



WSDG
WALTERS-STORYK DESIGN GROUP



ARCHITECTURAL
ACOUSTIC
CONSULTING

MEDIA
SYSTEMS
ENGINEERING

Sports

wsdg.com



Table of contents

| | |
|---|-----------|
| Company Background and Structure | 4 |
| Company Background | 4 |
| Company Structure..... | 4 |
| Services Architectural Acoustic Consulting | 5 |
| Acoustic Design and Consulting | 5 |
| Acoustic Testing and Measurement | 5 |
| Internal Room Acoustics and Surface Treatments | 5 |
| HVAC Noise Control Design / Vibration Control | 5 |
| Sound Isolation | 5 |
| Recording Studio Design | 5 |
| Media Facility Planning and Consulting | 5 |
| Services Media Systems Engineering | 6 |
| Electro-Acoustical Systems Design | 6 |
| Systems Design and Integration | 6 |
| IT and Communication Systems | 6 |
| Home Theater and Residential Systems Design | 6 |
| Theatrical Technology | 6 |
| Control Systems | 6 |
| Relevant Experience | 7 |
| Professional References | 46 |
| Representative Client List | 47 |
| Key Personnel | 49 |

Company Background and Structure

Company Background

WSDG - Walters-Storyk Design Group is a global architecture, acoustic, electro-acoustics and advanced audio-visual systems integration consulting and design firm. Pioneering architect/acoustician, John Storyk (AIA), founded the company in 1969 with the creation of Jimi Hendrix's Electric Lady Studios in NY.

With USA headquarters in Highland, New York, and offices in Basel, Switzerland; Buenos Aires, Argentina; Belo Horizonte, Brazil; and Miami, Florida. WSDG is the partnership of interior design partner Beth Walters and John Storyk. The firm's global team includes over fifty associates and design professionals.

WSDG's 46+ years of innovative design achievement has produced over 3500 diverse global projects. These assignments include: NY's Jazz At Lincoln Center (2006) and studios for: Alicia Keys, Jay-Z, Bob Marley, Bruce Springsteen, Celine Dion, Def-Jam Records, ESPN, MTV (Latin America), WNET, KKL (Switzerland) and Boston Symphony Orchestra.

WSDG is a ten-time winner of the international NAMM TEC Award for studio design creativity. Recent WSDG TEC winners include: Jungle City Studios, NY (2011), the Berklee College of Music – 160 Mass. Ave. recording/teaching complex, Boston (2014), and The Church Studios, London (2016). The firm's work has been published extensively, and discussed in numerous professional audio, broadcast and systems design media.

Company Structure

WSDG maintains offices around the world:

USA:

New York, New York
Miami, Florida
San Francisco & Los Angeles, California

Europe:

Basel, Switzerland
Barcelona, Spain
Florence, Italy

Latin America:

Buenos Aires, Argentina
Belo Horizonte, Brazil
Mexico DF, Mexico
Punta del Este, Uruguay

Asia:

Guangzhou City, China
Mumbai, India
St. Petersburg, Russia
Doha, Qatar

All WSDG offices share resources on a daily basis, however all jobs are managed and represented on a local basis. All work will be coordinated via the New York office. All offices maintain a full-time staff of acousticians, architects, engineers, designers and systems integrators.

Services | Architectural Acoustic Consulting

Acoustic Design and Consulting

WSDG has collaborated with many of the world's leading architectural firms to provide innovative solutions and procedures towards creating excellence in acoustic and electro-acoustic design and installation. We pride ourselves in participating in the collaborative design process.

Acoustic Testing and Measurement

WSDG engineers use the most advanced acoustic and electro-acoustic prediction and analysis software. This provides accurate acoustical data collection and predictive acoustical modeling. Our reports are accurate and pre-construction environment auralization, allow our clients and design partners to listen to environments before they are constructed.

Internal Room Acoustics and Surface Treatments

Critical listening spaces, including studios, theaters, conference rooms, home listening rooms and all speech intelligibility sensitive spaces will all benefit from accurate acoustic design. Often the use of variable acoustic treatments is our preferred design approach. By providing design options for surface treatments using absorption, reflection and diffusion, we can accurately enhance the listening properties of these environments.

HVAC Noise Control Design / Vibration Control

WSDG establishes noise criteria specifications for all spaces in our designs, while preparing creative design solutions for adherence to these goals. Careful attention is given to HVAC design, building structural systems, and room boundary design. When required, real world listening simulations allow careful value engineering before final design documentation.

Sound Isolation

Critical to virtually all successful acoustic designs is the thorough analysis of external noise, vibration sources (traffic, trains, aircraft, etc.) and environment (i.e. HVAC distribution systems). WSDG provides acoustical measurement, analysis and design services to assure optimal acoustical isolation of existing or new construction, always with an eye towards economy of design and awareness of applicable building techniques for each project.

Recording Studio Design

WSDG creates world class professional critical listening environments which provide a platform for an array of mixing consoles, audio monitors and professional equipment – both digital and vintage analogue – to be used to optimum effect. Successful projects start with a well-developed plan. WSDG designers help their clients in the initial evaluation and development program / requirements summary, site selection, design and construction documentation.

Media Facility Planning and Consulting

Ergonomic design and concise operation of a facility are most critical. Our team of architects and engineers will evaluate a building site, help develop the project program and educate clients about the process of designing and building a media facility. We provide cost analysis for budgeting as well as preliminary design and renderings for presentations. WSDG designers, architects and engineers can provide a proven expertise in all and every phase of design and construction.

Services | Media Systems Engineering

Electro-Acoustical Systems Design

The most visible part of the Electro-Acoustical System is the loudspeaker system. Loudspeakers are complex electromechanical devices so varied, extensive and rapidly shifting that is hard to oversee even for professionals. WSDG recommendations are based on technical, aesthetic and budgetary criteria tailored to the project at hand. Selecting the electro-acoustic system most suitable for the room enables WSDG to achieve and exceed target parameters such as loudness level, frequency range, coverage, directivity control and speech intelligibility.

Systems Design and Integration

In today's world of increasingly complex technical media installations, multi-functional devices and computer controlled sound and video systems the integration of all equipment pieces into a working system is a complex engineering task. WSDG provides services that start with the design and end with the complete implementation of solutions for commercial, corporate and residential areas that seamlessly integrate, in such a way that the system is operable by personnel with differing needs and technical skill.

IT and Communication Systems

WSDG offers global IT and Communication design services including: Research of existing current conditions, consultation with clients and systems analysis of required specifications. With that information we produce designs that utilize suitable software and hardware solutions, liaising with other IT staff such as software engineers and programmers. WSDG assists in producing, installing and implementing the new system, testing and modifying it to ensure that that it operates reliably.

Home Theater and Residential Systems Design

At WSDG the theater experience starts with the design that architecturally incorporates all the interior design, acoustical requirements and carefully selected audio, video and control equipment. A detailed plan of the home theater will provide room and structural acoustic design, interior design, architectural renderings, custom electronics specifications and integration design.

Theatrical Technology

WSDG provides theatrical technology and lighting design services for professional theater designers, educational workshops and special events. We work closely with diverse and complex production and design teams to make every project a success. We blend science with art to create beautiful environments and captivate audiences. We will work with you through the programming and implementation periods, up to finalization and final set-up of the systems.

Control Systems

Our Control and Automation system design services provide the full scope of engineering services and solutions to meet all specific needs. From defining the project concept and initial specifications, to front end engineering and design, our team can help you identify the right technology. Once complete, the team moves into the build, test and delivery stage to prepare for installation, commissioning and ongoing project support.

Relevant Experience

Walters-Storyk Design Group and its principals have an extensive body of clients in the fields of architectural design, acoustical consulting, noise isolation design, facility design and audio-visual systems design and integration. A list of projects that supports our company profile and credentials follows. For a more extensive client list, please see www.wsdg.com. Our experience spans over 47 years in architectural design, internal room acoustics, advanced noise isolation, and systems design required for acoustically sensitive projects of all sizes. Moreover, WSDG has the ability to work seamlessly within a team design environment.

We have assembled a list of projects that underscore our experience with multiple project types:

Indepência Stadium
Belo Horizonte, Brazil

Arena Thun Stadium
Thun, Switzerland

Maracanã Stadium
Rio de Janeiro, Brazil

Merriweather Post Pavilion
Columbia, USA

Parque Viva
La Guacima de Alajuela, Costa Rica

Peloton Flagship Spinning Center
New York, USA

Flughafenkoppf – Zurich Airport
Zurich, Switzerland

Aura Club Events Hall
Zurich, Switzerland

The Metroplex at KITEC
Hong Kong, China

Electric Lady Studios
New York, USA

Mineirao Stadium
Belo Horizonte, Brazil

Rio 2016 – Bara Olympic Park
Rio de Janeiro, Brazil

PostFinance Arena
Bern, Switzerland

Westchester County Center
White Plains, USA

Jazz at Lincoln Center
New York, USA

KKL Concert Hall
Luzern, Switzerland

VSL Synchron Stage
Vienna, Austria

ESPN Digital Center 2
Bristol, USA

Morro de Chapéu
Belo Horizonte, Brazil



Independência Stadium - Belo Horizonte, Brazil

Officially called Estádio Raimundo Sampaio and popularly called Independência, the stadium was also inaugurated in 1950 for FIFA's World Cup that year. It belonged to the now defunct Sete de Setembro Futebol Clube, hence the name Independence (September 7 is Brazil's Independence Day). The stadium currently leased by América Futebol Clube, which now plays their games at the stadium. Estádio Independência is the second most important stadium in Belo Horizonte, Brazil, only behind Mineirão. Its formal name honors Raimundo Sampaio, a former chairman of Sete de Setembro. The 25,000 seat stadium is being renovated to be used as a training center during the World Cup 2014 and completion is scheduled for early 2012.

WSDG was responsible for Audio System design for the entire stadium and public areas (25,000 seats), covering over 100,000 m² including:

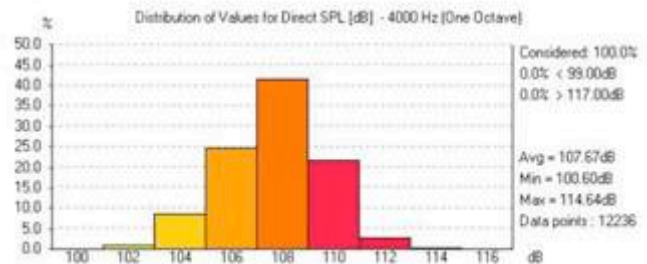
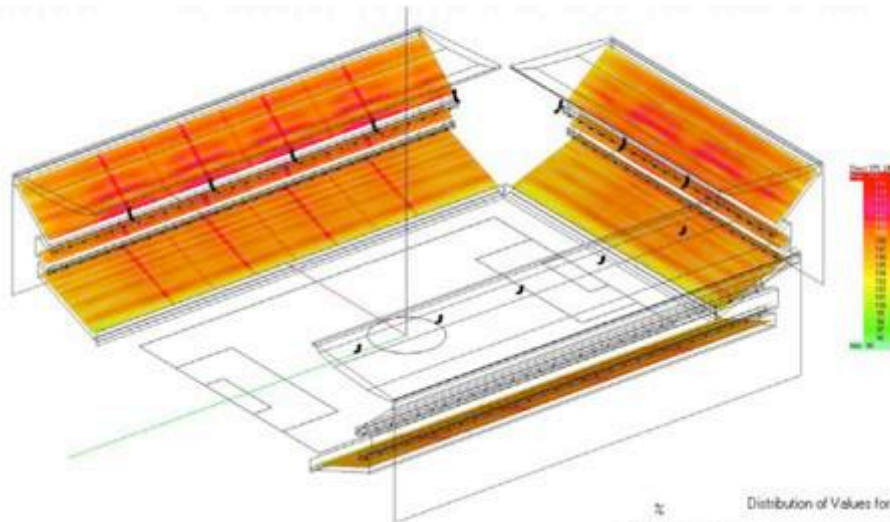
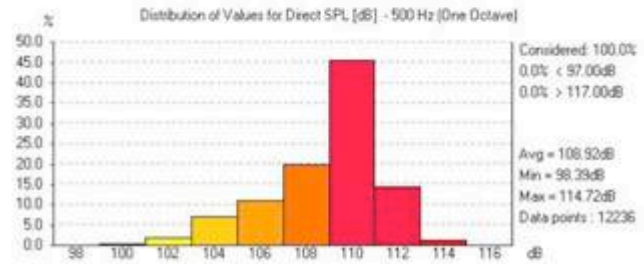
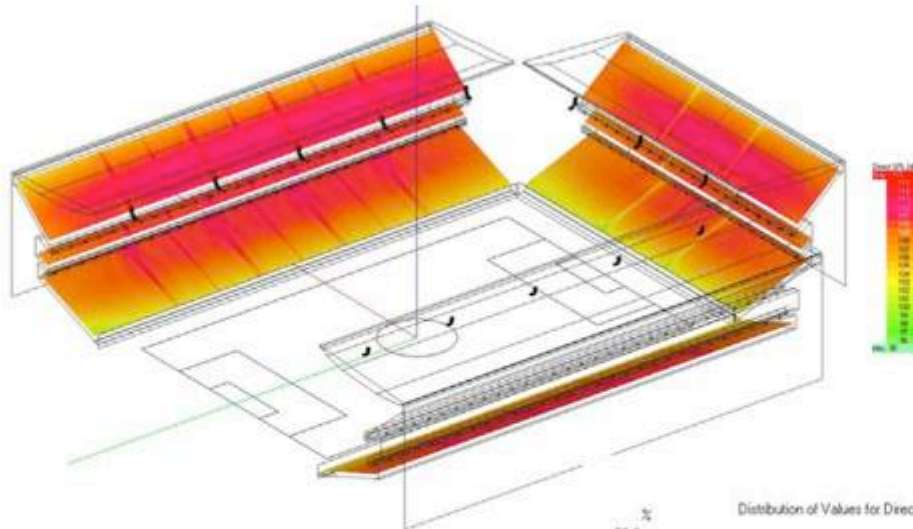
- Sound system for all spaces including the soccer field, audience and internal spaces such as VIP rooms, access, and office spaces.
- Audio and Video Control Rooms

In order to produce SPL levels above 106dB throughout the audience, WSDG specified the use of 13 line-array clusters, to be installed at the metal beams above the audience spaces. For the internal areas, including corridors and ramps, over 500 speakers were positioned at ceiling and walls. The entire system is controlled from the 3rd floor at the A/V Control Room and is distributed digitally around the stadium. Speaker positioning was defined for the internal and external areas, for various zoning maps that can be controlled individually to comply with the local security codes. Although the stadium will not be officially used for matches during the world cup of 2014, it was designed to meet FIFA's requirements.



Independência Stadium - Belo Horizonte, Brazil

SOUND PRESSURE LEVEL DISTRIBUTION @ 500HZ (without field)



Mineirão Stadium - Belo Horizonte, Brazil

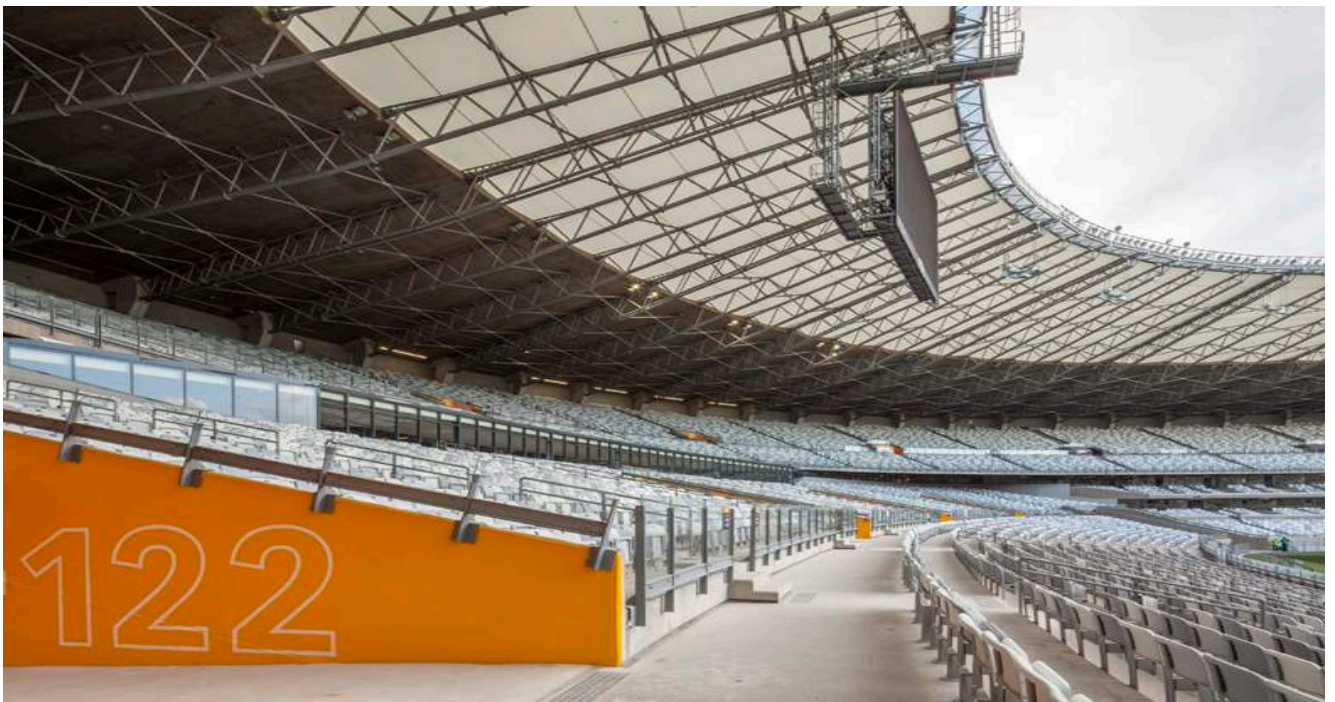
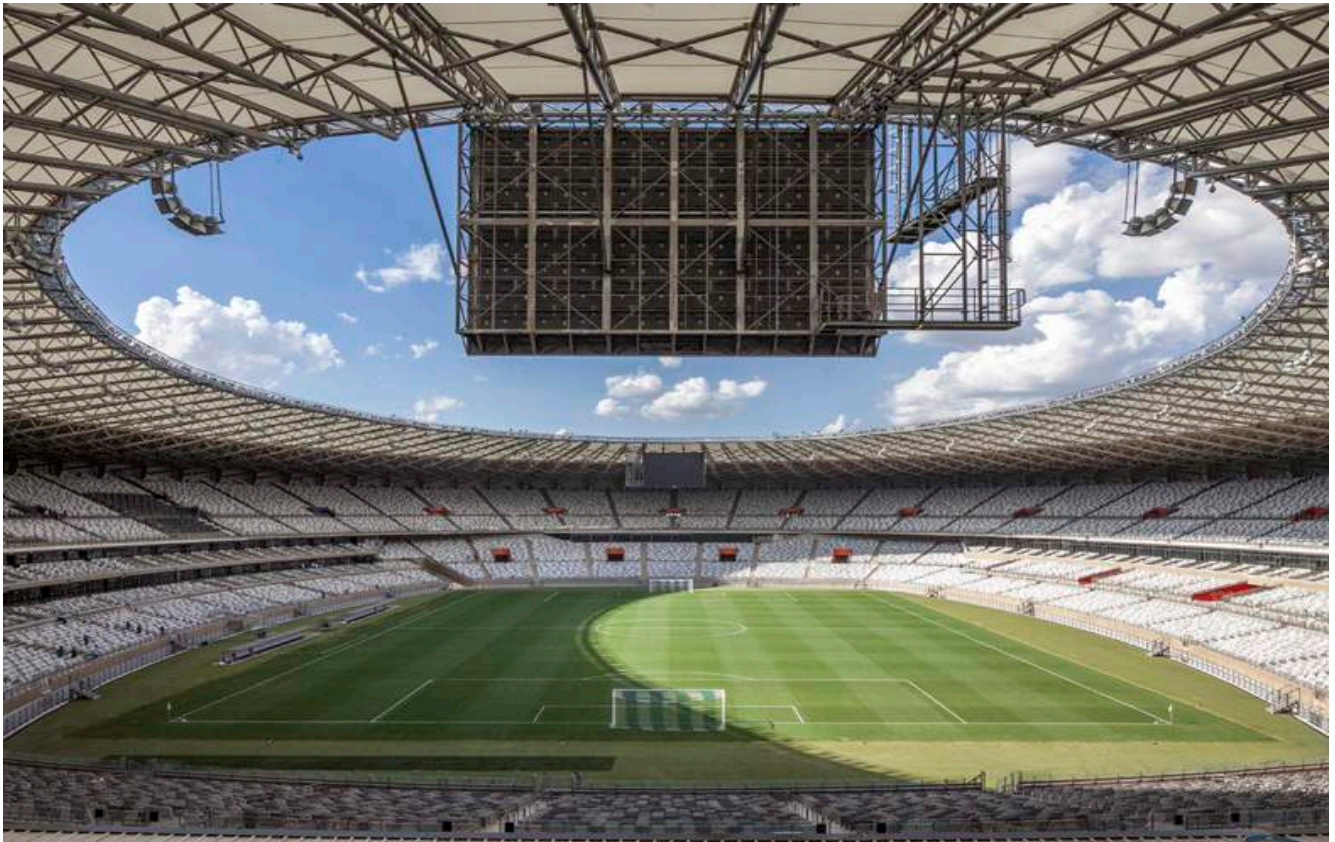
The second largest sports arena in Brazil, the 62,160-seat Mineirão Stadium was originally built in 1965. When Belo Horizonte was named one of 12 cities to host the 2014 World Cup, officials immediately recognized the need for a significant Audio/Video and acoustics upgrade to enable the 45-year-old complex to comply with FIFA technical requirements and 21st Century fan expectations.

WSDG was retained to design the Acoustic Program and complete Audio and Video Systems for the entire stadium including all public areas, a total of 300,000 square meters (3,000,000 sq. ft). Mission specs encompass: Inclusive acoustical treatments, a comprehensive sound system, serving the soccer field, audience and, internal spaces such as VIP rooms, access areas, and offices; Video systems, including two large LED video walls (85 square meter/915 sq. ft.) each; Video displays throughout the stadium; And, fully integrated Audio and Video Control Rooms

Primary facility management concerns focused on the level of sound comfort and intelligibility in relation to the RT60 reverberation time required to meet stipulated FIFA STI mandates. Renato Cipriano, Partner/GM, WSDG/Brazil, explains that, "Our sophisticated simulation programs enabled us to assess and 'auralize' the entire complex. We identified extensive sound reflections throughout the arena and concluded that acoustical absorption needed to be installed at the inner ring of the audience sector to achieve the required STI values. Speaker positioning was defined for the internal and external areas, and for numerous zoning maps, which can now be individually controlled for increased flexibility and security purposes. All specific audio and video systems, and control room speaker selections, were designed to meet FIFA requirements. Additionally, we recommended incorporating a Video Wall instead of a traditional scoreboard."



Mineirão Stadium - Belo Horizonte, Brazil

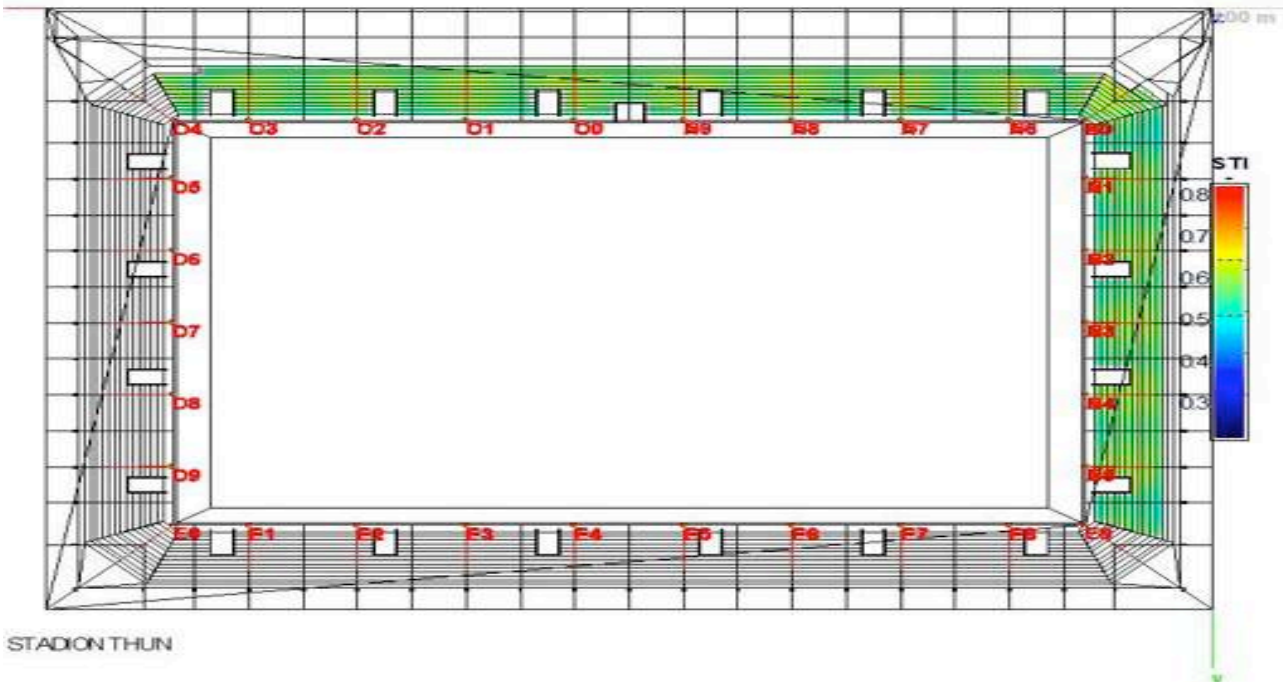


Arena Thun Stadium - Thun, Switzerland



STI original, masking on, [300000 rays (adapt), 3000 ms] (interference off)

Blg [dB]: 96 100 95 91 88 84 81 -



STI Distribution Model

Rio 2016 – Barra Olympic Park - Rio de Janeiro, Brazil

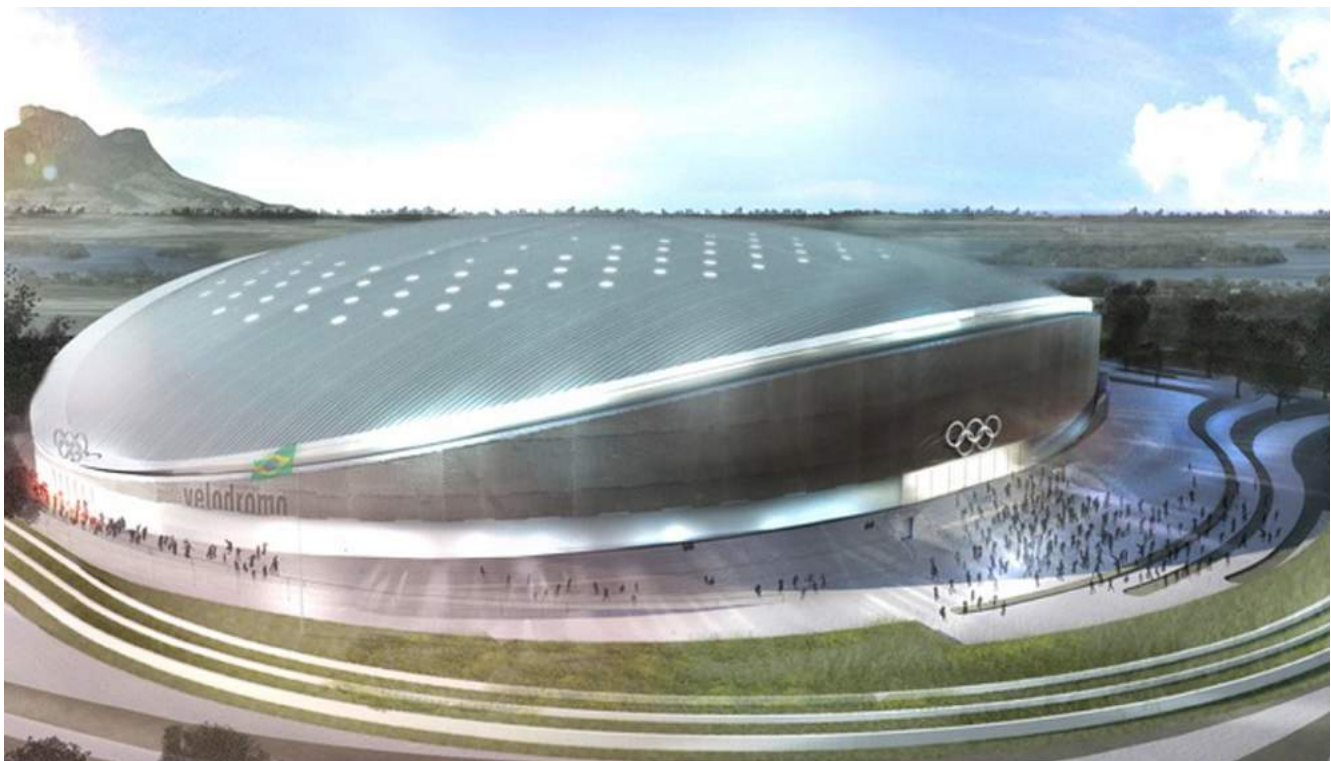
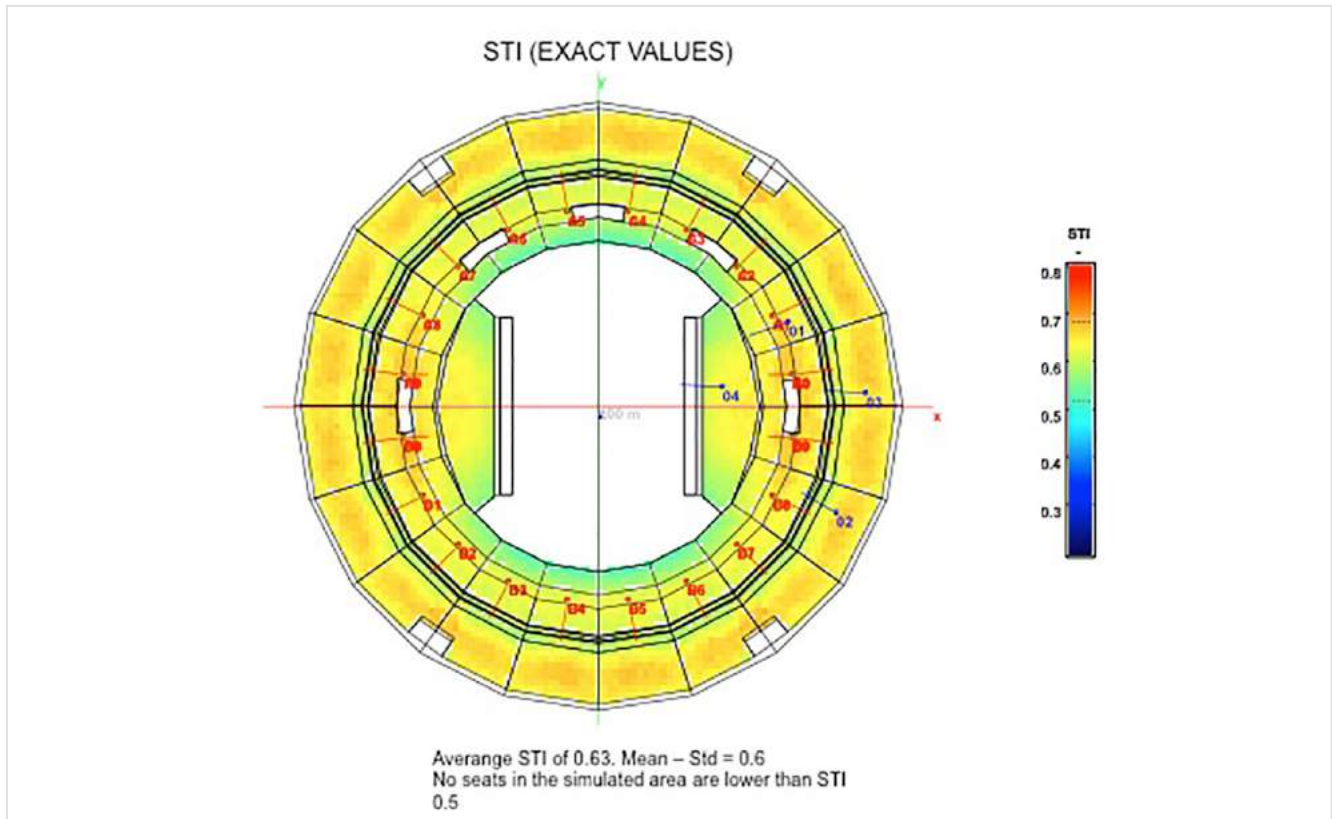
Barra Olympic Park is being developed as Rio's primary 2016 Olympic and Paralympic Games competition centre. It will also serve as the city's largest sporting legacy when the competitions end. With an area of 1.18 million square meters, Olympic Park will include nine sports venues. The Olympic Arena and Maria Lenk Aquatic Centre were built for the Rio 2007 Pan American Games. The seven new stadiums/sports venues are: The Olympic Tennis Centre, Aquatics Stadium and Rio Olympic Velodrome; plus: Olympic Hall 1 (basketball, wheelchair basketball and wheelchair rugby), Olympic Hall 2 (Olympic and Paralympic judo, plus wrestling and boccia), Olympic Hall 3 (taekwondo, fencing, sitting volleyball) and, Olympic Hall 4 (handball and goalball). Work on Olympic Halls 1, 2 and 3, plus the Tennis Centre, has already begun. Construction of the remaining venues will commence in 2015.

The developers of this enormous Olympics complex retained WSDG to design the acoustics, sound and video systems for the 3 Tennis Arenas + practice fields (10,000, 5,000 and 3,000 seats); the 18,000 seat Aquatic Arena + Warm Up Pool; and, Audio and Video Systems for the COT Arenas (16,000 seat Basketball, 10,000 seat Judo and 10,000 Wrestling arenas).

All the systems were designed to meet international security standards and, Olympics Committee requirements. WSDG began the process by performing sophisticated electroacoustic and modeling studies. The findings of these tests and procedures determined multiple solutions for each specific sound system. The primary goal was to insure the highest quality Speech Intelligibility and Sound Pressure levels. WSDG also designed large-scale Video Walls and Score Board screens, as well as Time Clock and Media Displays. Each unit was scaled to provide optimal visibility from every seat in the stands. Every Olympic Park stadium was created with 'future-proofing', for long post-competition service as Brazil's first Olympic Training Centre (OTC) and, South America's premium high performance athletic campus. The campus will include a research lab for nutrition, physiotherapy, sports and clinical medicine.



Rio 2016 – Barra Olympic Park - Rio de Janeiro, Brazil



Maracanã Stadium - Rio de Janeiro, Brazil

The temple of soccer officially called Estádio Jornalista Mário Filho, known popularly as Maracanã, is the biggest soccer stadium in Brazil. Inaugurated in 1950 for FIFA's World Cup, it has been a stage for great moments in Brazilian and international soccer including Pelé's thousandth goal. The stadium will be hosting the opening and closing of the final match in FIFA's World Cup in 2014 as well as the 2016 Olympics.

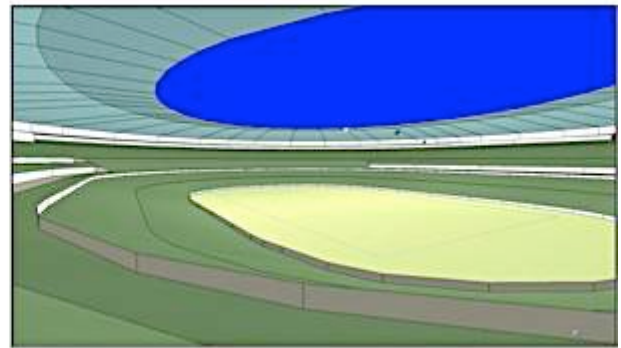
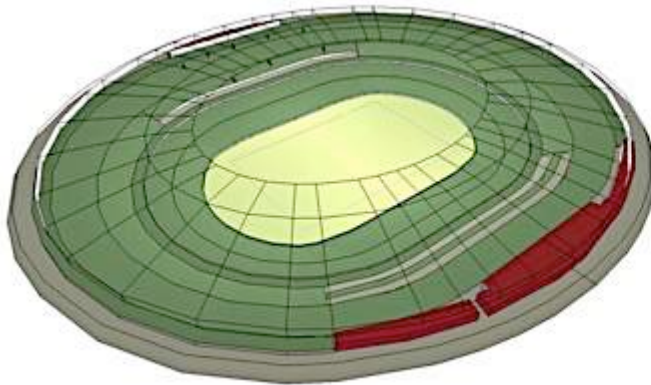
Maracanã is not only famous for soccer games, however; it also hosts concerts and other events. In 1980, Frank Sinatra sang for 170 thousand fans, 1983 saw KISS perform in front of a crowd of 250 thousand, and a Tina Turner concert in 1988 drew 188 thousand people.

WSDG designed the audio and video systems for the entire stadium and the full renovation is expected to be complete for the Confederations Cup in 2013, one year prior to the World Cup.

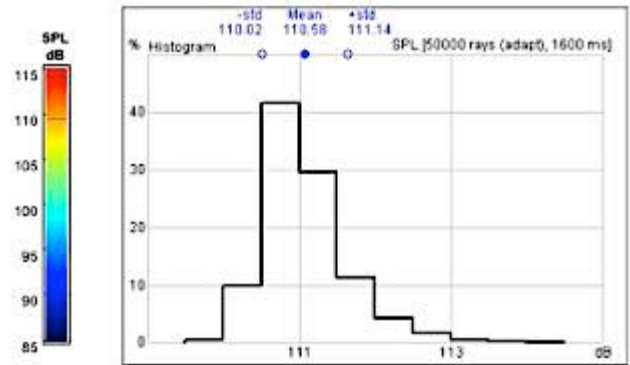
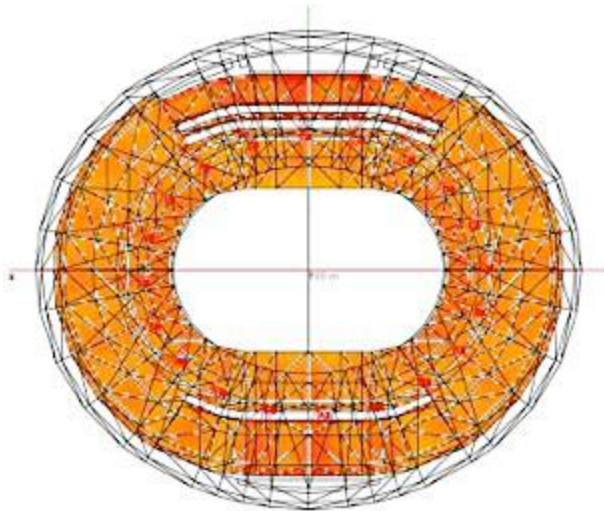
The complex architecture was simulated in detail using the most advanced electro-acoustic tools and the biggest challenge encountered the design phase was to define the final quantities and location of the PA cluster, in order to achieve the required STI and SPL coverage as required by FIFA for such complex acoustical conditions. Speaker positioning was defined for the internal and external areas, for innumerable zoning maps that can be controlled individually for more flexibility and to comply with security needs. All specific needs of the audio, video were defined to meet FIFA's requirements and WSDG has recommended the use of 4 x 100m2 Video Walls for proper visual coverage.



Maracanã Stadium - Rio de Janeiro, Brazil

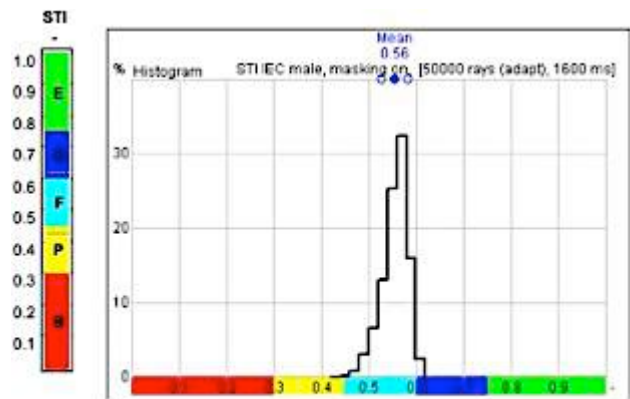
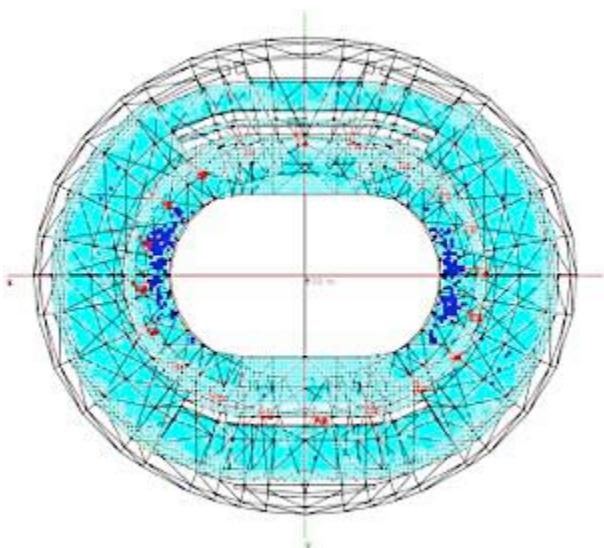


Acoustic Simulation Model



The SPL Distribution is very equal over the whole audience area with a mean value of 110dB(A).

Sound Pressure Level – Full Simulation



The mean value of speech intelligibility lies at 0.56 with the PA System at 110dB(A). Due to masking effects at these high sound pressure levels, the value can be greater with decreased level:

STI Speech Intelligibility – Partial Simulation

PostFinance Arena - Bern, Switzerland

Originally built in 1967 the PostFinance Arena (formerly known as Esstadion Allmend and Bern Arena), is the home stadium for the local SC Bern hockey team. With seating for 17,131 fans, PostFinance also boasts the world's largest standing room grandstand, a capacity of 10,422 benches. In 2009 the Arena's management group invested \$100 million in an extensive renovation program, to ready it for the HHF World Championships. This substantial upgrade included the installation of a new hockey arena, and the total redesign of the VIP seating area. The venue has subsequently hosted a number of prestigious events, including the Inaugural Victoria Cup.

WSDG was engaged to perform a series of acoustic tests and measurements to facilitate the upgrade of the electro acoustics system that had been implemented during the last major remodeling in 2009. The system was re-hung (under a new and larger HD video cluster) In the summer of 2013. WSDG was once again retained to engage improved software programs and consult on additional fine tuning of the electro acoustics system. Extensive predictive acoustic testing produced data which suggested that steeper shooting angles for the loudspeaker system would enable the stadium to optimize the system. The resulting modifications in speaker placement and overall system 'fine tuning' have appreciably improved speech intelligibility throughout the PostFinance Arena. This provides fans with enhanced appreciation of the live game coverage, and also further insures their safety thanks to the upgraded public address system.



PostFinance Arena - Bern, Switzerland

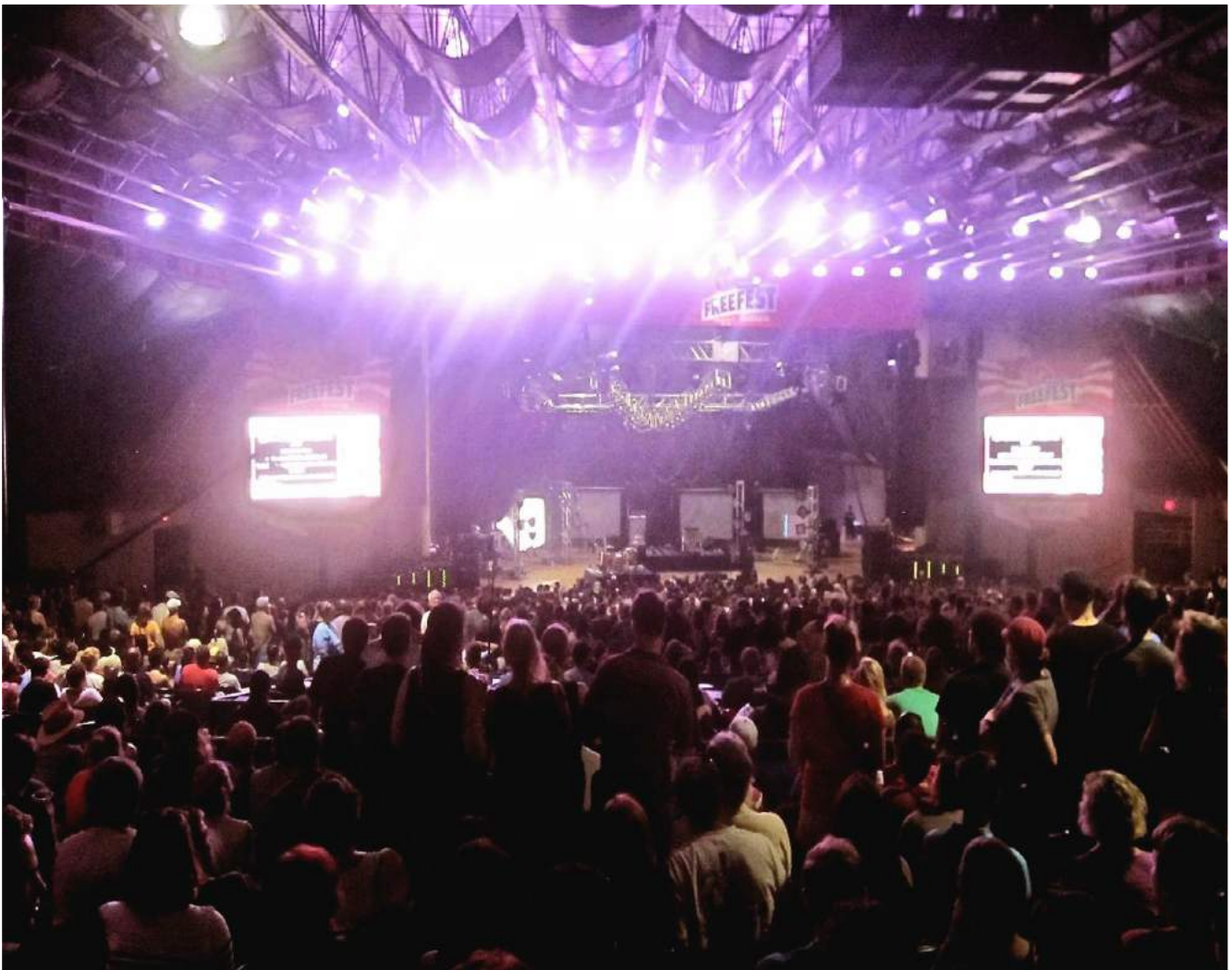


Merriweather Post Pavilion - Columbia, USA

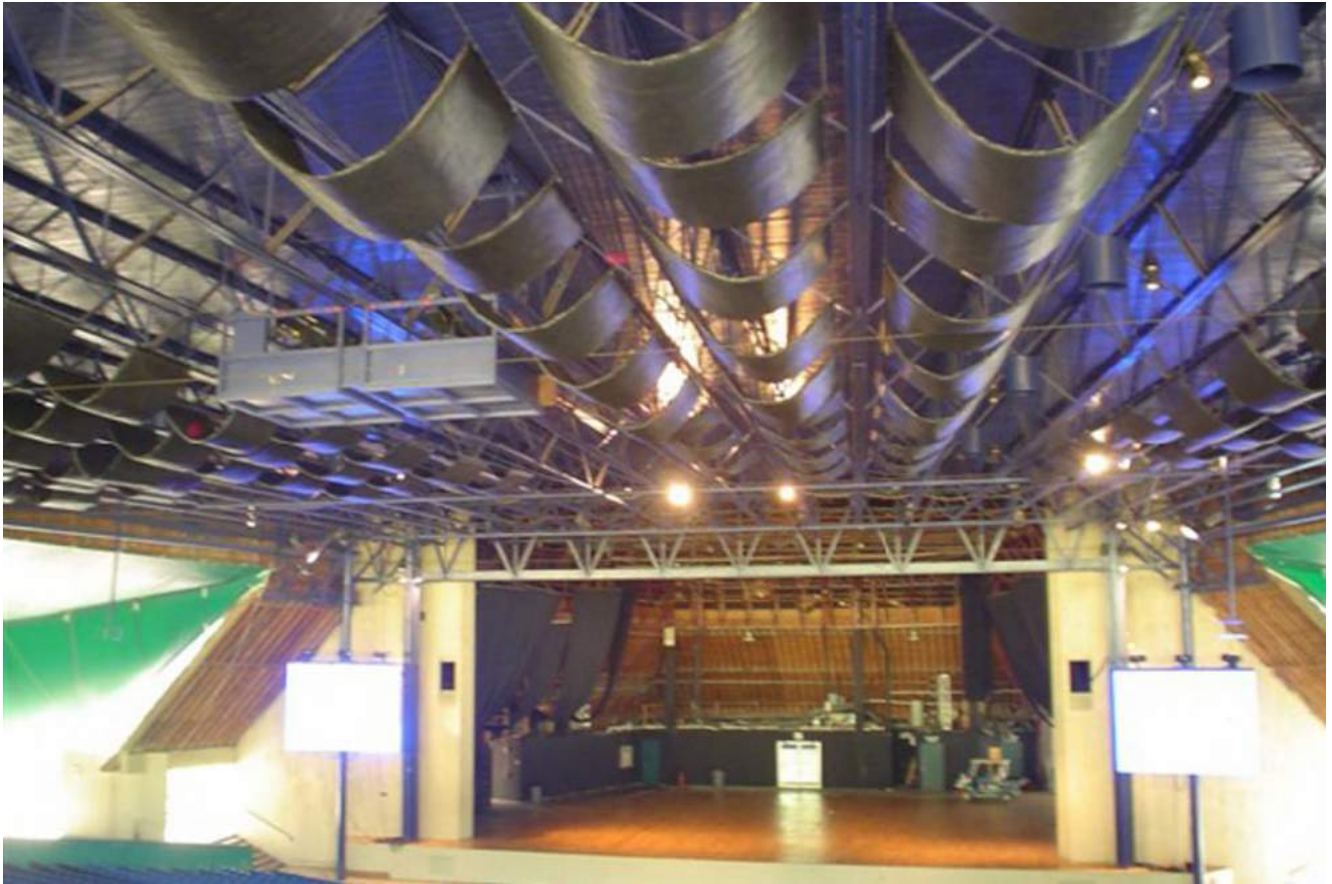
Conveniently located in the Baltimore/Washington corridor off Route 29 in Columbia, Maryland, Merriweather is nestled within the 40 preserved acres known as Symphony Woods. The natural, outdoor concert setting is one that simply can't be matched. For more than 35 years, Merriweather has hosted a diverse range of artists and events, offering a variety of contemporary entertainment.

Merriweather was originally designed by world renowned architect Frank Gehry in the early 1960s. At the time, its acoustics were considered by many in the industry to be the best among outdoor venues. To refresh and maintain the acoustic standard that had been set over three decades ago, Merriweather brought in WSDG to evaluate and implement improvements.

John Storyk and Co. completely redesigned the venue's ceiling, among other things, offering a non-intrusive and artistic solution to low frequency absorption. In designing the solution, WSDG was careful to maintain an open and natural feeling in keeping with the facility's exterior.



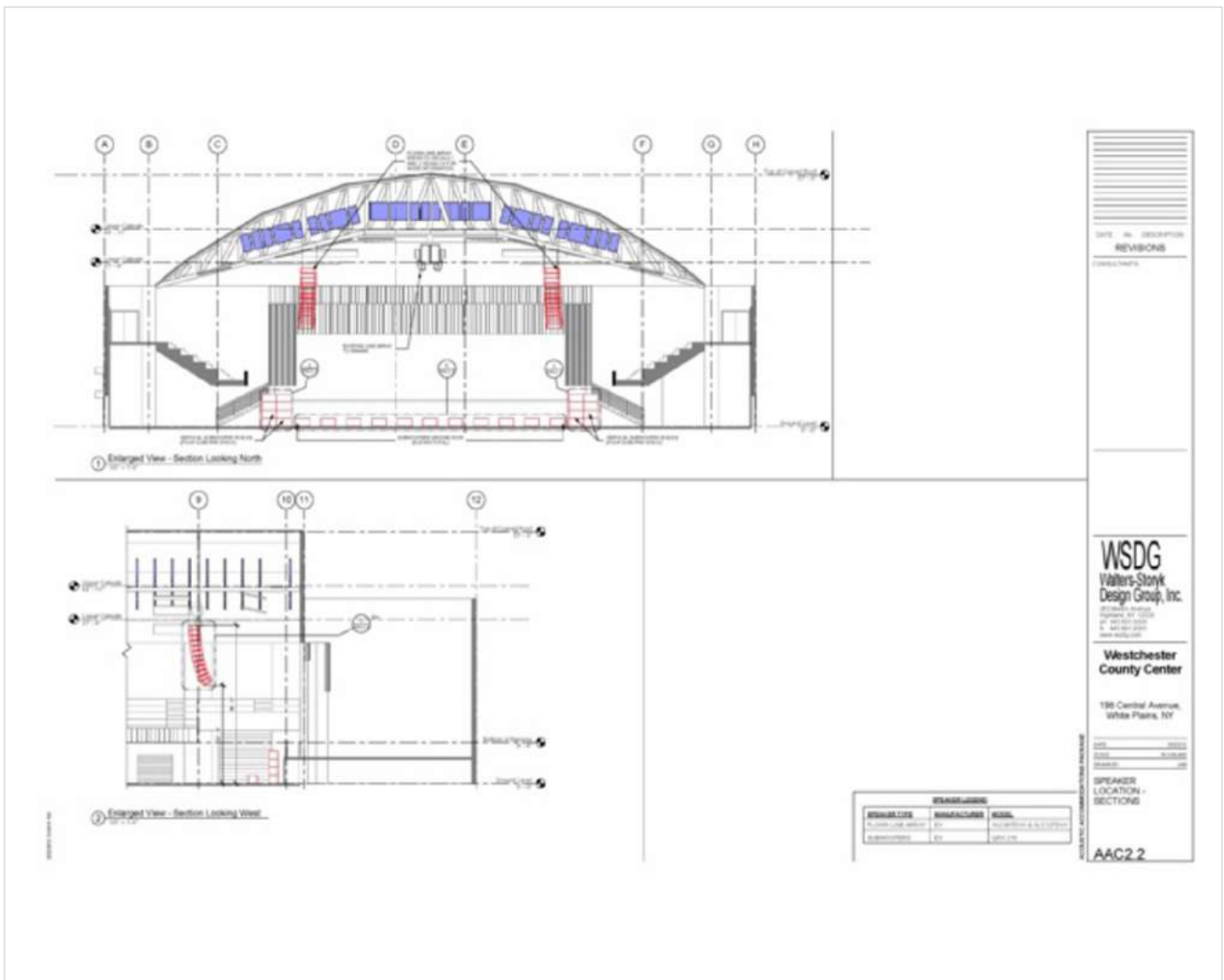
Merriweather Post Pavilion - Columbia, USA



Westchester County Center - White Plains, USA

An entrepreneur with a wide range of music business interests, Irwin Kornfeld has sparked new awareness for the eighty-year-old Westchester County Center. A major upgrade of the facility's acoustics, coupled with a state of the art sound system, has landed the WCC and its new "Pepe Infiniti Concert Series" on the radar of booking agents and performing artists seeking viable venues for tri-state concert dates. The series' launch featured The Beach Boys in concert in mid-May, nearly fifty years after their first WCC gig. The Johnny Winter Band and Edgar Winter Group, Boston, Il Volo, Whoopie Goldberg, Aretha Franklin and others are booked through November.

Commenting on the project John Storyk remarked, "Acoustic restoration is an art and science. Virtually everyone on our staff of designers and engineers started out as musicians, myself included. A wealth of products and options exist today, which are capable of ameliorating negative acoustic issues. The process of eliminating reverberation, enhancing sound and speech intelligibility, fine-tuning a hall like the Westchester Community Center requires precise measurements and the ability to make effective, reasonably priced recommendations. Our goal is to provide audiences with a high quality listening experience. We were delighted to be associated with this project, and we look forward to enjoying the benefits of our advice."



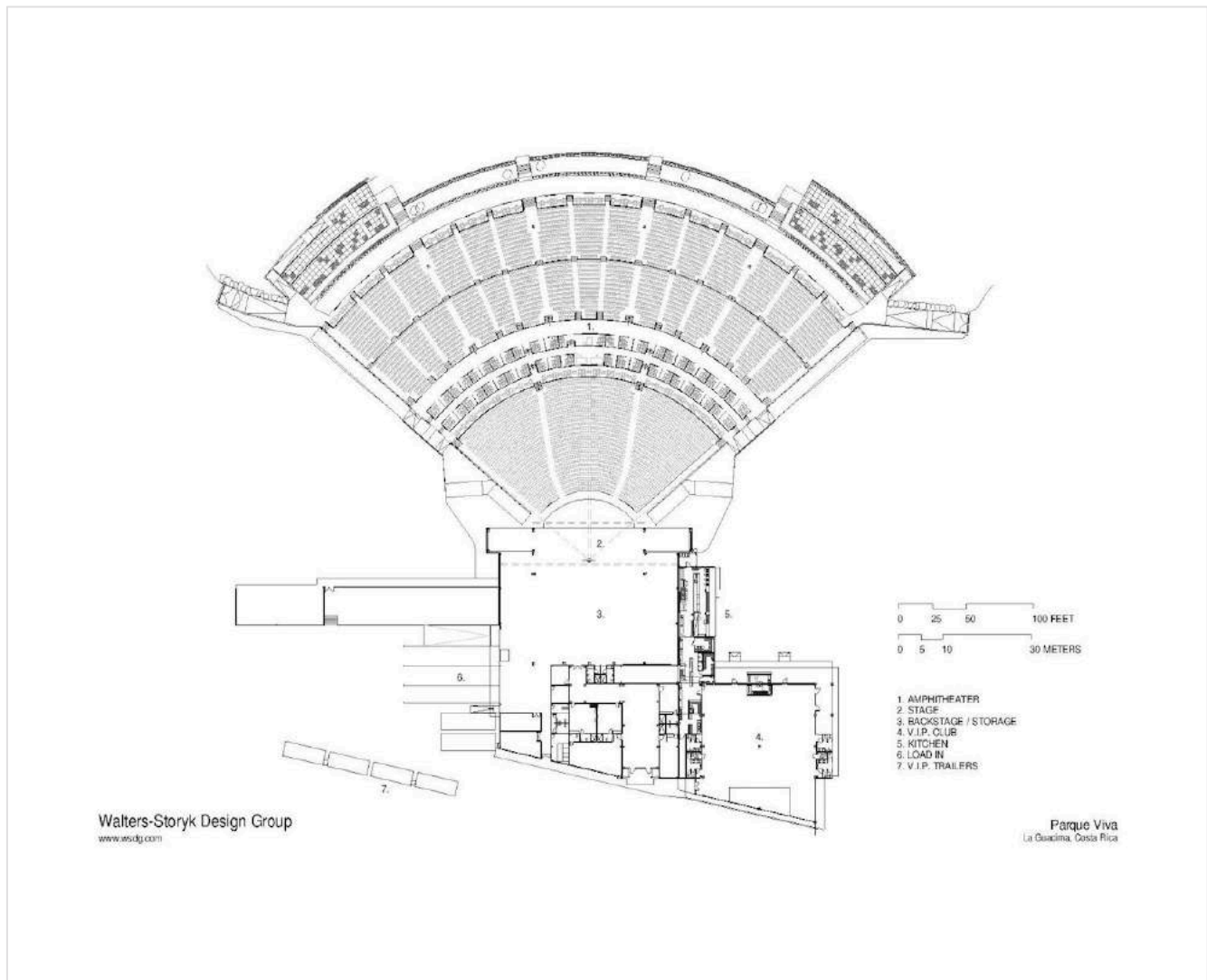
Westchester County Center - White Plains, USA



Parque Viva - La Guacima de Alajuela, Costa Rica

Viva Park, Central America's first sports/entertainment/corporate events center is built on the 300,000 m² / 3,229,173 ft² grounds of a former auto racetrack. The venue creatively combines three separate attractions within a picturesque, estate-like setting. The Amphitheater is designed to host audiences of up to 16,000 fans for rock shows and other live performances. The Convention Center/Exhibition Hall is ideal for trade shows, and the original outdoor track has been redesigned to accommodate auto sports, running and cycling events. Featuring a variety of dining options, Viva Park represents an exceptional option in contemporary entertainment.

The ambitious project was conceived and developed by Bliss Entertainment, a recently formed, Costa Rican business initiative. Recognizing the need to insure impeccable music/performance audio quality and flawless speech intelligibility for Viva Park's three primary attractions, Bliss retained Jaime Molina, principal of leading Costa Rican Project Management firm, ICC. Molina engaged architectural/ acoustical experts Walters-Storyk Design Group-WSDG, to design performance audio and public address systems to insure the highest quality sound distribution for the venue.



Parque Viva - La Guacima de Alajuela, Costa Rica

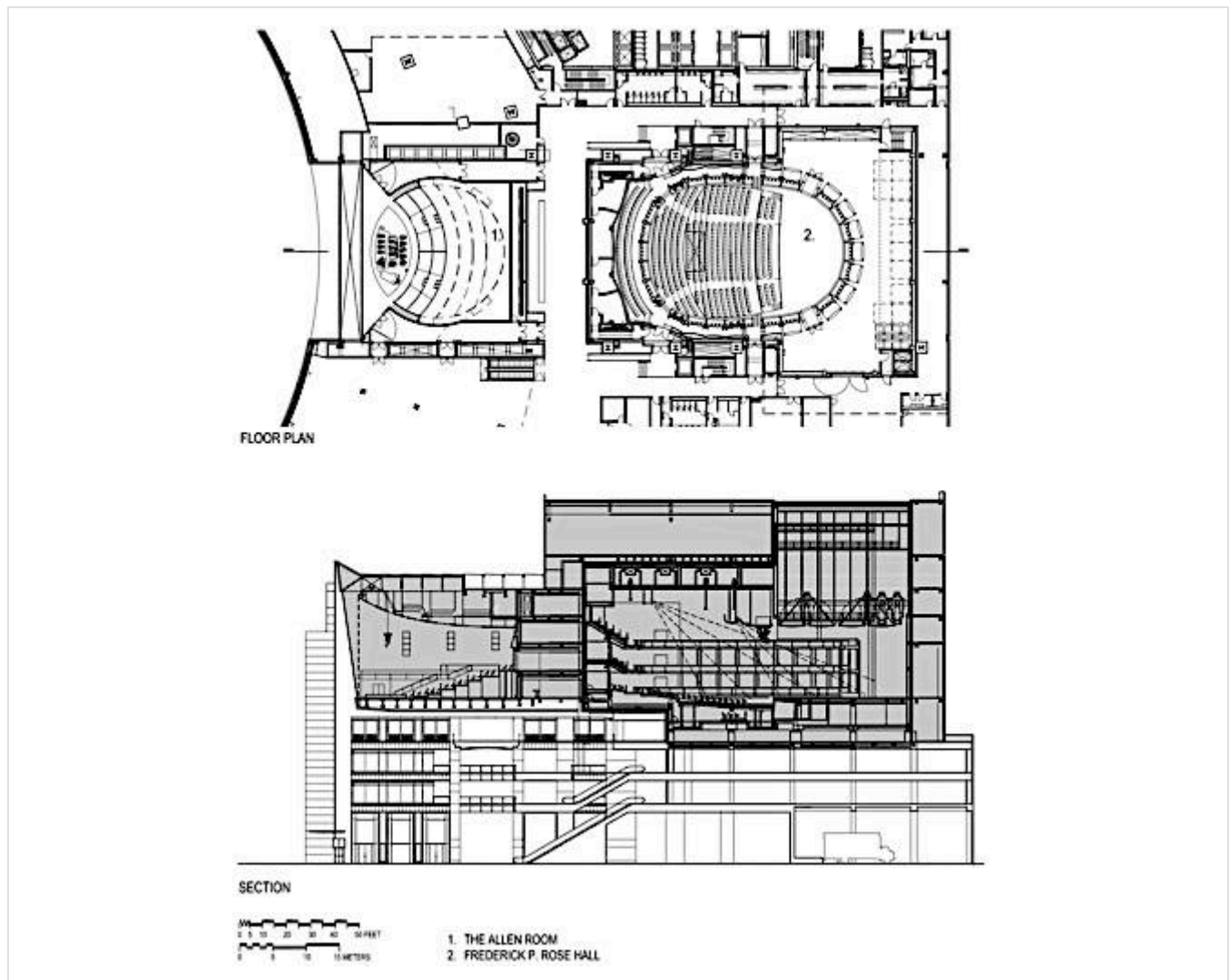


Jazz at Lincoln Center - New York, USA

Jazz at Lincoln Center opened in the fall of 2004. This 100,000-square-foot facility houses performance venues, an educational wing and recording/post production facilities.

The Frederick P. Rose Hall project consists of a 1,200-seat concert hall with movable seating towers. The hall can be set up for dance and opera and can also be reconfigured to provide an intimate jazz setting by surrounding the musicians with the audience seated on three levels. The Allen Room is a 300-600 seat performance space with tiered platforms ascending from the stage level to a dance floor with movable tables and chairs. The Irene Diamond Education Center is 3,500 square feet and contains two state-of-the-art education/rehearsal studios.

WSDG, as partners in the Sound of Jazz Consulting Group, worked closely with the architects and Wynton Marsalis to acoustically design the education, rehearsal and recording spaces. The systems integration design for all performance, educational and listening spaces within this facility are linked together for recording and playback. This facility is the world's first performing arts center designed specially for the performance and recording of jazz.



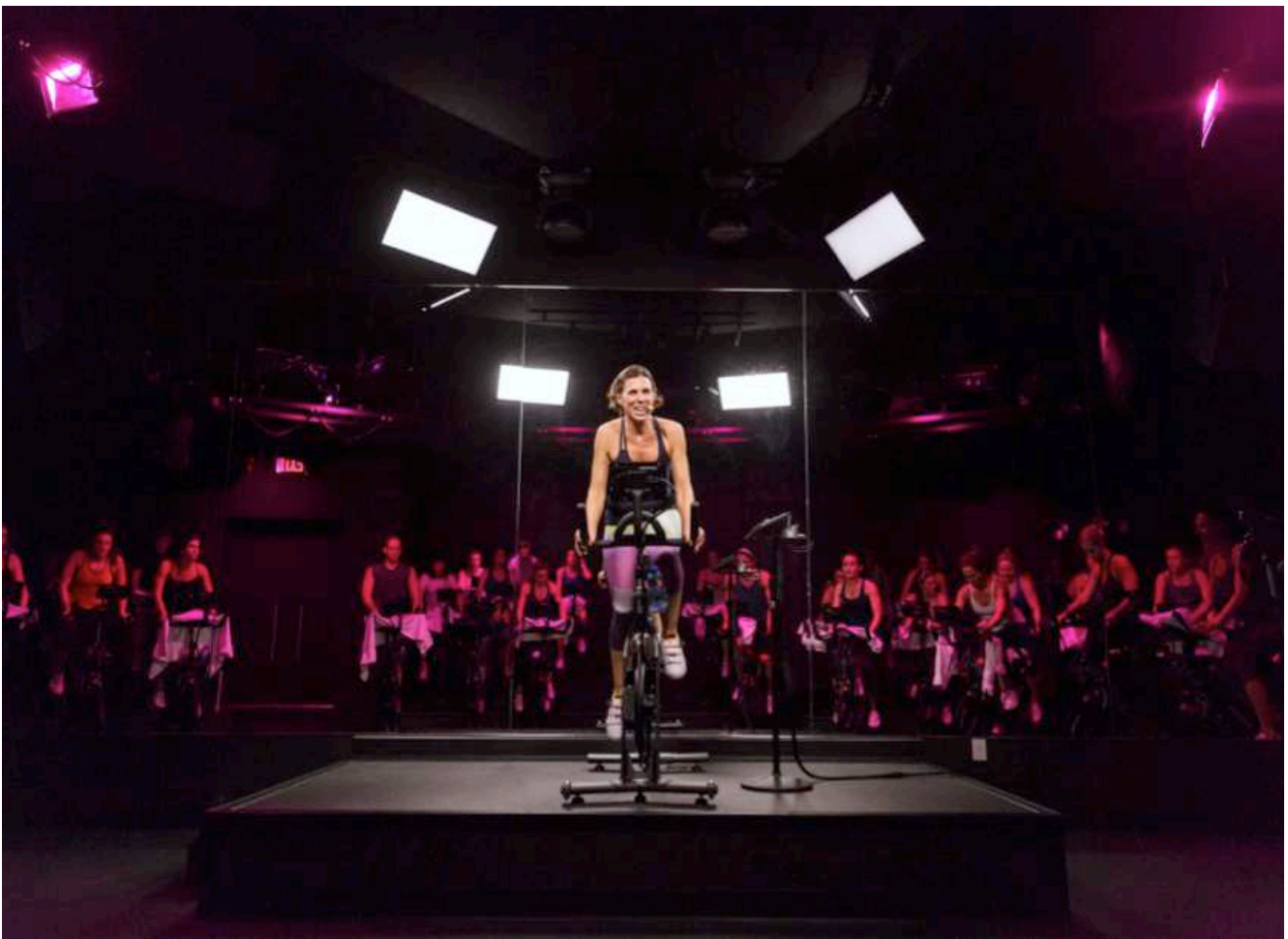
Jazz at Lincoln Center - New York, New York



Peloton Flagship Spinning Center - New York, USA

In developing a NYC flagship site for their live and on-demand, indoor spinning classes, the Peloton brain trust recognized the need for a cutting edge video broadcast studio for their streaming program. The company founders engaged WSDG to create a broadcast quality acoustic and isolation design and, an audio/video production studio with professional lighting and systems integration. The resulting Production Control Room and 60-bike Spinning/Streaming Studio are key components of the 8000 square foot complex. Located NYC's trendy Chelsea District, the Peloton Spinning Studio also features spa-quality ambience, a refreshment lounge and, a sports fashion retail shop.

The Peloton studio introduces a new level of broadcast quality video through the internet. The space is tailored to enhance the image quality of the webcast while maintaining the proper ambience for in-house spinning enthusiasts. The 300 sq. ft. Production Control Room sports a state-of-the-art Newtek Tricaster production switcher, a Telemetrics robotic camera controller connected to 3 Sony PTZ cameras and a Telemetrics track and PTZ camera which provides high end and ultra steady camera moves and shots. PCR video display is provided by two 55" LCD monitors. The audio system is run by a fully-automatable Biamp Nexia console coupled with a Martin Engineering DSP, Genelec monitors and Sennheiser wireless microphones. The lighting system is controlled by LightJockey™ via a Windows-based USB to DMX interface. Ipod docks and a full-blown Nexo line array complete the equation in the 1500 sq. ft. Spinning Studio for unrivaled audio quality from the beginning to the end of the chain.



Peloton Flagship Spinning Center - New York, USA

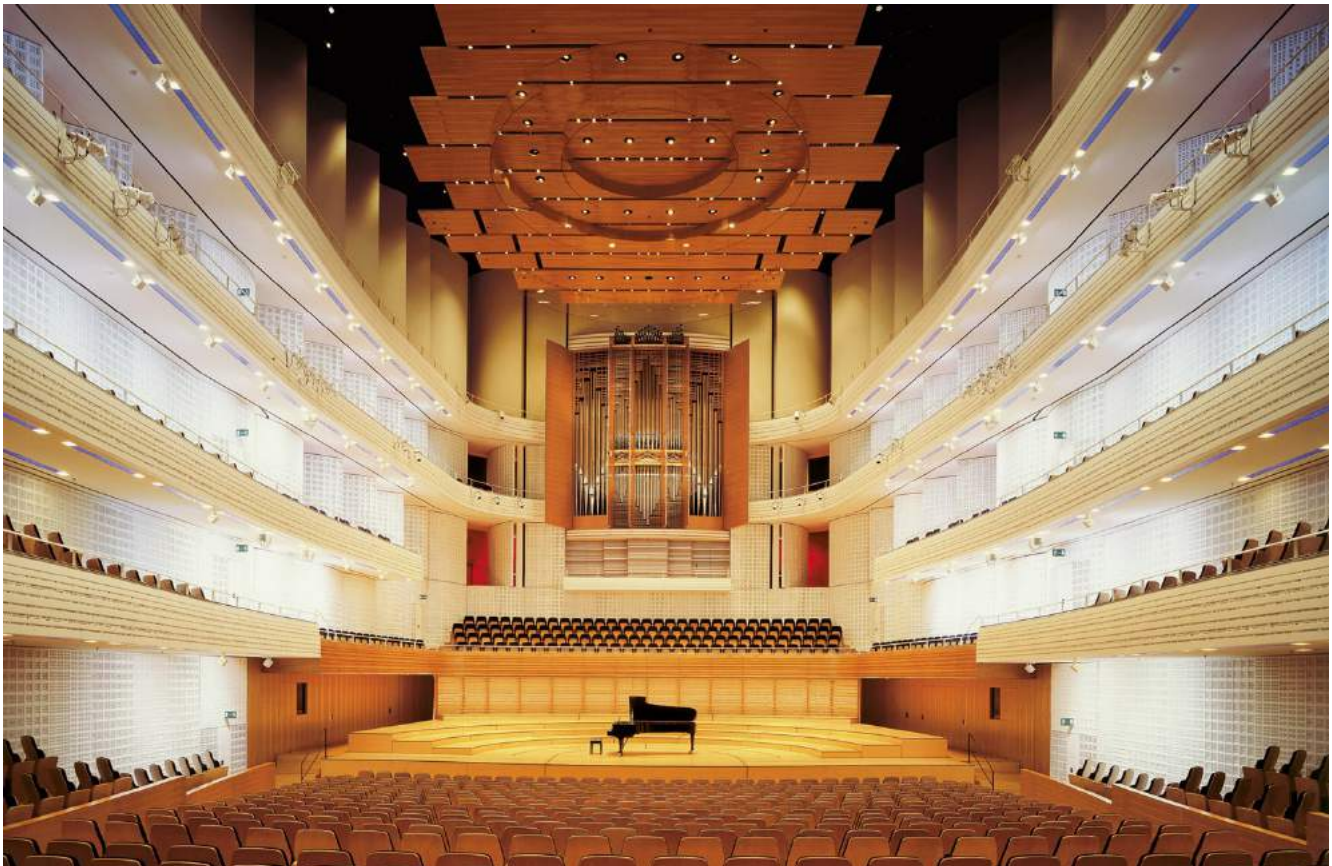


KKL Concert Hall - Luzern, Switzerland

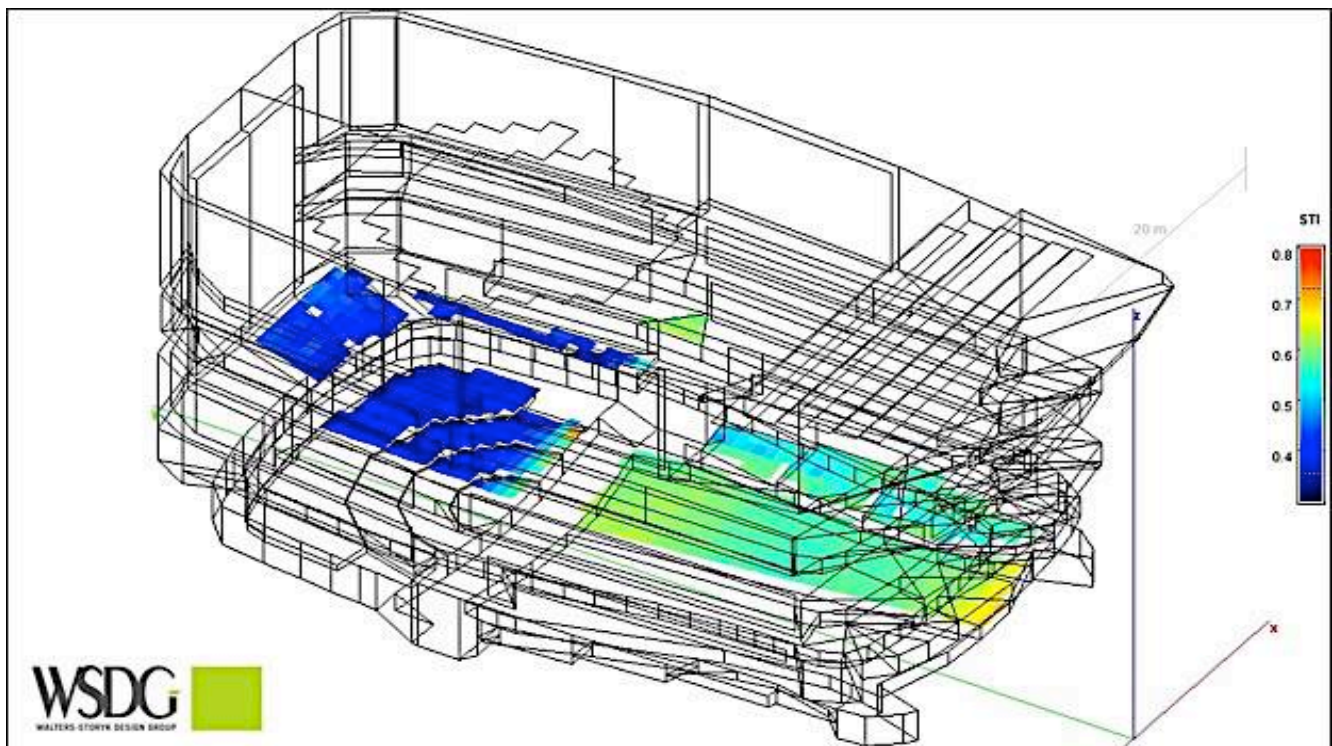
From its opening performance by the Berlin Philharmonic in August 1998, the KKL Luzern Concert Hall was recognized as one of the world's great performance centers. An international landmark, both architecturally and culturally, the complex attracts music fans from around the world to its picturesque lakeside setting. A dozen years of constant use – with an impressive yearly booking rate of more than 90% – coupled with significant technological advances prompted the KKL Luzern management group to upgrade its retractable electro acoustical system. WSDG, an international team of acoustics experts, was brought in to accomplish this essential project.

A major issue of this hall is the wide distribution of seats on five vertical levels surrounding three of the four walls, and consequently, the coverage requirements of the electro acoustical sound system. The core of the solution was the realization that the Hall is mainly designed for acoustical sources placed directly on stage. Consequently, the new main loudspeaker system was installed significantly lower and closer to the stage than the original system. The main system is supplemented by elements, which are permanently installed but retractable by motors. The project was divided into three phases: 1) Identification of the requirements, system planning and preparation of specifications; 2) On-site evaluation of a three loudspeaker system candidates; 3) The execution phase of installation planning, supervision and commissioning.

The new sound reinforcement system consists of the Left Right main system with two line arrays of eight d&b V12 units each, suspended above the stage front edge, two additional line arrays for covering each of the balconies with five d&b V12 units, a stage edge in-fill system consisting of two d&b V-Sub and two d&b V12 units each on the right and left and a stage mounted front-fill provided by six d&b E6 units. For events requiring a 360-degree speech reproduction a retractable center cluster was provided with a front section (consisting of eleven d&b T10 units) and a rear section (consisting of three RCF VSA 2050 digitally controlled column loudspeakers).



KKL Concert Hall - Luzern, Switzerland



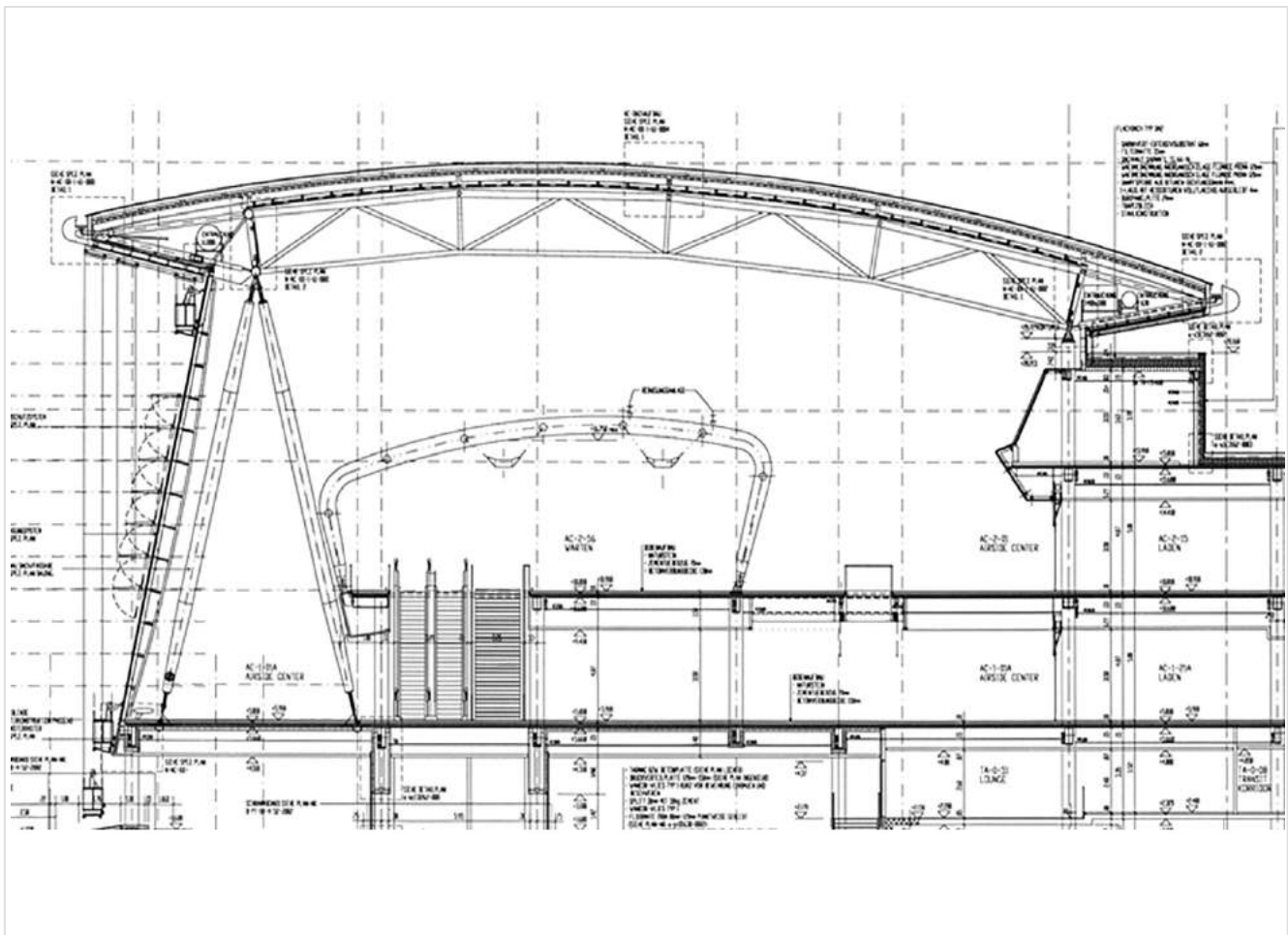
STI Speech Transmission Index

Flughagenkopf – Zurich Airport - Zurich, Switzerland

The Airside Center (A500), located between the existing fingerdocks A and B, acts as a focal point for travellers at the airport. Many new shops and restaurants are opened. The Airside Center project comprises of the new Airside Center, the Underground Skymetro Station which connects the Airside Center to the Dock Midfield, the Arrival Hall just above the Skymetro station, and various renovations within the A and B terminals. The previously existing buildings are all connected and the Airside Center, with its prominent shape, reflects the new identity of the airport.

WSDG was awarded the full electroacoustical design of both these new facilities by the responsible electrical engineering firm, Ernst Basler + Partner AG. WSDG's project scope comprised Definition of electroacoustical project requirements (e.g. Speech Intelligibility, Sound Pressure Levels, Frequency Responses, Coverage etc.) in line with the appropriate national and international standards, including IEC 60849; Electroacoustical design and optimization with assistance of computer simulations and other means of calculation; Specification of electroacoustical components, supervision of driver electronics to the electroacoustical system.

The specified system for the large open spaces with high ceilings is based on Duran Audio's Intellivox loudspeakers (a total of 16 units). These line array loudspeakers offer full digital beam steering control and due to their narrow form factor can be installed close to invisible. Ancillary specified loudspeakers for support spaces and adjacent areas are highly directional units from Frazier and HK.



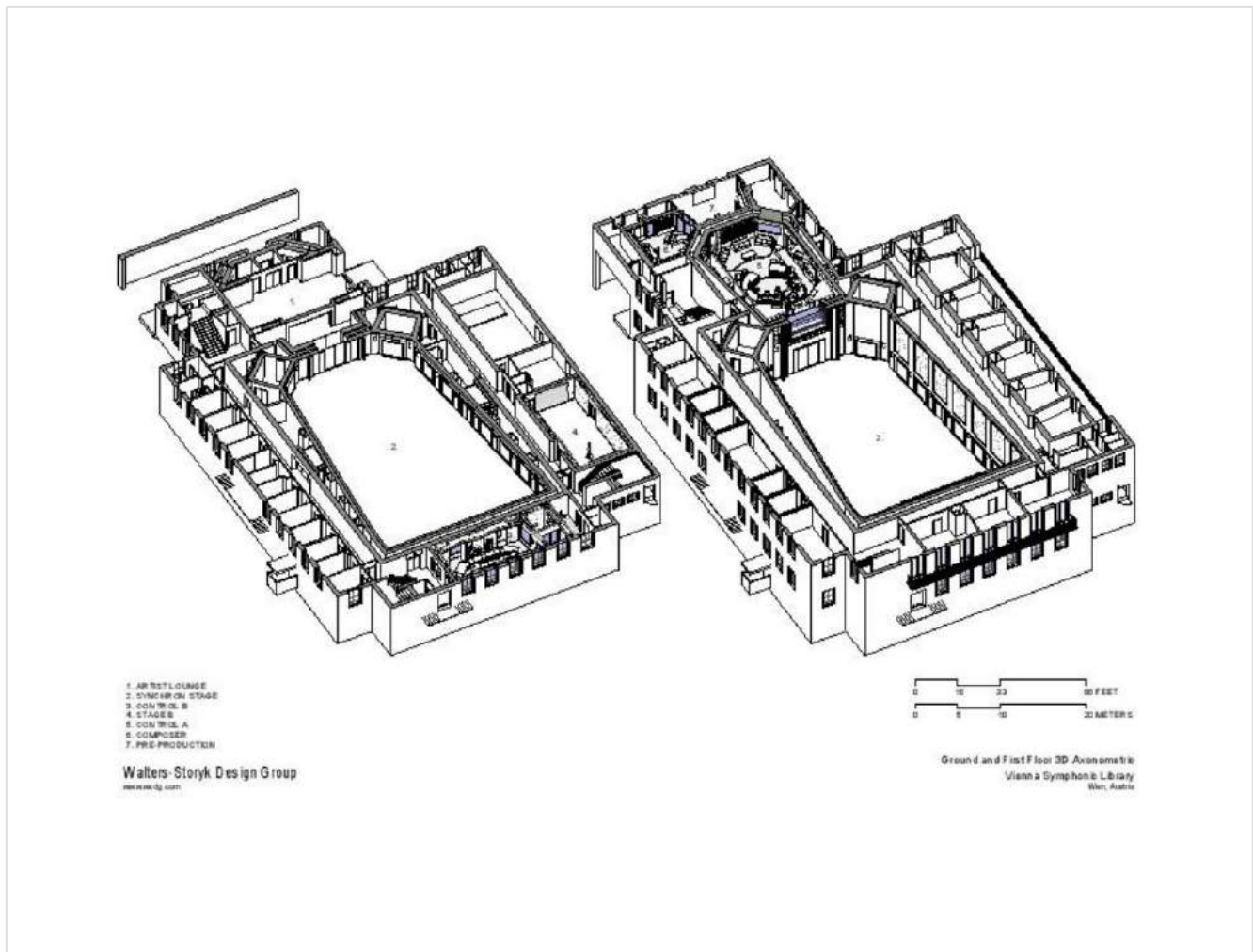
Flughagenkopf – Zurich Airport - Zurich, Switzerland



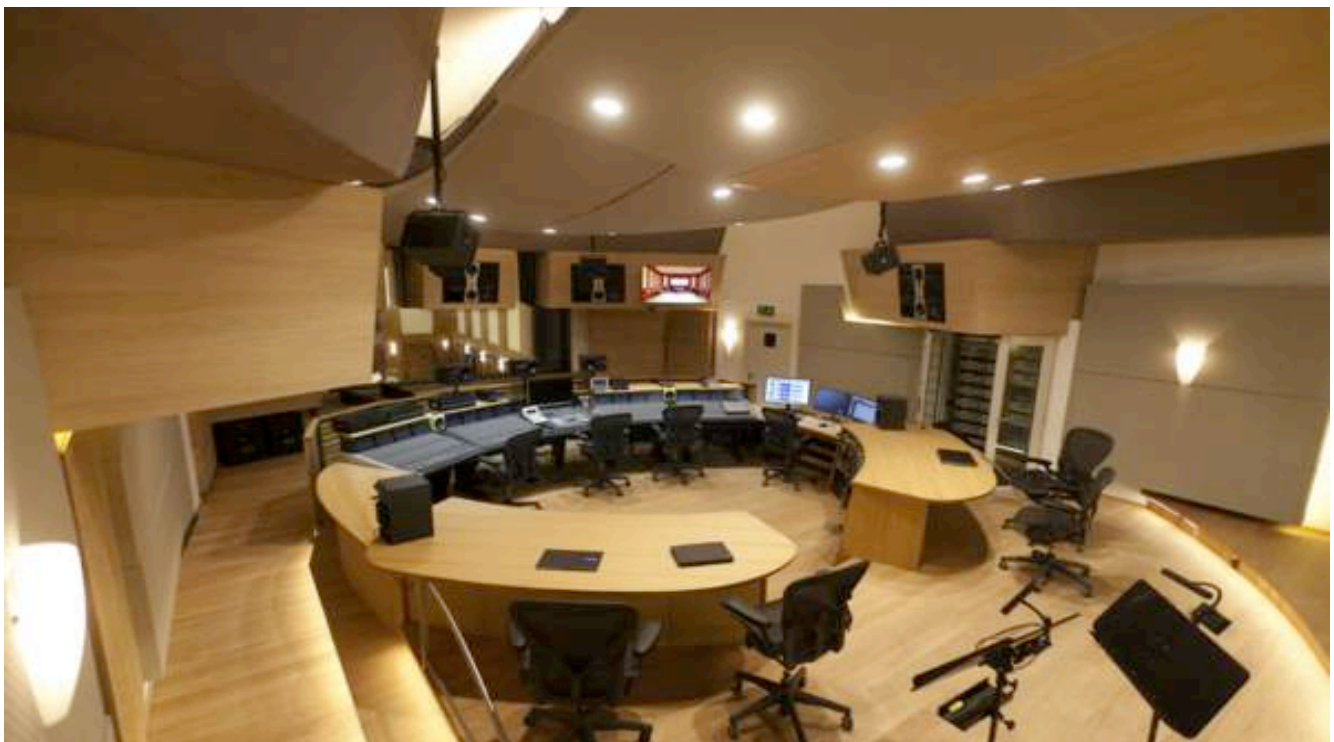
VSL Synchron Stage - Vienna, Austria

A leading developer of orchestral sample libraries and music production software, the VSL Synchron Stage enlisted WSDG, to upgrade its historical (circa 1940) scoring stage into a cutting-edge recording facility. The reconfigured complex now provides enhanced acoustics and cutting edge technology for recording film music and, the full spectrum of orchestral and choral works. The 2,000 sq. m. / 21,000 sq. ft.), VSL complex represents the worlds only scoring stage capable of merging proprietary software innovations with traditional technologies and procedures

Initiated in 2012, the scope of the two-year+ assignment required WSDG's wide-ranging facility planning services. Beginning with documentation of the overall state of the property, we also covered room and structural acoustical measurements and schematic conceptual planning. The Design Development Planning stage included interior design by U.S.-based company co-founder, Beth Walters. Construction Documentation was completed in collaboration with local architect, Schneider-Schumacher. The scope of work comprised: The VSL Synchron Stage A Control Room and large Recording Hall; VSL Synchron Stage B CR and Live Room; and the Studio C Edit Room, and Preproduction Suite. WSDG also performed the electro acoustical system calibration for the audio monitoring system. The VSL Synchron State is distinguished by uniquely future-proof technology, making it a superb recording facility for film music and other orchestral and choral works. A large scale Dante Network with input and output interface connection points at all relevant locations, serves as the facility's network backbone.



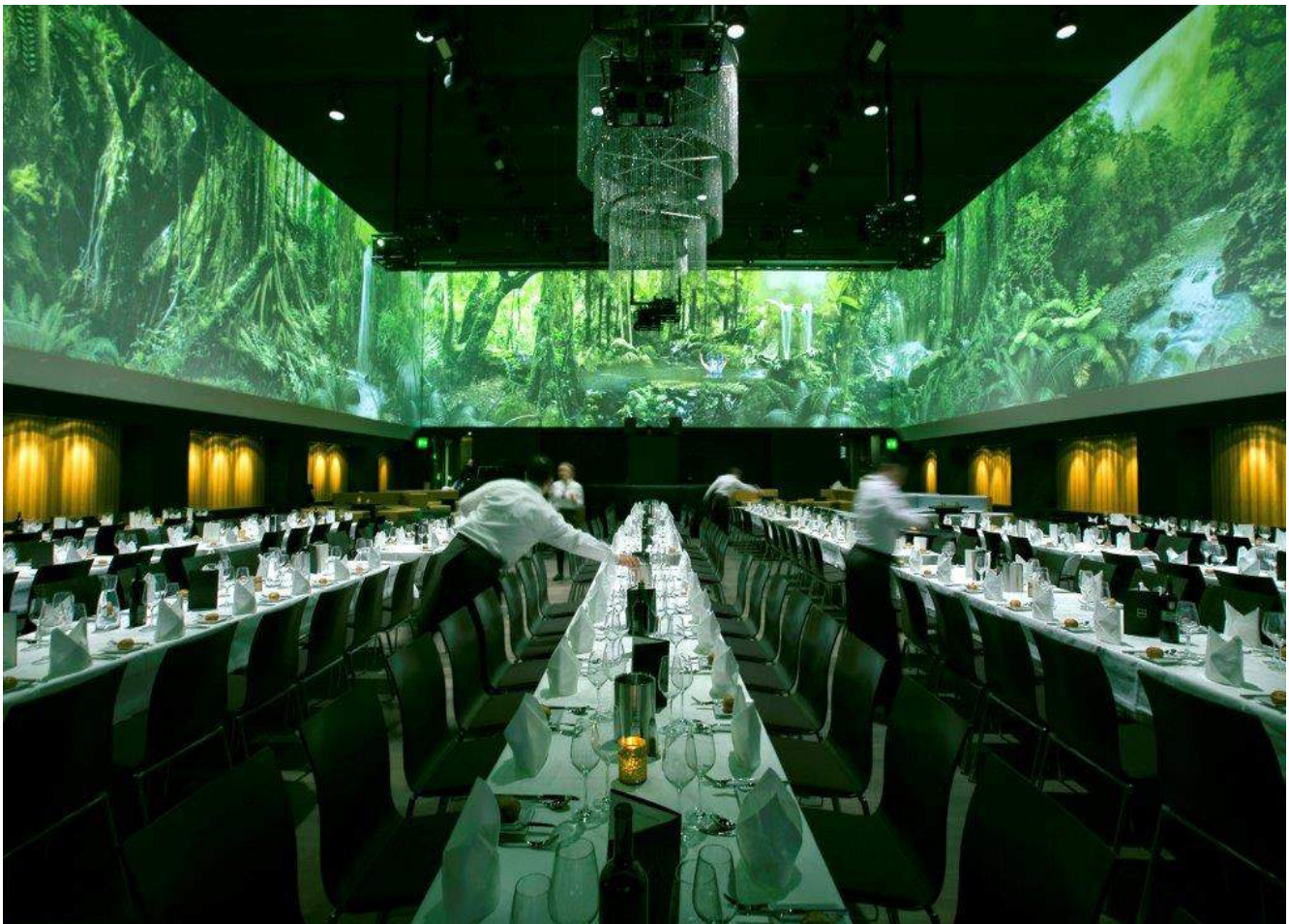
VSL Synchron Stage - Vienna, Austria



Aura Club Events Hall - Zurich, Switzerland

Built within the historic 21,000 sq. ft. (2,000 sq. meter) former “Alte Boerse” Zurich Stock Exchange Building, AURA encompasses four distinct settings, a 100 seat gourmet restaurant, an intimate bar, a chic, stylish smokers’ lounge and, a 4,800 sq. ft. (450 sq. meter) Events Hall capable of accommodating up to 500 guests. Featuring groundbreaking 360° panoramic video projection and 3D audio systems, the Events Hall is designed to host galas ranging from awards and fashion shows to banquets, weddings and corporate gatherings. AURA’s uniquely flexible, multi-purpose strategy required the amalgamation of state of the art technology, within a highly sophisticated acoustic environment. The video presentation system engages eight, ceiling-mounted, high-performance projectors. Audio distribution employs a total of 80 loudspeakers, (70 of which are skillfully concealed by acoustically transparent, architectural construction). Deploying such a massive arsenal of cutting edge technology within this urbane, 21st Century atmosphere necessitated an extremely flexible and creative systems integration.

Aura’s vision for 3D audio presentation required full integration with the venue’s video imagery and innovative lighting, to establish a combined central focus for the Events Hall. All three elements were tasked with functioning interactively, to achieve a fully immersive environment capable of completely engaging guests within messaging and/or entertainment programs. WSDG’s Basel office was retained to design and coordinate the massive sound isolation planning and construction project to fully adhere to Zurich’s stringent city center legislations and limits. Various preset programs were developed to enable a myriad of speaker combinations (all together, or in an infinite range of individual or cluster groupings), depending on need, e.g. live performance, 3D surround sound, etc. Additionally, the ‘sweet spot’ can be expanded to encompass the entire room, providing a spatial sound experience for all guests.



Aura Club Events Hall - Zurich, Switzerland



ESPN Digital Center 2 - Bristol, USA

ESPN, the global leader in comprehensive sports coverage, has completed a five year development and construction project for its new Digital Center 2 studio/media production center. An ambitious addition to ESPN's existing Digital Center 1 campus in Bristol, Connecticut, the 194,000 square foot complex was envisioned as a "format-agnostic/future-proof" creative production facility with unlimited potential for trail-blazing content creation. A comprehensive green and employee comfort-focused environment were primary goals for the new facility.

With six new production control rooms, four audio control rooms and 16 edit suites, ESPN's Digital Center 2 technical capabilities are exemplified by a multi-dimensional monitor wall featuring 56 variably sized individual monitors designed to provide 3D-like graphic images. An arsenal of 40 state-of-the-art cameras is highlighted by a JITA cam capable of swooping up to a height of 22 feet and following a circular track to deliver a sweeping 360° studio overview. The Center 2 routing system can accommodate as many as 60,000 simultaneous signals over 1,100 miles of fiber optic and 247 miles of copper cable deployed throughout the facility.

All these rooms are dedicated to producing flawless audio and video for programs, , interviews, voiceover recording and the full spectrum of broadcast audio for video support. Overall quietness throughout the entire creative plant was an absolute priority. General acoustical specifications and recommendations were developed for all critical services including HVAC, fire protection and electrical systems. ESPN Digital Center 2 represents the apex of broadcast, cable, and Internet streaming production. The complex stands as a major accomplishment in next-generation audio/video production and delivery.



ESPN Digital Center 2 - Bristol, USA



The Metroplex at KITEC – Hong Kong, China

Early in 2014 the Metroplex, a luxurious 9 screen multiplex cinema, opened in Hong Kong's iconic Kowloon Bay International Trade & Exhibition Centre. Adjacent to the widely popular Star Hall, scene of many major international concerts, The Metroplex is an investment property of Hopewell Holdings Limited. The complex reflects the Group's vast experience in operating large-scale venues, and it establishes a new level of lavish comfort for filmgoers. Their unique concept was to bridge the gap between film and music by creating cross-over events and festivals that would benefit from the venue's diverse dining, socializing, large and small theaters and intimate screening rooms.

House 1, the Metroplex's largest theater, can accommodate an audience of 430. The five other "public" theaters can seat groups ranging from 151 to 97 guests. Three plush VIP Screening Suites (#'s 7,8, 9) are each designed to host twenty guests. Theaters 1 & 3 and all three VIP Suites offer opulent reclining lounge chairs, state of the art lighting, exquisite interior designs and Dolby® Atmos™+ Dolby Surround 7.1 sound. The four other theaters are outfitted with Dolby Surround 7.1. The futuristic lobby and dining areas provide an unsurpassed ambience for elegant gatherings. WSDG provided a comprehensive review of the architectural master plan layouts and a detailed analysis of the acoustic package recommendations provided by a local consultant. Particular attention was addressed to issues of sound isolation and (RT60) internal room acoustics. The client's primary concern was to assure absolute sound isolation between the movie theaters and the large event hall located on the upper floor specifically with regard to NC and STC parameters.



The Metroplex at KITEC – Hong Kong, China



Morro do Chapéu Residence - Belo Horizonte, Brazil

The architectural and acoustical design devised by WSDG for the villa's home theater and other living spaces leaned on solution suggested by the firms' professional recording studio expertise. Inhibiting sound from leaking into or out of sensitive listening areas such as recording studio live and control rooms is a WSDG specialty. The enclosed pool and spa area, however presented more troubling waters. Particularly challenging was the need for the acoustical treatments to unobtrusively compliment the custom finishes.

WSDG also designed a spacious (but cozy) home theater, which integrates the highest levels of audio and video technology. Recording studio-level, acoustical wall and ceiling treatments were engaged to provide superb frequency and time response. Bedrooms and a home office also benefitted from acoustical ceiling clouds, designed to control the reverberation time over a broad sound spectrum enabling each room's individual 5.1 surround sound and HD video system to deliver maximum performance quality.

The swimming pool and spa area, however, presented the project's primary acoustic challenge. The large area includes a gym, Jacuzzi and wet bar, surrounded by three walls of double height windows and a movable glass sealing system to maintain interior warmth in the cool, mountain region evenings. Again, professional recording studio design techniques provided solutions. Each window, including an expansive skylight grid of 20 individual panels was fitted with Acoustical Clearsorber Foil. Imported from Germany, the innovative translucent plastic sheets absorb medium and high frequency reverberation to resolve sonic reflection issues. Clearsorber also serves as a full room UV ray filtering system! Full transparency insures unimpeded views and, conversations free of traditional pool house reverberation.



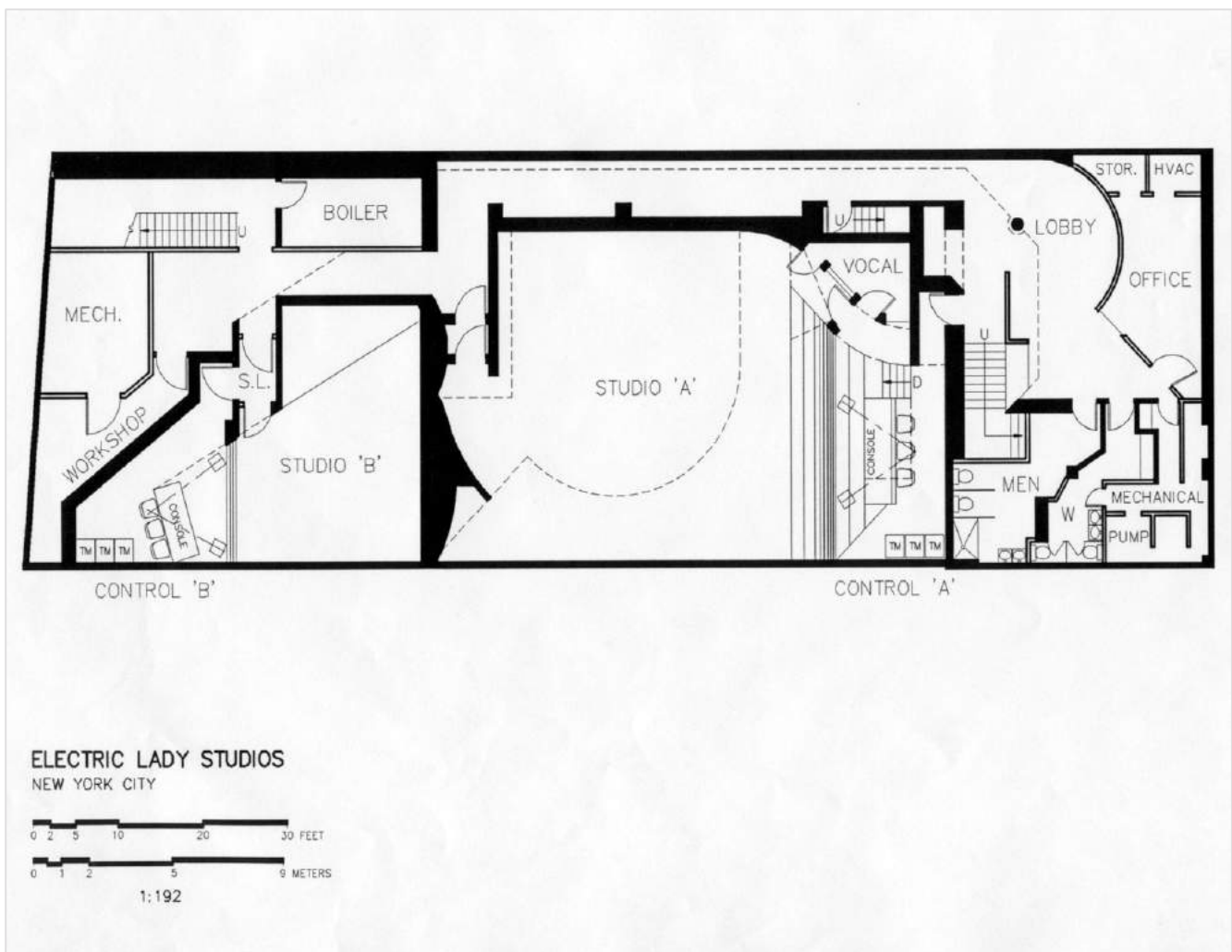
Morro do Chapéu Residence - Belo Horizonte, Brazil



Electric Lady Studios - New York, USA

At age 45 and counting, Electric Lady is one of the world's first artist owned recording studios and one of the oldest, most famous and most successful studios ever. WSDG co-founder John Storyk was a 22-year-old fledgling architect fresh out of Princeton University when he was hired to design a studio for Jimi Hendrix. One summer evening in 1968, Storyk was enjoying an ice cream cone and leafing through the Village Voice when a classified ad caught his eye: "Carpenters wanted to work for free on experimental nightclub." Dialing the number from a corner pay phone, he got the gig.

Kramer was adamant about Electric Lady having a tall, bright room similar to NY's legendary A&R Studios where Phil Spector did some of his greatest work. Kramer was also familiar with European studios like London's Olympic and Abbey Road. He believed drums required a big room. Storyk accommodated Kramer's need for high ceilings by excavating the basement, digging down to raise the height of the underground rooms. For the studio's interior, Jimi specified theatrical lighting, and his desire to have as many curved surfaces as possible (design elements which Storyk had originally incorporated in Cerebrum). Electric Lady's walls were painted white, so they could easily be turned into whatever color Hendrix was in the mood for with simple adjustments. One day Jimi arrived at the construction site and decided that he didn't like the square look of the expensive acoustic doors, which had just been installed. He asked Storyk if he could round off the tops, and when that proved impractical, he had them replaced by custom units with rounded, porthole-style windows.



Electric Lady Studios - New York, USA



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Representative Client List

Alicia Keys (Oven Studios), Long Island, NY
Allaire Studios, Woodstock, NY
Art Institutes United States
Atlantic Recording New York, NY
audioEngine New York, NY
Bearsville Recording Bearsville, NY
Berklee College of Music Boston, MA
Berklee College of Music - Valencia Valencia, Spain
Big Mo Mobile Recording Kensington, MD
Bob Marley Kingston, Jamaica
Bruce Springsteen (Thrill Hill Studios) United States
Camden Yard / Baltimore Orioles Baltimore, MD
Carter Burwell New York, NY
Celine Dion United States
Central Synagogue New York, NY
Church Le Noirmont Le Noirmont, Jura, Switzerland
Citicorp Credit Services Huntington, NY
Credit Suisse Zurich, Switzerland
Crossroads Tabernacle - Studio on the Hill Bronx, NY
Cuyahoga Community College - Center for Innovation in the Arts Cleveland, OH
Diante do Trono Belo Horizonte, Brazil
Duke Ellington High School Washington, DC
Eddie Kramer Rhinebeck, NY
EFE-X Bogota, Columbia
El Porteño Buenos Aires, Argentina
Electric Lady Studios New York, NY
Electronic Arts Vancouver, Canada
Elektra Entertainment New York, NY
Equiscosa Mexico City, Mexico
EUE Screen Gems (Rachel Ray) New York, NY
ESPN Bristol, CT
Fito Paez (Circo Beat Studios) Buenos Aires, Argentina
Flughafenkopf – Expansion of Zurich Airport Zurich, Switzerland
Food Network New York, NY
Full Sail Center for the Recording Arts Orlando, FL
Goesgen Nuclear Plant – Auditorium Däniken, Switzerland
Green Day – Jingtowntown Recording Oakland, California
Hard Rock Cafe New York, NY
Hoffman LaRoche Basel, Switzerland
Howard Schwartz Recording New York, NY
Hunter College New York, NY
IMAX Buenos Aires, Argentina
IDZI Lab Mexico City, Mexico
Interlochen Public Radio Interlochen, MI
Interim Services Ft. Lauderdale, FL
Isaac Hayes Westchester, NY
J Records (Clive Davis) New York, NY
J.A. Castle Recording Utica, NY
James Earl Jones Theater - Poughkeepsie Day School Poughkeepsie, NY
Jay-Z (Roc the Mic Studios) New York, NY
Jazz at Lincoln Center New York, NY
Jim Cramer’s Real Money New York, NY
Jungle City Studios New York, NY
Kimmel Center Philadelphia, PA
La Rioja Theater La Rioja, Argentina
Le Poisson Rouge New York, NY
Maracana Stadium Rio de Janeiro
Manhattan School of Music New York, NY
Martin Scorsese Media Center Bronx, NY
Merriweather Pavilion Columbia, MD
Mineirao Stadium – FIFA Belo Horizonte, Brazil
Minnesota Public Radio Minneapolis, MN
MJI Broadcasting / Clear Channel New York, NY
MonkMusic Studios East Hampton, NY
Murray Arts Center Marietta, GA
MTV Latin America Buenos Aires, Argentina
National Council of Switzerland Bern, Switzerland
National Museum of the American Indian Washington, DC
New York University New York, NY
Northern Lights New York, NY
Novartis Basel, Switzerland
NYISO (New York Independent System Operator) Albany, NY
Peavey Electronics Meridian, MS
Philippe Moritz Zurich, Switzerland
Planet Hollywood Screening Room New York, NY

Proctor and Gamble Buenos Aires, Argentina
Record Plant Los Angeles, CA
Restaurant T Buenos Aires, Argentina
Richard Gere New York, NY
Robert Clivilles (Paradise Garage) Westchester, NY
SBK / EMI Records New York, NY
Skank Belo Horizonte, Brazil
SONY Corporation Teaneck, NJ
Spank! Music and Sound Design Chicago, IL
Stanwich Congregational Church Greenwich, CT
St. Gallen Train Station St. Gallen, Switzerland
Stevie Wonder (Wonderland) Los Angeles, CA
Sumitomo Boardroom New York, NY
Sunshine Mastering Vienna, Austria
Swiss Parliament Basel, Switzerland
Telefé Buenos Aires, Argentina
Teleproductions, Inc. Washington, DC

The Carpenters Church Port Harcourt, Nigeria
The Cosmopolitan Las Vegas, Nevada
The Standard Hotel New York, NY
Thirteen / WNET New York, NY
Union College Schenectady, NY
University of Colorado – ATLAS (Alliance for Technology,
Learning and Society) Boulder, CO
University of Michigan Ann Arbor, MI
Vassar Chapel Poughkeepsie, NY
Video Arts Studios Fargo, ND
Village Studios Guangzhou, China
Vocomotion Skokie, IL
Whitney Houston United States
WNYC Radio New York, NY
Woodrow Wilson Center Theater – Smithsonian
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Key Personnel



John Storyk, R.A.

Founder Partner / Director of Design

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John Storyk, registered architect and acoustician, is a founding partner of WSDG. He has provided facility planning, acoustical and systems design services for the professional audio-video production and performance community since the 1969 completion of Jimi Hendrix's Electric Lady Studios in New York City. John received his architectural studies from Princeton and Columbia Universities. As an independent designer, engineer and principal of WSDG, he has been responsible for over 3,000 world-class audio-video production facilities, including studios, radio stations, video suites, entertainment clubs and theaters. He is a member of the American Institute of Architects (AIA), Audio Engineering Society (AES) and Acoustical Society of America (ASA) and is a frequent contributor to AES convention papers and professional industry periodicals. John is a frequent lecturer at schools throughout the nation and has established courses in acoustics at Full Sail (Orlando), Ex'Pression Center for the Media Arts (San Francisco), while maintaining adjunct professor status in Acoustics and Studio Design at Berklee College of Music (Boston) and Stevens Institute (New Jersey).



Beth Walters

Founder Partner / Interiors

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Beth Walters-Storyk is a graduate of the Fashion Institute of Technology (New York) with two degrees, A.A.S. in Textile Design and a B.F.A. in Product Design. Her construction experience comes with having been a senior installation designer for the Gallery's exhibition and installation staff at the Fashion Institute for over 10 years. From 1982-1988, Beth also was the display and merchandising director for such noted home furnishing fabric firms as Boris Kroll Fabrics, Greff Fabrics and Design Tex Fabrics. Beth is a founding partner and principal of Walters-Storyk Design Group and leads the interior design services division.



Silvia Campos Ulloa Molho

Partner / Art Director

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Silvia Campos Molho has been involved in the video industry since 1987 as an independent filmmaker in Lima. Her degree in Fine Arts comes from the University of Peru in Lima and has continued with a degree in Anthropology from the University of Buenos Aires. As a producer, Silvia has developed several cinematographic projects, documentaries, commercials and corporate marketing worldwide. Her areas of expertise include the development of corporate images with the wide use of digital technological combined with traditional film and video. In 1998, together with AVH Inc. in Argentina, she was responsible for the making of the first DVD format in South America. She is an integral part of the design, communication and marketing divisions for WSDG, while acting as co-founder and partner of WSDG-Latin.



Renato Cipriano

Partner / Director of Design

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Renato Cipriano graduated as a Civil Engineer from the University of FUMEC in Belo Horizonte, Brazil in 1994 and is also a graduate from both The Recording Workshop, Ohio (1992) and Full Sail Center for the Recording Arts, Orlando, USA (1999—also one of John's students). In early 2000, Renato opened the WSDG Brazil office in Belo Horizonte, Brazil and is responsible for the acoustical and architectural supervision on all projects in Brazil. Additionally, Renato has led the design efforts of many of our international projects contributing to creative acoustic interiors and integrated lighting design. As an audio engineer he has worked on various projects including the most recent album of the most popular rock band in Brazil – Skank. Renato also teaches Basic Acoustics in the top audio school in the country, IAV in São Paulo. In 2004 Renato received two Grammy nominations and won the Latin Grammy for “Best Brazilian Rock Album”.



Sergio Molho

Partner / Director of International Development

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Sergio Molho is a founding partner of WSDG Latin America. He provides the technical, acoustical and architectural supervision as well as project management for all WSDG Latin America projects. Sergio has worked in the audio and video industry since 1982, beginning as an engineer, composer and producer for international productions for recording labels such as Sony and Warner. As an accomplished keyboard player and vocalist, he was the leader of CASH, a successful funk band that had its fame in Argentina in the 1980's. He is a member of the Argentinean Acoustic Chamber (AAC) and Audio Engineering Society (AES) as well as other professional organizations. He is a frequent contributor to technical workshops expanding the knowledge and education of acoustics and electro-acoustics in their relationship to architecture. In 2005, Sergio became the CEO and principal of WSDG Latin America. In 2007 he opened the WSDG Mexico Office, and in 2009 the WSDG Miami office. As the Director of WSDG's International Relations, he contributes to the promotion and acquisition of new business relations worldwide.



Dirk Noy

Partner / Director of Applied Science and Engineering

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Dirk Noy, M.Sc. Physics, has a Diploma in Experimental Solid State Physics from the University of Basel, Switzerland and graduated from Full Sail Center for the Recording Arts, Orlando, USA, where he was one of John Storyk's students. After joining WSDG in early 1997 Dirk now heads the WSDG Europe office in Basel, Switzerland. Dirk has extensive experience in applied mathematics, acoustical measurement and calculation techniques, audio engineering, systems design and all facets of Information Technologies. His language abilities include German, Dutch, French and English. As a publishing member of the Audio Engineering Society (AES) and the Swiss Acoustical Society (SGA) he is a frequent lecturer at trade conventions, recording colleges, as well as architectural education institutions.



Nancy Flannery

Partner / Chief Financial Officer

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The first and last person to call with any production, billing or scheduling issue, CFO Nancy Flannery has spent the past twenty-five years honing her skills as the consummate WSDG client liaison. A multi-task whiz, Nancy assists clients in virtually every phase of their projects. From negotiating favorable contracts with suppliers to procuring special materials, or resolving complex issues in a timely manner, she is the ultimate client advocate and problem solver. In Nancy's dictionary the definition of CFO is "headache relief."



Gabriel Hauser

Partner / Director of Acoustics

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Gabriel Hauser graduated with a degree in electrical engineering from the Swiss Federal Institute of Technology, Zurich, in 2000. Analog and digital signal processing and acoustics were his primary focus. His Thesis was titled "Reduction of Nonlinear Distortion of Loudspeakers employing Volterra Filters" (at Studer Professional AG, Switzerland). After joining the WSDG New York office, Gabriel returned to Switzerland to become a founding partner at WSDG Europe. His specialties include Acoustical Simulation and Measurement, complex Acoustical Analysis and Methodology as well as Architectural Acoustics. During his studies Gabriel was a founding member of Abbaxx Soundsystems Ltd., whose principal field of work is sound reinforcement and loudspeaker technology. While with Abbaxx, he designed and developed sound systems for concert use, churches and installations. He writes articles for audio magazines and continues to be a performing musician.



Joshua Morris

Partner / Director of Design

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Joshua Morris graduated from the University of North Carolina in Charlotte with two Degrees, a Bachelor of Arts in Architecture and a Bachelor of Architecture. A love of music has led him to seek a combination of architecture and acoustics, beginning with his thesis on acoustics. Additionally, Josh has been educated in the Suzuki method for violin since age three, making acoustic design a natural choice for a career path. Joshua joined the WSDG team in January of 2005, moving from North Carolina to New York, and quickly settled into a key role as a project manager, designer and now partner. Since then he has managed dozens of projects from China to the United States to Germany, and continues to add more skills to his design vocabulary each day, while refining his already well developed practice as a luthier.



Matthew Ballos

Partner / Director of Architectural Technology

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Mid Hudson Valley, New York native Matt Ballos earned dual degrees in Architecture and Construction Management. A background in civil engineering and a lifelong love of construction and design has enabled Matt to quickly become a valuable member of WSDG's design and production team, currently as a project designer and manager.

Matt's love of design extends from his drawing skills to his personal workshop where he spends his free time building furniture and fabricating functional pieces of art. He believes his experiences at WSDG coupled with having grown up on construction sites provides him with a functional knowledge of what can and can't be built, and enables him to apply his design talents in creating uniquely useful, beautiful and acoustically accurate spaces. WSDG is proud of Matt's continued affiliation with the US Air Force Reserve as an engineering specialist.



Romina Larregina

Partner / Director of Production

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Romina Larregina graduated from the University of Palermo, Buenos Aires, with a degree in Architecture. Upon graduating, Romina took her skills to an engineering office, while teaching English and helping with the set up of trade shows. She apprenticed at WSDG – Latin for several years before moving to the United States in 1999, to become an integral member and now partner at WSDG (New York). Her multi-lingual skills in English, Spanish and Portuguese have been instrumental in leading numerous international projects. Romina is the Latin liaison, as well as project management and production coordinator for the New York office. She loves to travel and enjoys the day-to-day client interaction.



Federico Petrone

Senior Systems Designer

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Federico obtained a Contemporary Music Degree and an Audiovisual Communications Degree in Argentina. He started his career as the music director for Indie Musical Theater groups and the FOH sound engineer for a major theater in Buenos Aires. Federico then went on to get a lead audio position at Disney Cruise Lines, in charge of all audio systems and responsible for the FOH operation in the main theater of one of their cruise ships. In 2007 he joined WSDG in Latin America in his current position as Audiovisual Systems Designer and Chief Installer. He has worked on numerous projects worldwide integrating sound, video, lighting and automation for different applications, from small project studios to large live venues. He also leads the systems install team for all types of audiovisual installations. Federico is an accomplished video game music composer having worked in more than 100 titles for different game platforms.



Kevin Peterson

Project Engineer

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Kevin has always been a music lover and musician. While in high school, he performed in several bands, and developed a 'gear head' aptitude for setting up recording equipment, microphones, and speakers. That early experience inspired him to study audio in college. After graduating as Class Valedictorian from Full Sail University with a B.S. in Show Production, Kevin's interest in audio and acoustic measurement lead him to a career with WSDG. He welcomes the opportunity to collaborate with WSDG's international team and enjoys hands-on involvement with unique, creative projects. An avid year-round camper / outdoorsman / and Eagle Scout, Kevin claims to enjoy the cold and snow of the Hudson Valley winters much more than his co-workers.



Breno Magalhães

Architect / Project Manager

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Breno Magalhães graduated as an Architect and Urban Planner from Federal University of Minas Gerais (UFMG) in 2010 and as a Product Designer from State University of Minas Gerais (UEMG) in 2006, both in Belo Horizonte. His interest in music and acoustics was shown in his work during graduation. Breno enjoys playing the guitar and he turned this hobby into his Product Design final graduation project, by developing an electric guitar with an innovative pickup swapping system. The same thing happened in his Architect and Urban Planner graduation project when he designed a new music Arena for Belo Horizonte. At this point, he was already a WSDG member. During his graduation in Product Design, Breno took part in several research groups related to furniture design focused on manufacture optimization, ergonomics and sustainability. He was also a partner in a design office with the same approach. Earlier, Breno was a professional volleyball player till the age of 22. Breno works as a Project Manager and Designer at WSDG Brasil office.



Marc Viadiu

Project Engineer

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Marc studied Technical Engineering in Sound and Image and Higher Engineering in Electronics at the University Ramon Llull in Barcelona, Spain. After graduation, Marc worked in an industrial acoustics company in Barcelona. Later he started his own company of acoustic engineering and distribution of acoustic and audio products. At the beginning of 2009, Marc undertook a six months internship at the WSDG New York office preparing drawings, taking acoustical measurements and performing room acoustical calculations. Upon returning to Spain in 2010, he started a new company of designing acoustical products and opening the new WSDG office in Spain.



Jesús Cardoso

Representative

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Cardoso met John Storyk, during one of his guest lectures at Berklee College of Music. Storyk's designs had been an important influence in Cardoso's consulting choices that led to a number of successful collaborations. In 2015, Audio Gate International's influential position in Mexico's pro audio market and the Walter Storyk Design Group's program for expanding their client base in that country coalesced. By naming Jesus Cardoso as representative, WSDG can now provide a fully integrated, world-class studio design and equipment sales/integration service to Mexico's creative music production and recording community.



Victor Cañellas (Weike)

Representative

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Víctor Cañellas (Weike) - Acousmatic Sinologist has been a successful acoustician/sound researcher in China since 2003. His expertise in developing acoustic interfaces for visual arts in performance venues has contributed to such demanding assignments as the Park19 and LOFT345 clubs in Guangzhou and for the popular 2007 La Fura dels Baus 'Imperium' premiere in Beijing. His expertise in acoustic treatments was enriched by serving as a representative for Jocavi Acoustic Panels and Soundbox Acoustic Tech fixed architectural acoustic systems. Victor studied Social Science at Universitat de Barcelona, Asian Studies at Universitat Autònoma de Barcelona Center of International and Intercultural Studies, and attended Chinese Language Studies in Sun Yat Sen University in Guangzhou. His wide-knowledge of 'Eastern thought and logics' provide a solid foundation for him in his new role as a WSDG representative.



Javier Vyero Villaroel

Representative

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Born in Santiago, Chile, "Vyero" is a successful record producer and songwriter. After graduating from Universidad Mayor, (Chile) with a degree in Social Communications and Advertising and a specialization in A/V media, Vyero moved to Mexico in 2001 to kick off his music career. Signed to Universal Music Mexico in 2004, he recorded a compilation album entitled "Autores del Nuevo Milenio". Vyero's subsequent album releases include: "Lievame" (2007), "Electro" (2012), and "Cover Sessions" (2013). He is currently preparing a new EP of original compositions entitled "Acustico", for release in late 2015. He has also served as a producer for a number of film and album recording sessions by various artists. In 2015 Vyero joined Audio Gate International, a leading Mexico City-based equipment sales and consulting firm. Javier Villaroel has now been named exclusive WSDG representative in Mexico, and will focus his energies on developing client projects in the high-end recording, video production, performance venue, corporate and educational sectors.



Leandro Kirjner

Project Manager

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Leandro Kirjner is a young professional, student of Architecture at the University of Buenos Aires (UBA). At 18, he already knew what he wanted to devote his life and in 2012 was given the opportunity to join WSDG, this gave him the opportunity to progress at a professional level and at the same time continue to perform his studies. The acoustics were a branch that was unknown to him and he was attracted by the opportunity to learn new things in the field he loves. Since that moment he has been involved in documenting several projects around the world, allowing him to experience new cultures and see how architecture adapts to each one of them.



Su Weilie

Representative

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Su Weilie – Architect/Interior Designer/Representative is a Guangzhou native who studied Construction Engineering at Hunan Institute of Technology and Architecture, and City Planning at Wuhan University of Technology. In 1990 he joined the Panyu Bridge Group Company and participated in the design of Nansha Port and Nansha Tian Hou Temple restoration project. In 1994 he founded Guangzhou Red Leaves Decoration Project Co. Ltd., and participated in assignments for the Guangzhou Olympic Garden. In 2004 he moved to the Conghua Mountains for self-cultivation and a contemplative education, and to research Agrarianism and the ancient practice of Daoism. Returning to Guangzhou, he participated in the Guangzhou Natural Park development as well construction projects focused on Luxury Hotels, Office Buildings and Refurbishing Historical Buildings.



Aditya Modi

Representative

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Born in a recording studio in a quaint studio apartment in Chennai, Aditya has flair and passion for anything audio. After school, he used to sit in on recordings conducted by his father, Vijay Modi, for artists such as AR Rahman. Graduating Full Sail University with a Recording Arts Degree, Aditya moved to LA as a practicing DJ. India calling, Aditya moved to Mumbai where he assisted Sound Engineering legend Daman Sood as well as Avinash Oak, Jagjit Singh, Lata Mangeshkar, Asha Bhosale, Pandit Jasraj, Pankaj Udhas, Naushaad Ali, Abida Parveen and almost every great in the Indian music industry. Aditya has designed, constructed, consulted or installed technology for over 250 facilities across India. Aditya formed Modi Digital to offer premium recording studio design and undertake complete audio install projects, pro audio equipment distribution, technical designing, acoustic designing and after sales support to the audio industry.



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