

NAREIM

National Association
of Real Estate Investment Managers



2015 | A&E ARCHITECTURAL & ENGINEERING

“Success is a collection
of problems solved.”

- I. M. Pei

NAREIM ARCHITECTURAL & ENGINEERING

MIT Center for Real Estate
77 Massachusetts Avenue
Samuel Tak Lee Building
Cambridge, MA 02139
October 19th-21st, 2015

The problems we need to solve in the years ahead are considerable. Changing demographics, technology, and culture are demanding more of the built environment than ever before, while environmental change is introducing new and uncertain risks. And yet, every one of these problems can and will be solved if we are able to think through them, challenge our assumptions, and find new ways to build, work, and live.

Welcome to the discussion.



NAREIM

National Association
of Real Estate Investment Managers

410 North Michigan Avenue, Suite 330
Chicago, Illinois 60611

312.884.5182
www.nareim.org



Agenda

2015 NAREIM Architectural & Engineering Meeting
Massachusetts Institute of Technology
Cambridge, MA

DAY ONE

1

**Monday,
October 19th**

6:30 PM
Cocktails and Hors D'oeuvres
R&D Pub & Commons
Strata Center, 4th Floor
32 Vassar Street, 32-G410
Cambridge, MA 02130



The Ray and Maria Stata Center for Computer, Information and Intelligence Science Sciences is built on the site of MIT's legendary Building 20, a "temporary" timber-framed building constructed during World War II that served as a breeding ground for many of the great ideas that were born at MIT. Strata designed by renowned architect Frank O. Gehry, is meant to carry on Building 20's innovative and serendipitous spirit, and to foster interaction and collaboration across many disciplines.

The building is home to the Computer Science and Artificial Intelligence Laboratory (CSAIL), the Laboratory for Information and Decision Systems (LIDS) and the Department of Linguistics and Philosophy. Its striking design – featuring tilting towers, many-angled walls and whimsical shapes – challenges much of the conventional wisdom of laboratory and campus building.

When the building opened in 2004, Pulitzer Prize-winning critic Robert Campbell wrote in the Boston Globe that the building is "a work of architecture that embodies serious thinking about how people live and work, and at the same time shouts the joy of invention."

As the home to many of the robotics labs – it ironically also happens to look like robots happily dancing.

7:30 PM
Dinner at Your Leisure

DAY TWO

2

**Tuesday,
October 20th**

7:30 AM
Breakfast – Conference Room 9-357

9:00 AM
Welcoming Remarks
Gunnar Branson, NAREIM President

9:10 AM
Sustainability Update: The evolving world of Certifications, Benchmarking, Reporting, and Performance Metrics

Sustainability Certifications:

- Certifications: What are the most appropriate Sustainability Certification programs for each property type?
- New construction vs. existing buildings?
- Why are some certification platforms more appropriate than others for differing product types?
- Degree of difficulty/challenges in certification?
- Fee comparisons?

Ten Years in: Looking Backward/Looking Forward:

- How has the Real Estate Industry changed over the last 8-10 years with respect to Sustainability?
- Winners/losers and why?
- Benchmarking: how best to track real performance data?
- Changes in Energy Star, LEED, Green Globes, ASHRAE Level 1-3 Energy Audits, GRESB, etc.
- The rapidly changing regulatory environment
- Looking Forward, where best to focus our time and attention?

Leaders:

Chris Wilson, LaSalle Investment Management
George Katsekas, Northwestern Mutual

Experts:

Sara Greenwood, Greenwood Consulting Group
Barry Abramson, Servidyne



DAY TWO

2

**Tuesday,
October 20th**

10:30 AM

Break

10:45 AM

Environmental Risk on Equity Acquisitions; Vapor Intrusion and Interior Building Application Risks

Leader:

Brian Bennett, Northwestern Mutual

Experts:

Jeanne Tarvin, Ramboll Environ

Sean Bezark, Greenberg Traurig

11:30 AM

The Special Challenges of Increased

Urban Migration: As people are moving back to the city centers, the special challenges of building on brownfields or near brownfields – how should we handle the environmental risks?

Leader:

Siri Long, Principal

Experts:

John Fernandez, Director of Building Technology

Neal Holdridge, Trammel Crow

12:15 PM

Lunch – Conference Room 9-357

1:15 PM

Trends and Issues in Multifamily Finishes

The boom in multi-family construction seems to be never ending. High-rises, wraps, podiums and even some traditional garden style apartments comprise the majority of new development projects. Properties are looking to finishes and amenities to distinguish themselves in hot competitive markets. Are developers making wise choices? Are you trying to influence developers with your vast knowledge of this real estate property type? Do you think finishes are just an interior designer's folly? Sean and Scott have been involved with the construction of thousands of apartments

DAY TWO

2

units and have seen it all. They will explore current trends including recent technological advances, historical failures, problems and pitfalls with delivery and installation, and capex impacts associated with the selection of various apartment finishes and high-tech devices.

Leader:

Jeff Fraulino, UBS Realty Investors

Experts:

Sean Flanagan, Alliance Residential Company

Scott Cooley, The Wolf Group

2:00 PM

Trends in Multi-Family Envelope Materials and

Construction: Assessing materials in to-be-built projects and where owners and investors need to focus.

Pre-Installation

- How to keep the outside out and the inside in
- What do properly detailed drawings look like?
- Specifications – who needs 'em?

In Existing Buildings

- How do you know if it is leaking?
- Which materials are the riskiest to install?
- The building official accepted it, it must be right...right?
- When do you do destructive testing?

Leaders:

Chris Wilson, LaSalle Investment Management

Jerry Speltz, Cornerstone Real Estate Advisers

Expert:

John Wolf, The Wolf Group



DAY TWO

2

Tuesday,
October 20th

3:00 PM

Break

3:15 PM

An afternoon with MIT – Exploring Innovation in Construction and Project Delivery

Leader:

John Kennedy, MIT Center for Real Estate

An introduction to the MIT Nano Construction Project – the most advanced research laboratory in the world

“Because nanoscience and nanotechnology are omnipresent in innovation today, a state-of-the-art nano facility is the highest priority for MIT, the School of Science, and the School of Engineering”
– Rafael Reif, MIT President

The MIT nano facility will combine the Institute’s nanotechnology, materials, and engineering systems research with the most advanced fabrication tools and materials processing capabilities. Under a single roof, MIT faculty and students will distinguish and manipulate materials at the atomic scale, create novel and innovative devices, and develop ways to implement those devices within larger systems.

<http://capitalprojects.mit.edu/projects/mitnano-building-12>

Experts:

Travis Wanat, Senior Project Manager, MIT Capital Projects
Vladimir Bulovic, Associate Dean for Innovation, Fariborz Maseeh Professor of Emerging Technology and MacVicar Faculty Fellow

DAY TWO

2

4:30 PM

Innovative Project Delivery Challenges and Opportunities

Christopher Gordon is a Lecturer at the MIT Center for Real Estate and at the Harvard Business School, teaching and writing primarily on the leadership and management of complex capital projects, and serves as a consultant on projects worldwide. Chris will discuss the challenges and opportunities surrounding innovative contracting and award solutions. His stories will shed light on the lessons learned from the Logan International Airport – Logan Modernization Program – and integrating innovative project delivery in global complex capital projects.

Expert:

Chris Gordon, Lecturer, MIT Center for Real Estate, Department of Civil and Environmental Engineering, Harvard Business School

6:30 PM

Cocktails / Dinner - Umbria

Dinner Discussion:

“Sizing Up a New Developer Partner”

We all partner with developers to bring product to the market, and developers come in all shapes and sizes, just like the deals themselves. What attributes do we look at and look for? Where do some developers excel, while others fall down? What can we do, as institutional investors, to improve our chances of developing a better partnership and a better project?

Leaders:

Jim Kennedy, JP Morgan
Enrique Bellido, The Davis Companies



DAY THREE

3

Wednesday,
October 21st**7:30 AM**

Breakfast – Conference Room 9-357

8:30 AM**Changing Approach to Design and Building Information Management (“BIM”).**

- Where is design heading, including BIM, Integrated Project Delivery, and other approaches/tools?
- How GC’s and their subcontractors are using technology, including BIM to estimate, procure, design (shop drawings, submittals), build, and ultimately turn over to owners. Are GC’s and subcontractors driving the BIM bus? If so, why?
- Can BIM help facilities and property managers better do their jobs?
- What is the future of building design? Will there be a “killer app” that revolutionizes the industry?

Leader:

Robert Vroman, JP Morgan

Expert:

Spencer Howell, John Moriarty Associates
Mark Sardegna, Elkus Manfredi Architects
Charlie Dunn, Synchro Software

9:15 AM**Construction & Replacement Cost Estimates: Reconciling differences and improving accuracy**

- Why do Marshall & Swift estimates often differ from what we know are actual construction costs?
- Different estimates for different purposes - What should be included in cost estimates for construction budgets, cost approach appraisals, insurance replacement costs, etc.?
- Where do the base cost numbers come from and how do we know that they are accurate? (Marshall & Swift, RS Means, independent cost estimating firms, etc.)
- Why do we see discrepancies in cost estimates by different estimators?

DAY THREE

3

Leader:

Paul D’Alto, Metlife Real Estate Investors
Vincent Amendola, TIAA-CREF

Experts:

George Wilson, IVI
Ed Martinez, Marshall & Swift

10:15 AM

Break

10:30 AM**Incorporating Life-Cycle Cost, environmental impacts, and hazard resistance into building design**

This is a discussion about methods to incorporate life cycle considerations into the building design process. How do we quantify the life cycle cost and environmental benefits of energy efficient, durable, and resilient construction? What information and metrics can be used to support decisions early in the design process when the most impact can be achieved?

Leader:

Professor David Geltner, Associate Director of Research, Center for Real Estate, Professor of Real Estate Finance and Engineering Systems, Department of Urban Studies and Planning and Engineering Systems Department

Expert:

Dr. Jeremy Gregory, Executive Director, Concrete Sustainability Hub



DAY THREE

3

**Wednesday,
October 21st****11:15 AM****Leveraging Science and Developing Innovation:
Education, Research and Global Outreach in Real
Estate Development**

The Center for Real Estate educates the next generation of leaders in real estate development and asset management. The MIT motto is “Mens et Manus” – “Mind and Hand”, which signals that our role is to engage directly with global leadership to create solutions in real estate.

This conversation is about what the Center for Real Estate does to innovate within real estate education and research and how together with NAREIM’s body of architects and engineers we can understand challenges and opportunities to deliver better solutions.

Experts:

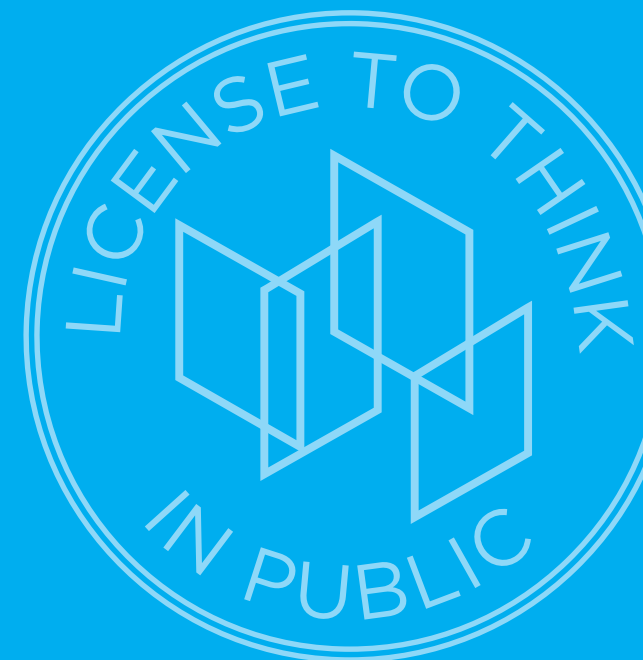
Professor Albert Saiz, Director for the Center for Real Estate, Daniel Rose Associate Professor of Urban Economics and Real Estate

Dr. Andrea Chegut, Research Associate, Center for Real Estate

Steve Weikal, Head of Industry Relations, Center for Real Estate

Charles Steelman, MSRED Degree Candidate

AJ Edwards, MSRED Degree Candidate

12:00 PM**Meeting Summary & Final Thoughts**



FEATURED SPEAKERS



Barry Abramson
Servidyne

Principal

Barry Abramson has devoted his professional life to improving the energy efficiency, environmental impact and economic performance of buildings. As Principal of Servidyne, a consulting firm based in Atlanta, Georgia, he has provided energy and sustainability consulting services throughout the country for over 30 years. He is a member of the ASHRAE committee developing the Standard for Commercial Building Energy Audits. He has led Servidyne's longstanding partnership with ENERGY STAR®, achieving Partner of the Year recognition 13 times; and he is the company's liaison with the US Green Building Council, achieving LEED Proven Provider® status. Barry graduated Phi Beta Kappa with a degree in Energy and Environmental Engineering from Stanford University. He is a Registered Professional Engineer in 15 states, a LEED Accredited Professional, and an ASHRAE Building Energy Assessment Professional.



Gunnar Branson
NAREIM

President & CEO

Mr. Branson is the President & CEO of the National Association of Real Estate Investment Managers (NAREIM), an association of companies engaged in the real estate investment management business in the United States. Before joining NAREIM in 2011, Mr. Branson worked for over 25 years in commercial real estate, professional services sales, product innovation and marketing. He has transformed businesses and accelerated growth as a leader, strategist, business developer and innovator. In addition to holding leadership roles at companies such as GE Capital Real Estate and Heller Financial, as a consultant he worked with companies such as Jones Lang LaSalle, Wells Fargo and Fidelity to develop new markets and new products. His consulting practice centered on change acceleration and practical innovation.



Sean Bezark
Greenberg Traurig

Shareholder

Sean W. Bezark is a Shareholder in Greenberg Traurig LLP's Chicago office. Sean primarily focuses his practice on environmental matters for public corporations, privately held companies, banks, lenders, managers, REITs and private equity investment funds. He advises clients on environmental aspects of corporate and real estate transactions, bankruptcy cases, portfolio management, environmental investigations and remediation projects, brownfields development, insurance procurement and risk and cost allocations. He also counsels clients on legal and technical aspects of complex contamination remediation projects and in obtaining reimbursement from insurance companies, indemnitors, real estate and corporate predecessors and third parties. Sean's experience also includes negotiating settlement of all types of environmental claims and civil and criminal complaints brought by federal, state and municipal governmental agencies, and various private party environmental claims and demands.



Vladimir Bulović
MIT School
of Engineering

Associate Dean for Innovation

Vladimir Bulović is the Associate Dean for Innovation in MIT's School of Engineering. He is a Professor of Electrical Engineering at MIT, holding the Fariborz Maseeh Chair in Emerging Technology, leading the Organic and Nanostructured Electronics laboratory, co-leading the MIT Innovation Initiative and co-directing the MIT-ENI Solar Frontiers Center. Bulović's research interests include studies of physical properties of organic and organic/inorganic nanocrystal composite thin films and structures, and development of novel nanostructured optoelectronic devices. He is an author of over 150 research articles (cited over 20,000 times) and an inventor of over 70 U.S. patents in areas of light emitting diodes, lasers, photovoltaics, photodetectors, chemical sensors, programmable memories, and micro-electro machines, majority of which have been licensed and utilized by both start-up and multinational companies.

He is a founder of QD Vision, Inc., Kateeva, Inc., and Ubiquitous Energy, Inc. Bulović received his Ph.D. from Princeton University, where his academic work and patents contributed to the launch of the Universal Display Corporation and the Global Photonics Energy Corporation.

He is a recipient of the U.S. Presidential Early Career Award for Scientist and Engineers, the National Science Foundation Career Award, the Ruth and Joel Spira Award, Eta Kappa Nu Honor Society Award, and the Bose Award for Distinguished Teaching. Bulović is recognized as an authority in the field of applied nanotechnology. From MIT, he has received numerous distinguished teaching fellowships and awards.



Scott Cooley
The Wolf Group

Principal

Scott Cooley is a principal of The Wolf Group and has over 30 years of experience in architecture and construction management in Florida. Mr. Cooley's experience includes project management of large complex multiuse facilities in Florida, project management for the expansion of a retail chain based in Central Florida, as well as project management for the expansion of a large restaurant chain throughout the U.S.

Mr. Cooley is involved in all aspects of project management at The Wolf Group with a special emphasis on management of architects and contractors for Build-To-Suit clients. He has performed investigations on many stucco clad multi-family/condominium projects in Florida as well as in Texas and Georgia which were experiencing signs of failure. He has also performed owner's representative services and project management services for a number of stucco re-cladding projects as well as new construction. In addition, he has performed pre-acquisition due diligence on numerous multi-family communities, hotels, and retail centers.



Andrea Chegut
MIT Center
for Real Estate

Postdoctoral Research Associate

Dr. Andrea Chegut is a Postdoctoral Research Associate at the MIT Center for Real Estate. Andrea's research agenda focuses on the economic outcomes of innovation in real estate; applying the system of innovation to the built environment. In particular, Andrea identifies innovative products in commercial real estate markets. Products in her portfolio range from green buildings and data centers to urban food farms and micro-apartments. Her focus is on the asset pricing, uptake and diffusion of new products in commercial real estate markets. In addition, Andrea works and publishes on the development of global property price indices and dynamic urban economics issues in real estate development. Andrea holds BA in Philosophy and a BS in Economics, a Masters in Economics and Law and a PhD in Finance.



Charlie Dunn
Synchro Software

Charlie tells a good story. From cash rich development on the Las Vegas strip, to oil fueled development in Edmonton, Alberta, to energy plant development throughout the Southeast, he thrives in the challenging delivery gap between “as is” conditions and the “to be” designed state. His career highlights include the on-site project management of over 2.5 million square feet of new distribution space across North America with zero recordable injuries, and recent WANO (World Association of Nuclear Operators) recognition for the use of 4D technology in project delivery.



John E. Fernández
MIT SA+P

Director of Building Technology

John E. Fernández is an architect in private practice, Full Professor and Director of the Building Technology Program in the Department of Architecture at the Massachusetts Institute of Technology. He is Director of the Urban Metabolism Group, a highly multidisciplinary research group focused on the resource intensity of cities and design and technology pathways for future urbanization. He is also co-Director of the International Design Center at MIT, a large internationally funded center for design studies across engineering and architecture. He is author of two books, numerous articles in scientific and design journals and a frequently invited speaker at conferences and symposia worldwide.



Alden Edwards
MIT Center
for Real Estate

MSRED Candidate

Alden R. (A.J.) Edwards, Jr. is a Masters student at MIT’s Center for Real Estate. Prior to MIT, A.J. founded a single-family homebuilding and development company in 2008 that he recently sold. This past summer he worked for Ackman-Ziff, a real estate capital advisory firm, in New York City. While completing his studies at MIT this semester, he is serving as a Teaching Assistant for Professor David Geltner’s Real Estate Finance and Investments class. A.J. is originally from Huntsville, AL and he holds a B.S. in Biology from Samford University.



Sean Flanagan
Alliance Residential

Managing Director

Sean Flanagan serves as Managing Director of Development for Alliance Residential’s North Florida Division. His responsibilities include overseeing the sourcing and development of new projects as well as the management of existing assets. He recently completed two new mid-rise communities in the Tampa and St. Petersburg markets, totaling over 600 apartments. Sean brings seventeen years of experience in the construction and development of 20 multifamily projects with over 4,500 apartment homes in assets ranging from garden style to mid-rise and high-rise mix-used buildings. In addition, Sean has nine years of experience working with national homebuilders as a Project Manager and Director of Construction. Prior to joining Alliance, some of Sean’s notable accomplishments include serving as Vice President of Development and Construction for Mill Creek Residential, Imploding Orlando’s Amway Arena, Vice President of Development for The Morgan Group. He began his multifamily career with Pritzker Residential.



Dennis Frenchman
MIT, Urban Planning

Leventhal Professor of Urban Design and Planning

Dennis Frenchman is the Leventhal Professor of Urban Design and Planning at MIT, where he is Associate Dean and Development and chair of the Masters in City Planning program. He has taught and practiced extensively in Asia, Europe, and South America and served as External Advisor on urban livability to the President of the World Bank. A registered architect, he is also founding principal of ICON architecture in Boston.

Frenchman's practice and research focuses on the transformation of cities. He has designed large-scale technology driven developments including the Innovation District, Medellin, Columbia; Seoul Digital Media City in Korea; the Digital Mile in Zaragoza, Spain; and Media City: UK and is currently planning the Digital Creative City in Mexico. He has a particular interest in the redevelopment of industrial sites. Currently, he is leading an MIT research effort to develop new models for clean energy urbanization in China, sponsored by the Energy Foundation.



Chris Gordon
MIT Center
for Real Estate

Lecturer

Chris Gordon has been a lecturer at MIT's Center for Real Estate for over 20 years. He teaches a course on Innovative Project Delivery in the Public & Private Sectors in our MSRED program. As a practitioner, Chris serves as an advisor and manager on complex capital projects worldwide. He works in a hands-on capacity to establish the project strategies, project team, and management process, and then often monitors and/or leads the project. Prior to the establishment of his consulting practice, he served as the Chief Operating Officer for the Allston Development Group, the real estate development arm of Harvard University, from 2005 to 2010. Chris has served as a board member of the National Research Council's Board on Infrastructure and the Built Environment, a trustee of the Engineering Center Education Trust, a corresponding editor of the American Society of Civil Engineers Engineering Management Journal, and has been a speaker at numerous conferences.



David Geltner
MIT, Urban Studies

Professor of Real Estate Finance

David Geltner is Professor of Real Estate Finance in the MIT Department of Urban Studies with a joint appointment in Engineering Systems. He is the lead author of the most widely-cited real estate investments textbook ("Commercial Real Estate Analysis & Investments"). Recipient of the prestigious Graaskamp Award for excellence and influence in real estate investment research awarded by the Pension Real Estate Association, Geltner has served as Academic Advisor to NCREIF, and as Director of MIT's Commercial Real Estate Data Laboratory which has pioneered commercial property price indices.



Sara Greenwood
Greenwood
Consulting Group

Principal

Ms. Greenwood is a sustainability consultant with over 14 years of experience with insight into emerging green building practices and technologies. She has guided project teams through sustainable program development and management for all types including multifamily residential, commercial offices, retail, higher education facilities, hotel, industrial, and government buildings.

She has supported USGBC National to inform updates to the past two versions of the LEED rating system, participated on the Steering Committee, served as one of a few LEED project reviewers for the Green Building Certification Institute and serves on the board of her local Chapter. She also has demonstrated experience with other green building certification programs including Green Globes, ENERGY STAR, NAHB and the Collaborative for High Performance Schools. Ms. Greenwood has also provided climate consulting services to clients in the corporate, institutional, and municipal sectors by engaging in a comprehensive greenhouse gas (GHG) inventory to develop a roadmap toward emissions reductions and climate commitment goals. Her experience assisting cities with climate action plans and energy efficiency and conservation strategies has put Ms. Greenwood at the forefront of implementing federal and state legislation.



Jeremy Gregory
MIT – Department of
Civil and Environmental
Engineering

**Executive Director Concrete
Sustainability Hub, Research Scientist**

Jeremy Gregory is a research scientist in the Department of Civil and Environmental Engineering and the Executive Director of the Concrete Sustainability Hub at the Massachusetts Institute of Technology. He studies the economic and environmental implications of engineering and system design decisions, particularly in the area of materials production and recovery systems. Research topics include product and firm environmental footprinting, manufacturing and life cycle cost analysis, and characterization of sustainable material systems. Jeremy has applied these methods, often with industry partners, to a range of different products and industries including pavements, buildings, automobiles, electronics, consumer goods, and waste treatment and recovery. He received his PhD and MS from MIT and BS from Montana State University-Bozeman, all in mechanical engineering.



Neal Holdridge
Trammel Crow Company

Principal – Environmental Manager

As a Principal and Environmental Manager, Neal Holdridge is an authority on the management of environmental issues pertinent to real estate transactions and property management. He is a Certified Hazardous Materials Manager at the Master level. Neal has been an integral participant in the development of more than \$2 billion in commercial real estate. His systematic and detailed approach to mitigating contingent liability and construction risks has led to the redevelopment of several dozen environmentally distressed Brownfield properties. Neal also works with other TCC offices and clients to evaluate environmentally distressed real estate in the national marketplace, and serves as the environmental resource to the Company's Investment Committee.

Neal manages Environmental Asset Services, Inc., (a Trammell Crow Co. subsidiary), which oversees a nationwide inspection program involving over 100 million square feet of industrial property and more than 1200 tenants located in 28 major cities across the country. Neal's group also provides specialized project expertise to owners, asset managers, and lenders in managing environmental investigation and remediation projects, indoor air quality issues, asbestos, mold and lead-based paint abatements.

Spencer Howell

John Moriarty
Associates

BIM Coordination Manager

A JMA employee since 2002, Spencer is currently a BIM Coordination Manager overseeing several junior coordinators on projects ranging from high rise condominiums and apartments to laboratory buildings. He is responsible for the pre-coordinating all mechanical trades using AutoCAD and Revit Software, organizing weekly meetings with mechanical subcontractors to resolve conflicts between trades, consulting with architects and engineers, pre-coordinating field installation sequences of mechanical systems and overseeing start-up and commissioning activities on projects. He is a graduate of Mercyhurst College and a LEED Accredited Professional (BD+C).



John Kennedy
MIT Center
of Real Estate

John Kennedy has been a Lecturer at MIT since 1994, currently at the Center for Real Estate and previously at the Center for Construction Research and Engineering. At MIT he has taught Entrepreneurship and Strategic Planning for the Design, Build, and Real Estate Development segments of the built environment. As Principal Partner of Kennedy Ventures LLC, a venture company, John works with companies within the built environment to unlock latent business or real estate development opportunities. Previously, John was the founder and President of Kennedy & Rossi, Inc., a design build firm, as well as other businesses within the built environment.

He has served on the boards of various charitable, university, and non-profit organizations, including Life Resources Inc., Mount Saint Joseph's Academy, Merrimack College Trustee and Real Estate Committee, Epiphany School, The Boston Foundation for Architecture, Lupus Foundation, and the Friends of KwaZulu Natal South Africa.

John holds a M.S. from MIT and a B.S. in Civil Engineering from Merrimack College.



Albert Saiz
MIT Center
for Real Estate

Director, Center for Real Estate

Professor Albert Saiz is the Daniel Rose Associate Professor of Urban Economics and Real Estate at the Massachusetts Institute of Technology, and the Director of the MIT Center for Real Estate. Professor Saiz also serves as the Director of MIT's Urban Economics Lab. He conducts research and teaching in both the urban planning and real estate programs.

Saiz currently serves as a Visiting Scholar at the Federal Reserve Bank of Philadelphia; a Research Fellow at the Institute for the Analysis of Labor (IZA – Bonn, Germany); a Board Member at the American Real Estate and Urban Economics Association, and as a Research Advisor for Buildzoom.com. He is also an Editor of *the Journal of Housing Economics*. He holds a BA and an MA in economics from Universitat Autònoma de Barcelona (1995 and 1997, respectively) and a PhD in economics from Harvard.



Mark D Sardegna
Elkus Manfredi
Architects

Vice President

Mark Sardegna is a Vice President of Elkus Manfredi Architects with more than 25 years of professional experience in the design and management of highly complex mixed-use urban projects. He has worked extensively on projects in Boston and Cambridge. He has led the design team for the project known today as Six Ten Main Street; and guided its siting, design, and the fit-out for Pfizer within the two-building, 554,000-square-foot campus. Mark is currently the senior project manager for the urban planning and design at Boston Landing, a multi-building campus that will include the world headquarters for New Balance, the new Boston Bruins practice facility, a world-class track and training center, three additional office buildings, and a 175-room hotel. He is also overseeing the strategic repositioning and renovation to Landmark Center, in Boston's Fenway neighborhood. Previously, Mark was the senior project manager for the global headquarters of Vertex Pharmaceuticals, a new one-million-square-foot office and research facility in the heart of Boston's Innovation District.



Jeanne Tarvin,
PG, CPG
Ramboll Environ

Principal Hydrogeologist

Jeanne Tarvin is a Principal Hydrogeologist in Ramboll Environ's Milwaukee, Wisconsin office. Ms. Tarvin is a registered Professional Geologist and Certified Professional Geologist (AIPG) and has over 30 years of consulting experience in complex environmental due diligence and compliance projects, and investigation and remediation of contaminated sites. Her project experience includes directing and managing mergers & acquisition and transactional environmental due diligence, hydrogeological studies, remedial investigations, landfill studies, feasibility studies, remedial designs and remedial actions under CERCLA, RCRA, TSCA and state-led programs. Jeanne performs litigation support and expert witness testimony on environmental investigation and remediation projects, with a focus on chlorinated solvent fate and transport.



Charles Steelman
MIT Center
for Real Estate

MSRED candidate

Charles is a second year Masters student at MIT's Center for Real Estate. Prior to MIT, Charles spent five years with Studley in Washington, DC representing major office tenants in leases and purchase and sale transactions. His clients included Accenture, GSA, NPR, WilmerHale and The Washington Post. This summer, Charles worked for Lendlease in New York City updating and rewriting their development team's business plan, underwriting new site acquisitions and providing project management support for 281 5th Avenue - a \$500m, 60-story luxury condominium tower designed by Rafael Vinoly. At MIT, Charles serves as the Co-President of the Sloan Real Estate Club, Vice President of the Alumni Association of the Center for Real Estate (AACRE), Co-Chair of the upcoming 2016 MIT Case Competition, as well as Teaching Assistant for Professor David Geltner's Real Estate Finance and Investments class. He grew up in Washington, DC and holds a B.A. in Philosophy and Religion from New York University.



Travis Wanat
MIT – Department
of Facilities

Senior Project Manager, Capital Projects

Travis Wanat is the Senior Project Manager for Capital Projects at MIT. Part of his role is managing campus construction, tailoring work to the needs of faculty, students, and staff. In consultation with academic and administrative leaders, his role in campus construction is to identify goals and manage projects ranging from complete new buildings and major renewals of existing buildings to redesigns and renovations of labs, departments, and other complex spaces. Travis is part of the team currently overseeing a capital renewal effort that will improve the physical campus for years to come, and most prominently the MIT Nano Building 12 project.



Steve Weikal
MIT Center
for Real Estate

Head of Industry Relations

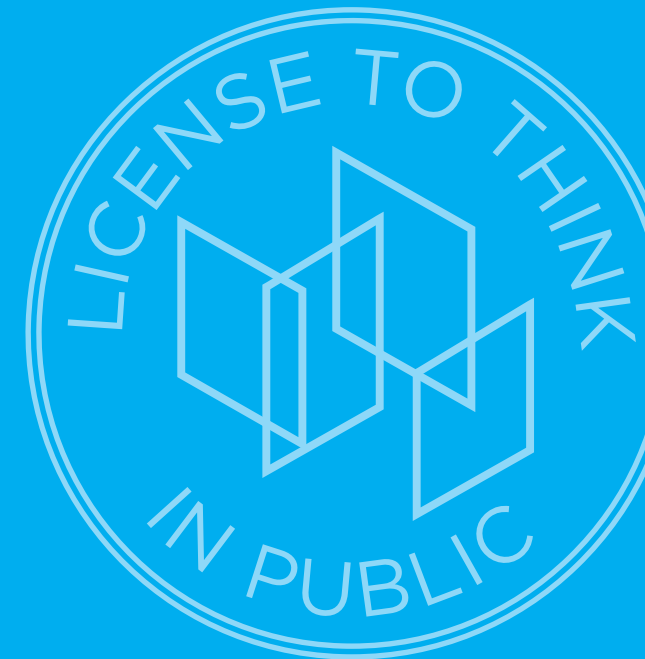
Steve Weikal is Head of Industry Relations at the MIT Center for Real Estate, responsible for managing relationships between the Center and its global network of industry partners and nearly 1000 alumni of MIT's Master's in Real Estate Development (MSRED) program in 43 countries. He is also a lecturer and researcher, focused on innovative new technology and business models that disrupt the traditional ways of developing, transacting and managing real estate. He is the founder of Real Disruption, a series of conferences discussing the impact of emerging technology on the real estate industry, and he sits on the advisory boards of two Boston-based real estate technology start-ups.

Steve holds a MSRED and MCP from MIT, and a law degree from Suffolk Law School. Prior to MIT, Steve was Vice President of NOW Communities, a Concord, MA based developer of new residential neighborhoods that merge the best of traditional design with 21st century energy technology.

John Wolf
The Wolf Group

Founding Principal

As the founding principal of The Wolf Group, John Wolf has over 25 years of experience in the construction industry including private practice as an architect in Minnesota, construction lending and real estate development. John's career includes private practice in Architecture as well as Director of Engineering and Construction Management for North America and Europe for Citigroup and Director of Design and Construction for a national retail REIT. In 2000 Mr. Wolf founded The Wolf Group and has seen it grow to serve clients all over the United States.





2015 NAREIM Architectural & Engineering Attendees' List

Last Name	First Name	Company	Title
Abramson	Barry	Servidyne	Principal
Amendola	Vincent	TIAA-CREF	Director, Engineering
Ballard	Scott	Invesco Real Estate	Engineering Director
Balch	Byron	Heitman	Senior Vice President Construction Services
Bauer	Gregory	ProLogis	SVP, Development
Bellido	Enrique	The Davis Companies	Senior Vice President of Development
Bennett	Brian	Northwestern Mutual	Director
Bezark	Sean	Greenberg Traurig	Partner
Black	Tom	The Habitat Company	SVP, Architecture & Project Management
Bloecher	Brad	Driehaus Enterprise Management	VP, Design Mgmt.
Branson	Gunnar	NAREIM	President & CEO
Bulovic	Vladimir	MIT, School of Engineering	Associate Dean for Innovation
Chandor	Chris	The Davis Companies	Vice President, Development & Asset Management
Chegut	Andrea	MIT Center for Real Estate	Postdoctoral Associate
Cooley	Scott	The Wolf Group	Principal
Cunningham	Drew	Columbia Property Trust	SVP, RE Operations
Czaja	Mary	UBS Realty Investors LLC	Project Manager – Engineer / Director
Dunn	Charlie	Synchro Software	Managing Director, Global Operations
Easley	Tandy	AIG Global Real Estate Investment Corp	SVP, Construction Svices

continued

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2015 NAREIM Architectural & Engineering Attendees' List

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Flanagan	Sean	Alliance Residential Company	Managing Director
Fraulino	Jeff	UBS Realty Investors	Executive Director
Frenchman	Dennis	MIT, School of Architecture and Planning	Associate Dean of Architecture and Planning
Geltner	David	MIT, Department of Urban Studies & Planning	Professor of Real Estate & Finance, Dir. Of Research, CRE
Gordon	Chris	MIT Center for Real Estate	Lecturer
Greenwood	Sara	The Greenwood Consulting Group	Principal
Gregory	Jeremy	MIT, Department of Civil & Env't. Engineering	Executive Director, Concrete Sustainability Hub
Harrison	Steve	Parmenter Realty Partners	Senior Vice President
Holdridge	Neal	Trammel Crow Company	Principal, Environmental Manager
Hildal	Rick	Eagle Realty Group	Director, Construction Management
Howell	Spencer	John Moriarty Associates	BIM Coordination Manager
Johnson	Sharon	American Realty Capital Properties	Director, Risk Management
Katsekas	George	Northwestern Mutual	Senior Architect
Kennedy	James	JP Morgan	Managing Director
Kennedy	John	Center for Real Estate	Lecturer

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2015 NAREIM Architectural & Engineering Attendees' List

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Kraft	Alon	Lowe Enterprises Investors	Vice President
Leusink	John	Principal Real Estate Investors	Director
Leverett	Dan	PM Realty Group	EVP, Managing Director, Development
Long	Siri	Principal Real Estate Investors	Director – Engineering Services
May	John	Morguard Investments Limited	Director Risk Manager and Insurance
Martinez	Edward	Marshall & Swift/CoreLogic	Training Manager
Mckinstry	William	TIAA-CREF	Head of Engineering
Riker	Howard	Hines	Vice President
Peace	Joe	AEW Capital Management, L.P.	Architectural Consultant
Peck	Anne	AEW Capital Management, L.P.	Vice President
Poltrok	Susanne	Morguard Investments Limited	Manager, Environmental Affairs
Rainey	Jerry	Principal Real Estate Investors	Director – Architecture & Engineering
Ridley	David	JPMorgan Asset Management	Vice President
Saiz	Albert	MIT, Department of Urban Studies & Planning	Associate Professor
Sardegna	Mark	Elkus Manfredi Architects	Vice President
Sovereign	Thomas	Deutsche Asset and Wealth Management	National Engineering Operations & Sustainability Manager
Steelman	Charles	MIT Center for Real Estate	MSRED'16
Tarvin	Jeanne	Ramboll Environ	Principal
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2015 NAREIM Architectural & Engineering Attendees' List

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Wanat	Travis	MIT, Facilities – Campus Construction	Senior Project Manager
Weikal	Steve	NOW Communities	VP, Sales and Marketing
Wilson	George	IVI Assessment Services	Managing Director
Wilson	Christopher	LaSalle Investment Management	Managing Director
Wolf	John	The Wolf Group	Founding Principal

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2015 NAREIM Architectural & Engineering Leaders

Chris Wilson
LaSalle Investment Management

Brian Bennett
Northwestern Mutual

George Katsekos
Northwestern Mutual

Siri Long
Principal Real Estate Investors

Jerry Speltz
Cornerstone Real Estate Advisers

Jeff Fraulino
UBS Realty Investors

Robert Vroman
JP Morgan

Jim Kennedy
JP Morgan

Enrique Bellido
The Davis Companies

Paul D'Alto
MetLife Real Estate Investors

Vincent Amendola
TIAFF-CREF

NAREIM Board of Directors 2015–2016

Chair Patricia Gibson
Hunt Realty Investments, Inc

Vice-Chair Peter DiCorpo,
CBRE Global Investors

Treasurer Stanley Alterman
USAA Real Estate Company

Kathryn Campbell
MetLife Real Estate Investors

Scott Onufrey,
Kimco Realty

Ryan Krauch
Mesa West Capital

Kevin Smith
Prudential Real Estate Investors

Ed Casal
Aviva Investors

Amy Price
Bentall Kennedy

Christopher Merrill
Harrison Street Real Estate Capital

Jason Kern
LaSalle Investment Management

NAREIM Staff

Gunnar Branson,
President & CEO

Sally Van Der Bosch
Director, Administration & Meetings

Tony Reynes,
Northshore Digital Photography

Beth Moraitis
Scribe

NAREIM ANTITRUST POLICY GUIDELINES

NAREIM's Members often compete with each other. Federal and state antitrust laws prohibit anticompetitive actions, and penalties for violations are severe.

These Policy Guidelines supplement NAREIM's more comprehensive Antitrust Compliance Policy, which is accessible on NAREIM's website, www.nareim.org.

Members attending NAREIM meetings **may not discuss**, formally or informally, their specific business practices concerning fees (especially present or future fees) that they charge, or are intending to charge, to any specific customers or clients, including but not limited to: commission rates and the structuring of commissions; methods used to calculate asset management fees and fees charged for asset management; pricing methods and policies; sales promotions; incentives to customers; costs, or any other matter relating to or affecting prices charged, or to be charged, to specific customers or clients.

Additionally the following topics **may not be discussed** at NAREIM meetings:

1. Allocating business among real estate investment managers, rigging bids or fixing or capping offering prices for properties; stabilizing or reducing the prices Members will pay for third party services, or fixing, stabilizing or reducing the compensation of professionals employed by Members.
2. Controlling or limiting investments, restricting or allocating supply, dividing or otherwise allocating investments according to customers, territories or products, or specifying a "preferred" level of compensation, or compensation formula, that should be adopted by all industry participants.

Remember that mere participation in a discussion or even attendance at a NAREIM meeting where illegal topics are discussed can make you a conspirator in the illegal conduct even if you do not say a word, participate in the discussion, or agree with anything.

Illegal discussions can occur at NAREIM meetings, but also during informal conversations over cocktails or on the golf course. The same rules apply in these cases as well.

These Guidelines are designed to assist NAREIM's Members to avoid inadvertently creating antitrust risks while participating in NAREIM meetings and programs. Antitrust issues can be complex and violations have very serious consequences. These Guidelines are not intended to provide all the answers, nor do they define the outer limits of conduct that may be permissible under the antitrust laws. They are designed to help you recognize improper conduct and to know when to ask for legal advice. These Guidelines do not and cannot replace each NAREIM Member's decision making as to its own activities and the activities of its employees. Each Member must instead consult with its own legal counsel to obtain independent advice on these subjects.

