
- 2006-2007 - Manager, Grooters Productions, Holland, Michigan
- 2002-2006 - Video Director, NorthRidge Church, Plymouth, Michigan
- 1999-2001 - System Design and Installation, Reinforcement Inc., Southfield, Michigan
- 1996-1998 - Production Coordinator, Action Sports, Malibu, California
- 1994-1998 - Script Writer, Los Angeles, California
- 1992-1997 - Sound Mixer, Hollywood Stars, Los Angles, California

Education

- Film Production Studies, Art Center College of Design, Pasadena, California, 1994
- Film Production Studies, Los Angeles Film Studies Center, Burbank, California, 1992
- Bachelor of Arts in Business and Communications, Calvin University, Grand Rapids, Michigan, 1992

Project Experience

- Detroit Public Schools, Detroit, MI
- Acuity Headquarters, Milwaukee, WI
- Belding High School, Belding, MI
- Berman Theatre, West Bloomfield, MI
- Harley-Davidson, Headquarters Conference, Milwaukee, WI
- Calvin University, Covenant Fine Arts Center, Grand Rapids, MI
- Cascade Fellowship Christian Reformed Church, Grand Rapids, MI
- Cobo Convention & Conference Center, Detroit, MI
- Comstock Park, High School Addition, Comstock Park, MI
- Cornerstorne University, Chapel, Grand Rapids, MI
- Delta College, Allied Health Building, Bay City, MI
- Delta Dental Headquarters, Okemos, MI
- Ferris State University, University Center Renovation, Big Rapids, MI
- Grand Rapids Christian High School, Grand Rapids, MI
- Albert Einstein Israelite Hospital (HIAE), San Paulo, Brazil
- Lawrence Tech University Auditorium, Southfield, MI
- Lincoln Consolidated High School, Ypsilanti, MI
- Lake Superior State University, School of Business, Sault St. Marie, MI
- Mosaic Youth Theatre, Detroit, MI
- Wayland Union Schools, PAC, Wayland, MI
- Grand Valley State University, Grand Rapids, MI

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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

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. 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

- 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 Economics and Business, Holland, MI
- Oregon State University Fairbanks Hall Corvallis, OR
- Oregon State University Student Success Center Corvallis, 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
- NAMI Oregon Portland, OR
- Peace Church Middleville, MI
- Gardens of Sun City Senior Living, Sun City, AZ
- Senior Living Peoria AZ

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