



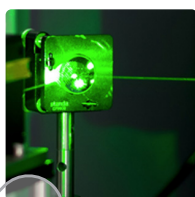
ABD Engineering & Design

Architectural Acoustics ▪ AV Design ▪ Noise & Vibration

Higher 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.

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

Certifications

WBENC: WBE1701950

OR-COBID-WBE: 11342

WA-OMWBE: W2F0027557

WI-WBE: WI-13264



Professional Memberships

Acoustical Society of America

Institute of Noise Control Engineering

American Society of Testing and Materials

National Council of Acoustical Consultants

AVIXA (CTS-D)

Staff Count

Acoustics = 8

Audiovisual = 2

Leadership/Admin = 2

Contacts

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

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ABD Engineering & Design

Architectural Acoustics • AV Design • Noise & Vibration

Enhancing Communications in Higher Education

Acoustical Engineering and Audiovisual Design



New media and technologies are enriching the higher 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.

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.

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..

Objective Recommendations

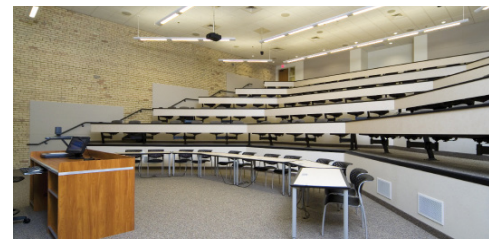
As an independent acoustical and AV consulting firm, we have no affiliations with or affinity for any particular brands, products, technologies, or suppliers. We bring objectivity and unbiased recommendations that are best suited to your facility – procured through a competitive bid process to ensure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

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

Higher Education

Selected Experience



Ball State University: Muncie, IN
Student Recreation

Calvin University: Grand Rapids, MI
Fine Arts Center
Spoelhof Fieldhouse
Commons Union

Cedarville University: Cedarville, OH
Chapel Acoustics

Central Michigan University
Bioscience Building
Center for Integrated Health Studies
Dow Science Classrooms
Chippewa Champions Alumni Center at
Kelly Shorts Stadium

Concordia University: Ann Arbor, MI
Nursing School
Performing and Visual Arts
School of Pharmacy - Medical Simulation

Cornerstone University: Grand Rapids, MI
Cornerstone Program Refinement
Matthews Hall
Christ Chapel

Davenport University: Caledonia, MI
College of Business
Student Center
Fieldhouse

Dayton University: Dayton, OH
Chapel Renovation

Delta College: Bay City, MI
Allied Health Building
Commons Audio System
Conference Room Systems Design
K Wing
Saginaw Center

DePauw University: Greencastle, IN
Dining Hall

Eastern Michigan University: Ypsilanti, MI
Department of Music and Dance
Fletcher School
Autism Collaborative Center
Office 268A - Noise Study
Student Academic Advising Center

Ferris State University: Big Rapids, MI
North Residence Hall
Swan Engineering Building
University Center Renovation

Gonzaga University: Spokane, WA
Campus Noise Study

Grand Rapids Community College
Music School

Grand Valley State University: Allendale, MI
Performing Arts Center Addition
48 West Student Apartments, Campus Housing
Cook DeVos Center for Health Sciences
Health Professions Facility
Lab Building, Marketplace
Mary Idema Pew Library, Pew Campus
Raleigh J. Finkelstein Center for Public Health
Seidman School of Business

Hillsdale College: Hillsdale, MI
Dining - Auditorium - Atrium

Hope College - Holland, MI
Martha Miller Center for Global
Communications
Bultman Student Center

Kellogg Community College: Battle Creek, MI
Fine Arts Building

Lake Michigan College: Benton Harbor, MI
Hanson Tech Center
Industrial Classroom-Lab

Lake Superior State University
School of Business



Lawrence Tech University: Southfield, MI
Auditorium

Linfield College: McMinnville, OR
Murdock and Graf Halls

Michigan Institute of Aviation and Technology: Bellville, MI

Michigan State University: East Lansing, MI
Breslin Center Offices
Chiller - Cooling Tower
Community Music School
Detroit, Community Music Center
Jenison Field House Office Renovation
Grand Rapids, MI - Secchia Center

Midwestern University: Downers Grove, IL
Noise Study and Gymnasium Acoustics

Muskegon Community College
Arts and Humanities
Theater Music and Art

North Central Michigan College: Petosky, MI
Administration and Classroom Building

Northwestern University: Evanston, IL
EPS IRL and MES/WCAS Clean Room

Oregon Health & Science University
Center for Health and Healing 2,
Portland, OR

Pacific University: Forest Grove, OR
Scott Hall, McGill Hall Lecture Hall

Purdue University: West Lafayette, IN
Herrick Laboratories
Mechanical Engineering
Forney Hall Lecture Halls

Southern Oregon University:
Ashland, Oregon
Science Buildings

Thomas M. Cooley Law School
Grand Rapids, MI

University of Connecticut
Hartford Downtown Campus

University of Michigan: Ann Arbor, MI
Art Studio Modifications
Crisler Arena Expansion
Digital Education and Innovation Lab
Inst for Healthcare Policy & Innovation
Journalism & Screen Studies Relocation
Schembechler Hall Renovation
South Hall - Noise Isolation
Weill Hall
Flint, MI - Conference and Event Spaces

University of Montana: Missoula, MT
Early Childhood Education Center

University of New Mexico
Auditorium

University of Oregon
Oregon Hall
Autzen Stadium

University of Notre Dame
Hesburgh Library
Corby Hall Replacement

Wayne State University: Detroit, MI
McGregor Conference Center
Multidisciplinary Biomedical Research
Building (LEED Gold)
Student Center

West Shore Community College:
Scottville, MI
Arts & Sciences Bldg

Western Michigan University:
Kalamazoo, MI
Sangren Hall
Grand Rapids, MI - AMP Lab

Western Theological Seminary:
Holland, MI
Chapel, Library

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



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

Healthcare Mission Control

Project Name **OHSU Mission Control Center**

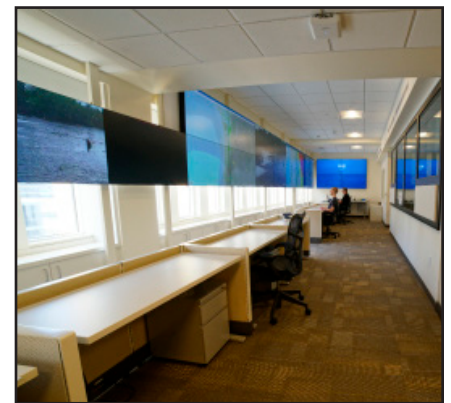
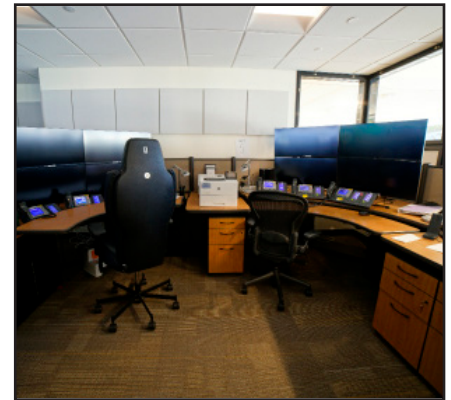
Location Portland, Oregon

Completed September, 2024

Project Budget \$800,000

Description ABD Engineering & Design worked with Clark Kjos Architects on the new OHSU Mission Control Center. The centralized communications center houses technology, and teams, including the Oregon Medical Coordination Center (OMCC), and the Oregon Behavioral Health Coordination Center (OBCC) using real-time data to find care for hospital patients among health systems across the state.

ABD's acoustical consulting services began with a site survey to determine the noise isolation performance of an existing corridor wall that would act as the primary separation between the air-traffic-control inspired dispatch center. Mechanical noise control was a critical component of our work to provide low background noise in the busy spaces. Room Acoustics modeling and recommendations for treatment materials, square footage, and locations helped to create spaces that manage noise and reduce distraction for the staff.



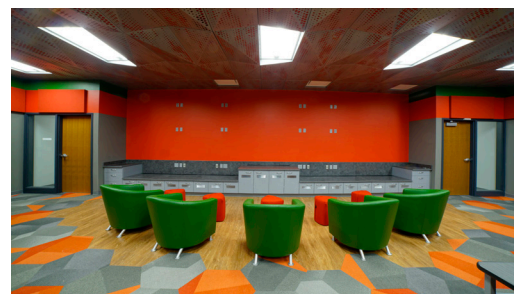
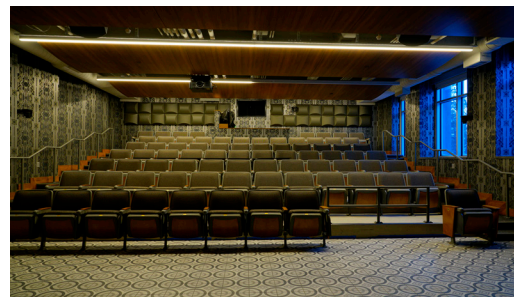
University Projects

Project Name	Minot State University, Hartnett Hall
Location	Minot, North Dakota
Size and Budget	53,851 SF \$25 million
Year Completed	2023

Description ABD Engineering & Design worked with Ackerman-Estvold architects and McGough Construction to provide holistic acoustical engineering services for Minot State University's Communications, Art, English and Humanities building renovation.

The newly renovated spaces are home to the KMSU radio and television studios, E-sports venues, podcast studio, theater, recital hall, gathering spaces, seminar and classrooms.

ABD's complete acoustical consulting scope included Mechanical Noise Control - to reduce the noise from the HVAC, electrical, plumbing, and elevator systems. Likewise, Noise Isolation - to help separate one space from another. Room Acoustics - to address the amount of echo and reverberation was important for everything from classrooms, to common and collaboration areas, and critical listening spaces.



University Projects

Project Name Oregon State University - Cascades
Student Success Center

Location Bend, Oregon

Size and Budget 17,500 SF \$13.2 million

Under Construction March, 2023 - April, 2024

Description Opsi Architecture partnered with ABD Engineering & Design for the Oregon State University - Cascades Student Success Center. Many of the acoustical challenges come from the flexible use spaces for study and tutoring, advising and counseling, arts presentation, informal gathering and student involvement.

The wide-open spaces throughout required detailed analysis and recommendations for room acoustics, noise isolation, and mechanical noise control. ABD worked with Opsi to keep the beautiful mass timber structure exposed while also designing the spaces to be acoustically comfortable.



Higher Education Classroom AV

Project Name **California State University Channel Islands**
Classroom AV Assessment

Location Camarillo, California

Year Completed 2022

Description ABD Engineering & Design provided an unbiased assessment of classroom audiovisual infrastructure and systems at California State University Channel Islands.

ABD worked with CSU Channel Islands staff to assess and evaluate the existing audiovisual infrastructure and systems. CI was most interested in unbiased input for how they should upgrade and improve the classroom technology over the next 3-5 years. Using an independent consultant who doesn't manufacture, sell, or install any products helps our clients be sure our findings and recommendations are based on data for their best interests, rather than sales.

ABD's assessment of over 120 classroom and multi-media spaces included a variety of classroom and lecture hall sizes and uses, along with science labs, computer labs, theater, events, arts, and broadcast. ABD staff surveyed and documented the existing systems hardware and operations, including control systems and user interfaces, for analysis of user-experience as part of an updated standards development. Our services also provided observations of room conditions like room acoustics and speech intelligibility that impact audiovisual systems effectiveness for in-room occupants and far end participants in conferencing, remote learning, or recorded settings. Room size and viewing distances and angles with respect to existing display systems, room lighting and day lighting conditions, and source device connections in each room were also part of the consulting assessment.



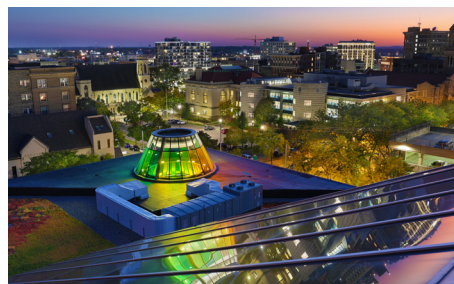
Higher Education Projects

Project Name	Secchia Piazza - Grand Rapids Community College Secchia Institute for Culinary Education
Location	Grand Rapids, Michigan
Year Completed	2022
Size and Budget	3,600 SF and \$5 million

Description ABD Engineering & Design worked with Progressive AE to provide Room Acoustics recommendations and an audio system design for this unique kaleidoscopic piazza.

The college wanted to enclose an existing patio at the southeast entrance to the downtown campus on the Wisner-Bottrall Applied Technology Center, essentially building a new building on top of an existing one. The multi-colored dome would become an exterior landmark and create a beautiful interior for use as a gathering and event space at the Secchia Institute for Culinary Education. The 31-foot-wide, 15-foot-tall "skycone" presented acoustical challenges to control the sound with many hard surfaces (including a tondo – a round floor pattern – designed by GRCC Communications Department artists) and the large-space volume. Traditional acoustical treatment paired with translucent materials that allowed in the light while absorbing sound produced a space that sounds as good as it looks. Meanwhile, the audio system needed to pair with and compliment the room's acoustical performance.

The beautiful specialized materials are machined with hundreds of micro-slits through them. The panels are normally clear-transparent but for this project they were custom printed with translucent UV ink, to match the seven colors of the Piazza's glazing.



Higher Education Projects

Project Name Clackamas Community College
Wacheno Welcome Center

Location Oregon City, Oregon

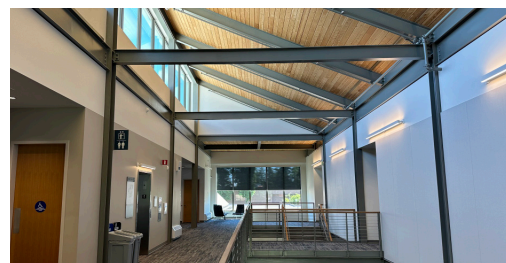
Size 24,000 SF

Year Completed 2021

Description ABD Engineering & Design worked with Opsis Architecture to provide Room Acoustics recommendations for the Clackamas Community College Wacheno Welcome Center. The spaces included: Student Services (Advising, Graduation, Career, Enrollment/Registrar, Welcome Center, Admissions, and Financial Aid), Testing Center, Study Spaces, Counseling, Informal gathering/social areas, Meeting rooms, and Offices.

The popular hard surfaces throughout were mitigated by acoustical treatment to reduce echo, reverberation, and distraction while matching the design aesthetic. These materials created acoustically comfortable spaces that sound as good as they look.

The new "one place" destination for over 26-thousand students navigating college success, won the 2023, ACUI, Facility Design Award.



University Projects

Project Name University of Oregon - Cascades
Edward J. Ray Hall

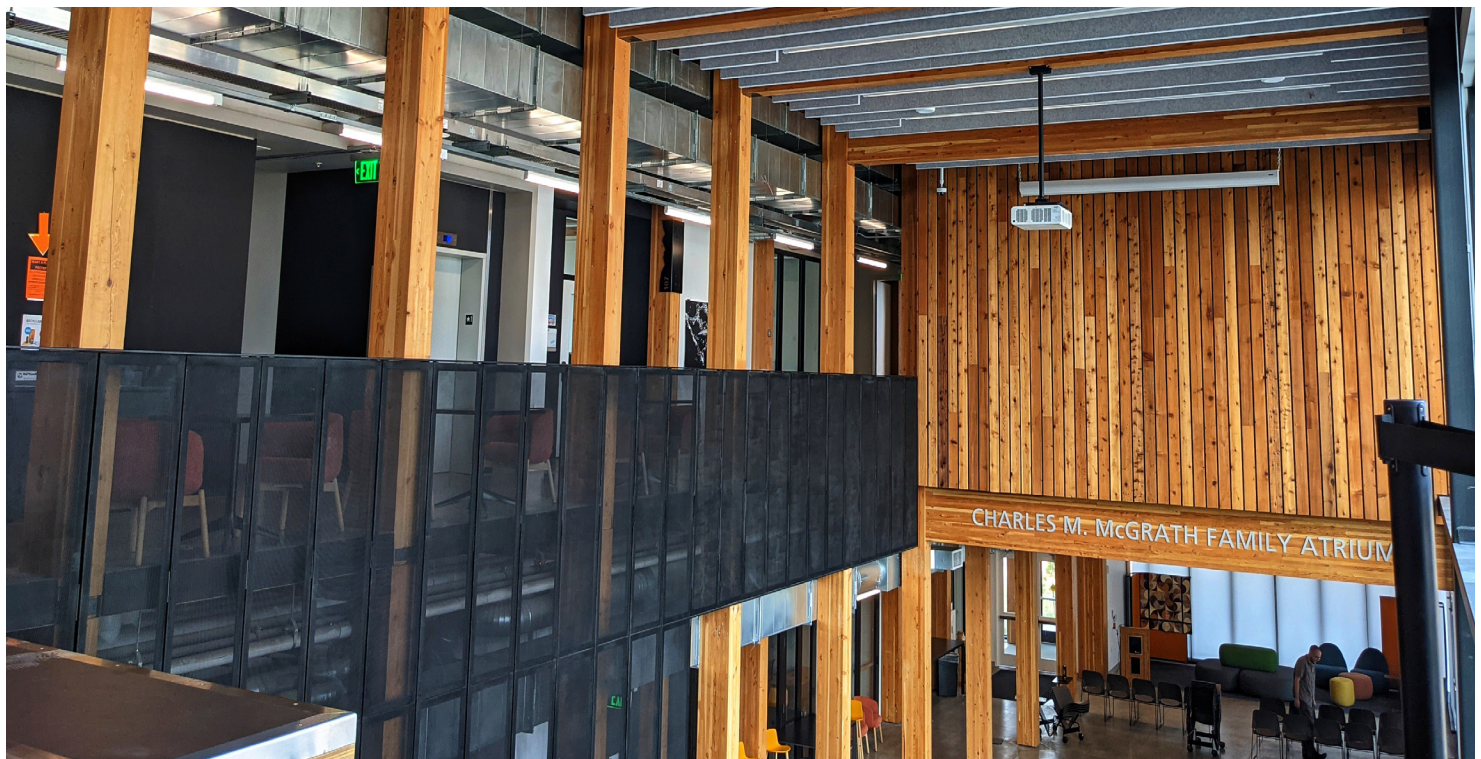
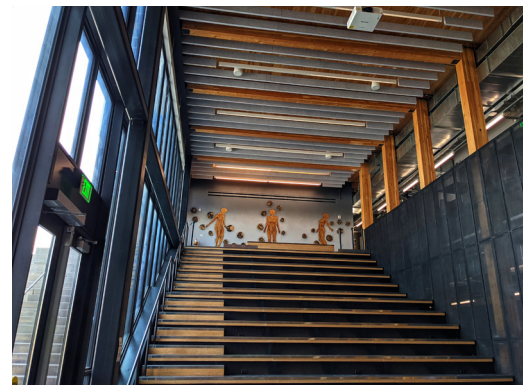
Location Bend, Oregon

Size and Budget 50,000 SF \$49 million

Year Completed 2021

Description ABD Engineering & Design worked with SRG Partnership on the University of Oregon, Cascades, Edward J. Ray Hall. Ray Hall serves the STEAM disciplines of science, technology, engineering, arts and mathematics.

ABD provided complete acoustical consulting services including noise and impact isolation solutions for the Mass Timber/Cross-Laminated Timber (CLT) structure. With so much exposed structure and mechanical runs, plus a variety of hard surfaces, the HVAC mechanical noise control and room acoustics were essential to the success of this beautiful and environmental academic building.



University Projects

Project Name	Chippewa Champions Alumni Center at Kelly Shorts Stadium Central Michigan University
Location	Mt. Pleasant, Michigan
Size and Budget	55,000 SF \$32.5 million
Year Completed	2021

Description ABD Engineering & Design worked closely with GMB Architecture + Engineering, and Central Michigan University staff on the Chippewa Champions Alumni Center at Kelly Shorts Stadium. ABD's complete acoustical consulting services included Room Acoustics, Noise Isolation, and Mechanical Noise Control.

Key challenges included the need to block the noise and impact transmission inherent in the weight room which would be adjacent to the high-profile Field Level Club. Conference rooms, divisible meeting rooms, lobby, open offices and private offices, along with a video editing suite all had unique use requirements with differing acoustical criteria and problems to solve. A wide, tiered, 125 seat auditorium rounded out the program. Beautiful wood finishes in the club, and branding throughout adds to this destination for Central Michigan University alumni and fans.



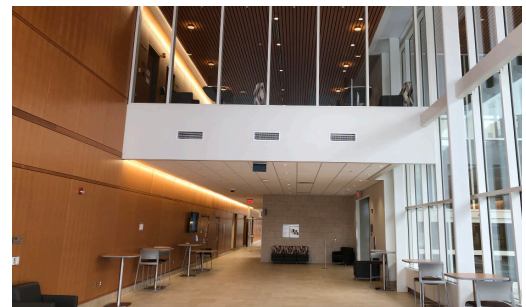
University Projects

Project Name	Center for Integrated Health Studies Central Michigan University
Location	Mt. Pleasant, Michigan
Size and Budget	50,000 SF \$26 million
Year Completed	2020

Description ABD Engineering & Design and Stantec collaborated with Central Michigan University on the Center for Integrated Health Studies expansion of the Health Professions Building. The new Inter-professional Education Center houses the Physician Assistant (PA) and Physical Therapy (PT) programs and provides opportunities to learn and practice together. The Michigan Legislature allocated \$19.5 million for the building, with the balance from university reserves.

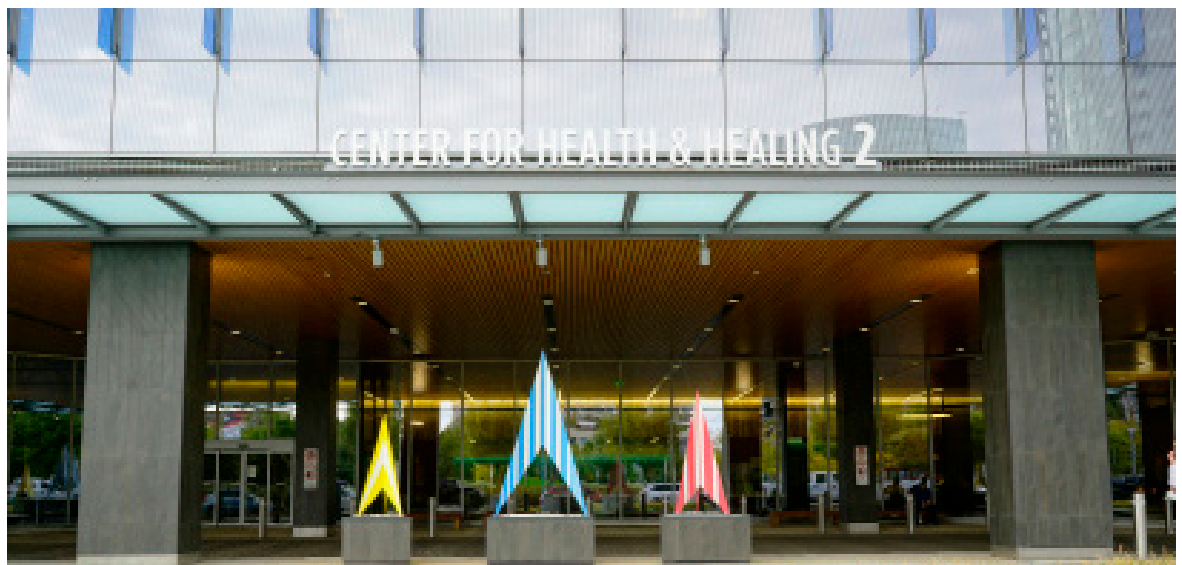
Tall airy spaces for circulation, collaboration, and learning often present challenges for architects and interiors. ABD recommended beautiful wood finishes that doubled as acoustical treatment. They added visual warmth and softer sound, reducing the expected echo and reverberation. Along with the usual closed and open office spaces, classrooms and laboratories, the center includes patient treatment spaces and medical simulation rooms with critical listening and recording needs.

ABD's acoustical consulting services included Room Acoustics, Noise Isolation, and Mechanical Noise Control.



Higher Education Healthcare Projects

Project Name	Oregon Health & Science University (OHSU) Center for Health & Healing Building 2
Location	Portland, Oregon
Year Completed	2019
Project Size and Budget	750,000 SF and \$360-Million
Description	<p>ABD Engineering & Design worked with ZGF Architects to provide complete acoustical consulting services for building 2 in the OHSU Center for Health and Healing complex. Building 2 is composed of two structures, a 450,000 SF 15-story hospital, and the Rood Pavilion, an 11-story, 300,000 SF mixed-use building with 76 patient guest rooms (38 pediatric rooms, 38 adult rooms). The pavilion serves as a hotel for patients who are being treated in the hospital, and includes a conference center.</p> <p>ABD's scope of services included room acoustics, noise isolation, mechanical noise control and vibration isolation for both the hospital and pavilion to achieve the acoustical recommendations contained in the FGI Guidelines for Design and Construction of Healthcare Facilities: Site Exterior Noise, Acoustical Finishes and Details, Room Noise Levels, Noise Isolation, Speech Privacy, Building Vibration and Structure-borne Sound. Meanwhile, the project is also designed to meet LEED Gold for Healthcare.</p> <p>The project presented several acoustical design challenges. The hospital building included large upper-floor generators that could run at any time and cause significant structure-borne noise and vibration. The sky bridge required specialized sound modeling for City of Portland approval. Finally, additional noise control measures were designed and implemented to protect nearby luxury, high-rise condominium buildings from the exterior noise levels.</p>

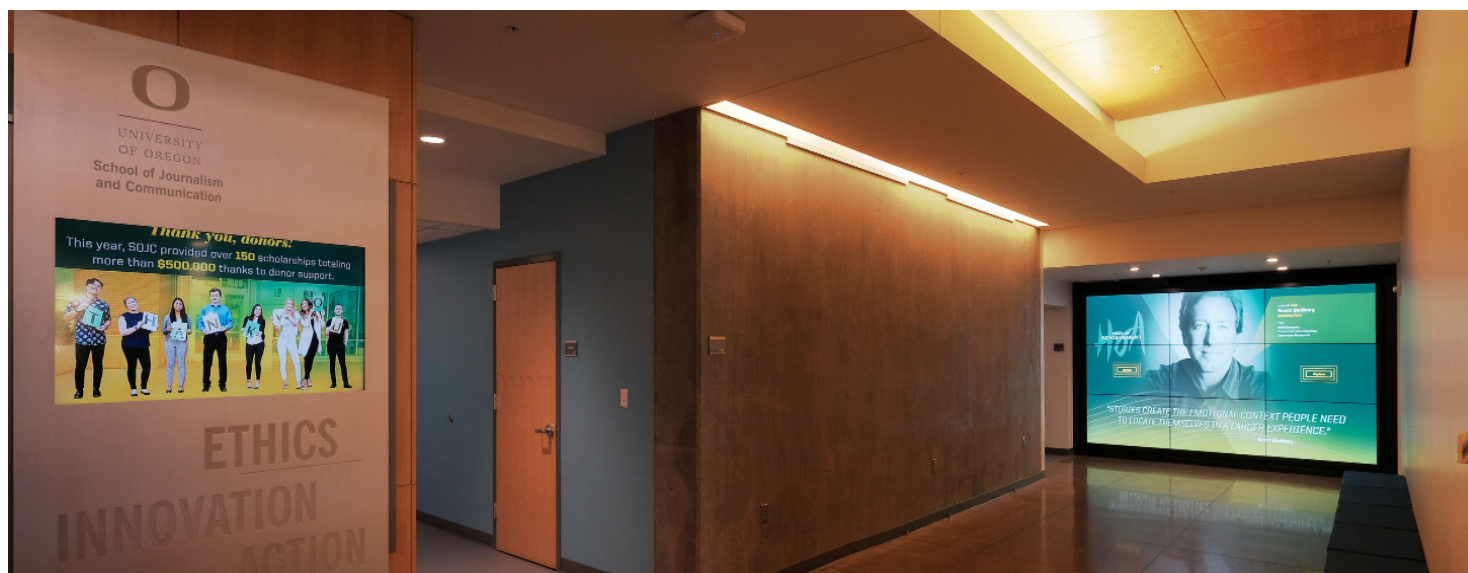


University Projects

Project Name	University of Oregon Allen Hall Experience Hub
Location	Eugene, Oregon
Size and Budget	18,000 SF \$3.2 million
Year Completed	2019

Description ABD Engineering & Design worked closely with PIVOT Architecture, and University of Oregon staff on the Allen Hall Experience Hub renovation. The facility is shared by different groups including: the School of Journalism and Communications, immersive media, games development, psychology and counseling, and traditional media faculty. The school demonstrated the need to replace the existing traditional broadcast studios with spaces for new and emerging media. ABD provided complete acoustical engineering, audiovisual design, and AV infrastructure design.

Tech-spaces included new broadcast suites, control room, podcast, digital media editing in conjunction with surround audio mixing, and a social media lab with real-time analytics monitoring, as well as host UC/web-conferencing and streaming applications on a large video-wall. Virtual Reality and Augmented Reality share space with collaborative games development. Common-area upgrades included the replacement of existing lobby signage, as well as a new wall-sized interactive display system to showcase significant alumni and donors.



University Projects

Project Name	University of Montana Early Childhood Education Center
Location	Missoula, Montana
Size	30,000 SF
Year Completed	2019

Description ABD Engineering & Design worked with OZ Architects on this University of Montana Early Childhood Education Center project for the Phyllis J. Washington College of Education and Human Sciences. ABD provided complete acoustical engineering and audiovisual design.

This expansion is adding approximately 30,000 SF and creates space for three fast-growing departments within the College of Education, additional classroom space, additional preschool space, and a multi-use auditorium space.

The program includes: Two preschool classrooms designed for observation by Early Childhood Education students, an additional seminar room for use by Early Childhood Education students, technology classroom, small and large counseling offices, shared seminar rooms (divisible into 2 spaces), Montana Digital Academy, auditorium (divisible into 2 spaces)

While each room had its own needs for acoustics and audiovisual details, the owner specifically requested a gesture-controlled Interactive Digital Wall, similar to the one we designed for the University of Michigan Schembechler Hall.



Higher Education Projects

Project Name	University of Connecticut Hartford Downtown Hartford Times Building
Location	Hartford, Connecticut
Cost and Size	\$70 million, 232,000 SF
Year Completed	2017
Description	<p>The University of Connecticut – Hartford Downtown campus serves over 3,000 students in the historic Hartford Times building and addition.</p> <p>Robert A.M. Stern Architects (RAMSA) hired ABD Engineering & Design to address the Room Acoustics, Noise Isolation and Speech Privacy, and Mechanical Noise Control throughout the project.</p> <p>ABD followed the BIM (Building Information Modeling) process with the architect, other consultants, and contractors to maintain efficiency of planning and construction along the way.</p> <p>Our work on the project included complete acoustical engineering and consulting for the entire structure of 6 floors plus basement mechanical spaces, divided between approximately 140,000 SF of new construction and 90,000 SF of historic preservation renovation. The completed project consists of the student center, commons, cafe, conference and meeting rooms, classrooms, the STEM program, study rooms, labs (including state-of-the-art computer labs), lounges, the President's and Directors' offices, along with department and administrative offices, and a Veterans' Oasis lounge.</p> <p>In April, 2018 the project was awarded a Connecticut Preservation Award of Merit from the Connecticut Trust for Historic Preservation. This award honors outstanding efforts in building preservation, enhancement of historic places as well as excellence in adaptive re-use of historic buildings, preservation of neighborhoods, and restoration of cultural landscapes.</p>



Higher Education Projects

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



Higher Education Projects

Project Name	Hope College Jim and Martie Bultman Student Center
Location	Holland, Michigan
Year Completed	2017
Size and Budget	42,000 SF and \$22.5 million

Description ABD Engineering & Design worked with Stantec (Philadelphia) on the Bultman Student Center, Hope College's first dedicated student-center space since 1980. The facility includes a comfortable lounge, large multi-purpose event space, exciting food and coffee cafe, intimate chapel, and a flexible movie theater/performance room. Other program elements of the building include Student Life, Counseling, and Psychological Services.

ABD provided complete acoustical engineering services and designed integrated audiovisual systems, including digital signage, sounds systems, and projection screens throughout the student center. The acoustical challenges included a multi-purpose room stacked above a flexible movie theater space. Our acoustical consultants paid special attention to the noise isolation and impact insulation between the two, to be sure the two conflicting spaces could be used simultaneously. Room acoustics were critical in the open spaces, and mechanical noise control was important throughout.



University Projects

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



Photo courtesy of GVSU



University Projects

Project Name Gonzaga University
Campus Noise Study

Location Spokane, Washington

Year Completed 2016

Description ABD Engineering & Design worked with Gonzaga University in Spokane, Washington, to complete an outdoor environmental noise study, evaluating portable speaker locations at Mulligan Field, Foley Lawn and the Quad on the Gonzaga University campus.

The purpose of the study was to provide locations, orientations, and maximum allowable sound pressure levels for the speakers to maintain compliance with the Spokane Municipal Code. This was accomplished using sophisticated software for acoustical modeling of outdoor spaces. ABD used the modeling noise prediction and analysis of the potential impact on the surrounding community.



Photo Courtesy of Gonzaga University

University Projects

Project Name DePauw University
Hoover Dining Hall

Location Greencastle, Indiana

Year Completed 2016

Description Hoover Hall, the latest addition to the DePauw campus provides a replacement solution to “the Hub” originally intended to serve 350 students, accommodate more than 1,000 DePauw students daily. The hall serves as the primary dining space for first-year students and upper-class students living in University housing.

Robert A.M. Stern Architects brought in ABD Engineering & Design to provide complete acoustical consulting and engineering services for dining and serving spaces, including four special dining rooms with seating for groups of 12 to 50. ABD’s services included Room Acoustics, Mechanical Noise Control, and Noise Isolation.



University Projects

Project Name **Ferris State University
Swan Engineering and Technical Arts Building**

Location Big Rapids, Michigan

Cost and Size \$30 Million - 77,400 SF (30,300 SF addition)

Year Completed 2016

Description ABD Engineering & Design was hired by architectural firm Neumann/Smith Architecture to design comprehensive Acoustics, Audio, Video, IT, and Digital Signage systems for this engineering and technical arts facility of the future.

Photos are pre-renovation



University Projects



THE AMERICAN
INSTITUTE
OF ARCHITECTS

Project Name **Wayne State University
Integrative Biosciences (IBio) Center**

Location Detroit, Michigan

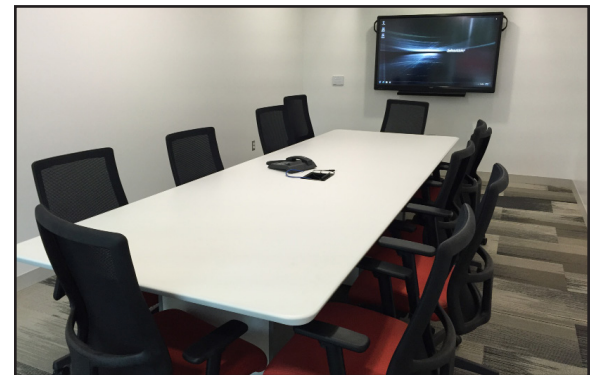
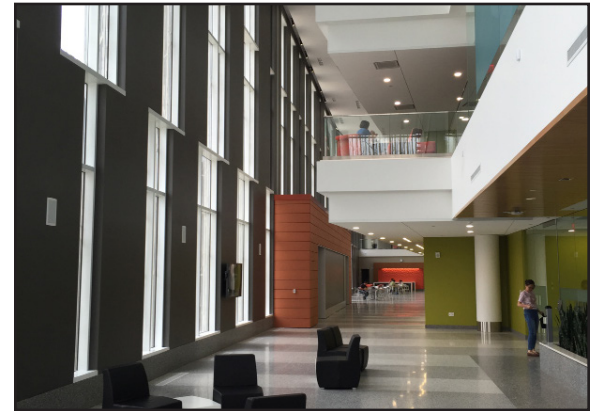
Year Completed 2016

Size and Cost 200,000 SF, \$90 Million

Description ABD Engineering & Design was hired by architectural firm Harley Ellis Devereaux to design comprehensive acoustical solutions and audio-visual systems for this 200,000 Sq. Ft., \$90 Million medical research building in Detroit. ABD worked with the design team to develop audio-visual systems that would function seamlessly in the scholastic environment and be well suited to grow with the changing demands of technology. In addition, ABD's acoustical engineers developed solutions that optimized the environment for research and learning.

AIA Michigan's 2017 Honor Award Winner:
Steel Metal Award

*Some project photos courtesy of Harley Ellis Devereaux.



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

University Projects

Project Name **Ferris State University
University Center**

Location Big Rapids, Michigan

Year Completed 2015

Project Size \$30 Million, 120,000 SF

Description ABD Engineering & Design was hired by architectural firm Neumann/Smith to design comprehensive acoustical solutions and audio-visual and IT systems for this modern, future-oriented University Center. ABD worked with the design team to develop audio-visual and IT systems that create interactions beyond the classroom. The University Center has been designed to be a gathering space for residential and commuter students, and will include a mix of dining, retail and entertainment options. It also will house additional meeting space for student organizations. In addition, ABD's acoustical engineers developed solutions that optimized the environment for research and learning.



University Projects

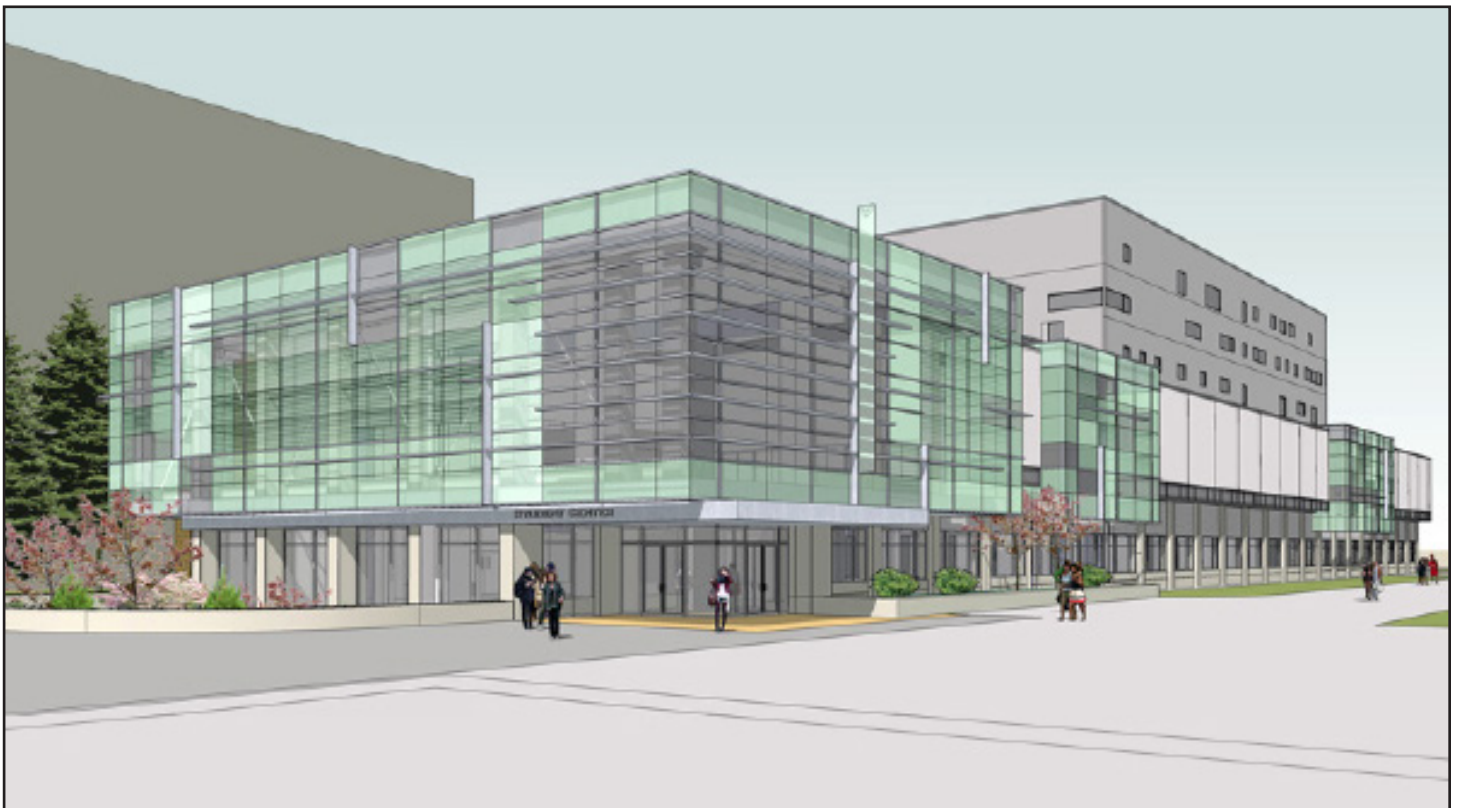
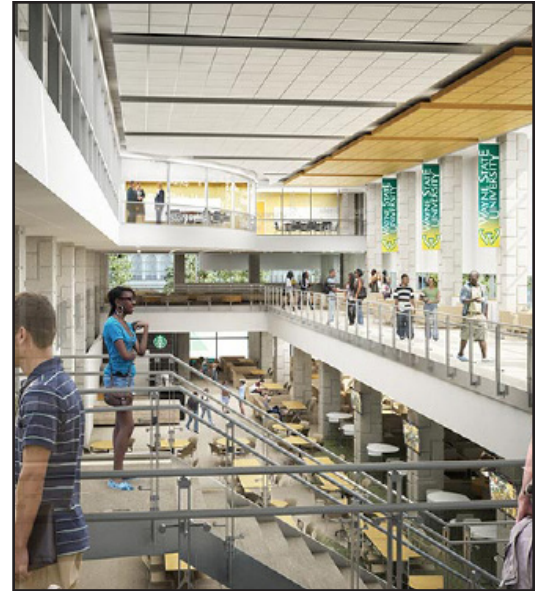
Project Name **Wayne State University
Student Center**

Location Detroit, Michigan

Year Completed 2016

Size 100,000 SF

Description Wayne State University hired ABD Engineering & Design for Audio, Video, and Digital signage systems design in the renovation of the 45 year old Student Center. The improvements provide a more modern, expansive and student-friendly atmosphere, and include touch-screen building directories at each entrance along with state of the art audio-video and technology systems throughout the rooms.



University Projects

Project Name **Central Michigan University
Biosciences Building**

Location Mount Pleasant, Michigan

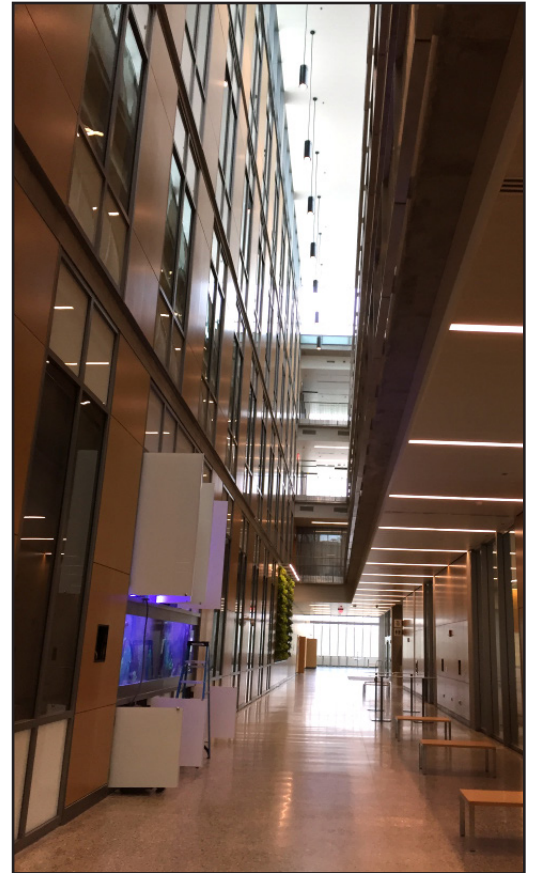
Year Completed 2016

Size and Cost 169,000 SF, \$95 Million

Description CMU's largest Capital project to date includes new and improved lab spaces for students and faculty with a variety of educational amenities. ABD Engineering & Design developed recommendations for acoustical treatments that met the building aesthetics to help the new spaces sound as good as they look.

ABD Engineering & Design provided acoustical measurements and engineered recommendations for Room Acoustics and Mechanical Noise Control, including structure borne noise and vibration mitigation.

Some photos courtesy of CM-Life.



University Projects

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.



University Projects

Project Name **University of Michigan Schembechler Hall
Margaret Dow Towsley Sports Museum**

Location Ann Arbor, MI

Year Completed 2014

Description ABD Engineering & Design was brought in to provide audio-video support for the exhibits in the Towsley Museum, such as the Win Wall, with footballs for each of the program's 910 victories, displays with artifacts highlighting the history of Michigan football and a Legends area.

One of our most visible contributions to the AV Design is The Big House video monitor wall. This set of 15 displays, roughly nineteen feet wide, can act independently or as one, and are controlled either by multi-touch or from a distance with gestures.



Higher Education Projects

Project Name	Western Theological Seminary Mulder Chapel, Holland, Michigan
Size & Cost	120 Seats, 2,500 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.



University Projects

Project Name **Cornerstone University
Matthews Auditorium**

Location Grand Rapids, Michigan

Year Completed 2014

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



University Projects

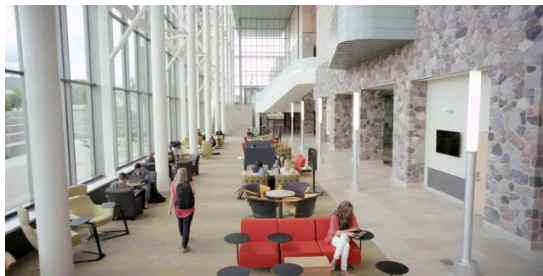


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Building Council



THE AMERICAN
INSTITUTE
OF ARCHITECTS

Project Name	Grand Valley State University Mary Idema Pew Library & Information Commons
Location	Allendale, Michigan
Year Completed	2013
Size and Cost	150,300 SF, \$68 Million
Description	This AIA Building Award Winning, Library of the Future, is a new model for the learning environment. Designed and built as a centerpiece for the campus, this LEED Platinum Certified project came in \$2 Million under-budget. Stantec (SHW Group) hired ABD Engineering & Design to provide comprehensive Acoustical consulting for the library, including the Knowledge Market - a cafe/genius bar space for private conversations, in a public and inherently noisy area.



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University Projects

Project Name **Grand Valley State University
L. William Seidman College of Business**

Location Grand Rapids, Michigan

Year Completed 2013

Size and Price 108,000 SF, \$40 Million

Description The Seidman College of Business building is intended to be a signature piece for the downtown campus, featuring classrooms that can be converted for group projects as well as gathering places for students and faculty to interact, encouraging discussion and innovation. ABD Engineering & Design was hired by Robert A.M. Stern Architects to design comprehensive acoustical solutions for this modern, future-oriented University Business School. ABD worked with the design team to coordinate acoustics with GVSU's in-house audio-visual and IT departments. In addition, ABD's acoustical engineers developed solutions that optimized the environment for research and learning.



University Projects



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

Project Name **Michigan State University Secchia Center
College of Human Medicine**

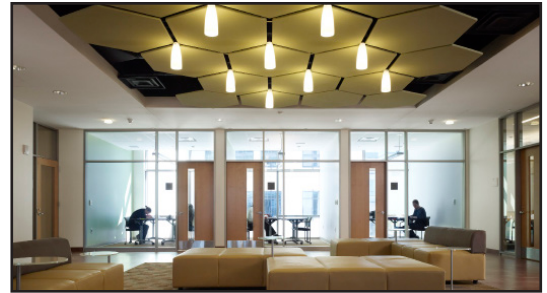
Location Grand Rapids, Michigan

Year Completed 2011

Size and Cost 180,000 SF, \$90 Million

Description ABD Engineering & Design was brought in by URS Corporation to offer consultation in architectural acoustics, noise isolation, and building systems noise control for Michigan State University's Secchia Center College of Human Medicine in downtown Grand Rapids, Michigan.

Several acoustical challenges included: exterior noise isolation from an adjacent freeway, architectural acoustics for the large multi-level atrium, building systems noise control for the top floor mechanical room – including a floating floor, concrete isolation pad. Our professional engineers used ray-tracing computer models to predict the acoustical needs of the space even before construction began. The design was acoustically optimized, cost effective, and aesthetically appealing. The building is optimized to conserve energy and preserve the environment. At the recent dedication ceremony, the building was awarded LEED Gold Certification.



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University Projects

Project Name	Concordia University School of Pharmacy Mequon, Wisconsin
Size and Cost	57,000 SF, \$12 Million
Services Provided	Audio-Video System Design Digital Signage System Design Room Acoustics Noise Isolation
Reference	Clifford Mayer, Principal Mayer Helminiak Architects LLC 10521 North Port Washington Rd., Suite 220 Mequon, WI 53092 (262) 241-3700 cmayer@mayer-helminiak.com



Description The School of Pharmacy at Concordia University features lecture halls, classrooms, breakout rooms for small group activities, separate sterile and non-sterile product labs, a clinical skill lab, and a research lab for pharmaceutical research. ABD Engineering & Design was brought on by Mayer Helminiak Architects to offer comprehensive acoustical engineering and audio-visual systems design for the school. The project has recently been completed and the school is proud to display their state-of-the-art facility.



University Projects

Project Name **Indiana Wesleyan University
Chapel Auditorium**

Location Marion, Indiana

Year Completed 2010

Size and Cost 3,800 seats, \$22 Million

Reference Kevin Scully, NCARB, President
Design Collaborative
825 South Barr Street, Suite 100
Fort Wayne, IN 46802
(260) 422-4241

Description The University Chapel and Auditorium seats 3,800 between the raked main floor and in the two balconies. It is the largest indoor assembly space on campus and will be used for graduation ceremonies, performing arts events, and of course, chapel. ABD Engineering & Design provided full design services for the Chapel's audio-visual systems, including the large rear projection displays which are integrated into the interior architecture.



University Projects

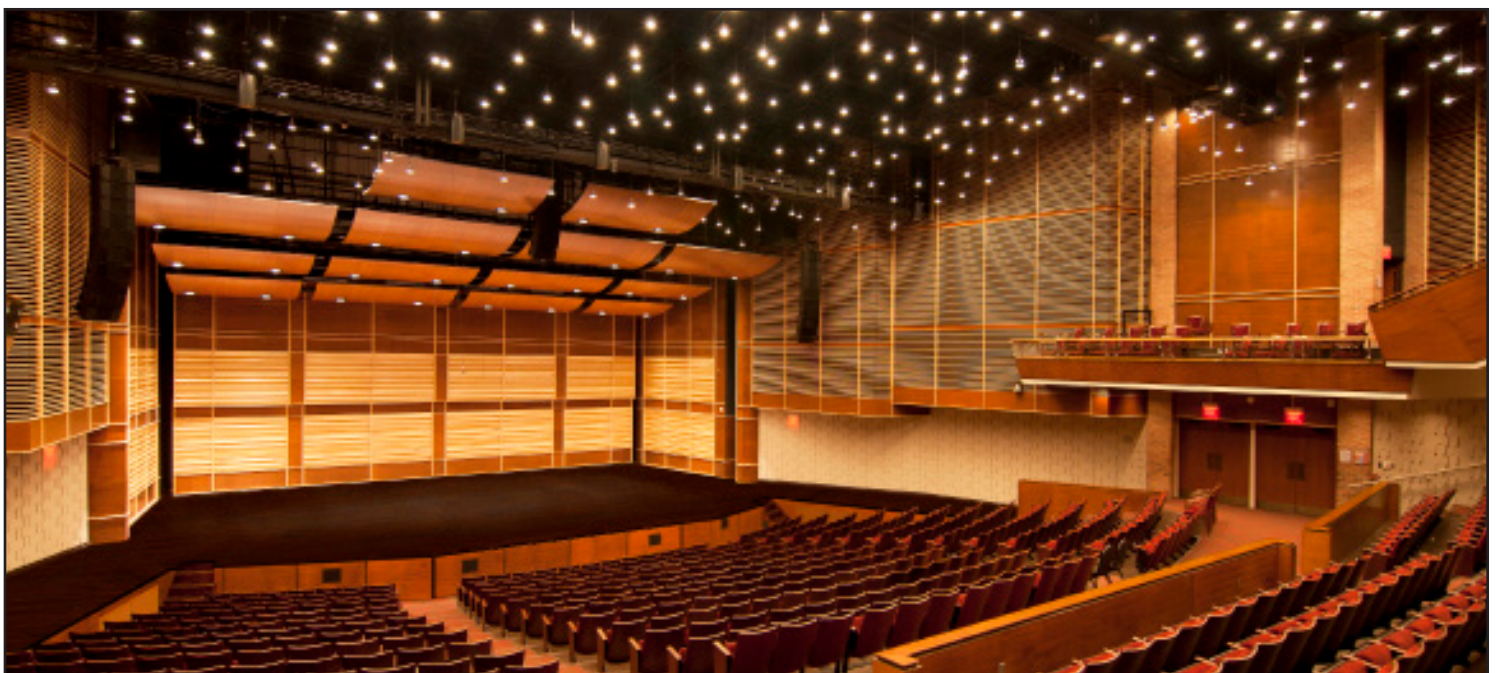
Project Name **Calvin University Covenant Fine Arts Center,
Grand Rapids, Michigan**

Size & Cost 1100 Seats, 124,000 SF, \$15 Million

Year Completed 2010

Description ABD Engineering & Design provided acoustical engineering and AVL systems design for the Covenant Fine Arts Center at Calvin University. Our work included the 1,100 seat Auditorium, 300 seat Recital Hall, Choir, Band, Rehearsal Rooms, and support spaces.

ABD worked closely with GMB Architects + Engineers and the Calvin Staff to design state of the art AVL systems and acoustical features for the FAC. Our professional engineers used a binaural dummy head to measure the acoustical response throughout the auditorium and balcony. This data, combined with a predictive 3D computer model of the space, gave us the acoustical “fingerprint” of the space. Our design included adjustable acoustic features that can optimize the sound for any type of event. The facility has been met with rave reviews and is poised to meet the needs of the school for years to come.



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University Projects

Project Name **Calvin University Recital Hall
Grand Rapids, Michigan**

Size 300 Seats

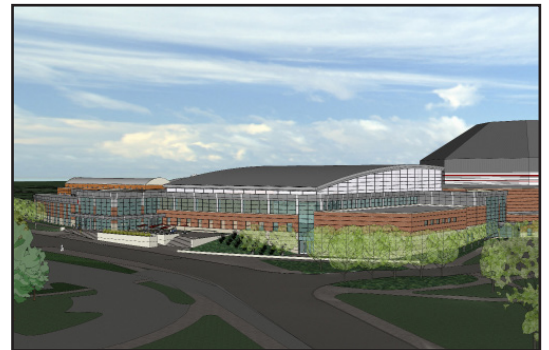
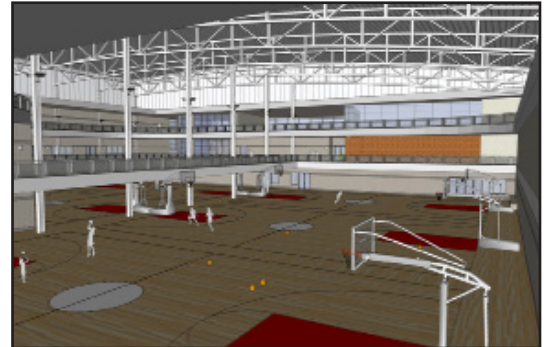
Year Completed 2010

Description The Recital Hall at Calvin University's Covenant Fine Arts Center meets a unique need by providing a smaller performance space with great acoustics, technology, and aesthetics. Until its completion, smaller performances (such as student recitals) took place in the large Auditorium, dwarfing the small crowd and killing the mood. ABD Engineering & Design engineered acoustical solutions and AVL systems for the space including a high definition video projection system with operable screens for both upstage and downstage. The 300 seat Recital Hall is optimized to provide a great solution for intimate performances, lectures, and even the occasional movie showing. The acoustics of the Recital Hall are so pristine that some choir directors have avoided using it as a rehearsal space. Their reason? "It makes us sound better than we actually are!"



University Projects

Project Name	Ball State University Student Wellness and Recreation Facility
Location	Muncie, Indiana
Year Completed	2010
Size and Cost	200,000 SF, \$40 Million
Owner's Representative	MSKTD & Associates, Inc. Rick Dahlstrom, Architect 1715 Magnavox Way Fort Wayne, IN 46804 (260) 432-9337
Description	ABD provided recommendations for room acoustics, sound isolation, and HVAC systems noise control for the Student Wellness and Recreation Facility, including climbing room, 5-court gymnasium with upper level running track for recreational athletics and commencement, indoor turf field, dance instruction and competition studio, multipurpose rooms, offices, and other spaces for recreational athletics.



University Projects

Project Name **Calvin University
Spoelhof Fieldhouse Complex**

Location Grand Rapids, Michigan

Size and Cost 362,000 SF, \$50 Million

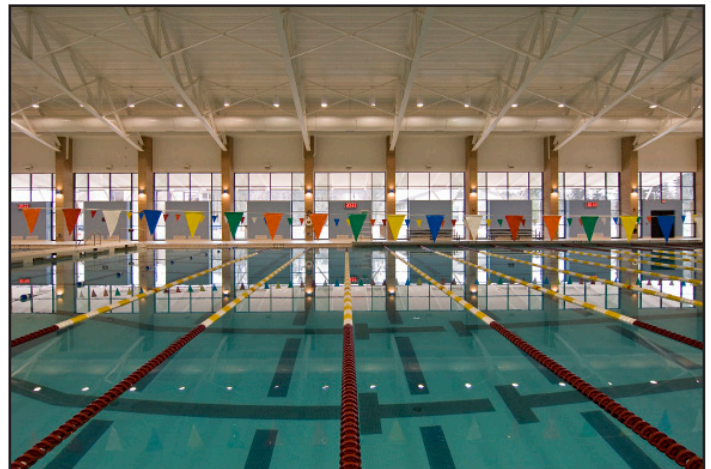
Description

The Spoelhof Fieldhouse Complex is home to Calvin's standard-setting, world-class athletic facilities—including a 4,500 seat arena and state-of-the-art aquatic center—but it is far more than a sporting venue.

This showcase of modern architecture and design is filled with flexible, multi-use spaces that can be adapted for nearly any event. Its soaring ceilings and abundance of natural light create a warm, inviting and elegant atmosphere for small groups and massive crowds alike

ABD Engineering & Design provided comprehensive acoustical consulting, HVAC noise control engineering, and audio-video design services for the entire Fieldhouse (including two large rear projection displays which are integrated into the interior architecture of the arena).

The athletic complex also an Olympic size pool and aquatic center, an indoor tennis and track center, and a full student health and fitness center.



University Projects

Project Name **Valparaiso University
Harre Student Union**

Location Valparaiso, Indiana

Year Completed 2009

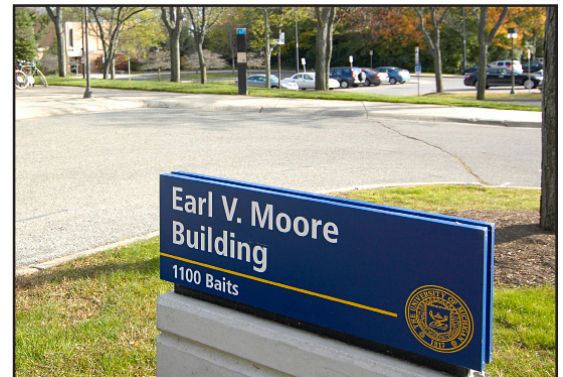
Size and Cost 202,000 SF, \$74 Million

Description The Harre Student Union is the recipient of the 2009 Collegiate Citation, the top award from American School and University Magazine (AS&U). ABD Engineering & Design was brought in by Design Organization to provide comprehensive acoustical consulting and sound isolation design for the large divisible ballroom which is used for lectures, dances, concerts, and student activities. In addition, our work included the meeting rooms, banquet rooms, small conference rooms, and lobby. We paid particular attention to the acoustics for the large main entry lobby. With its glass, stone, and gypsum wallboard room finishes, the room required sufficient absorption to attenuate the acoustics without detracting from the crisp modern look of the space.



University Projects

Project Name	University of Michigan School of Music, Theatre, & Dance E.V. Moore Building
Location	Ann Arbor, Michigan
Year Completed	2008
Owner's Representative	Kevin Geraldts Chief Administrative Officer University of Michigan School of Music, Theatre, & Dance E.V. Moore Building 1100 Baits Drive Ann Arbor, MI 48109-2085
Description	ABD Engineering & Design made recommendations for acoustical treatment for the facility's ninety-four practice rooms and rehearsal spaces. Our professional engineers attended meetings with faculty members to determine the varying needs of the spaces. Our final report included detailed recommendations for acoustical features that would enhance each practice space, making it ideal for its intended design.



University Projects

Project Name **Calvin College Ladies Literary Club**

Location Grand Rapids, Michigan

Year Completed 2008

Size and Cost 450 Seats, \$1.5 Million

Owner's Representative and Reference
Carl Hordyk, Technical Services Manager
Calvin College Fine Arts Center
3201 Burton St Se
Grand Rapids, MI 49546
(616) 526-6279

Description ABD Engineering & Design worked directly with Calvin College to enhance the natural acoustics and to design new audio-visual and lighting Systems in this historical space in downtown Grand Rapids, Michigan. The facility will be used to house many local events including Calvin's Student Concert Series. Our professional engineers developed plans for a first floor tech booth for the audio system and a second floor booth for the video system. The design included specifications for an intercom system for the backstage areas, support spaces, and green rooms for performing guests. The college has implemented our design for the audio and video systems and has future plans to incorporate our recommendations for the acoustics, lighting and catwalk system.



University Projects



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Project Name **Kalamazoo College Hicks Center**

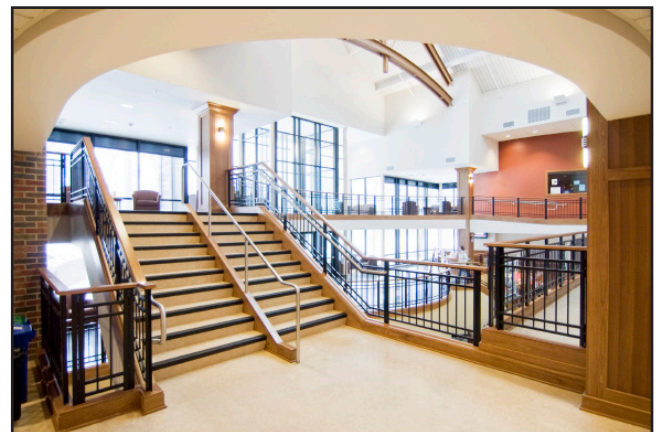
Location Kalamazoo, Michigan

Year Completed 2008

Description The renovated Hicks Center has received the LEED Silver Certification and acts as a center for the campus community. ABD Engineering & Design provided acoustical engineering and consulting services to support the renovation design. We worked with the project design team to address sound isolation, room acoustics, and HVAC noise control for counseling rooms, student healthcare center, bookstore, dining, large banquette and meeting rooms with historic murals and barrel vaulted ceilings, 4-story high main entrance lobby, and offices and conference rooms for student organizations and college staff.

"The Hicks Center was the first LEED registered new construction project in the Kalamazoo area. It has become a magnet that draws the entire college community into a beautiful space,"

- Eileen Wilson-Oyelaran,
Kalamazoo College President



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University Projects



LEED Certified
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Building Council

Project Name **Davenport University
Student Center & Field House**

Location Caledonia, Michigan

Year Completed 2008

Project Size 87,000 SF, \$16 Million
Description

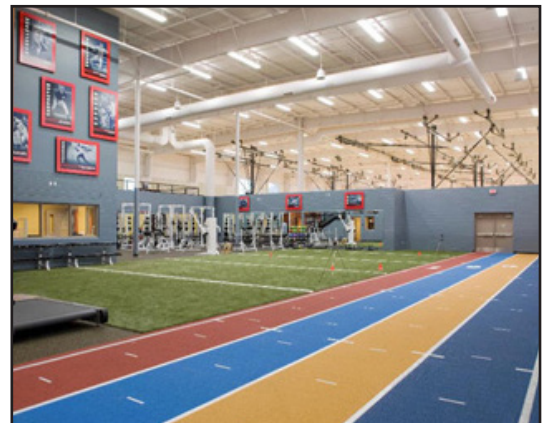
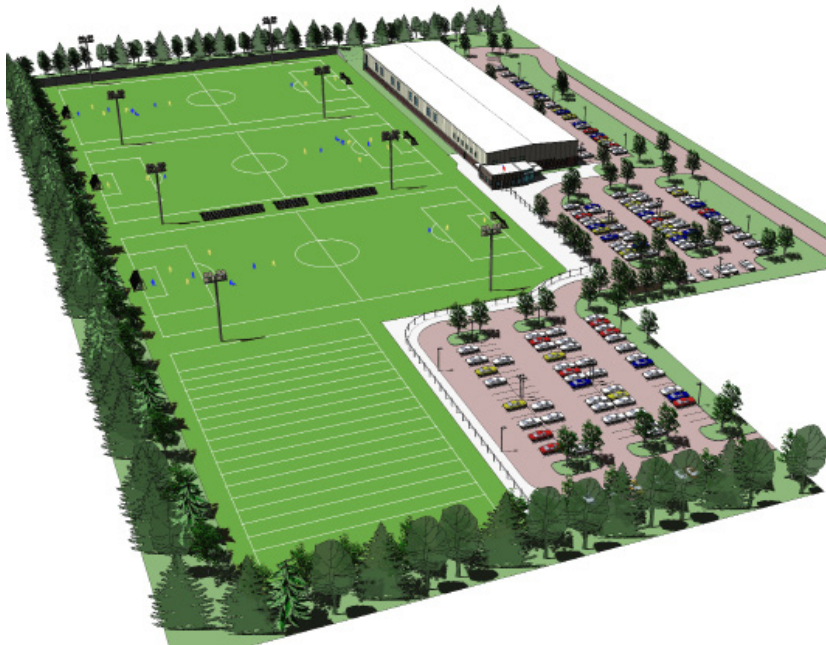
ABD Engineering & Design provided comprehensive acoustical consulting for the LEED Certified Davenport University Student Center & Field House. Our professional engineers used 3D computer models to predict the acoustical response of the spaces and to design room acoustics, HVAC noise control, and noise isolation for all the critical spaces in the building including the Field House, Aux Gym, Fitness Center, Commons Area, and Meeting Rooms.



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University Projects

Project Name	MVP Fieldhouse
Location	Grand Rapids, Michigan
Year Completed	2007
Size	50,000 SF Indoor, 350,000 SF Outdoor
Description	This state-of-the-art sports facility features five regulation courts for basketball and volleyball. The outside area is one continuous artificial turf surface lined to include three regulation soccer fields, three regulation lacrosse fields, two regulation football fields and a practice field for additional training. ABD Engineering & Design was brought in by AMDG Architects to design architectural acoustics for the fieldhouse and audio systems for the outdoor sports fields.



University Projects

Project Name **Thomas M. Cooley Law School**

Location Grand Rapids, Michigan

Year Completed 2006

Project Size 98,000 SF, \$13 Million

Description The acoustical engineers at ABD Engineering & Design provided recommendations for architectural acoustics, interior noise isolation, and mechanical noise control in the renovated Cooley Law Building at 38 Oakes in downtown Grand Rapids, Michigan. Cooley Law School continued its expansion into the Grand Rapids area with the 54,209 SF renovation of, as well as the construction of a 31,376 SF addition to connect 38 Oakes to a new 12,852 SF building that replaced the Durfee building, all to house the Grand Rapids Campus of the Thomas M. Cooley Law School.

The lower level and first floor of the existing building and addition house the law library. The second through fifth floors of the existing building include medium to small sized classrooms, faculty and staff offices. The second through fifth floors of the addition include four two-story, 90-seat classrooms with tiered seating. The new building houses offices for student services, student organizations, and staff.



University Projects

Project Name **Hope College, Martha Miller Center for Global Communications**

Location Holland, Michigan

Year Completed 2005

Project Size 49,000 SF, \$12 Million

Description ABD Engineering & Design made comprehensive recommendations for architectural acoustics, HVAC noise control, and noise isolation. The facility provides a centralized location for radio, television and newspaper productions, and it also serves as a classroom facility for instruction of communications, foreign language and international studies. Along with faculty offices, four classrooms, a 90-person auditorium, language and computer labs, television and radio stations with editing suites and a newspaper production facility are provided.

Of particular concern at this facility was the location of a railroad track just a short distance away. In addition, a nearby level crossing meant that the train whistle could impact noise levels inside the television and radio studios and edit suites. A "room within a room" design created a facility that is host for the award winning Children's Television program "Come On Over". The show has won numerous Michigan Emmy awards!



University Projects

Project Name	Western Michigan University WMUK Radio
Location	Kalamazoo, Michigan
Year Completed	2005
Owner's Representative	Project Architect: Kingscott Architects
Reference	Floyd Pientka WMUK General Manager Western Michigan University 1903 West Michigan Avenue Kalamazoo, MI 49008 (269) 387-5715
Description	The Yoshimi Takeda Performance Studio at WMUK is used to broadcast quality recordings of the Kalamazoo Symphony Orchestra, Fontana Chamber Arts, the Gilmore, and visiting artists. In addition, the studio is capable of multi-track digital recordings in an intimate, acoustically-tunable environment designed for the comfort and creativity of performing artists. ABD was the acoustical consultant for room acoustics, noise isolation, and building systems noise control.



University Projects

Project Name **University of Michigan
Rachel Upjohn Building**

Location Ann Arbor, Michigan

Year Completed 2005

Size and Cost 112,500 SF, \$41 Million

Description ABD Engineering & Design offered comprehensive consultation for Architectural Acoustics, HVAC Noise Control, Noise Isolation, and Sound Masking solutions for the Rachel Upjohn Building, a medical office facility in Ann Arbor, Michigan. Our professional engineers made recommendations that added the proper amount of acoustical treatment to the building without going overboard on extras, thereby improving indoor environmental quality and staying within budget.



University Projects

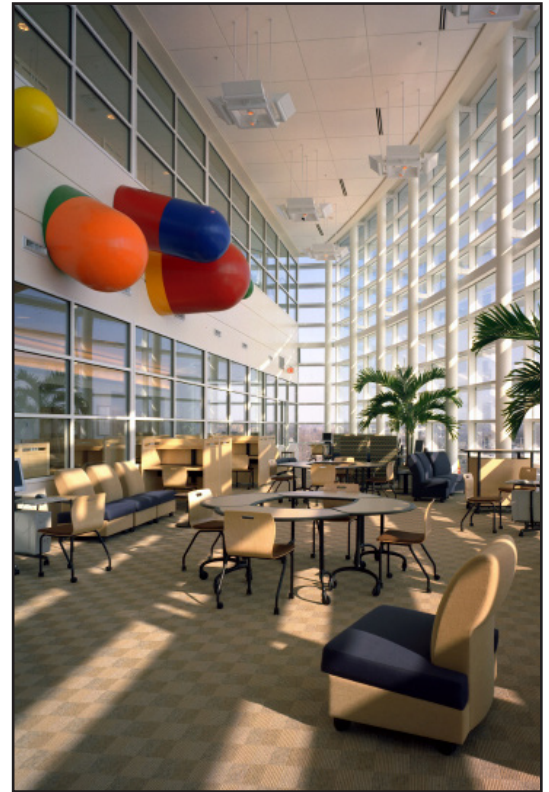
Project Name **Grand Valley State University
Cook DeVos Center for Health Sciences**

Location Grand Rapids, Michigan

Year Completed 2003

Size and Cost 265,000 SF, \$53 Million

Description ABD Engineering & Design provided comprehensive acoustical consulting for the Health Sciences College at the downtown Grand Rapids campus of Grand Valley University. ABD used 3D modeling software to make noise measurements and to predict how the building would sound after construction. With this data at hand, we provided detailed recommendations for architectural acoustics, building systems noise control, and interior noise isolation. Our design played a crucial role in improving the facility's environmental quality and scholastic atmosphere.



University Projects

Project Name **Kellogg Community College
Music Center of South Central Michigan**

Location Battle Creek, Michigan

Year Completed 2003

Owner's Project Architect:
Representative Kingscott Associates

Reference Brooks Grantier
Battle Creek Boychoir
P.O. Box 1613
Battle Creek, MI 49016
269-963-1911

Description ABD Engineering & Design assisted in the design of a rehearsal center for Kellogg Community College. The plan included a large rehearsal space, small rehearsal space, and practice rooms. ABD provided comprehensive acoustical consulting services including room acoustics, noise isolation, and mechanical noise control.





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

- | | | |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| • Clackamas Community College, Student Services Community Center, Oregon City, OR | • Pacific University, McGill Hall, Forest Grove, OR | • University of Portland, Innovation Center, Portland, OR |
| • Gonzaga University, Campus Noise Study, Spokane, WA | • University of Connecticut Hartford, Downtown Campus, Hartford, CT | • University of Providence Great Falls, University Center, Great Falls, MT |
| • Linfield College, Graf Hall, McMinnville, OR | • University of Montana, Education Center, Missoula, MT | • Walla Walla University, Band Room, Walla Walla, WA |
| • Oregon State University, Cascades AB2 STEM Building, Bend, OR | • University of Oregon, School of Journalism and Communication, 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

- | | | |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| • University of Oregon School of Journalism & Communications, Experience Hub, Eugene, OR | • University of Montana, PJ Washington Education Center, Missoula, MT | • University of Chicago, Keller Center, Harris School of Public Policy, Chicago, IL |
| • University of Oregon, Autzen Stadium Audio Systems Replacement, Eugene, OR | • Delta College, Downtown Saginaw Center, Saginaw, MI | • University of Chicago, Siegh Hall, School of Economics, Chicago, IL |
| • University of Providence Great Falls, Student Center, Great Falls, MT | • Case Western Reserve University, Tinkham Veale University Center, Cleveland, OH | • University of Wisconsin Eau Claire, Student Center, Eau Claire, WI |
| | • Princess Noura University, Riyadh, Saudi Arabia | |

Some experience listed is while employed by SMW.



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

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

Institute of Noise Control Engineering.

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

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

Professional Experience

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

Professional Licenses and Memberships

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

Education

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

Project Experience

- | | | |
|---------------------------------------------------------|------------------------------------------------------------|----------------------------------------|
| • Southern OR University, Ashland, OR | • Portland State University Science Building, Portland, OR | • University of Portland, Portland, OR |
| • George Fox University Health Occupations, Newberg, OR | • MI State University STEM Building, Midland, MI | • University of OR, Eugene, OR |
| • OR State University Bexell Hall, Corvallis, OR | • OR Health & Sciences University, Portland, OR | |
| • OR State University Cascades, Bend, OR | • Gonzaga University, Spokane, WA | |



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

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

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

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

Professional Experience

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

Professional Memberships

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

Education

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

Project Experience

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

*Some project experience is prior to employment at ABD

Benjamin Wolf

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



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

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

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

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

Professional Experience

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

Professional Memberships

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

Education

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

Project Experience

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



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



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

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

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

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

Professional Experience

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

Professional Memberships

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

Education

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

Project Experience

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





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

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





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. Faulkner is an AVIXA Certified Technical Specialist (CTS). You might work with him in either or both capacities at ABD.

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

create sound design for video games.

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

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

Professional Experience

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

Professional Memberships and Certifications

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

Education

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

Project Experience

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



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

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

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

Professional Experience

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

Education

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

Professional Certifications

- ProTools User Certified
- Dante Certification 3

Professional Memberships

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

Project Experience

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

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