



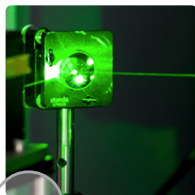
# ABD Engineering & Design

Architectural Acoustics • AV Design • Noise & Vibration

## Worship

*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 = 8

Audiovisual = 3

Leadership/Admin = 2

## Contacts

**Principal Engineer:** Melinda Miller, PE [mmiller@abdengineering.com](mailto:mmiller@abdengineering.com)

**Contracts/Billing:** Marci Boks, COO [mboks@abdengineering.com](mailto:mboks@abdengineering.com)

**New Projects:** Brian Atkinson, [client@abdengineering.com](mailto:client@abdengineering.com)

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

**EIN:** 38-3631490

**DUNS:** 104088682

**NAICS Code:** 541330

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**ABD Engineering & Design**

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# Enhancing The Worship Environment

## Acoustical Engineering and Audiovisual Design



ABD Engineering & Design works with churches, synagogues, architects, pastors, and technical directors to design audiovisual systems and acoustical solutions that meet each ministry's unique goals. We offer unbiased advice to enhance the message without distracting from the worship environment. Whether you are considering new construction, expansion or renovation, ABD stands ready to help. Our professional engineers and consultants meet with architectural design teams, church boards, and volunteers to better understand the ministry vision of the church. This enables us to design solutions that are best suited for the situation and effective for years to come.

## 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.

## Audio-Visual Systems Design

Our AV consultants and engineers are experts at designing custom audiovisual systems that meet today's ministry needs. Forward thinking solutions are provided for everything from wireless audio systems to video-venues to projection systems and digital signage. We design AV systems that are both volunteer-friendly and technologically advanced, so they remain accessible for all users and can grow with the ability of your volunteers and staff. In

addition, we work with you and your design team to establish needs and criteria for technical systems, prepare a realistic concept budget, develop technical drawings and specifications for bidding, and recommend installation procedures and equipment placement.

## 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.

## Architectural Acoustics

Great worship environments 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 sanctuaries, synagogues, fellowship halls, rehearsal rooms, and multi-purpose rooms. In existing spaces, we take high tech sound measurements to map the "acoustical fingerprint" of the rooms. This data enables us to offer detailed recommendations for construction features that optimize reverberation and maximize speech intelligibility.

## Noise Isolation

Enhancing the worship experience means creating distraction-free environments for worshipers. Noise from outside the building (nearby airports, railroads, freeways, and businesses) can be equally as disruptive as noise from within the building (HVAC systems, youth centers, cry-rooms, nurseries). Our professional engineers develop comprehensive noise control solutions, for interior and exterior noise control, to help create a worship environment free from distraction.



## 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.

## 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.

# Worship Selected Experience



**Ada Bible Church**  
Ada, MI

**Archangel Gabriel Orthodox Church**  
North Acme, MI

**Benjamin's Hope**  
Adult Care Worship Space  
Holland, MI

**Calvary Church Toledo**  
Youth Worship  
Maumee, OH

**Calvin College**  
Seminary Chapel  
Grand Rapids, MI

**Cascade Fellowship Christian Reformed Church**  
Grand Rapids, MI

**Cathedral of Saint Mary of the Immaculate Conception**  
St. Mary's Cathedral  
Lafayette, IN

**Cedar Hills Church**  
Sanctuary  
Sandpoint, ID

**Cedarville University**  
Chapel  
Cedarville, OH

**Christ Lutheran Church**  
Valparaiso, IN

**Christ The King**  
AV System Commissioning  
Ann Arbor, MI

**Christian Church of Jasper**  
Jasper, IN

**Christian Reformed Church Conference Grounds**  
Grand Haven, MI

**Congregation Beth Israel**  
Munster, IN

**Cornerstone Community Church**  
Kleinburg, Ontario

**Cornerstone United Methodist Church**  
Caledonia, MI

**CrossRoad Baptist Church**  
Sanctuary  
Ames, IA

**Crossroads Community Church**  
Kokomo, IN

**Dayton University**  
Chapel Renovation  
Dayton, OH

**Diocese of Grand Rapids**  
Cathedral Square  
Grand Rapids, MI

**Door Creek Church**  
Madison, WI

**Eastern Avenue Christian Reformed Church**  
Grand Rapids, MI

**Emmanuel Lutheran Church**  
Sanctuary  
Fort Wayne, IN

**Engedi Church**  
Holland, MI



**First Assembly of God**  
Sanctuary  
Wyoming, MI

**First Presbyterian Church of Grand Haven**  
Grand Haven, MI

**First Unitarian Universalist Congregation**  
Ann Arbor, MI

**First United Church Bloomington**  
Sanctuary  
Bloomington, IN

**Fountain City Wesleyan Church**  
Richmond, IN

**Grand Rapids Dominicans**  
Aquinas College Chapel  
Grand Rapids, MI

**Gull Lake Ministries**  
Dining Facility  
Hickory Corners, MI

**Holy Family Catholic Church**  
Grand Rapids, MI

**Hope Church Holland**  
Holland, MI

**Indiana Wesleyan University**  
Chapel  
Marion, IN

**Keystone Community Church**  
Ada, MI

**LaGrave Christian Reformed Church**  
Grand Rapids, MI

**Lutheran Church of Hope**  
Gymnasium  
Des Moines, IA

**Pillar Church**  
Holland, MI

**Pine Rest Christian Mental Health Services**  
Chapel and Conference Center  
Grand Rapids, MI

**RedArrow Ministries**  
Paw Paw, MI

**Rehoboth High School**  
Chapel - Multi-Purpose Room  
Rehoboth, New Mexico

**Salvation Army**  
Ray & Joan Kroc Community Center  
Grand Rapids, MI

**St. Luke University**  
Chapel  
Allendale, MI

**St. Mark Coptic Orthodox Church**  
Sanctuary  
Troy, MI

**St. Mary Magdalen**  
Kentwood, MI

**St. Simon Catholic Parish**  
Lundington, MI

**Trinity Church**  
Lansing, MI

**Unitarian Universalist Church of Greater Lansing**  
Lansing, MI

**West Evangelical Free Church**  
Sanctuary & Gymnasium  
Wichita, KS

**Western Theological Seminary**  
Mulder Chapel Renovation  
Holland, MI

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

# Worship Environments

Project Name	<b>St. Mark Coptic Orthodox Church</b>
Location	Troy, Michigan
Year Completed	2015
Description	ABD Engineering & Design worked with the Clergy and volunteer staff at St. Mark's to develop complete acoustical engineering services, and AV design in the sanctuary with considerable liturgical and architectural needs.

The project brought the concrete block and steel column temporary space through renovation into a beautiful house of worship. ABD's AV design honored the religious concerns of the church and provided creative and innovative solutions to deliver high end technology into a highly traditional space.



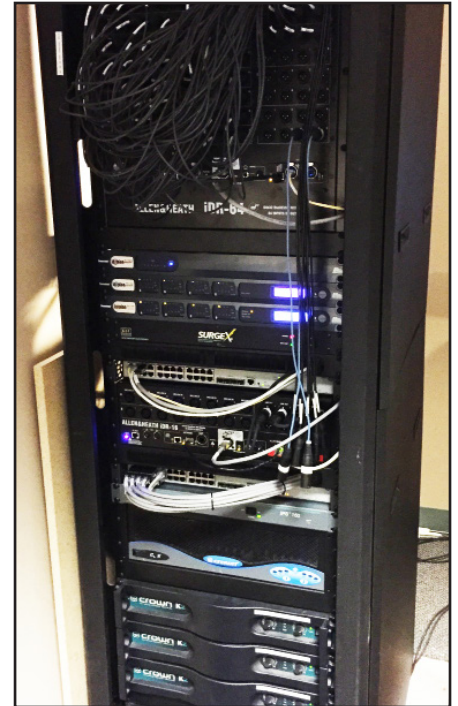
Before Construction



# Worship Environments

Project Name	<b>Trinity Church</b>
Location	Lansing, Michigan
Year Completed	2015
Project Size	30,000 SF
Description	Trinity Church in Lansing, Michigan hired ABD Engineering & Design for a sound and acoustics renovation. Our Professional Engineers designed a state of the art technical system to support the varying needs of their worship services including: praise music, video, drama, and speech intelligibility, and integrated them with the existing video and theatrical lighting.

ABD performed acoustical testing in the space prior to renovation, and provided recommendations that paired with the technical systems design specifications to produce a great sounding facility.



# Worship Environments

Project Name **Cornerstone University  
Christ Chapel**

Location Grand Rapids, Michigan

Year Completed 2015

Description Cornerstone is a Christian University with multiple chapel services each week. A very important design element for the university was the concept of worshipping in the round to enhance community and intimacy for this 1500 seat soaring worship space.

ABD Engineering & Design was hired to design the acoustics, mechanical noise control, audio, video, and specialty lighting for this chapel in the round where no student will be more than 50' from the stage.

Compact line arrays were chosen to cover the student body with dynamic sound, while four large format rear projection video screens provide a visual connection to the presentation content. The stage and choir areas are lit with LED light fixtures to provide maximum flexibility and long term stewardship.



# Worship Environments

Project Name **Western Theological Seminary  
Mulder Chapel, Holland, Michigan**

Size & Cost 120 Seats, 2500 SF, \$1.25 million

Year Completed 2014

Description ABD Engineering & Design provided acoustical engineering and AVL Design for the Mulder Chapel at Western Theological Seminary. Our Professional Engineers consulted on Mechanical Noise Control, and Room Acoustics, and designed Audio, Video, and Specialty Lighting systems to integrate with the native acoustical environment. ABD specified a variety of aesthetically pleasing and highly functional acoustic treatments.

The space was designed to support choir, pipe organ, piano, hand-bell ensemble, classical ensemble (e.g., strings, horns, woodwinds), and modern band (e.g., guitar, drums) music. Sound is typically both amplified and un-amplified during services. ABD worked with Elevate Studio architects to ensure the acoustical and AVL features complimented the architectural design, especially in the beautifully appointed chancel.





# Worship Environments

Project Name **Engedi Church**

Location Holland, Michigan

Year Completed 2013

Description ABD Engineering & Design was enlisted by Engedi Church to provide comprehensive design services for Sound, Video, Lighting, and Acoustics for their new space. The church re-purposed an existing retail space and transformed the former K-Mart building into a dynamic worship facility.



The 1500 seat worship space is configured in the round and features custom curved screens for video projection as well as line arrays for sound reinforcement. The platform lighting is all LED and is capable of adjusting the white color temperature as well as adding RGB color mixing for dynamic moments. 3D modeling was used for the design of the technology in the space as well as acoustical recommendations to make the space pleasing for both music and spoken word. Our work on the project also included a youth room space, children's worship spaces, and distributed video displays around the facility.



# Worship Environments

Project Name **Cornerstone United Methodist Church**

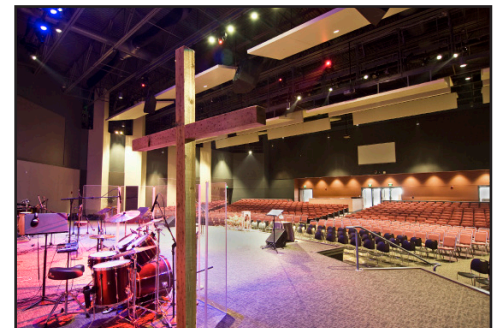
Location Caledonia, Michigan

Year Completed 2009

Size and Cost 900 Seats, 59,300 SF

Description When Cornerstone Church outgrew their building, they bought land and built on a new site. The new, 59,300 square foot, church campus features a 900-seat Sanctuary, Youth Ministry Center, Children's Wing, Offices, Prayer Center and Counseling Suite, all centered around a Café Hub. ABD Engineering & Design made recommendations for comprehensive acoustical engineering and AVL systems design for the project.

Our professional engineers modeled the spaces in 3D to predict the aural response. Next, we designed solutions for room acoustics and noise isolation. We worked with the architect, Progressive AE, to recommend acoustical finishes that were both effective and attractive, fitting with the building's aesthetic. Our AVL designers developed technical system designs for Audio, Video, and Theatrical Lighting. Once the church moved into the new facility, they confirmed it sounds as good as it looks.



# Worship Environments

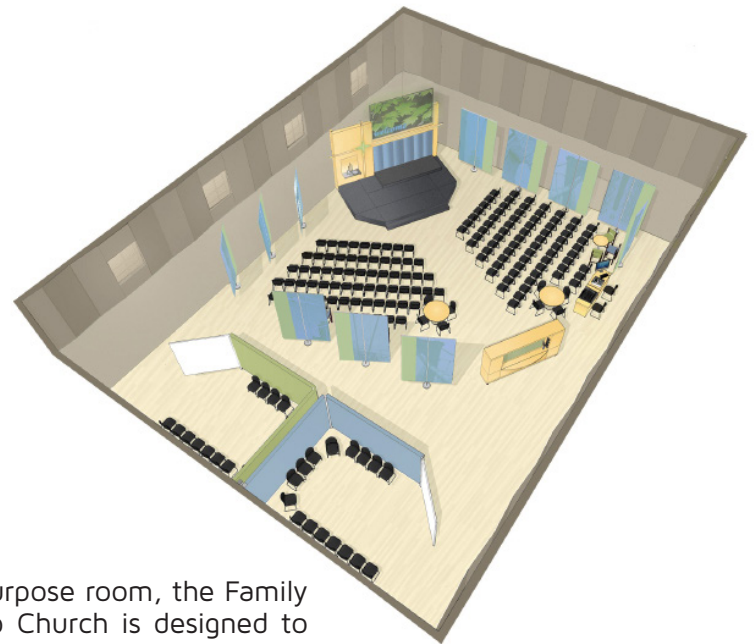
Project Name **Cascade Fellowship Church  
Family Life Center**

Location Cascade, Michigan

Year Completed 2009

Size 5500 SF, 170 seats

Reference Elevate Studio  
Jim Vandermolen  
President  
2026 Joan Avenue NE  
Grand Rapids, MI 49505  
(616) 364-6090  
jim@elevatestudio.net

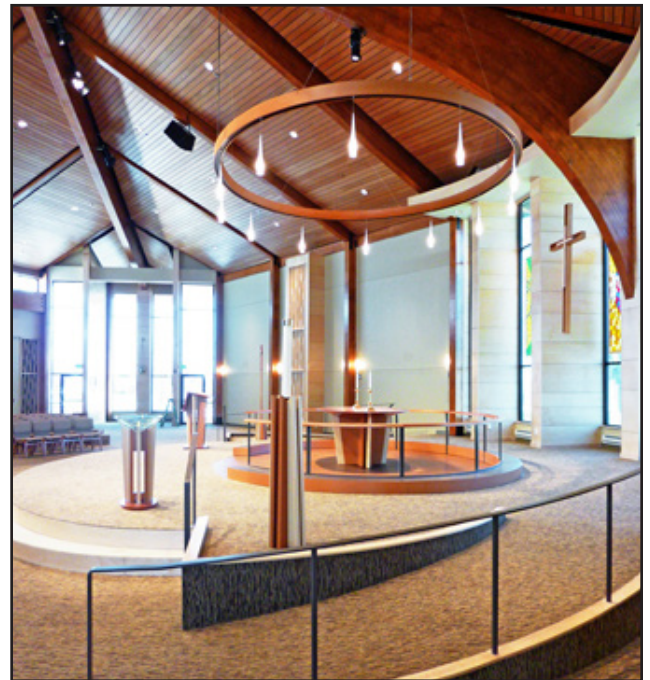


Description Part video-venue and part multipurpose room, the Family Life Center at Cascade Fellowship Church is designed to offer the best of all worlds from live worship services to church banquets to athletic events. On Sundays the venue is used with its own worship band, and a live video sermon is piped in from the main sanctuary. The stage is designed to fold back into place, reducing setup time and allowing for a smooth transition between events. The acoustical treatment and AVL system is designed to perform with excellence without inhibiting athletic events. The church is very happy with the new video-venue, and attendance has already exceeded expectations.



# Worship Environments

Project Name	<b>Christ Lutheran Church</b>
Location	Valparaiso, Indiana
Year Completed	2009
Description	ABD Engineering & Design worked with Elevate Studio Architecture+Design to engineer comprehensive acoustical solutions for this beautiful Lutheran Cathedral. Our engineers used a 3D room model to develop recommendations for room acoustics, noise isolation, and mechanical noise control. The design included acoustical enhancements that are "invisible" and indigenous to the architecture. In addition, our work included comprehensive audio, video, and platform lighting system design. The AVL system enhances the worship environment by providing seamless audio-visual enhancements for the church services.



# Worship Environments

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Project Name **Saint Mary's Cathedral**

Location Lafayette, Indiana

Year Completed 2008

Description No photograph can adequately portray the aesthetic beauty of Saint Mary's Cathedral in Lafayette, Indiana. The liturgical intricacies and historical design features must be experienced firsthand to be fully appreciated. Understandably so, Saint Mary's did not want to sacrifice any of the facility's aesthetic features when they began planning solutions to their acoustical issues and updates to their audio system.



The acoustical problems were complex. The long reverberation time created a great environment for listening to choral selections and musical solos, but it made the Priest's spoken voice unintelligible. Several solutions were recommended to make the space ideal for both types of sound sources. Acoustical absorption treatment along with new digitally steerable loudspeakers were recommended to reinforce the Priest's voice and to enhance intelligibility. Our precise measurements enabled us to make specific acoustical recommendations that fit with the aesthetic priorities of the space while achieving the desired acoustical goals.



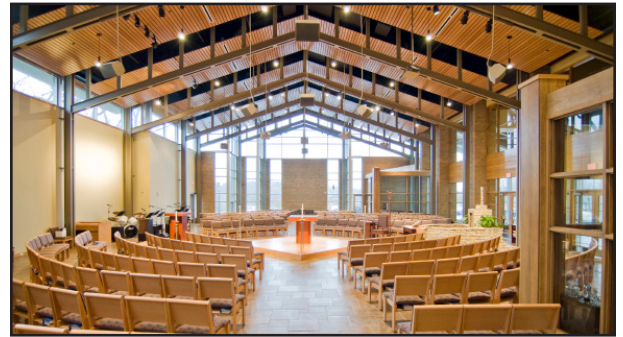
# Worship Environments

Project Name **Saint Thomas More Catholic Church**

Location Kalamazoo, Michigan

Year Completed 2008

Description ABD Engineering & Design was brought in by Diekema Hamann Architecture + Engineering to design comprehensive acoustics and mechanical noise control for Saint Thomas More Catholic Church. The sanctuary was designed with a post-Vatican II motif, featuring seating in the round with a central platform for preaching and a side chancel for music. We used 3D computer models to optimize the space for music and the spoken word. Our final design incorporated an acoustically absorbent wood slat ceiling to compliment the tile flooring, glass walls, and stone work. Our project report included detailed recommendations for both the sanctuary and fellowship hall.



# Worship Environments

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Project Name **First Unitarian Universalist Church of Ann Arbor**  
Location Ann Arbor, Michigan  
Year Completed 2008  
Description

ABD Engineering & Design provided Acoustical and Audio System consulting for the main sanctuary at the First Unitarian Universalist church of Ann Arbor. The four year-old campus suffered from poor speech intelligibility in the main sanctuary, making it difficult for church members to understand the Minister and other speakers. It was important to improve the sound of the spoken word, while preserving the emphasis on instrumental and choral music.



Our consultants performed measurements and analysis of the reverberation time, and made recommendations for acoustical treatments to reduce the echo in the space, and improve the speech intelligibility as well as the acoustics for music. After treatment, ABD performed follow-up measurements to analyze the before and after conditions. Our consultants also tuned the technical systems to improve the performance of the sound system and speakers. The overall project resulted in reduced echo, and improved speech intelligibility, while maintaining the beauty of the performances.



# Worship Environments

LEED Certified  
by the U.S. Green Building Council



Project Name	<b>Cathedral Square</b>
Location	Grand Rapids, Michigan
Year Completed	2008
Size and Costs	100,000 SF, \$22 Million
Description	ABD Engineering & Design was hired by the Diocese of Grand Rapids to offer independent audio-visual design services for their new, LEED Certified Cathedral Square facility, a 100,000 SF, renovation project.



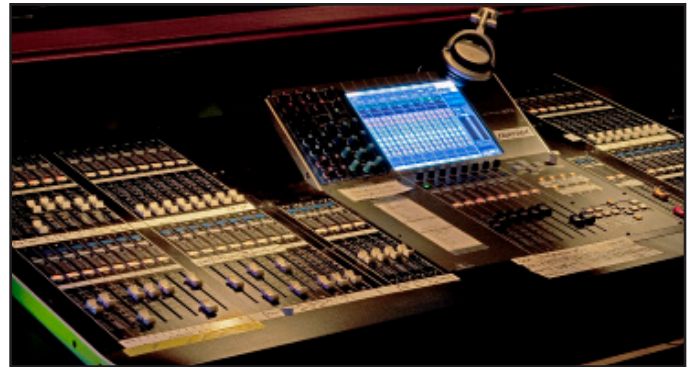
The Diocese wanted the AVL systems to be classy and easy to use. Our consultants designed professional audio, video, and control systems for the large conference area, pre-function area, meeting rooms, conference rooms, and support spaces. We used a 3D model of the facility to predict its aural response. This enabled us to make precision recommendations for speaker placement and technical system integration. We also developed a complete video system design that included projector systems, control systems, switching, and signal processors. Our design enhanced the communication abilities of the Diocese, making it relevant for years to come.





# Worship Environments

Project Name **Harvest Bible Chapel**  
Location West Olive, Michigan  
Year Completed 2007  
Project Size 41,100 SF  
Reference Steve Bush, Worship Pastor  
15020 Stanton  
West Olive, MI 49460  
(616)786-2233



Description At ABD Engineering & Design, our professional engineers provided recommendations for audio-visual systems design, theatrical lighting, architectural acoustics, mechanical noise control, and interior room isolation for Harvest Bible Chapel in West Olive, Michigan. The state of the art technical system was designed to support the varying needs of their worship services including: praise music, video, drama, and dance. Comprehensive design specifications were engineered to produce a great sounding facility enjoyed by the congregation. The AVL system received an award from Associated Builders and Contractors, Inc.



# Worship Environments

LEED Certified  
by the U.S. Green Building Council



Project Name **Keystone Community Church**  
Location Ada, Michigan  
Year Completed 2006  
Project Size 30,000 SF  
Owner's Representative and Reference Gene DeJong, Senior Pastor  
Keystone Community Church  
655 Spaulding Ave SE  
Ada, MI 49301  
(616) 957-2244



Description Keystone Community Church has the honor of being the first LEED Certified church in the world. LEED Certification is the benchmark for green, sustainable design practices. And as many organizations are learning, acoustics can play an important role in the LEED certification process.



ABD Engineering & Design was retained to offer a detailed acoustical analysis for Keystone's new facility in Ada, Michigan. Our professional engineers used sophisticated computer software to model the rooms in 3D and predict their aural response. Next, we made recommendations for proper reverberation time, background noise levels, and absorption and diffusion levels throughout the facility.

Our final report included specifications for construction features that would capitalize on the varying acoustical needs within the space. Careful attention was paid to the metal roof deck to ensure that it would provide the proper amount of low frequency absorption. In addition, we developed a thorough mechanical noise study, making recommendations for noise mitigation for several rooftop mechanical units. At the end of the day, Keystone made the right choices for acoustical features that would increase the environmental quality and sustainability of their entire facility.



# Worship Environments

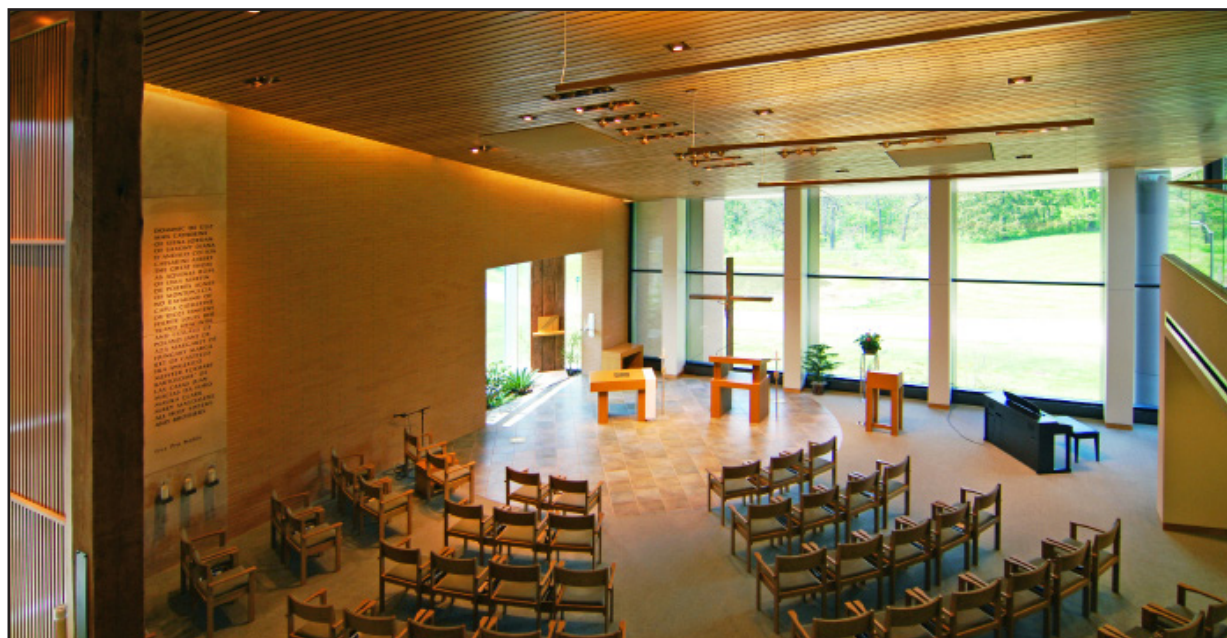
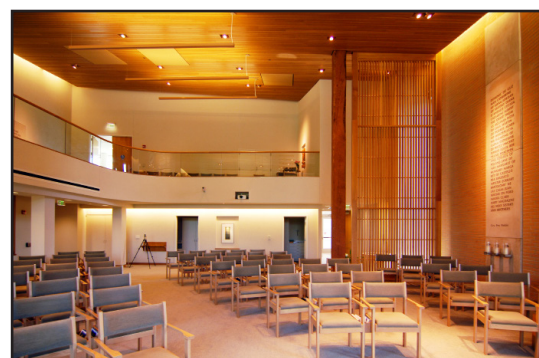
Project Name **Grand Rapids Dominicans' Aquinata Hall**

Location Grand Rapids, Michigan

Year Completed 2005

Project Size 80,000 SF

Description ABD Engineering & Design consulted on comprehensive audiovisual design and architectural acoustics for the Grand Rapids Dominicans' Aquinata Hall in West Michigan. Our engineers developed a plan to make the technology unobtrusive, yet flexible for today's communication needs. We achieved this by hiding speakers in the ceiling, installing a retractable hidden screen, and concealing the audio-visual control rack in a closet. In the back of the auditorium, a small video camera was integrated for broadcasting live services to each of the fifty dorm rooms. In addition, we made recommendations for construction features that would minimize reverb time and maximize speech intelligibility. Several levels of acoustic treatment were integrated into the wood slat ceiling, remaining virtually out of site, and a cork-based flooring product was installed to absorb additional sound and vibration. The result was a space fit for mission and ministry.





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



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



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



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
- \*Imagine 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





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 Angeles, 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
- Cornerstone 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





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 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 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 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 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

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"><li>• Hope College Economics and Business, Holland, MI</li><li>• Oregon State University Fairbanks Hall Corvallis, OR</li><li>• Oregon State University Student Success Center Corvallis, OR</li><li>• Hillsboro Civic Center Hillsboro, OR</li><li>• Chehalem Cultural Center Newberg, OR</li><li>• City of Troy Council Chambers Troy, MI</li><li>• Portland Art Museum Rothko Pavilion, Portland, OR</li></ul> | <ul style="list-style-type: none"><li>• Rogue Credit Union Community Complex Sports and Events Medford, OR</li><li>• Wheaton Academy West Chicago, IL</li><li>• St Paul Center Steubenville, OH</li><li>• Ben Davis High School Indianapolis IN</li><li>• Potter Elementary School Flint, MI</li><li>• Illiana Christian High School Lansing, IL</li><li>• Amity Middle School and High School Amity, OR</li></ul> | <ul style="list-style-type: none"><li>• NAMI Oregon Portland, OR</li><li>• Peace Church Middleville, MI</li><li>• Gardens of Sun City Senior Living, Sun City, AZ</li><li>• Senior Living Peoria AZ</li></ul> |
|---|--|---|



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  
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