

L I N S P A C E

ACOUSTICS • AV • SPACE ENABLING

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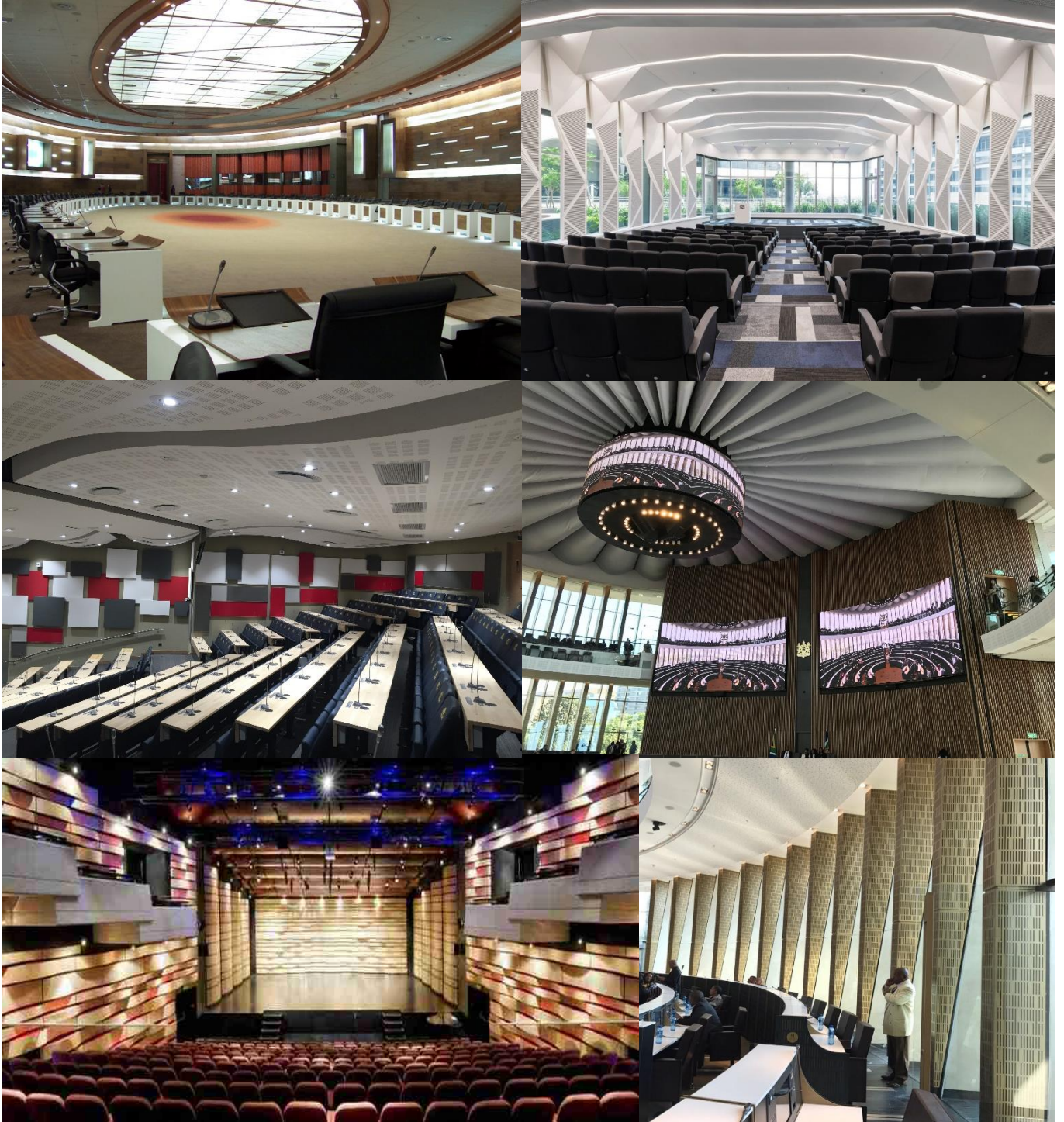
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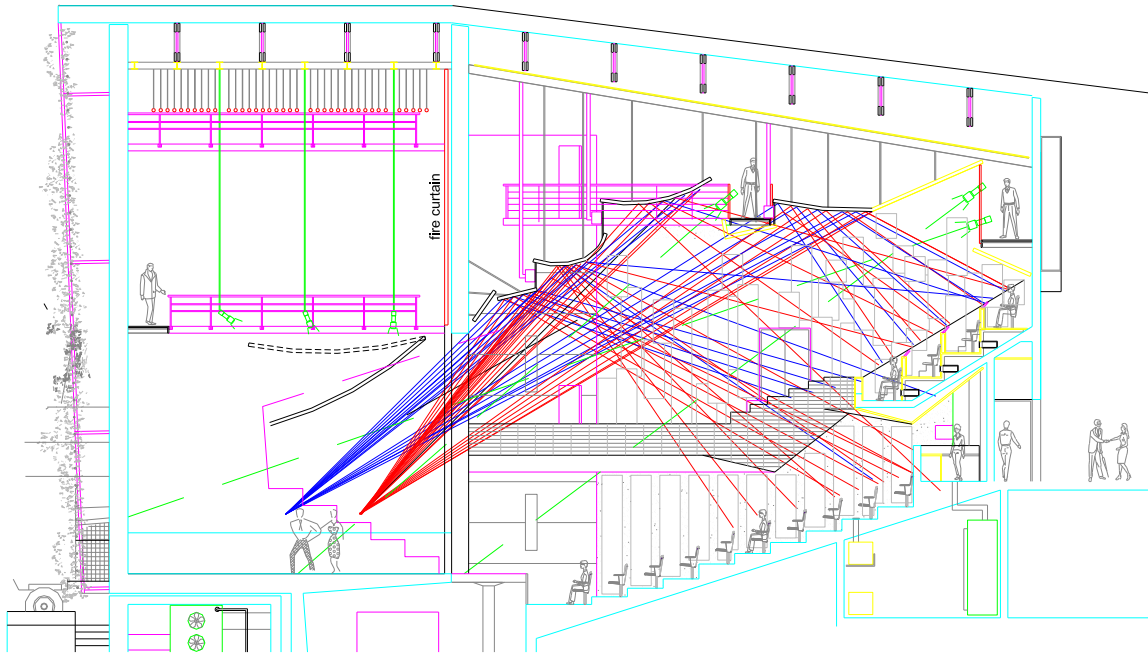
Web: www.linspace.co.za



LINSPEACE (Pty) Ltd 2014 / 250741 / 07
Director: Ivan Lin Pr.Eng. BScEng(Elec)(Wits)
Associates: E Johnson

LINSPEACE
is a
B-BBEE Level 1 Contributor

1. INTRODUCTION



1.1. Credentials of LINSPLACE Engineers

LINSPLACE - Previously Known as Pro Acoustic Consulting Engineers (PACE)

26 years of proven consulting track record with the largest client base in Africa.

LINSPLACE engineers have been entrusted with major and iconic projects

New JHB glass Council Chamber, SASOL, SA Reserve Bank, DSTV, Bowman glass auditorium, Soweto Theatre, Standard Bank, ABSA, Nedbank, FNB, Vodacom, MTN, Facebook JHB, Google (JHB, Accra & Nairobi), Microsoft (JHB & Nairobi), Old Mutual Sandton, BMW, etc. etc.

LINSPLACE engineers are SPACE ENABLERS

The principal engineer Ivan Lin has been actively promoting “User Experience Driven Engineering” or “User Experience Driven Architecture” for the last 13 years.

LINSPLACE engineers understand space performance issues

Linspace engineers are active researchers in the relationship between occupant work performance and environmental designs approaches.

LINSPLACE enables “Form” to function, beautifully

We design and make beautiful “Forms” work acoustically: www.linspace.co.za

LINSPLACE engineers challenge the Norm

LINSPLACE engineers believe that even if Norm is OK, it does not mean Norm is acceptable. If any improvement in the space performance/cost ratio is possible, the Norm must be challenged.

LINSPLACE engineers set standards

LINSPLACE engineers assisted in drafting the following:

GBCSA Office Tool V1 IEQ12 Acoustic credits and GBCSA Retail Tool V1 Noise rating tool

GBCSA Interior Tool Pilot Acoustic Quality credits,

GBCSA Existing Building Performance Pilot Acoustic Quality Credits

LINS~~P~~SPACE engineers set records (possibly!)

Possibly world first deployment of large scale multi-media interface for Parliamentary Delegate System (Cape Town Parliament chamber 2003)

Ivan Lin invented Intelligent Adaptive Multi-zone Sound Masking System (IAMSAS). More than 150,000 sqm of successful deployment to date in SA.

Ivan Lin has been involved in the design of more than 10 parliamentary environments in SA and United Nations, possibly the most in the world.

LINS~~P~~SPACE engineers have been entrusted by the largest commercial building industry client base in SA.

1.1.1 Acoustics

Architectural Acoustics

The engineers of LINS~~P~~SPACE are recognized leaders in the field of Architectural Acoustics in South Africa. Our role in the Architectural Acoustic field is to ensure that a proposed building will be conducive to its intended purpose from an acoustic perspective.

Recent projects of LINS~~P~~SPACE engineers include the new ABSA Towers West, American International School, Acsiopolis, ATNS, Anglo American Johannesburg Offices, Barclays Johannesburg, BCX IT Head Office, BMW Head Office, Citibank Sandton, Council of Johannesburg new Chamber, DSTV new head offices, Embassy Towers, Facebook Head offices, FNB Call Centres, Google Johannesburg, Google Ghana, Huawei Head Office, Hotel Verde Zanzibar, Market Theatre, Microsoft South Africa, MTN head offices, Nedcor New Town Development, Old Mutual new Offices Sandton, Palazzo Steyn, Rosebank Towers – Virgin Active, SASOL Head Office Sandton, Steyn City, Sol Plaatjie University, Standard Bank Rosebank, Telkom SA new offices, Total Johannesburg, University of Mpumalanga, University of Pretoria campuses, Vodacom head offices, Werkmans, Sandton.

Green Building Acoustics

As sustainability, environmental responsibility and employee well-being gains greater relevance and importance in the development of modern buildings, more emphasis is placed on the "green design" of buildings. The Green Star Council of South Africa (GBCSA) was created to establish a common language and standard of measurement for green buildings. This is done through the Green Star rating tools.

An important element of the building design is the indoor environmental quality (IEQ) offered by a building. This relates to air quality, lighting levels and noise levels. It is accepted that internal noise levels have a significant effect on the occupants of a building, affecting their satisfaction, well-being and hence their health and productivity. The GBCSA, through the Green Star Tool aims to "recognize buildings that are designed to maintain internal noise levels at an appropriate level" by awarding up to two Green Star points to such projects.

We have been involved in several Green Star projects, preparing the documentation required to claim the points related to internal building noise levels. Notable examples include the Nedcor Phase 2 building (the first building to be officially certified under the Green Star tool) and the Vodafone Innovation Centre (the first building to achieve a 6 star Green Star rating). Recently, we have been advising on the new Green Building Council Head Office in Johannesburg.

1.1.2 Audio-visual Engineering

In the past, Audiovisual System Design has been a grey area where clients or engineers would be reliant on contractors for proposals. The absence of specialist engineers to prepare technical specifications and to evaluate submissions would often lead to tender award decisions being made with insufficient technical justification.

LINSPLACE engineers have identified these problems in recent years and have been entrusted by major clients such as Anglo American, the Department of International Relations and Cooperation, United Nations Office at Nairobi, Macquarie South Bank Limited, Total South African Head Office, Loftus Stadium, Sasol, Cape Town Unicity, South African Reserve Bank Head Office, South African Parliament Chamber, NCOP Chamber, Mpumalanga Legislature, Tanzanian Parliament, Council of Johannesburg, DSTV, American School International Johannesburg, Development Bank SA, Free State Legislature, and recently the Johannesburg City Council Chamber, to provide technical specifications - handling the design, tendering process, and implementation of their AV presentation systems, videoconferencing systems, and parliamentary congress and simultaneous interpretation systems.

1.1.3 Sound Masking

An ideal Sound Masking in the context of an office environment is a means of introducing a well-controlled and calibrated neutral background noise for the purpose of achieving improved speech privacy and reduced sound disturbances between work stations.

A successful sound masking design and installation is non-obtrusive to the occupants and is uniform throughout the floor plate.

A sound masking system on its own cannot provide a total solution in improving office acoustics. Other factors such as the quality and the design of the acoustic ceiling and partitions are equally important to achieve a cumulative improvement in acoustic comfort and privacy.

IAMSM refers to a sound masking system that is intelligent and adaptive to multiple zones of local ambient noise environments. This is in contrast to the traditional approach where an entire building is commonly one single sound masking zone with fixed volumes for the entire building or floor plates.

IAMSM systems use ambient sensing microphones to provide dynamic feedback for each of the defined areas and adjust the masking level accordingly within a predefined range.

The IAMSM concept is not equipment vendor specific. There are multiple South African suppliers that are able to implement this concept.

2. COMPANY DETAILS

2.1. History

Pro Acoustic Devices C.C. 1992-

Pro Acoustic Devices CC (PAD) was established in 1992 with a primary focus of development and research of architectural acoustic conditioning products, mainly for the broadcasting and music industry in South Africa.

Pro Acoustic Consortium (Pty) Ltd 1999-

During 1999, due to the increasing awareness of work space functional quality in the commercial building sector and growing requests received for consulting services, the principal engineers of PAD realised that a product independent architectural acoustic consulting services was required. PAD was then closed and the pure consulting services Pro Acoustic Consortium was born.

Renaming: Pro Acoustic Consulting Engineers (Pty) Ltd 2011-

During 2011, the directors felt that the word "Consortium" was not appropriate. Pro Acoustic Consortium was then renamed to Pro Acoustic Consulting Engineers.

Pro Acoustic - Evolved: LINSPLACE (Pty) Ltd 2015 -

Pro Acoustic restructured into two separate companies. Ivan Lin starts a new consultancy LINSPLACE in March 2015. LINSPLACE is a professional consultancy offering a User Experience Driven Design approach in Acoustics and AV technologies for Architecture and Interior Spaces.

2.2. Registration with professional and associated bodies

- Member of the Green Building Council
- Engineering Council of South Africa (ECSA)
- South African Institute of Electrical Engineers (SAIEE)
- South African Acoustic Institute (SAAI)
- Audio Engineering Society (AES) (International) (individual registration)

2.3. Key technical staff

Ivan Lin Pr.Eng. – Principal Engineer

Nationality:	South African
Qualifications:	BSc (Eng) Elec (Wits), Pr.Eng (ECSA)
Membership:	Engineering Council of South Africa (ECSA) South African Institute of Electrical Engineers (SAIEE) South African Institute of Acoustics, Senior member (SAAI) Audio Engineering Society (International) (AES)
Position:	Director / Acoustic and Electro-Acoustic Engineer
Specialities:	Radio, Television and Music Studios, Auditorium and Theatres, Corporate offices, Conference facilities, Worship Spaces, Casino resorts, Environmental Acoustics, Electro-Acoustics

Ian Gordon

Nationality: South African
Qualification: BSc Eng (Aeronautics) (Wits)
Position: Project Engineer
Membership: South African Institute of Acoustics
Engineering Council of South Africa (ECSA)

Allen Wiggill

Nationality: South African
Qualification: BSc Eng (Mechanical) (Potch)
Position: Project Engineer
Membership: South African Institute of Acoustics
Engineering Council of South Africa (ECSA)

2.4. Associates

Ernest Johnson: Specialist Audio Visual and Teleconferencing Engineer

Nationality: South African
Position: Associate, AV System and Teleconferencing Engineer

2.5. CONTACT DETAILS

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Johannesburg South Africa
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62 Alexandra Avenue
Craighall 2196
Johannesburg South Africa

2.6. ACOUSTIC PROJECTS (CURRENT AND PASS PROJECTS)

Auditoriums

American International School Dakar
American International School Johannesburg: Theatre & Arts Court
Botswana School of the Performing Arts
Bowman & Gilfillan new auditorium
BUSKAID Music School
Cell C Auditorium
Conewall Hill College

Office Buildings

102 Rivonia Road (Ernst & Young)
11 Diagonal Street (ex JSE)
129 Rivonia Road: MMI and ENS
ABSA Capital Illovo offices
ABSA Ridgeside Durban
ABSA Towers West
ABSA Project X
ACSA AWPO building

Dainfern College
 Dimension Data Campus Development
 Bank of Botswana
 Discovery Health Building, Sandton
 Drakensburg Boys' Choir Auditorium
 Ekurhuleni Auditorium
 Eskom Simmerpan
 Heronbridge College, Johannesburg
 International School Uganda
 Jafza VVIP Auditorium, Dubai
 Johannesburg New City Council Chamber
 JSE Building, Sandton
 KPMG Campus: Phase 1
 Lebone School Hall
 Mapulaneng Hospital auditorium
 Midstream College auditorium
 Mmamethlake Hospital auditorium
 National Research Foundation
 National Olympic Committee South Africa (NOCSA)
 Nedbank, Menlyn Maine, Pretoria
 Nedcor North Sandton
 Newtown Market Theatres
 Northwest Provincial Legislature Chamber
 OHR Somayach Synagogue
 Pretoria Boy's Auditorium – Phase 1 and 2
 RAU Art Centre
 Sedibeng College
 St Alban's College, Music School
 St David's Chapel
 St Mary's The Edge Performing Arts Complex
 St Peter's Primary School, Johannesburg
 St Vincent's School Hall
 Steinhoff Properties Auditorium
 Steyn City: School Hall Phase 2
 UNISA Florida Library
 UNISA Samuel Pauw Library
 University of Pretoria: 2012 Lecture Venues
 University of Pretoria: Engineering III Faculty
 University of Pretoria: AE du Toit
 University of Pretoria : Groenkloof Campus
 University of Pretoria: Javett Arts Centre
 University of Pretoria: Law Faculty buildings
 Wits Music School Auditorium
 Wits Film School Cinema

Convention Centres

Botswana Gaborone International Convention Centre
 International Convention Centre, Swaziland
 Jafza, Dubai
 Madinat Jumeirah, Dubai
 Sandton Convention Centre

Entertainment Venues / Cinemas

Barnyard Theatre Pretoria
 British Airways Airport Lounge
 Boardwalk Casino, Conference Centre and Hotel
 Bulwer & New Osizweni Arts Centre
 Emperors Palace Cinemas

Ampath Laboratories, Centurion
 Anglo American 44 Main Street
 Anglo American 55 Marshall Street
 Anglogold
 ATNS (Air Traffic & Navigation Services) Ltd.
 Arthur Andersen offices
 Bank of Botswana
 Barclays Bank South Africa
 BHP Billiton – 6 Hollard Street
 B.P. South Africa Head Office
 Blue IQ Innovation Hub
 Bowman Gilfillan
 British High Commission
 Business Connexion
 BMW Head Office Midrand
 BMW Warehouse Extension Midrand
 Centurion Square
 Citibank Sandton
 Covington Offices Rosebank
 CSIR offices
 Debswana BDVC Facility & Technical Facility
 Department of Education, South Africa
 Department of International Relations and Cooperation, New Head Office
 Department of Rural Development and Land Reform
 Department of Science and Technology
 Deutsche Bank Securities, Sandton
 Dimension Data Campus Development
 Discovery Health Call Centre KZN
 Discovery Health Building, Sandton
 Discovery Health Fun Factory
 DSTv City new head office
 Edcon Refurbishment
 Embassy Towers
 Eris Property Group – Block G
 Everite Limited
 Facebook Offices
 Fairlands Developments: Westbank and FNB Homeloans
 FNB Atrium – Port Elizabeth
 FNB City Fraser Street Upgrade
 FNB Call Centre – Ferndale
 FNB Inanda Greens
 FNB Menlyn Mall
 FNB Umhlanga
 FNB Windhoek
 Global Options Head Office
 Google Offices, Accra
 Google Offices Johannesburg
 Gordon Institute of Business
 Greenhouse, Cape Town
 Greenstone Multi purpose hall
 Hannover RE
 Hollard Phase II
 Huawei Head Office
 Illovo Phase 3
 In2Food Offices
 Johannesburg City Council
 JSE Building, Sandton

Golden Gate Dino Park
 Germiston Theatre
 Hyde Park Events Venue, Sandton
 International Broadcast Centre for FIFA 2010 World Cup
 Soccer
 Jabulani /Soweto Theatre Complex
 Market Theatres
 Northgate MTN Sundome
 Ocean Basket Branches
 Ster Kinekor
 Southdowns Art Theatre
 United International Pictures (UIP) Preview Cinema

Hotels/Apartments

ALM Hotel (Viceroy) Seychelles
 Boardwalk Casino, Conference Centre and Hotel
 Capital Hotels and Apartments Sandton
 Caesars Casino, convention centre (world trade centre)
 Carnival City Casino, Brakpan
 Embassy Towers Sandton
 Emperor's Casino Arena and Hotel
 Grandwest Casino, Cape Town
 Hilton Double Tree Gaborone
 Hilton Double Tree Mbabane
 Hotel Verde, Zanzibar
 Houghton Apartments and Hotel
 Jafza, Dubai
 Leonardo Legacy, Sandton
 Palazzo Steyn
 Pullman Hotel Accra
 Radisson Red Rosebank
 Secunda Graceland Casino Complex
 Steyn City, Johannesburg
 Sibaya Casino
 Witbank Casino

Museums

Anglo Platinum Innovation Centre
 Freedom Park Phase II
 Hector Peterson Museum, Soweto
 National Film, Video and Sound Archives of South Africa,
 Pretoria

Studios

33 Baker Street, Std Bank Studio
 Cape Town Film Studios
 Cube Recording Studios
 East Coast Radio Studios
 EMI Powerhouse Studio
 Gordon Institute of Business Science
 Homestudio Music Studios
 M'du Records
 Malawi Broadcasting Corporation - Blantyre
 M-Net Television Studios
 National Electronic Media Institute of South Africa
 Radio Safari
 RAU Television Studio
 SABC:

KPMG Campus: Phase 1
 Lakeside Growthpoint
 Law-on-Keyes
 Liberty Life Head Office
 Lesotho Central Bank
 Macquarie Bank, 1 Sandton Drive SA office
 Marsh Head Office
 Menlyn Maine Development
 Midstream College
 Midstream Medical College
 Microsoft Head Office
 Microsoft Nairobi
 Midrand Vodaworld Auditorium
 Momentum Life HQ
 MTN Boardroom
 MTN Phase II and Campus Development
 MTN Regional Offices
 MTN Swaziland
 National Council of Provinces (NCOP)
 National Research Auditorium
 Nedbank Lakeview
 Nedbank Phase II
 Nedbank Newtown
 Nedcor North Sandton
 Old Mutual Emerging Markets
 Pan African Parliament
 Peregrine, Katherine Street Towers
 Polifin Auditorium
 Rand Water Auditorium
 Rio Tinto Head Office, Johannesburg
 Rosebank Towers – Virgin Active
 SAB Central Office
 SABS Call Centre
 Sappi Boardroom
 Sasol Head Office
 Sasol Oil Randburg
 Softline head office, Woodmead
 Sol Plaatje University, Kimberley
 Stauch Vorster Architects
 Standard Chartered Bank
 Standard Bank, Morningside College
 Standard Bank of SA Ltd., Executive meeting room,
 Johannesburg
 Standard Bank of SA Ltd. Kingsmead
 Standard Bank of SA Ltd., Rosebank
 Statistics South Africa
 T-Systems Head Office, Midrand
 Telesure Building
 Tiger Brands Head Office
 Upbeat Properties 101 – Total
 Head Office: Refurbishment
 Unilever Durban office
 University of Mpumalanga
 University of Pretoria: Engineering III Department
 University of Pretoria: Study Centre
 University of Witwatersrand: Pro Development Building
 University of Witwatersrand: John Moffat Hall
 Vereeniging Town Council

Durban studios
 Music Control Room
 Johannesburg studios
 Radio 5 Studios
 M4 music studios
 Radio OB Vehicle
 M4 Music Studio Control Room
 Henry Video Production and SSL Final Mix
 Drama Studio
 M2 music studios
 Bloemfontein
 Music Recording Studio and Control Room
 Cape Town : Music Recording Studio and Control Room
 Port Elizabeth studios
 Scorpio Music
 Shine Studios
 SASANI Studios new Stage 1 and 4
 Stark Studios
 Swaziland Broadcasting Studios
 Swaziland Broadcasting Corporation
 Downtown Studios
 Classic FM SA Radio Studios
 Primedia Studios Johannesburg
 Radio Algoa On Air Studios
 The Refinery Video/Audio
 YFM Rosebank Studio complex
 Universal Music Studios (EMI)

Mechanical Noise Mitigation Design

Absa Towers West, Johannesburg
 Anglo Platinum, Rustenburg
 Discovery Fun Factory HVAC, Sandton
 FNB Menlyn Corner, Pretoria
 Green Park Towers HVAC, Morningside
 IS Data Centre, Randburg
 JSE Data Room, Sandton
 Sci-Bono Laboratory and Lecture Venue, Johannesburg

Stadiums

Loftus Versfeld Stadium Acoustics and Audio/visual
 Systems upgrade to meet FIFA 2010 requirements

Vodacom Florida, Bronberg and Midrand
 Wilde-at-Heart: Wonderland and Greenhouse
 World Bank
 Zurich Reinsurance, JHB CBD

Places of Worship

Apostolic Faith Mission, Botswana
 Bet David, Johannesburg
 CSI Johannesburg North
 CSI Kyalami Castle
 CRC Johannesburg
 Bethesda Church, Pretoria
 Christian Family Church, Boksburg
 Church on the Hill, Nelspruit
 Delta Church, Moreleta Park
 God First: City Green
 Gracepoint Church
 Eastside Community Church, Pretoria
 Great Park Synagogue
 NG Studentgemeente
 Real Life Church
 Rivers Church, Morningside
 Rosebank Union Church
 St Dunstan's Church
 Universal Church Kingdom of God, Parkstation

Green Star Surveys and Assessments

ABSA Towers West, Johannesburg
 BCX Head Office
 Centurion Square
 DSTV Randburg
 Green Building Council Head office Cape Town
 Hyundai Head Office
 Illovo Phase 3
 KMPG Campus, Johannesburg
 Nedcor Phase 2 building, Sandton
 SASOL Corporate offices
 Upbeat Properties 101 - Total
 Villa Mall, Pretoria
 Vodafone SSIC