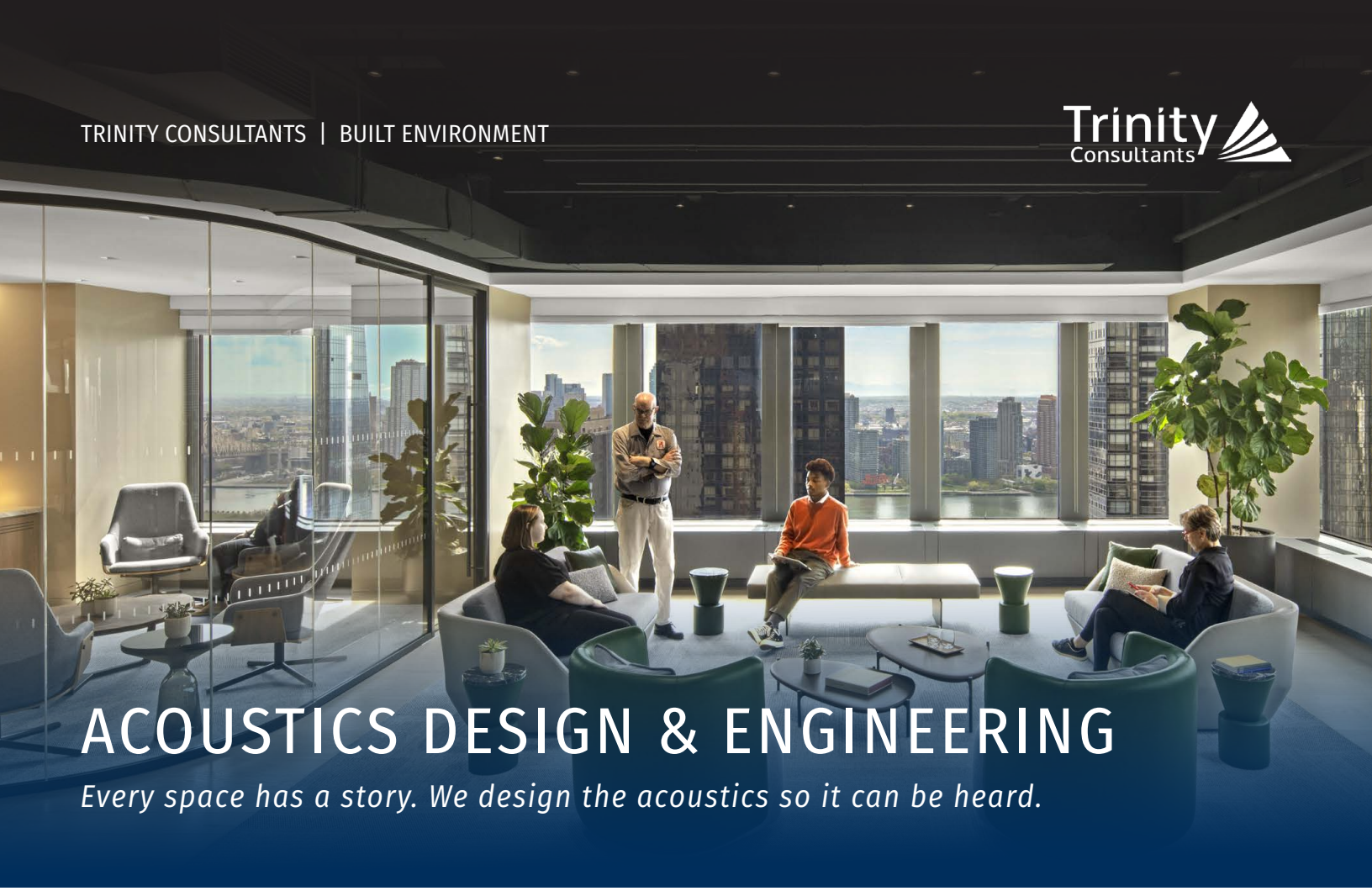


ACOUSTICS DESIGN & ENGINEERING

Every space has a story. We design the acoustics so it can be heard.

OVERVIEW

Acoustics is not a finish-line consideration. It is a design discipline — one that shapes how every space performs for the people who use it.

Trinity Consultants' Built Environment team — drawing on the expertise of **Cerami, Longman Lindsey, Valcoustics, Jaffe Holden, JB&B, and WorkingBuildings** — brings together acoustics professionals with decades of experience designing environments that are quiet, intelligible, resilient, and fit for purpose. We help clients identify sound and vibration challenges early, model performance outcomes before construction begins, and deliver spaces that give buildings their signature voice.

2K+
corporate interiors fitouts.

80+
higher education performance venues completed.

100+M
square feet of residential projects in the past 5 years.

Trinity Consultants

Room Acoustic Design

Every room makes a claim about how it will feel to be in. Room acoustic design is how that claim is kept. We address the full aural environment — reverberation time, sound reflection, loudness distribution, speech intelligibility, and surface treatment — so that each space functions as intended for its occupants. Our team evaluates room volume and geometry, reviews material selections for walls, floors, and ceilings, and develops design recommendations calibrated to the specific acoustic requirements of each use.

Our room acoustic practice includes surveys and analysis using modern measurement equipment, acoustic testing, laboratory analysis and materials evaluation, acoustic enclosure design for performing ensembles, adjustable acoustic systems that allow a space to be tuned for a range of programming, and commissioning support including assessment during live rehearsals. We use reverberation calculations and modeling to design spaces that satisfy every desired function — from recording studios to multi-purpose performance and spoken word venues.

Speech privacy is not about silence — it is about control.

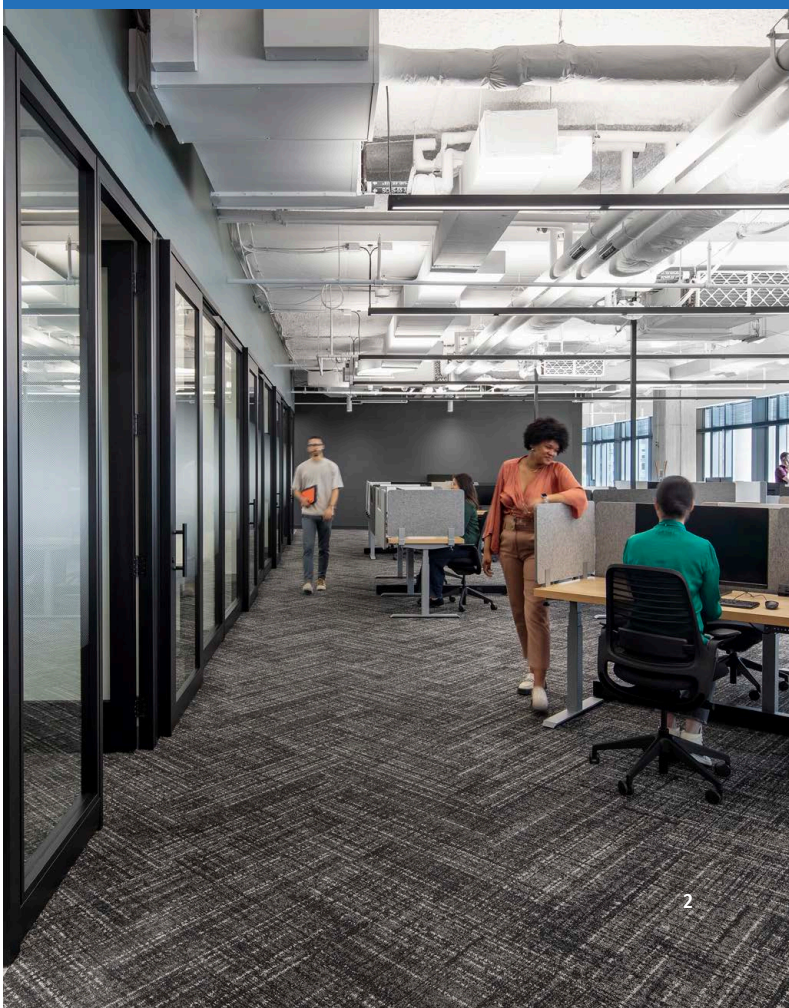
Sound Masking

Speech privacy is not about silence — it is about control. Sound masking systems introduce a carefully designed background sound level that reduces the intelligibility of nearby conversations, giving occupants privacy without imposing quiet. This is particularly relevant in open-plan workplaces, private offices, healthcare environments, legal and financial settings, and any space where confidentiality or reduced distraction is a priority.

We design traditional systems with loudspeakers in ceiling or raised floor plenums, as well as actuator-type speakers that resonate on glass, gypsum board, or other solid surfaces. Services extend through construction to review installation and tune the system to target levels before occupancy.

Room acoustic design applies across a wide range of space types, including:

- Concert halls, theatres, and multipurpose performance venues
- Academic classrooms, lecture halls, and music education facilities
- Houses of worship, civic assembly spaces, and government chambers
- Corporate conference rooms, boardrooms, and collaboration spaces
- Recording studios, broadcast facilities, and media production environments
- Healthcare and research environments with specific background noise or isolation criteria



Simulating the Sound of Amazon's HQ

At 2.1 million sq ft, Amazon's new HQ2 in Arlington required advanced acoustic design and real-time simulation to meet strict Workplace Guidelines and protect employee comfort.

Amazon HQ2 Metropolitan Park Arlington, VA

Services: Acoustics Consulting

Where Pittsburgh's Landscape Shapes the Sound

3D acoustic modeling guided every sound decision across Pittsburgh International Airport's modernized terminal — where tree-like columns, sweeping ceilings inspired by rolling hills, and biophilic design create an atmosphere that feels nothing like a traditional airport.

Pittsburgh Airport Pittsburgh, PA

Services: Acoustics Consulting

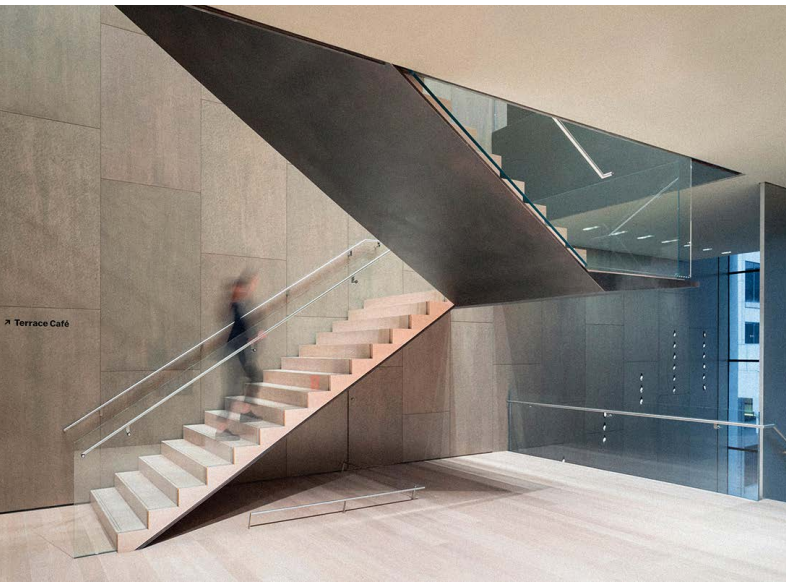
3D Acoustics Modeling

Hear it before it's built. Our 3D acoustics modeling and simulation services help owners, architects, engineers, and project stakeholders understand how a space will sound before a single surface is finished.

Using advanced simulation tools, we evaluate room geometry, surface finishes, reverberation, speech clarity, loudness, and exterior noise intrusion. Clients can audibly and visually interact with 3D and virtual reality models of their developing spaces — hearing how different design decisions will affect the final result before construction commits them. We apply 3D modeling to performance, educational, cultural, civic, workplace, and specialty spaces, for new construction and retrofit alike, and use it to map sound levels at receiver locations to support planning board and municipal review.

The MoMA New York, NY

Services: Acousitcs & Audiovisual Consulting



Where Science Meets Art at MoMA

Trinity ensured MoMA's expansion sounds as refined as it looks — from micro-perforated walls along the iconic Blade Stair to a floating, acoustically isolated studio that transports visitors away from Midtown Manhattan.

Building Sound Isolation

Quiet is not passive. It is designed. Our sound isolation strategies protect occupants, sensitive activities, and high-performance spaces from unwanted airborne noise, structure-borne noise, and vibration. Our work addresses external sources — transportation, mechanical equipment, adjacent development — and interior adjacencies between performance spaces, classrooms, offices, residential units, healthcare areas, museums, libraries, and other sensitive uses.

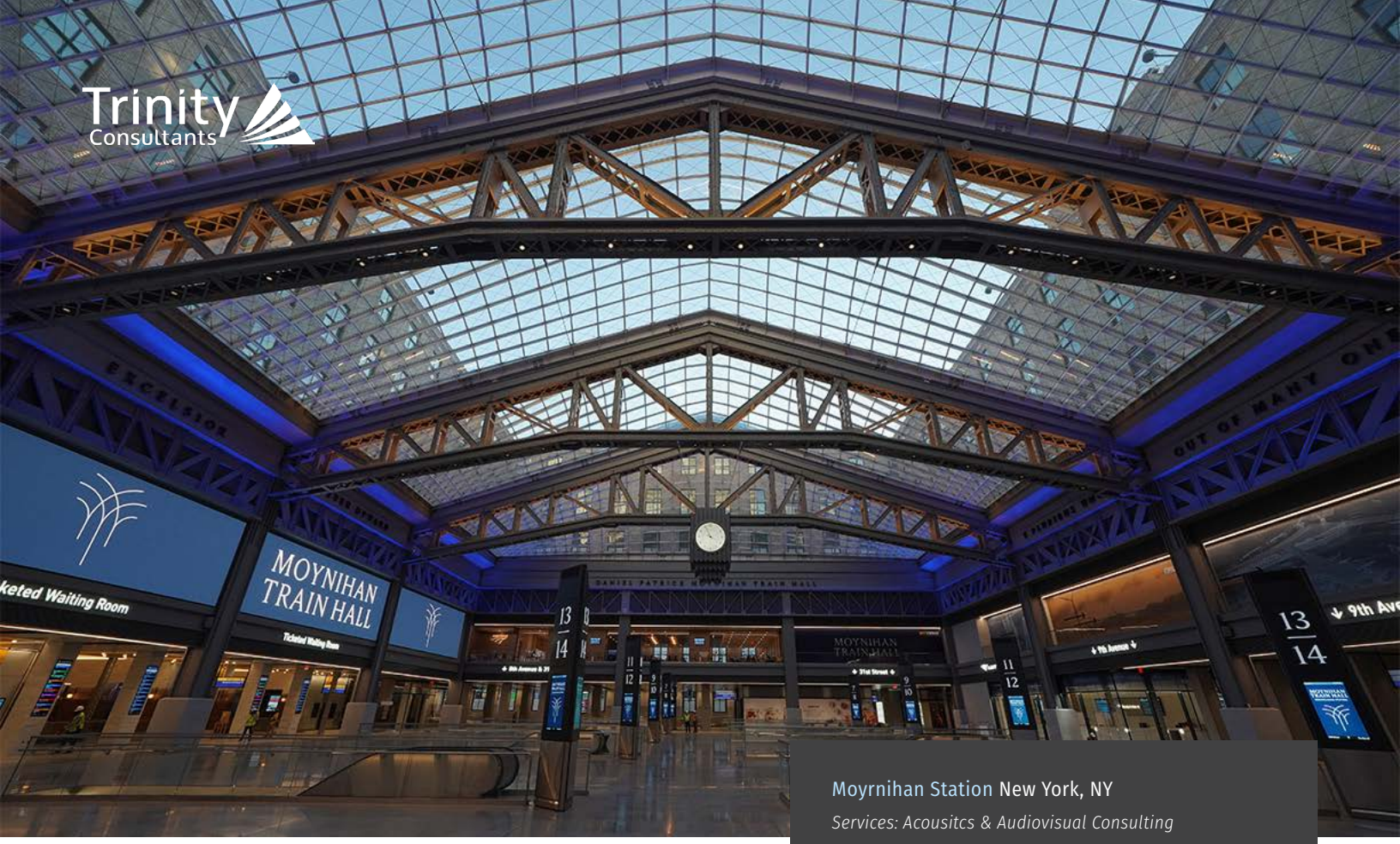
We determine the level of quiet necessary for each space's intended use, examine the noise and vibration profile of the site, and use in-house acoustic laboratory analysis to make recommendations for floors, walls, ceilings, windows, doors, and specialty isolation systems. Site visits are available throughout construction to verify design compliance. Our architectural acoustics practice addresses environmental noise through the building envelope, mechanical system isolation, acoustic privacy between adjacent spaces, impact noise and footfall between floors, and the appropriate balance of absorptive and reflective surface finishes for each use.

Listening at Every Frequency

The renovation demanded a monitoring system sophisticated enough to distinguish construction, environmental, and office noise — tracking vibrational impact minute-by-minute at the neighboring commercial building.

Tiffany & Co. Flagship Store New York, NY

Services: Construction Noise & Vibration Monitoring, Acoustics, and Audiovisual Consulting



Moyrnihan Station New York, NY

Services: Acousitcs & Audiovisual Consulting

Noise and Vibration Analysis

Noise and vibration problems designed out early cost a fraction of those discovered late. Our analysis services identify sources, transmission paths, and receivers so that practical mitigation can be built into projects from the earliest stages. We evaluate mechanical, electrical, plumbing, vertical transportation, structural, environmental, and transportation sources using measurements, modeling, source-path-receiver analysis, and performance criteria tailored to each space type.

Our team provides mechanical noise and vibration control analysis to mitigate airborne and structure-borne noise transfer, structural dynamics analysis to understand natural frequencies and vibration transfer for optimal space programming, and vibration analysis for spaces with sensitive equipment such as recording studios, MRI suites, and research laboratories. We analyze fans, electrical devices, rotating equipment, and duct-borne noise using a source-path-receiver method, establish required background sound levels early in design, and develop recommendations based on observation, experience, and noise propagation software.

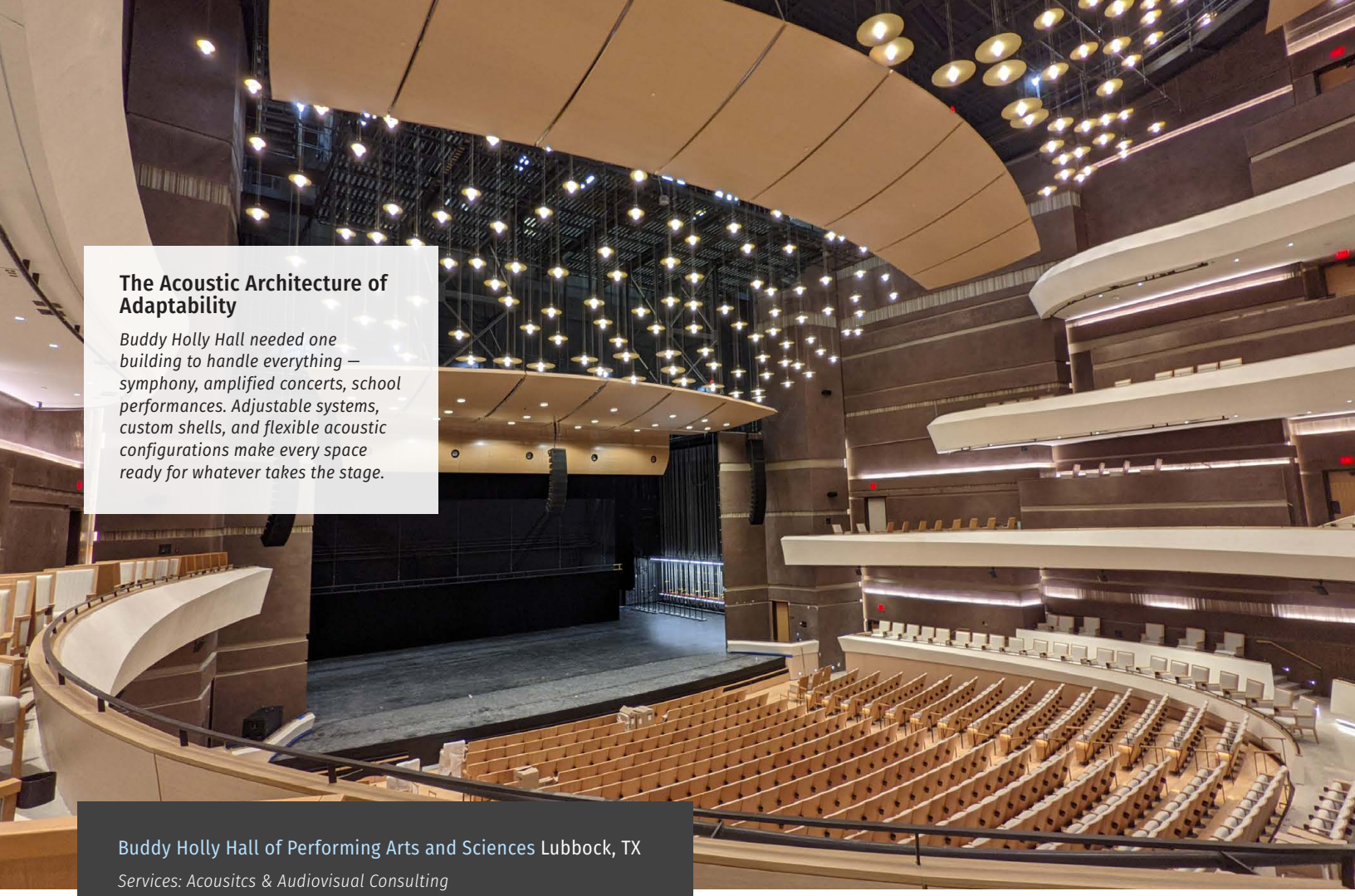
Listen In: Noise and vibration analysis

Construction Noise and Vibration Monitoring

Active construction creates real risk for neighboring structures, sensitive receptors, and project teams. Our construction noise and vibration monitoring services help project teams manage that risk, document compliance, and protect all parties throughout the construction process. Services include zone-of-influence studies, pre-construction baseline measurements, monitoring plan development, construction noise monitoring, ground and structural vibration monitoring, custom sensor deployments, real-time data review, reporting, and mitigation recommendations.

We use state-of-the-art equipment to detect and record ground movements caused by construction, demolition, transportation, and other vibration sources, review collected data to assess impact on surrounding structures and communities, and develop design solutions to mitigate issues before they arise. Our practice includes structural vibration monitoring, ambient vibration measurements, and guidance navigating compliance requirements for active construction projects.

Hear how we stay ahead of noise & vibration risk



The Acoustic Architecture of Adaptability

Buddy Holly Hall needed one building to handle everything — symphony, amplified concerts, school performances. Adjustable systems, custom shells, and flexible acoustic configurations make every space ready for whatever takes the stage.

Buddy Holly Hall of Performing Arts and Sciences Lubbock, TX

Services: Acousitcs & Audiovisual Consulting

Environmental Acoustics

Buildings do not exist in isolation — and neither does their sound. Our environmental acoustics services evaluate how transportation, industrial, construction, renewable energy, entertainment, and building-related noise sources affect surrounding communities and sensitive land uses. We conduct field measurements, predictive modeling, impact assessments, mitigation studies, and documentation to support planning, permitting, design, and community engagement.

Our practice addresses noise sources from rooftop mechanical equipment to music festivals, recommends solutions for large-scale highway, transit, and rezoning projects, and develops guidance for safe working conditions in industrial and mechanical spaces. Assessment services cover road, rail, and air transportation as well as industrial sources, including wind turbine and renewable energy noise. Our environmental noise control practice translates municipal standards into design solutions — appropriate window glazing, sound barriers, equipment enclosures — with particular attention to facilities where noise-producing systems must operate continuously.

Theatre and Studio Acoustic Design

Theatres, recording studios, broadcast facilities, sound stages, and editing rooms have zero tolerance for acoustics afterthoughts. These specialty spaces require strategies that integrate noise and vibration control, architectural acoustics, and sound isolation from the first line of design. Our team reviews existing conditions, establishes sound requirements based on project objectives, and provides practical, cost-effective treatments that address the full range of acoustical challenges specific to each space type.

We provide acoustic design and treatment for both new construction and retrofit, using 3D modeling to assess specialty spaces and support the design process through to commissioning. Our portfolio includes acoustic and technology consulting for sound stages, studios, and editing rooms.

Legislative Regulation Advisory

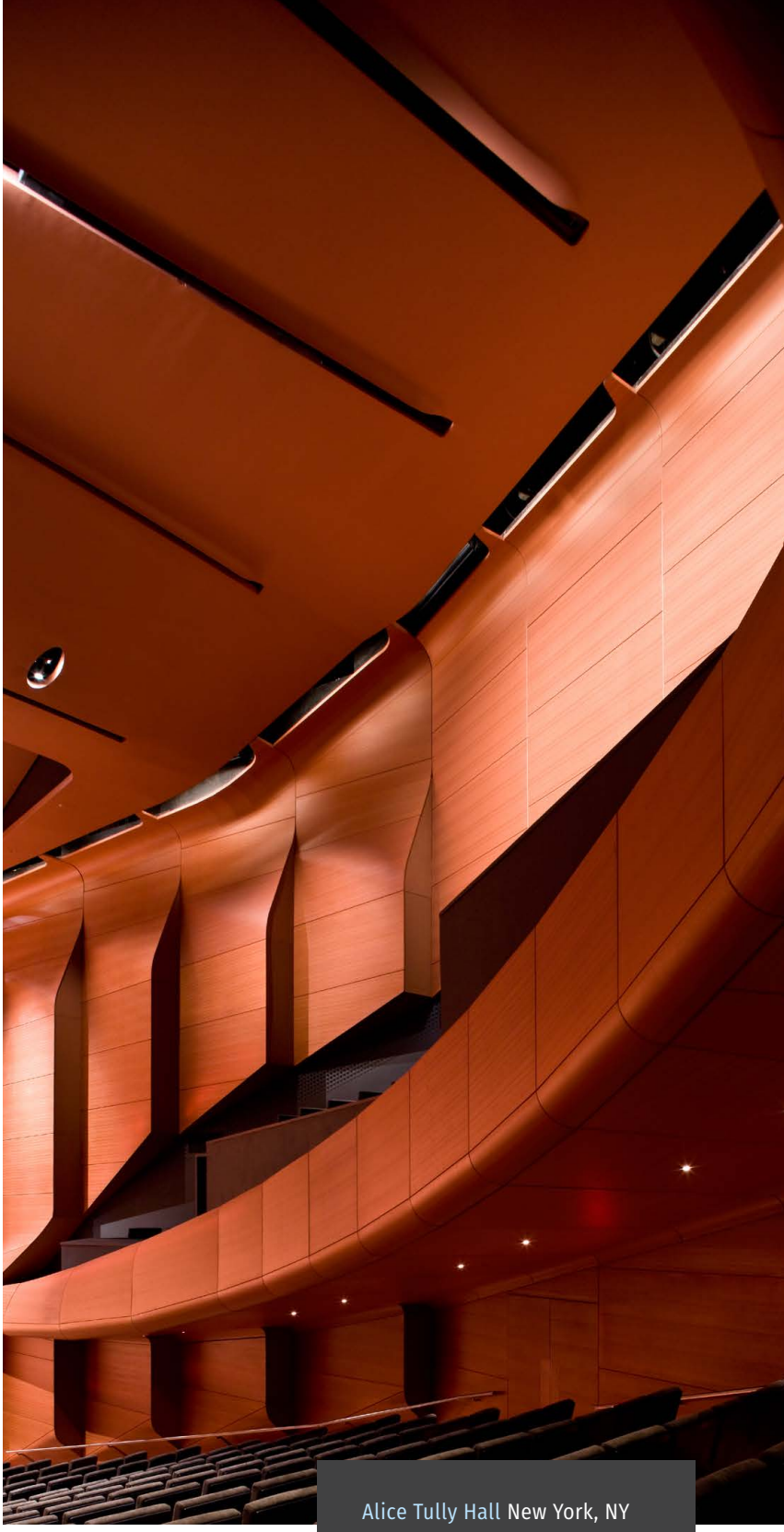
Noise and vibration regulations are not obstacles — they are a framework, and navigating them well creates competitive advantage. We help clients interpret, apply, and respond to noise and vibration legislation, policies, guidelines, standards, and local ordinances across entitlement, permitting, environmental review, peer review, code compliance, ordinance strategy, and agency coordination. Our team has assisted municipalities and participated on committees to establish, update, and revise noise-related legislation, guidelines, and standards. Our code analysis and compliance practice ensures that project design and specifications meet criteria under ANSI, ASHRAE, LEED, and WELL, as well as applicable local ordinances.

Engineering Below the Surface

Alice Tully Hall sits below street level, directly beside New York's oldest and noisiest subway line — so we partnered with the MTA to mount the tracks and the hall itself on specially designed rubber pads.

Expert Witness Testimony

When acoustical disputes reach courts, tribunals, planning boards, or municipal authorities, the quality of expert testimony determines outcomes. Our team members are recognized experts called upon to testify on noise and vibration disputes, compliance determinations, land use approvals, construction impacts, and property damage claims. We have provided testimony in civil and regulatory proceedings across a wide range of acoustical issues. In legal, development, and regulatory contexts where independent technical credibility matters, we communicate complex acoustical evidence clearly to decision-makers who are not acousticians.



Alice Tully Hall New York, NY

Services: Acousitcs Consulting

Why Trinity Consultants

From concept through operation, Trinity Consultants helps clients make acoustics decisions that improve occupant experience, reduce project risk, support compliance, and protect surrounding communities. Our integrated acoustics design and engineering team combines architectural acoustics, room acoustics, sound isolation, sound masking, building systems noise control, environmental assessment, monitoring, modeling, regulatory advisory, theatre and studio design, expert witness testimony, and troubleshooting capability. We help buildings, infrastructure, and communities perform as intended — and sound as they should.

CONTACT OUR TEAM!

For more information about how we can help your organization, please contact us.

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JAFFE HOLDEN
JB&B
LONGMAN LINDSEY
VALCOUSTICS
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