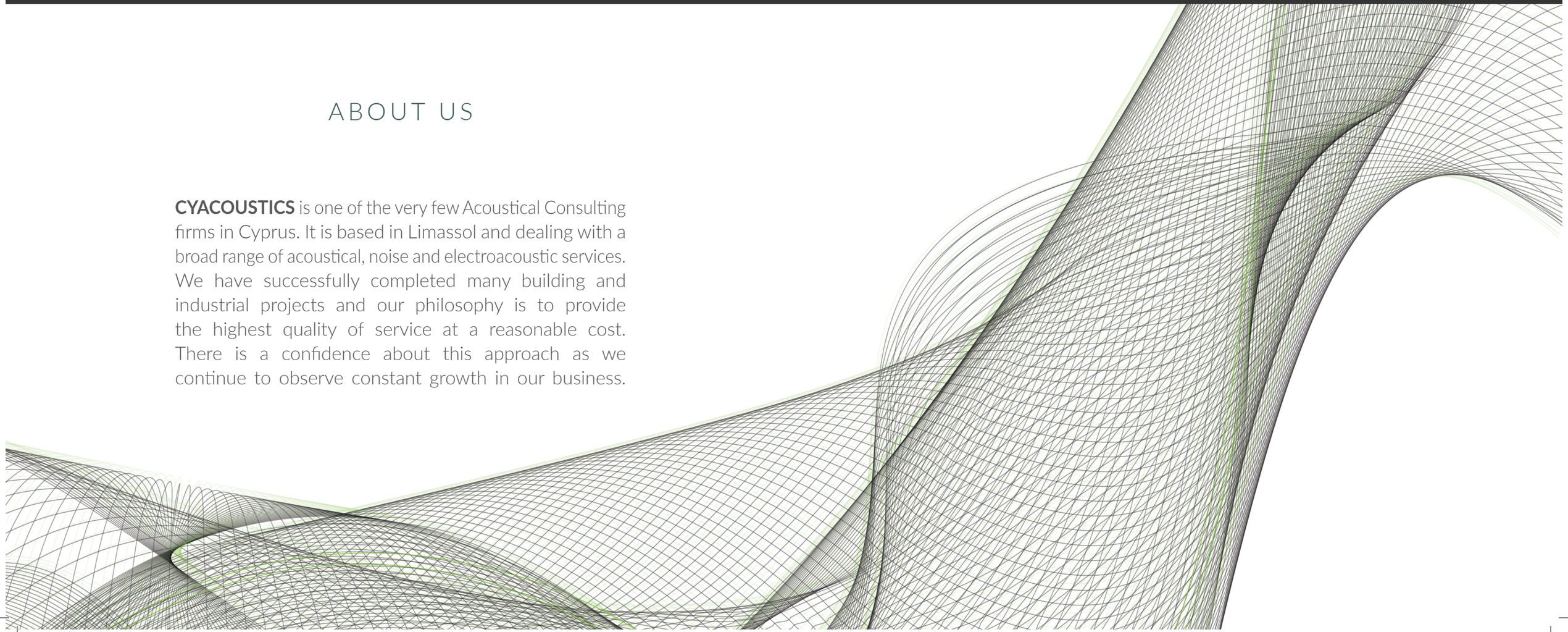
CYACOUSTICS

Sound & Acoustic Consultants

ABOUT US

CYACOUSTICS is one of the very few Acoustical Consulting firms in Cyprus. It is based in Limassol and dealing with a broad range of acoustical, noise and electroacoustic services. We have successfully completed many building and industrial projects and our philosophy is to provide the highest quality of service at a reasonable cost. There is a confidence about this approach as we continue to observe constant growth in our business.



SERVICES

- ARCHITECTURAL ACOUSTICS
- BUILDING SERVICES ACOUSTICS
- ELECTROACOUSTICS
- ENVIRONMENTAL NOISE
- MEASUREMENT AND TESTING
- ACOUSTIC SIMULATION AND AURALISATION
- LEGAL AND PLANNING

ARCHITECTURAL ACOUSTICS (also known as room/building acoustics acoustics) is the science of achieving a good sound within a building. Architectural acoustics can be about achieving good speech intelligibility in a theatre, restaurant or office, enhancing the quality of music or suppressing noise to make spaces more productive and pleasant places to work and live in.

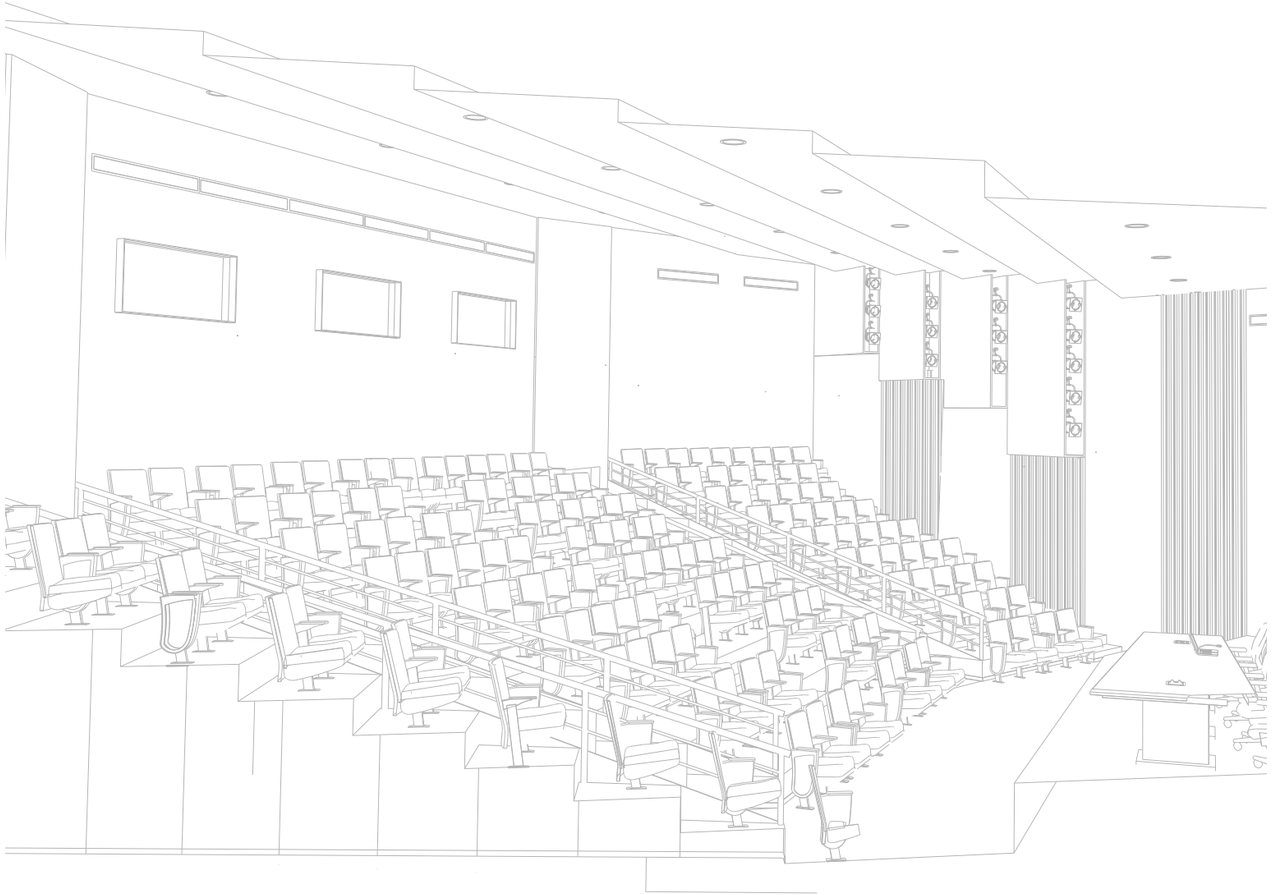
In Today's architectural environment, good acoustical design isn't a luxury – it's a necessity. Acoustics impacts everything, from employee productivity in office settings to performance quality in auditoriums, to the market value of apartments, condominiums and single-family homes.

Our acoustical consultants and engineers analyze architectural plans, engineering calculations, and noise and vibration data to predict acoustic performance and to provide recommendation for optimal design of architectural acoustics.
We analyze sound transmission, reverberation, absorption, reflection, diffusion, vibration, and other architectural acoustics issues and consult with architects, engineers, building owners, and facilities directors to optimize the acoustical environment.

We carry out research into new methods for measuring and predicting how sound moves within rooms and buildings such as schools and auditoria.

OUR SERVICES INCLUDE

- Room Acoustics Parameters Calculation and Measurement
- Airborne and structurborne acoustic insulation.
- Room Acoustics Simulation and Auralisation
- Acoustic Material Library



ARCHITECTURAL ACOUSTICS

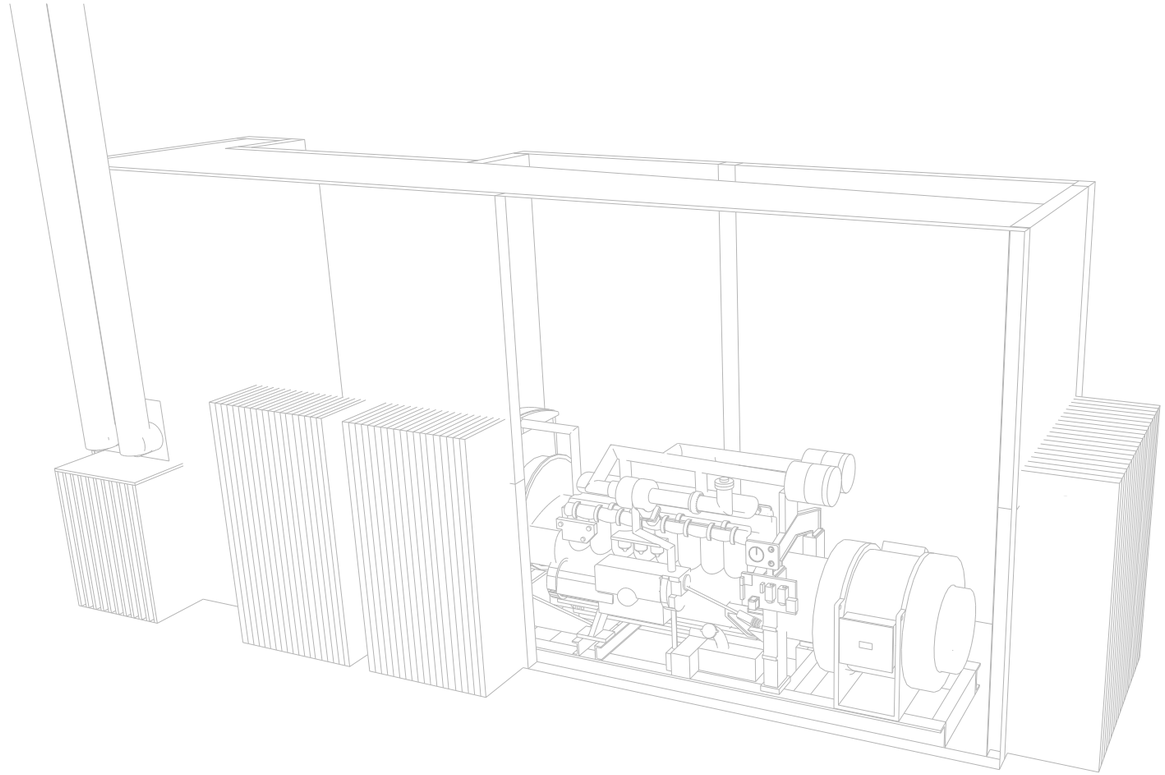
MECHANICAL, ELECTRICAL & PLUMBING NOISE CONTROL

The industrial buildings (including building services systems) produce noise and vibrations to the building and the surrounding of the building. Noise within factory areas to the community is an important issue as society expects this to minimize in order to improve quality of life. Moreover, noise within factory buildings is subject to "Noise Assessments", which protect employees hearing. We can provide initial measurements on the systems noise levels and assure that the noise vibration levels are minimized. In case that the systems are not installed, we can provide noise/vibration assessments and consulting, using initial building plans. In any heavily populated area, there is enough activity going on at once during the day to generate all kinds of sounds across the audible spectrum of human hearing.

Sources include car washes, power generation facilities, HVAC equipment, even sound systems from an outdoor amphitheater. CYAcoustics has experience in analyzing all of these environmental acoustics issues.

OUR SERVICES INCLUDE:

- HVAC Noise Reduction
- Silencer calculation and complex ducting simulation
- Equipment antivibration platform design
- Plumping Noise Reduction
- Outdoor Machinery Noise Reduction
- Sound Insulated Plant room Design



BUILDING NOISE SERVICES

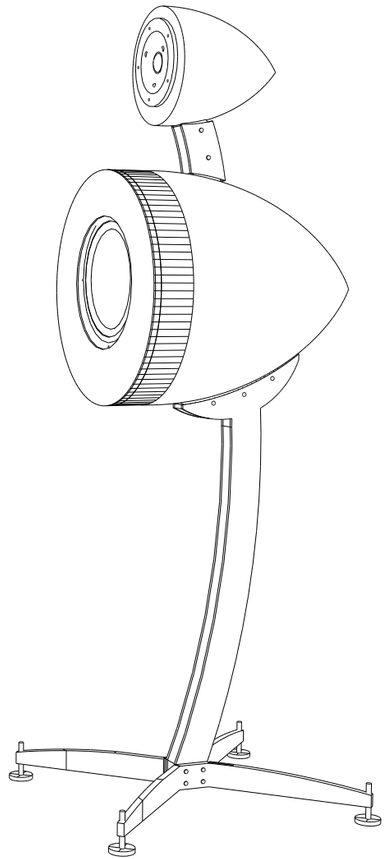
ELECTROACOUSTICS is the Science that deals with the transformation of acoustic energy into electric energy or vice versa.

A branch of acoustics that deals with the conversion of sound into electricity and vice versa, as in a microphone or a speaker. It also covers the generation, storage, amplification, transfer and relaying of acoustic events. There are interfaces with almost all other areas of acoustics due to the use of electro-acoustic components such as in acoustic measurement technology.

We use the latest computer software to model new designs and predict their performance. We also apply the most advanced computer measurement tools to quantify the electroacoustical performance of hand-built prototypes. This approach provides the client with an optimum speaker system for reproduction of speech, choral music, contemporary music, or home or commercial theatres : whatever is needed.

OUR SERVICES INCLUDE:

- Speaker System Design and Planning according to BSI standards.
- Custom Loudspeaker Design.
- Induction Loops system design.
- Fire Alarm System design according to BSI standards.
- Home Cinema Sound Design.
- Surround system Positioning and Sound Tests.
- Live Sound Measurements.



ELECTROACOUSTICS

DEDICATED MEASUREMENT SOLUTIONS for acoustics, audio and vibration by industry: airborne and structure-borne sound insulation measurements, vibration speech intelligibility and room acoustics.

We determine noise emissions from machines, measure and evaluate emissions from industrial or environmental noise, conduct architectural acoustics measurements, and assess the compliance of machines and equipment with European noise protection directives.

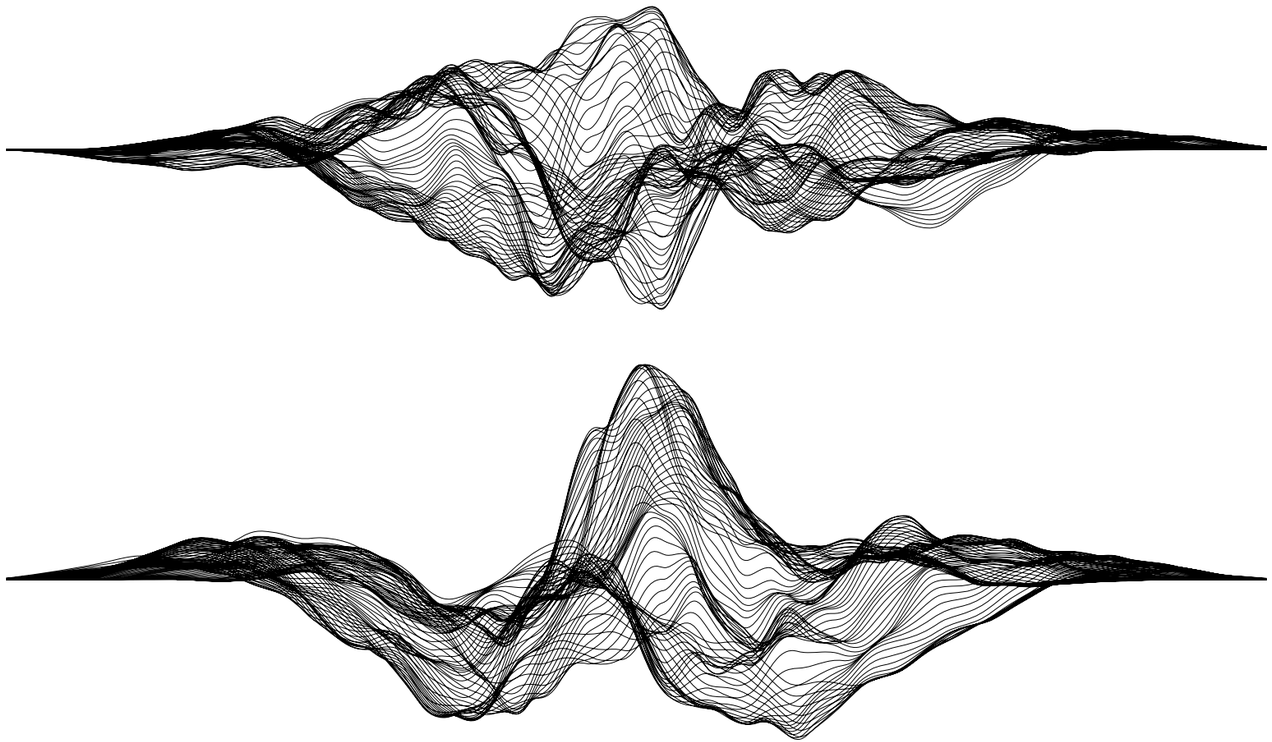
Without site measurement data we would have no knowledge of how effective acoustic or noise design work has been or whether levels comply with client's performance criteria. Site measurements are a scientific way of being able to determine success or failure of a project.

Noise Measurement Services provides acoustical consultancy services in the assessment, management and control of environmental and workplace noise. Our site-specific reports present sound level measurements recorded and analysed, discuss the noise criteria to be achieved, identify noise mitigation measures and recommends options to achieve the required design criteria. Noise management plans can be developed for industrial activities where different levels of compliance may be required over time.

We have a very high capability and depth, in measurement of sound and vibration, including the latest in top range equipment to measure and analyse noise and vibration

APPLICATIONS

- Air-borne and structure-borne sound insulation measurement between rooms or indoor-outdoor areas
- Impact noise measurements
- Qualification of speech intelligibility STIPA
- Architectural and room acoustic measurements
- Unattended noise monitoring stations (mobile or fixed installations)
- Urban noise monitoring and noise mapping according to directive 2002/49/EC
- Verifying boundary noise level emission



MEASUREMENT AND TESTING

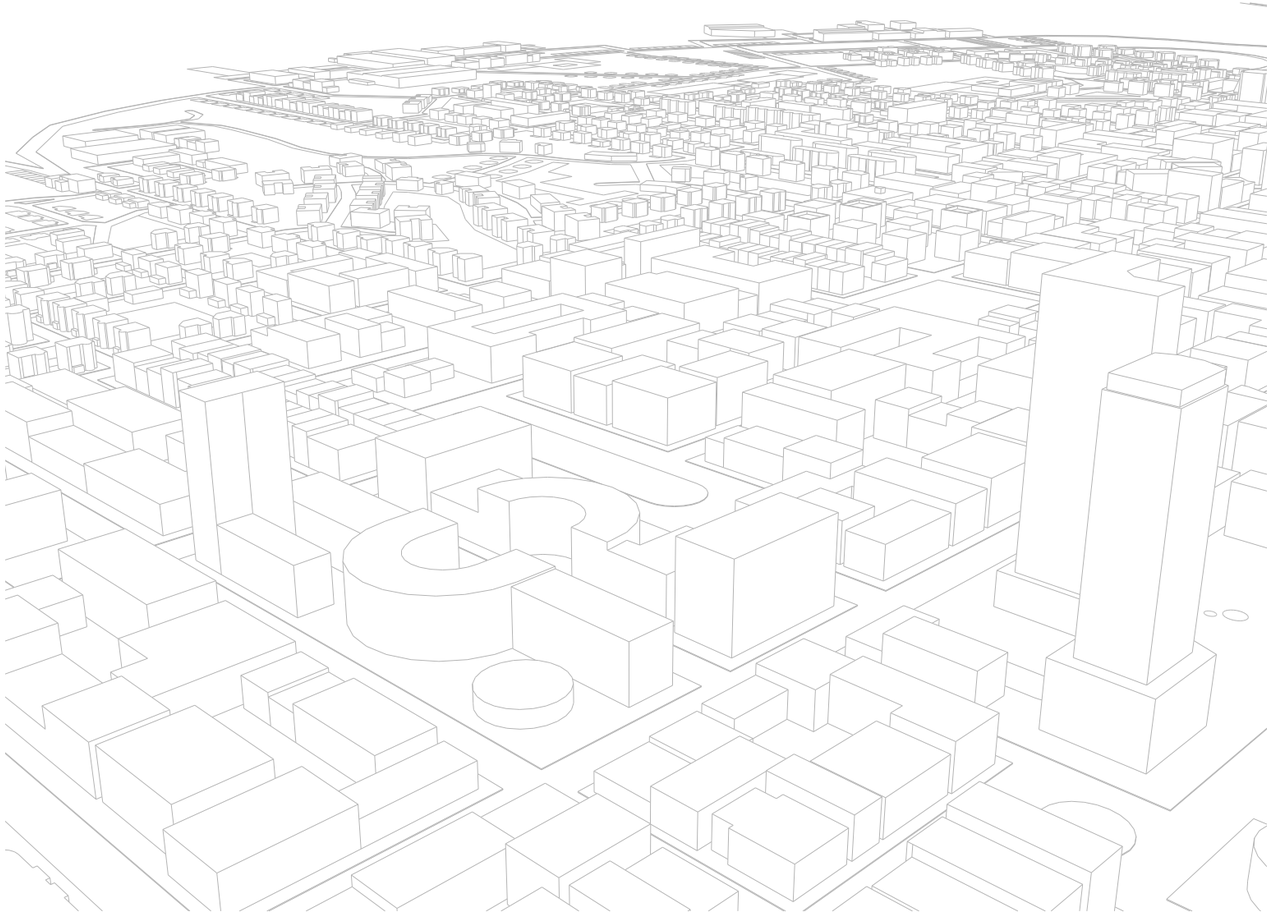
ENVIRONMENTAL acoustics focuses on controlling and restraining the impact of noise on the environment, caused by companies, leisure facilities, the infrastructure (rail, road and air traffic), labor (construction site) or neighbours. Companies must comply with the conditions applicable in the relevant region, as stipulated by environmental legislation, as well as other noise-related conditions.

Environmental sound is generally considered noise, when it propagates to areas where it is undesired or regarded as intrusive. In our communities, unwanted noise in residential areas, schools, offices, public areas, etc. can lead to speech interference, annoyance, and interrupted sleep, any of which can generate complaints from neighbors and possible legal actions from local and regional authorities.

Measuring the total or 'ambient' noise at a single point is often necessary before the commencement of a development as part of an overall Noise Impact Assessment.
Establishing the frequency content of a baseline traffic noise survey allows the acoustician to design the facades and glazing of sensitive buildings to keep intruding levels low.

Site evaluations for source identification and characterization can be conducted as well as long term monitoring of noise and vibration in urban and industrial settings and surrounding areas. CYA can assist architects, industrial planners, and environmental experts to understand and assess the impact of noise on their projects.

- Environmental noise assessment and monitoring
- Noise management
- Noise compliance and community relations
- Exposure and dose calculations
- Community Noise Modeling
- 3D mapping / Noise mapping
- Ground, barrier, and effects of construction details can be included.



ENVIRONMENTAL NOISE

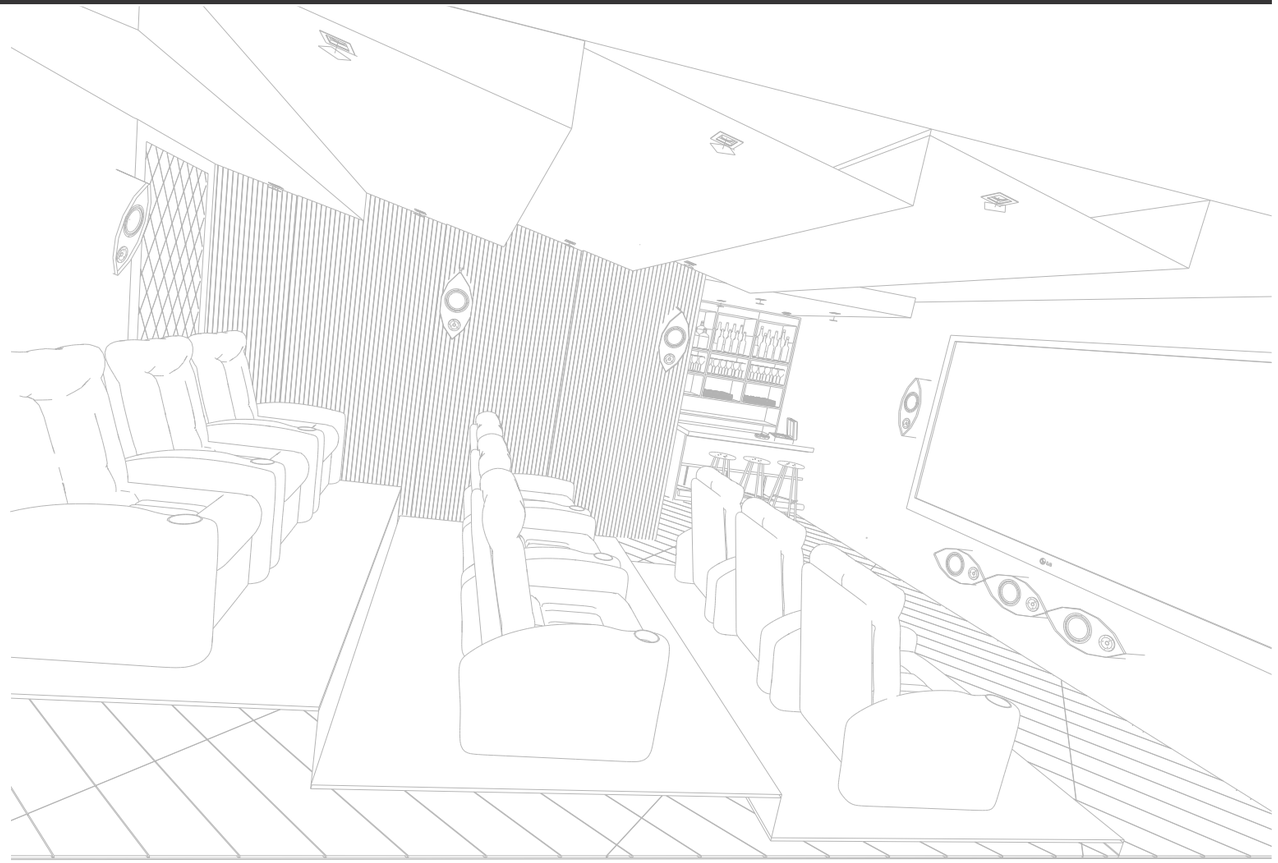
ACOUSTIC SIMULATION is an effective means of generating accurate noise development forecasts before the construction phase. In addition to numeric and graphic representations, various anticipated real world circumstances can be made audible in advance via auralisation.

The simulation of noise propagation and noise mapping permits us to examine noise emission dynamics in more complex situations. For instance, relevant sources of noise can be identified and the effectiveness of selected noise control measures can be tested.

The simulation of airborne and impact noise propagation allows us to reliably calculate the degree of protection that will be necessary to neutralise noise generated both inside and outside the building. Auralisation can be used to arrive at reliable evaluations of the noise protection that various structural elements are expected to have.
Room acoustics simulation enables the examination of the impact structural elements and architectural design are expected to have on acoustic quality. Auralisation can be used make the effect of the examined variables audible at any location in a given space.

An acoustic conflict can be avoided by applying simulation techniques before implementing a sound source; we can foresee the sound impact that activities or infrastructures will have on their surrounding environment.

- We develop simulations and present acoustic contamination level prognostics.
- We can predict acoustic insulation levels and indirectly transmit constructive solutions.
- We perform auralisation and ensure audition quality in specific arenas.
- We calculate sound maps.



ACOUSTIC SIMULATION AND AURALISATION

ALL OUR MEASUREMENT and consultancy services are quality assured to BS EN ISO 9001:2008 and our large range of instrumentation is subject to a strict external calibration regime traceable to national and international standards. This is required in particular for our legal and planning work and also for sound insulation testing, where many of our staff are accredited to undertake pre-completion sound insulation testing. We can put our acoustic expertise to work on your behalf, delivering practical and cost-effective solutions to meet any applicable sound regulations or noise legislation for your project.

Legal Measurements and Expert Court Appearance. Where noise is likely to be an issue, the normal way to proceed would be to begin by assessing the general conditions of the site or property and the surrounding area and to use this to assess a rigorous model of the impact of the proposed development. A mine field of assessment standards, some of them contradictory, needs to be appropriately applied to the situation, and all findings presented in a suitable form.

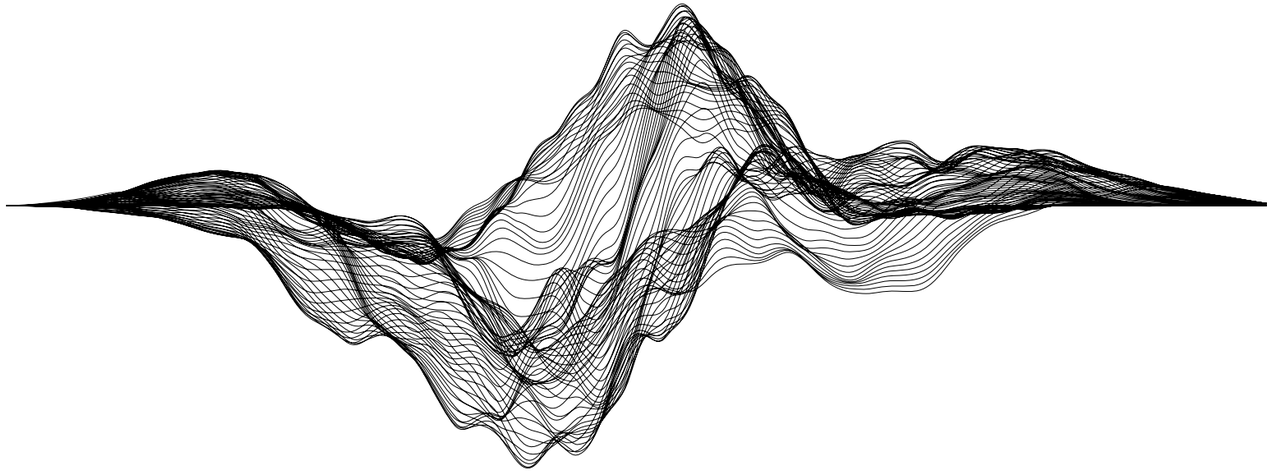
A period of negotiation may then follow, culminating in planning or licensing consent with acceptable conditions, or refusal (or consent with unacceptable conditions) and consideration of taking the proposal to a re-application or appeal.

All of CYA consultants have a vast range of experience with dealing with Local Authorities, preparing noise evidence for applications and appeals, and giving evidence at public enquiries, licensing hearings and appeals at all levels.

ADC'S SERVICES INCLUDE THE FOLLOWING:

- Site surveys in accordance with appropriate standards such as NPPF, BS8233, and many more.
- Modelling noise impact, including sources such as industrial, energy, music, customers, smoking areas, mechanical services, deliveries, transportation, etc.
- Preparation of reports, including detailed specification and design of mitigation and noise control.
- Negotiation.
- Preparation of Witness Statements, Proof of Evidence writing, etc.
- Attendance at council meetings, public enquiries, licensing hearings, courts of all types.
- Negotiated settlements, meetings of experts, conditions.

Provides a wide range of services to Legal Professionals and private individuals pursuing a legal resolution to a noise problem. We provide these services particularly in the area of noise nuisance investigation and assessment, which in many cases can result in attendance at court.



LEGAL AND PLANNING

CALTURAL ENTERTAINMENT

Derinia Municipal Theatre

Lanitio Main Theatre

SEM Amphitheatre

Coral Palace Paphos

Starlight Event Hall Protaras

Lambadistis Winery

TOKYO Restaurant

Asmatio Nicosia

RESIDENTIAL

Central Park Nicosia

Olympic Lagoon Paphos

Kalopanagiotis Resort

Blue Ocean Limassol

Varius Private Residence

Varius Multy Duelings

COMERCIAL

PWC Nicosia

RCB BANK

HELLENIC BANK

ROYAL PINE

AMDOCS

XM FOREX

Grand Futur Limassol

UAL ALIANCE

ENVIRONMENTAL

Limassol Urban Noise Control

Ayia Napa Entertainment Noise Control

Various Noise Barrier Calculations

Various outdoor entertainment areas

INDUSTRIAL

Remedica Limassol

SBLA Limassol

Carrefour Limassol

Merys Vegies Limassol

La Isla Limassol

EDUCATION

Folleys School Limassol

Survey for Limassol Education System

Lefkothea Lyceum

TEPAK Central Library phase 2

TEPAK Various rooms

SPECIALISED

Rogue Force Crossfit Platform

Hellenic Mines Generator Cover

Ioakim Studio Antivibration Floor

Story Club Soundproof Door Design

GinFish Bar Electroacoustic Simulation

Piano Room in Private Apartment

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