



National BIM Standard-United States®

an initiative of the National Institute of Building Sciences buildingSMARTalliance®

National BIM Standard - United States® Version 3

ACKNOWLEDGMENTS

This standard would not be possible without the commitment of the volunteers listed below. They developed the content, evaluated it, provided comments, resolved comments, voted to approve submissions and represented the entire architecture, engineering, construction, owner, operator (AECOO) facilities industry in reaching consensus on the best way to move the industry forward.

Instrumental to the development of the standard, has been the driving commitment of Deke Smith, FAIA who retired from the National Institute of Building Sciences in January 2015. Deke joined the Institute staff in 2007 and has held the position of Executive Director for the buildingSMART alliance® (Alliance) since the council's formation. Deke has served as a guiding force in the growth and development of National BIM Standard-United States®. Deke has represented the Institute and the Alliance to industry, presenting the many benefits of information technology, open interoperability standards and project delivery processes to improve the AECOO facilities industry. We wish Deke the best and offer our appreciation and thanks for his many years of leadership.

Institute Program Director Stephanie Stubbs, our copy editor, deserves a special thank you. Her skills were invaluable in all aspects of editing for getting the new standard in final form.

In Memory

During the past year the buildingSMART alliance® community lost two of its most fervent supporters.

Bob Smith - Robert "Bob" Smith Ph.D. was the consummate scholar as well as a gentle and accessible person. He was intellectually active and contributed to various knowledge communities and projects until the day that he passed. More importantly, as a giving and compassionate person he mentored others as an educator-impacting research skills and project counseling. He enjoyed an intellectually rigorous dialog on many topics within his expertise as well as learning new bodies of knowledge. As the scholar who retired as Professor Emeritus at California State University he continued his exploration and contribution to knowledge by bridging the academic and enterprise gaps between knowledge based systems and practical business solutions. As a member of buildingSMART alliance® (bSa) he was an active member of the NBIMS-US Project Committee contributing and applying his knowledge and insights on the Implementation Subcommittee for NBIMS-US™ V2 as well as the Terminology Subcommittee for NBIMS-US™ V3. He was the co-author and sponsor for the Building-Life Cycle BIM Ontology Project which was approved by the Alliance Executive Committee

Angela Lewis – Angela Lewis, an engineer at Facility Engineering Associates and an active member in a number of National Institute of Building Sciences programs, including the buildingSMART alliance®, Facility Maintenance and Operations Committee (FMOC) and National BIM Standard-United States® (NBIMS-US™) Vision 2021 Task Force, passed away November 3. She was 34. Lewis was a leading force in educating the public about the benefits of the Construction Operations Building information exchange (COBie).

Authors' Biography

Lisa Aguirre

Since 1996 Lisa has been a member of an architectural design team and began to practice BIM utilizing Revit in 2003. In 2009 Lisa joined Clark Construction and managed the BIM implementation on the \$745 million dollar San Antonio Military Medical Center (IDB) where she learned what a contractor requires from the BIM for effective coordination and implementation of advanced BIM processes. Lisa recently completed the BIM implementation on the \$513 million dollar California Health Care Facility (Design/Build) in Stockton, California which included COBie data collection and population of the Computerized Maintenance Management System that will eventually serve all of the prison facilities in California. Currently located in Clark's San Francisco office, Lisa is currently supporting BIM Implementation on a regional level she is supporting the Transbay "Salesforce" Tower, Golden State Warriors Arena, 150 Van Ness Apartments, the Office of the Chief Medical Examiner, and other pursuits in the San Francisco area as well as the VA Seattle Mental Health Research Center in Seattle, WA. Lisa also participates in the USACE/Industry BIM Consortium, and the Autodesk North American Construction Customer Council.

Chris Allen

Chris Allen is Senior Integrated Construction Manager at Mortenson Construction. Chris oversees virtual design and construction (VDC) development and implementation in the Seattle Operating Group. Chris also serves in design phase manager role- coordinating project client, design partners, trade partners, and general contractor, construction manager, design builder project objectives prior to construction. Chris has 15 years project management, VDC leadership, and design phase management experience. Chris earned his Bachelor of Science degree in construction management from the University of Nebraska - Lincoln in 1999.

Chimay Anumba

Chimay Anumba is a Fellow of the Royal Academy of Engineering (the United Kingdom's National Academy of Engineering). He holds a Ph.D. in Civil Engineering from the University of Leeds, UK; a higher doctorate – D.Sc. (Doctor of Science) - from Loughborough University, UK; and an Honorary Doctorate (Dr.h.c.) from Delft University of Technology in The Netherlands for outstanding scientific contributions to Building and Construction Engineering. His research interests are in the fields of advanced engineering informatics, concurrent engineering, knowledge management, distributed collaboration systems, and intelligent systems. He has over 450 scientific publications in these fields and his work has received support worth over \$150m from a variety of sources.. He is a Chartered/Professional Engineer and a Fellow of the following professional institutions: the American Society of Civil Engineers, The Institution of Civil Engineers, and The Institution of Structural Engineers.

Eric Baker

Eric Baker is the CAD Manager at Mason & Hanger. He has over 20 years of experience in the AE field and over 15 years using BIM technology. He helped implement BIM into the workflow at Mason & Hanger for various federal agencies including DoD and DoS, as well as private sector clients. He has helped DoD clients implement BIM into their processes. He helped the USAR program develop their BIM requirements. He has been a member of the USACE/Industry BIM and CIM Consortia since 2006 for the development of BIM and CIM Contract Requirements for civil and military projects. He earned his Associate of Science in Design from Eastern Kentucky University in 1993.

Jim Bedrick

Jim Bedrick, FAIA, LEED AP, is founder and principal of AEC Process Engineering. He is also Senior Industry Advisor for Strategic Building Innovation and Vice Chair of the Curriculum Board of the Vietnam National University's Institute of Virtual Design and Construction.

A registered architect, Mr. Bedrick holds degrees in Architecture and Electrical Engineering, and has over 30 years' experience in the AEC industry on all three sides of the owner/architect/contractor triad. He has practiced architecture, worked in the construction and facilities management division of a global technology company,

and led the development of Virtual Building and Integrated Project Delivery at Webcor Builders. Mr. Bedrick is active in many organizations working to advance collaborative tools and processes, including the American Institute of Architects, where he serves on the Contract Documents Committee and is a major contributor to Integrated Project Delivery, and the BIMForum, where he co-chairs the LOD Specifications committee.

Chris Bogen

Dr. Chris Bogen was the secretary of the NBIMS-US™ Version 3.0 Technical Subcommittee, and he is also a contributing author of the LCie and COBie specifications. Dr. Bogen was a computer scientist at the US Army Corps of Engineers, Engineer Research Development Center (ERDC) in Vicksburg, MS from 2004 – 2014. During the latter half of his career at ERDC, Dr. Bogen was instrumental in the development of COBie, LCie, COBie Lite XML, ProjNetSM technologies, open source COBie plugins for the BIMServer.org platform, the USACE COBie Toolkit (used for COBie Challenge events), and ERDC's Lifecycle for Mission-Ready Sustainable Facilities. Dr. Bogen is currently a Sr. Cyber Security Engineer at Fluor Federal Petroleum Operations (FFPO) in New Orleans, Louisiana, and outside of FFPO working hours continues to develop open source COBie software as an independent, free-lance consultant.

R. Mark Butler

Mark is looked on nationally as an expert on the subject of Building Information Modeling (BIM). Mark strives to insure that the industry has a comprehensive understanding and experience with BIM. Formally with HDR, Mark is now in private practice.

Mark has worked nationally with several Industry groups investigating BIM as well as with academic institutions, presenting BIM information to these and other groups. Mark represented HDR as an active participant in the industry Standards' work sponsored by the National Institute of Building Sciences (NIBS). This includes the United States-National CAD Standard® (NCS), the National BIM Standard–United States® (NBIMS-US™) and the buildingSMART alliance®.

Lars Bjørkhaug

Lars Bjørkhaug is the product manager at Catenda AS. Catenda develops on-line tools to simplify the use of buildingSMART standards in projects. He has practiced in the construction industry for many years, initially as a carpenter and later as a civil engineer, researcher and senior researcher at SINTEF Byggforsk. At SINTEF, his area of research was building process, information technology and buildingSMART. He has led several research and development projects under the buildingSMART umbrella. He has been heavily involved in the development of the IFC, IFD and IDM standards as well as other international standards since 1999. Lars is a Civil Engineer from Bergen Engineering University, and MSc from NTNU and Universidad do Porto in Portugal.

Greg Ceton

Greg Ceton has managed the development of the Construction Specifications Institute's (CSI) information standards and publications since November 2000. He has been directly involved in the creation and maintenance of *OmniClass*[™], *MasterFormat*[®], *UniFormat*[™], and the CSI Practice Guide series, among others, and has served as the director of CSI's technical publications department since July 2010.

Ceton's work has been recognized by awards from construction associations, among them a CSI President's Award and honorary membership in Construction Specifications Canada. He holds the Construction Documents Technologist (CDT) certificate and has a master's degree in library science from the University of Maryland, a law degree from the University of Florida, and has been a member of the Florida Bar since 1991.

Tim Chipman

Tim Chipman is President of Constructivity, a software company specializing in digital delivery of building information. He has been directly involved in the expansion and maintenance of worldwide software standards used in the building industry, including

Industry Foundation Classes (IFC), ISO 16739, and derivative efforts in North America and Europe. He has served as Deputy Leader of the group maintaining IFC at buildingSMART International.

Chipman co-founded Premise Systems in 1998, a building automation software company acquired by Motorola and Google, where he served as Distinguished Engineer. Chipman has a Construction Engineering degree from Iowa State University.

Peter Cholakis Pending

Walt Cichonski Pending

Hakon Clausen Pending

Lauren Collier With eight years of design experience, Lauren is a key member in SSOE's VDC Initiative. She influences BIM and new technology strategy development and improvements with operations, and develops and provides project guidance and training on innovative BIM processes. Her focus is on the use of technical tools for improved performance and quality in project execution. Her broad skill sets range from Revit, Navisworks, Bentley, Recap Laser Scanning integration, 3D Coordination, to data extraction and manipulation from models. Additionally, Lauren was the Design Technology Section Manager for a multi-discipline Revit team, before moving into a key initiative role.

Naila Crawford Naila Crawford is a certified Project Management Professional with a Master's degree in Construction Management, over ten years of experience in the architecture, engineering and construction industry, and extensive expertise in BIM and electronic project management and collaboration systems. During her tenure at KFA in 2008-2013, Crawford provided assistance to public agencies such as GSA in research and development of the GSA BIM Guide Series 08 for Facility Management, product research and evaluation of BIM server technology and development of automated BIM model compliance review capabilities. She assisted the National Institutes of Health in research and development of BIM implementation guidelines for facility management, including BIM processes, technologies, and training requirements. Crawford also participated in KFA's electronic project management and collaboration systems projects for the University of Chicago, the Illinois toll way, and the Public Building Commission of Chicago.

Ron Croke Ron Croke is the BIM Manager for HDR Inc.'s Washington office and has been with HDR for 29 years. He is a proud member of the USACE/Industry BIM Consortia, a contributing participant in the NCS since the creation of the NCS, a member of NBIMS-US™, NIBS and others.

Some of the more notable projects Ron has been the BIM leader of include the Fort Belvoir Community Hospital, National Institute of Standards and Technology Advanced Measurement Laboratory, Brookhaven National Laboratory Center for Functional Nanomaterials, Byrd Alzheimer's Institute, Fort Bliss Replacement Hospital, The Walter Reed National Military Medical center and many more.

Ron Dellaria Ron Dellaria, RA, CSI is the Chief Compliance Officer for Astorino, a full service AEC firm, and is responsible for all legal aspects of the Design and Construction businesses. Additionally, as the Principal-in-Charge of Building Information Modeling with over 40 years of building experience, he is keeping Astorino at the forefront of the BIM initiative nationally and internationally by providing valuable construction experience insight into the 3D, 4D, and 5D capabilities of this new standard of Integrated Project Delivery. Ron is a member of the AGC Legal SubForum Committee, an Issues Team Leader for the AGC ConsensusDocs Committee, as well

as a co-chair of the LOD Core Group. In this capacity, he was recognized by ENR as one of their top 25 Newsmakers for 2014.

Craig Dubler

Craig Dubler was a former graduate assistant and member of the CIC Research Group at Penn State. Upon completion of his Ph.D., Dr. Dubler transitioned to the Office of Physical Plant within Penn State as a Virtual Facilities Engineer and a course instructor for the Architectural Engineering Department. His specialties include the implementation of Building Information Modeling into facility operations and applying efficient information exchange procedures within an owner organization.

Bill East

Dr. Bill East founded Prairie Sky Consulting to help the AECOO community achieve repeatable benefits from creating and using structured building information. Dr. East was the inventor of COBie and creator of the Hands-On COBie Workshop. As NBIMS-US V3 Technical Subcommittee chair, Dr. East helped to create the framework for the life-cycle development and use of NBIMS-US standards. Dr. East retired from the Corps of Engineers, Engineer Research and Development Center in 2014 where he had been a serial innovator in construction management; developing project management and design quality tools in use in both public and private practice.

Dr. East has Civil Engineering degrees from Virginia Tech and University of Illinois at Urbana-Champaign. He is a Fellow of the American Society of Civil Engineers and an active participant in the International Council for Research and Innovation in Building and Construction (CIB). Dr. East was the recipient of the ASCE Public Civil Engineer of the Year award, Construction Specification Institute Innovation in Construction Information award, and the NIBS Member Award.

Jason Fairchild

Jason Fairchild is the leader of the CAD/BIM Community of Practice for Headquarters, US Army Corps of Engineers (USACE), serving as the lead professional with regard to integration of existing and emerging technologies associated with engineering and construction. He is responsible for BIM policy and guidance and has over twenty years of experience with the Corps, having proudly supported its Civil Works design construction mission for both the Vicksburg District and Mississippi Valley Division prior to joining Headquarters in 2011. Jason received his Bachelor of Science in Electrical Engineering from Mississippi State University in 1993 and is a licensed professional engineer in the state of Mississippi.

Kristine K. Fallon

Kristine K. Fallon, President of Kristine Fallon Associates, Inc. is a member of the buildingSMART alliance Board of Direction and a Fellow of the American Institute of Architects. She has been a pioneer in applying information technology to design, construction and facility management since the 1970's and a participant in the development of multiple industry standards. The firm, which she founded in 1993, provides IT consulting services, with specialization in BIM and project collaboration and management technologies. The firm's clients are primarily owners with large capital programs.

Bolawa Fadojutimi

Bolawa Fadojutimi is a certified Project Management Professional with a Masters in Project Management and over three years' experience in design and construction. While working with KFA during 2012-2014, Fadojutimi participated in two USACE/NIBS research projects related to the COBie Calculator and Ontologies for Electrical and Water Distribution Information Exchanges. He played an integral role in the KFA teams delivering electronic project management and collaboration systems training for the University of Chicago and training and support for the Illinois Tollway. For the Department of Veterans Affairs, Fadojutimi assisted in conversion of as-built 2D drawings to BIM for over 3.8 million SF of VA healthcare facilities in the Central Texas Region. Fadojutimi also assisted in developing minimum facility attributes using the COBie Guide as a template and identifying roles and responsibilities for BIM and COBie deliverables by the Architects, Engineers and Contractors on a multi-phase, mixed-use corporate campus development project.

- Robert A. Feldman** Feldman has over 20 years of diverse experience in application design, software development, programming, consulting and educational resources. He has over seven years BIM experience, is a member of the Autodesk Developer Network with development expertise in Revit Architecture and Navisworks, as well as expert in AutoCAD customization and databases. He has extensive experience documenting software requirements and testing software. Since starting at KFA in 2004, he developed encoding for property sets in open standard formats and identified software techniques and product deficiencies in exporting BIM information in standard formats for USACE, contributing to five CERL Technical Reports. Feldman authored two Autodesk Authorized Training courseware manuals and has developed and taught KFA's BIM training curricula. Feldman authored open-source, web-based software for the classification and management of digital assets for the Art Institute of Chicago, and automated 2D to BIM conversion for two VA projects requiring as-built 2D and BIM deliverables.
- Brian Filkins** Pending
- Johnny Fortune** Johnny Fortune is actively involved in standards development, participating in several national committees; the United States National CAD Standard Project Committee, the National BIM Standard-United States Project Committee, and the USACE/Industry BIM/CIM Consortium. Fortune serves as chair of the buildingSMART alliance® and is a member of the NBIMS-US Planning Committee and the NCS Steering Committee. He is also past chair of NCS BIM AdHoc Task which was responsible for developing the NCS BIM Implementation Guide for Version 6 of the NCS.
- Fortune currently is BIM Director at Bullock Tice Associates in Pensacola, Florida where he has led the complete transition from CAD to BIM production for the firm and directs the company's overall BIM strategies, standards, technology operations, and oversees BIM integration with external project team members. He has presented the topic of CAD and BIM workflow integration at several venues including; Autodesk University 2013 and 2014, National Institute of Building Sciences Building Innovation 2014 Conference & Expo, CSI chapter meetings, and various Society of American Military Engineer events.
- Shawn Foster** Shawn Foster is the commercial technology operations manager for Black and Veatch (www.bv.com), Energy Division. A structural and civil designer by experience, he has worked in progressing the use of design technologies throughout his career. For more than 25 years, he has been in the design, construction and operation industry, working within the large owner/operator, federal government and consulting engineering arenas.
- David Francis** Pending
- Brittany Giel** Brittany Giel is a Virtual Design and Construction (VDC) Engineer for the Whiting-Turner Contracting Company in Baltimore, MD, where she is responsible for the development of a company-wide training program used to educate project team members in VDC standard processes and software applications. She holds a Bachelor of Design in Interior Design, a Master of Science and Ph.D. in Construction Management as well as a minor in Information Systems and Operations Management from the University of Florida. She has authored more than 18 publications in various journals and conference proceedings on the subject of Building Information Modeling and various applications of technology in Construction and Operations.
- Shane Goodman** Shane Goodman is an Estimator within Preconstruction Services at DPR Construction. He has previously held positions at DPR as the East Coast Innovation Manager and a BIM Engineer. Shane is also a certified teacher in the Associated General Contractors of America's (AGC) BIM 101 Education Program. He is a

graduate of The Pennsylvania State University, where he was a former graduate research assistant to the Computer Integrate Construction (CIC) Research Program.

Danielle R. Gran

Danielle Gran has both a Master's and Bachelor's degree in Civil Engineering, and five years' experience applying information technology to design, construction, and facility management. Prior to joining KFA in 2013, Gran was a Research Civil Engineer at USACE CERL in Champaign, IL, where she worked on the design and implementation of the COBie Standard and COBie Challenge. She has contributed to several publications on the subject of BIM and development of [The COBie Guide](#). Gran has assisted KFA in developing BIM requirements and testing COBie validation software for the State of Tennessee Office of the State Architect. She has assisted Trammell Crowe in defining BIM and COBie requirements and developed a COBie execution plan for a mixed-use, multi-phased corporate campus development project. She also contributed to development of the COBie Calculator for USACE/NIBS, and served as project manager delivering as-built 2D and BIMs for the Department of Veterans Affairs.

Reijo Hanninen

Pending

Lisa Hansen

Lisa Hansen is a Technical Editor for the U.S. Army Corps of Engineers, Seattle District, supporting all their varied missions. She has 15 years' experience in technical editing for science and engineering organizations, in both private and public sectors, all of which are engaged in engineering and construction and also in environmental restoration. Her primary contribution when editing is finding the central message, which often has slid off to the side somewhere, and ensuring it gets the needed emphasis. Lisa has developed methods for targeted teaching of writing techniques to scientists and engineers. She has also had steady success in mentoring and developing new technical editors. Her B.A. is in education, and she was surprised to realize that education and technical writing are similar facets of enabling knowledge-sharing.

Lamar Henderson

Lamar Henderson NCARB CSI LEED-APT™ is an architect who has practiced as a sole proprietor, in a collective, as well as starting a design/build firm. He taught for ten years in the School of Architecture and Planning at the Catholic University of America as a Clinical Assistant Professor and charged with the introduction digital tools systems in the curriculum for the Center For The Design And Stewardship Of Catholic Properties.

He has been an active member in NIBS (National Institute of Building Science) contributing to the Facility Information Council, IAI (Internationals Alliance for Interoperability) IFC (Industrial Foundation Classes) projects. As a member of NIBS' buildingSMARTalliance® he has participated in the development of CAD Layering Guidelines and has been a Project Committee member of the National BIM Standard-United States® (NBIMS-US™) Versions 2 and 3. Currently he is chair of the NBIMS-US™ V3 Implementation Subcommittee and a member of the Terminology Subcommittee. Lamar and Bob Smith proposed a Building Life-Cycle/BIM Ontology Project approved by the buildingSMARTalliance®.

Kimberly Hurtado

Kimberly A. Hurtado, JD, CM-BIM, is the Managing Shareholder of Hurtado Zimmerman SC, Counselors at Law, and an Adjunct Professor of the Frank Lloyd Wright School of Architecture. Ms. Hurtado focuses her practice exclusively in the areas of construction, real property and public finance, including the resolution of complex construction litigation and alternative dispute resolution (ADR) matters. She is a Fellow of the American College of Construction Lawyers, has served on the Governing Committee of the American Bar Association Construction Forum and as Chair of the State Bar of Wisconsin Construction & Public Contract Law Section. She is Co-Chair of the Working Group preparing revisions to the Consensus DOCS BIM Addendum and is named in the International Who's Who of Construction Lawyers and Martindale-Hubbell's Bar Register of Preeminent Women Lawyers. Her firm was named in Acquisition International's Finance Awards as Construction Law

Firm of the Year- USA. She has served on the US Army Corps of Engineers/Industry BIM Consortium since its inception in 2007.

- Steve Hutsell** Steve Hutsell is the Chief of the Geospatial Section for the U.S. Army Corps of Engineers, Seattle District, which supports local, regional and national project requirements and initiatives through the innovative application and integration of geospatial data sources and tools such as CAD, BIM, Survey & Mapping, Civil Information Modeling (CIM), GIS and ProjectWise. He has over 25 years of experience with AEC and Geospatial technology implementation and support at the USACE Fort Worth, Europe and Seattle districts, and regional military installations. As a member of the Corps' BIM Community of Practice, Steve is honored to lead the USACE/Industry BIM and CIM Consortia since 2006 for the development of BIM and CIM Contract Requirements for civil and military projects. He earned his Bachelor of Science in Architectural Engineering from the University of Texas at Austin in 1985.
- Will Ikerd** Pending
- Rolf Jerving** Pending
- Murat Karakas** Pending
- Colleen Kasprzak** As a Senior Building Information Specialist for CASE, Colleen Kasprzak's expertise lies in the development and implementation of BIM strategies for owner organizations. She is responsible for helping owners determine appropriate information requirements prior to project turnover and integrating BIM technologies into facility operations. Prior to joining CASE, Colleen worked for Penn State Design Services as a BIM Implementation Strategist and was responsible for leading the department's initiatives in developing and implementing BIM processes into facilities management. Colleen earned both her Bachelor of Science in Architecture and Master of Science in Architectural Engineering from Pennsylvania State University. She most notably collaborated on the BIM Project Execution Planning Guide, a buildingSMART alliance® Project.
- Arto Kiviniemi** Pending
- Ole Kristian Kvarsvik** Pending
- Tuomas Laine** Pending
- Aaron Lawsen** Pending
- Kris Lengieza** Kristopher M. Lengieza earned his Civil engineering degree in 2004, from Lehigh University. In 2006, he joined The Weitz Company, a top ranked national builder and helped the VDC/BIM transformation at Weitz in South Florida. He quickly became a leader in VDC in south Florida and was recognized by both ENR and BD&C as one of the top 40 construction professionals under 40 (southeast and nationwide). He is now leading the VDC integration effort at Stiles Corporation in Ft. Lauderdale. He's been a speaker at several BIM Events including Ecobuild, buildingSMART alliance®, BIMForum, ACE Mentoring, AIA of Broward County and CASF. Kris believes that VDC is the future of construction and collaboration and it is rapidly changing the AEC industry. He is always willing to share his ideas and insight to help better the industry and the market
- Robert M. Leicht** Robert M. Leicht is a faculty member and graduate of the Department of Architectural Engineering at Penn State University. Before returning to Penn State, Robert served as the Virtual Building Operations Manager for DPR Construction's East Coast projects and offices. In this role Robert dedicated much of his time to the process of

integrating design, construction, and owner's efforts using BIM Platforms.

Thomas Liebich

Pending

Brian Lighthart

Brian Lighthart's career has spanned 40 years in contracting, building materials manufacturing, and architecture. He has been an active member and lead several chapter committees of the Construction Specifications Institute for over 20 years. He has been a licensed architect practicing in Oregon during that time. He holds a Construction Documents Technologist (CDT) certificate from CSI. His other interests include graphic, linguistic, and artistic communication.

Deborah L. Macpherson

Deborah L. Macpherson works in Specifications and Research for Cannon Design; she is also a Certified Construction Specifier (CCS) with the Construction Specification Institute (CSI) and President of the Northern Virginia Chapter. Deborah serves on the OmniClass Development Committee, including the Properties, and Facility and Space Types Working Groups; the National BIM Standard-United States (NBIMS-US) Planning Committee and Technical Subcommittee; the National Information Exchange Model (NIEM) Business Architecture Committee (NBAC); Project Director for the 501c 3 nonprofit organization Accuracy & Aesthetics; and the Advisory Board for Places & Spaces, Mapping Science.

Tammy McCuen

Tammy McCuen is an Assistant Professor of Construction Science at the University of Oklahoma. Her research and teaching focus is 1) BIM and the information exchange between members of integrated teams and 2) BIM as a tool to improve spatial skills for complex problem solving in the AEC industry. Tammy is the Workgroup leader for the "Quantification Process and Standards for Cost Estimating in BIM", a collaboration between the Association for the Advancement of Cost Engineering International (AACE-I), American Society of Professional Estimators (ASPE), and the Royal Institute of Chartered Surveyors (RICS). Tammy is a member of the buildingSMART alliance Board of Direction, NBIMS-US Project Committee, and AACE-I National BIM Committee Chair.

Brandon Meinert

Brandon Meinert is an Architectural/Structural Engineer Technologist with the U.S. Army Corps of Engineers – St. Louis District (MVS) - where he is responsible for developing preliminary and final details of the architectural & structural portions of Civil Works and Military Construction projects. He has 7 years with the USACE St. Louis District where he assists engineers in using CAD/BIM technology and assists in any CAD/BIM/Project Wise Management issues, as well as trains the design branch staff on current design & file management software.

David Merrifield

Pending

John Messner

John Messner is the Charles and Elinor Matts Professor of Architectural Engineering at The Pennsylvania State University and the Director of the Computer Integrated Construction (CIC) Research Program. Dr. Messner specializes in research related to the implementation of Building Information Modeling into the industry, as well as information visualization approaches to improve decision-making on projects. He is also the leader of the Building Energy Informatics task within the Consortium for Building Energy Innovation (CBEI).

Volker Mueller

Volker Mueller is Research Director for Computational Design in Bentley System's Applied Research group and Product Manager for the parametric design program Generative Components. He is an Associate Member of the American Institute of Architects, member of the Association for Computing Machinery, various associations for Computer Aided Architectural Design, and the National Institute of Building Sciences where he has volunteered on the United States-National CAD Standards® versions 4 and 5 and is member of the Project Committee of the National BIM Standard-United States® version 3 and has contributed to the work of

the Terminology Subcommittee. Mr. Mueller has presented papers and lectures, related to the topics of his research, at conferences and institutions worldwide and has conducted many workshops in his field.

Prior to joining Bentley he was Design Technology Manager at NBBJ developing BIM-based and parametric practices for ten years after having worked as software developer of the 3D modeling software formZ at Autodesk, Inc. From 1991 to 1993 he conducted post-graduate research at the Computer Graphics Research Center in Darmstadt. He earned a Dipl.-Ing. der Architektur from the TU Berlin in 1988 and as a Fulbright Grantee a Master of Architecture degree from the Ohio State University in 1990. In 2009 he was accredited as LEED AP and in 2013 as LEED AP BD+C.

Frode Mohus

Pending

Nicholas Nisbet

Pending

Mark E. Palmer

Mark E. Palmer is the leader of the Process Engineering Group of the Systems Integration Division of the Engineering Laboratory at the National Institute of Standards and Technology (NIST). Mr. Palmer conducts research on measurement science for advancing the integration of information, communication, sensing and automation technologies and work process optimization to improve engineering, manufacturing, and construction. Mr. Palmer is active in national and international standards development activities and numerous industry organizations. Mr. Palmer has led numerous national and international research projects on interdisciplinary collaboration, information modeling, interoperability, systems engineering and cross-industry data exchange standards and web standards. Prior to joining NIST, Mr. Palmer spent 14 years in the engineering and construction of commercial, industrial, and residential facilities. He received his Bachelor of Architecture degree from the University of Oregon. His Master of Science degree is from the Massachusetts Institute of Technology where he specialized in the integration of Technology CAD/CAR systems, knowledge systems, and quality Management principles.

Jan Reinhardt

Pending

Dan Russell

Dan Russell, CM-BIM, LEED AP started his career in 1987 using AutoCAD for concrete formwork design. Dan began work with Sundt Construction in 1994 as the formwork engineer for the Arizona Science Center and worked in many roles prior to being promoted to Director of Construction Technology in 2006. In this role he oversees the Virtual Design and Construction (VDC) efforts on all of Sundt's projects. Dan is a recognized national speaker on Building Information Modeling (BIM) and VDC, speaking at many AGC, AIA, FHWA and other industry functions as well as speaking at educational institutions. He is one of the primary authors of the "AGC Contractor's Guide to BIM" and helped develop the AGC BIM Education Program.

Chitwan Saluja

Chitwan Saluja is a Practice Technology Manager for Jacobs, and brings 5 years of experience in the construction industry. Her background is in development, implementation and management of technology environments for the design, construction and operation of large facility programs. Chitwan's primary responsibility is the implementation of Building Information Modeling during the lifecycle of the project. She has highly specialized experience in both project visualization and analysis, and web-enabled project delivery environments. She was also a former member of the Computer Integrated Construction (CIC) Research Program.

Richard See

Richard See is a licensed Architect in Washington State and practiced architecture in some of the leading design firms in the Pacific Northwest.

During the 1980's and 1990's, Richard was a pioneer in the development of BIM concepts and products, and eventually led the development of the Industry Foundation Classes (IFC), the basis for BIM interoperability today. He also led the

development of several products and technologies during his 14 year tenure at Autodesk, Visio and Microsoft.

Currently, Richard leads Digital Alchemy, a BIM products, services, and consulting company working with several government agencies and industry leading design, construction, and building owner/property management organizations. He is also MVD Coordinator for buildingSMART International, and has been Co-Chair of the Technical Committee for buildingSMART alliance® and Chairman of the BLIS Consortium.

Patrick C. Suermann

Lieutenant Colonel Suermann is a graduate of the U.S. Air Force Academy with a B.S. in Civil Engineering. After serving as a combat and stateside engineer, he earned his M.S. in Construction Management from Texas A&M University and subsequently taught computer courses for engineers in the Department of Civil and Environmental Engineering at the U.S. Air Force Academy. After successfully defending his dissertation and receiving his Ph.D. in Design, Construction, and Planning at the University of Florida in 2009 as the first ever Rinker Scholar, Suermann deployed to Afghanistan to oversee nearly \$1B in Air Force contingency construction. Later, he served as the BIM SME, MILCON PM/Transformation Action Officer at AFCEE (now AFCEC) in San Antonio, TX. He was the 821 Support Squadron Commander in Thule, Greenland before returning to teach at the Air Force Academy where he was promoted to Associate Professor in January, 2015. He is currently the Construction Division Chair for the four-division Department.

James Vandezande

James Vandezande, AIA is a principal at HOK and serves as Director of Design Technology for the firm. He determines the company's strategies and long-term goals for building information modeling as well as the development and maintenance of firm-wide standards and procedures.

In addition to serving as the chair of the Design work group for NBIMS-US™ V2, James has held a continuous role in the development of the Level of Development (LOD) Specification. He is the national AIA representative to BIMForum and has contributed articles to the Journal of the National Institute of Building Sciences. He is also the author of the popular "Mastering Autodesk Revit Architecture" book series.

Gregory R. Williams

Williams is a licensed architect with 12 years' experience in design specification and administration of a broad range of building types. Since joining KFA in 2001, he has assisted in development of BIM requirements for the University of Illinois and the State of Tennessee Office of the State Architect. On a 173-acre mixed-use corporate campus development project for Trammel Crow, Williams developed the COBie Execution Plan used by the design and construction team and assisted in identification of requirements for a custom software application to compile and validate COBie data. Williams has completed two projects for the Department of Veterans Affairs delivering as-built 2D and BIMs, and is working on a third one developing customized BIM training. He contributed to two USACE CERL Technical Reports: COBie Calculator and Ontologies for Water and Electrical Distribution Systems. Williams provided model checking services for GSA PBS to verify compliance with pre-defined Owner requirements.

Van Woods

Van is the "BIM Innovation & Integration Program Manager" for the U.S. Army Corps of Engineers (USACE), Seattle District. He is responsible for strategic BIM initiatives, R&D, and innovation incubation within the production environment on high-priority BIM capabilities. He is passionate about combining his experience in R&D with the real-world production environment to bring about change across the entire facility lifecycle on topics such as design program and criteria validation, automated and semi-automated QA/QC methods, advanced techniques for AEC data management and exchange, quantity takeoff standards, content management, and more. Van also serves as the technical lead for the USACE/Industry BIM Consortium which is responsible for the development of the USACE BIM Contract Requirements, PxP,

M3, and most recently the NBIMS-US™ V3 Best Practice for "Practical BIM Contract Requirements." Van received his Master of Architecture degree from the University of Illinois in 1997. He is also the founder of the LinkedIn "BIM Experts" group with over 35,000 members dedicated to providing a forum for discussion and information sharing of BIM issues not tied to a particular platform.

Darren Young Pending

Nevena Zikic Nevena Zikic is a Project Manager working for the General Contractor in Los Angeles; CA. Ms. Zikic specializes in MEP coordination, commissioning, Building Information Modeling, 3D spatial coordination, 4D schedule simulation, design build and green buildings. She has a Bachelor in Architecture and a Master in Architecture and Architectural Engineering from the Pennsylvania State University. She is a former member of the Computer Integrated Construction (CIC) Research Program and a Graduate Teaching and Research Assistant at Penn State.

NBIMS-US V3 Committees

NBIMS-US V3 Project Committee (PC)

The Project Committee members were those individuals who were eligible to vote on the standard. They agreed to help develop ballots, comment on submitted ballots and ultimately vote on the submissions for incorporation in the standard.

Name	Company	City, State
Dave Alley	Church of Jesus Christ of Latter-Day Saints	Salt Lake City, UT
Jose Amador	NTD	San Diego, CA
Vimesh Amin		Wood-Ridge, NJ
Robert F. Anderson	Nemetschek Vectorworks, Inc.	Columbia, MD
Larry Asaro	Symmes Maini & McKee Associates	Cambridge, MA
Paul Audsley	NBBJ	Columbus, OH
Cindy Baldwin	ACAI Associates, Inc.	Fort Lauderdale, FL
Andrew Baranowski	ESD	Chicago, IL

Dick Bates	Knutson Construction	Minneapolis, MN
Konstantin Biktimirov	PSS	Saint Petersburg, Russia
Drew Bjorklund	3-D Building Technologies, LLC	Saint Paul, MN
Alfred Bogen	USACE ERDC	Vicksburg, MS
William Brodt	NASA HQ	Washington, DC
Duncan Brown	ZenLux	Middle Village, NY
Henry Brummel	Public Building Commission of Chicago	Chicago, IL
Lou Bush	Calabi Yau Systems	Lakeland, FL
Shawn Butler	Autodesk	North Plainfield, NJ
Chris Canham	Lend Lease	Turrumurra NSW, Australia
Greg Ceton	Construction Specifications Institute	Alexandria, VA
Monte J. Chapin	Graphisoft North America	Newton, MA
Yunfeng Chen	Purdue University	West Lafayette, IN
Michael Chipley	PMC Group LLC	Centreville, VA
Peter Cholakis	4Clicks Solutions	Hopkinton, MA
Connor Christian, Secretary	Kiewit Corporation	Omaha, NE
Kevin Connolly	Connolly Architects	Wauwatosa, WI
Phillip Cousins	Sofi Executive Systems LLC	Orleans, MA
Matthew D. Cramer	Dee Cramer	Holly, MI

Clyne Curtis	Brigham Young University	Provo, UT
Cesar Escalante	CRE Architecture	Pittsburg, CA
Jason Fairchild	U.S. Army Corps of Engineers, Engineering and Construction	Washington, DC
Kristine K. Fallon, FAIA	Kristine Fallon Associates, Inc.	Chicago, IL
John Fortune	Bullock Tice Associates	Pensacola, FL
Birgitta Foster	ACAI Technologies	Fort Lauderdale, FL
Anand Gajbhiye	Joeris General Contractors, Ltd	San Antonio, TX
Thomas Gay	FM Global	Johnston, RI
Brittany Giel	Whiting-Turner Contracting Company	Towson, MD
Robert Glover	Wiley Wilson	Richmond, VA
Tim Gorter	Tim Gorter Architect	Santa Barbara, CA
John Grady	CRB	Wentzville, MO
Jeff Gravatte	CADD Microsystems	Alexandria, VA
Stephen Hagan	Hagan Technologies LLC	Reston, VA
Dennis Hall	Hall Architects, Inc.	Charlotte, NC
Amin Hammad	Concordia University	Montreal, QC Canada
Sam Hanna	Design Studio Architects	Santa Monica, CA
Keith E. Hedges	Drury University, Hammons School of Architecture	Springfield, MO
Frank Heitzman	Heitzman Architects	Oak Park, IL
Lamar Henderson	Design Ecology	Bethesda, MD

Kal Houhou	BIMSphere	Arlington, VA
Edward Huell	USACE, CAD/BIM Technology Center	Vicksburg, MS
Steve Hutsell	USACE - Seattle District	Seattle, WA
Stacy Jackman	Whitman, Requardt & Associates	Baltimore, MD
Finith E. Jernigan, AIA	Design Atlantic Ltd.	Salisbury, MD
ChanWon Jo	buildingSMART Korea	Seoul, Korea
David A. Jordani, FAIA	Jordani Consulting Group	Minneapolis, MN
Calvin Kam	General Services Administration	Milpitas, CA
Susan Keenlside	BuildingSMART Canada	Ottawa, ON, Canada
Jim Kendzel	American Society of Plumbing Engineers	Rosemont, IL
Steven Kirts	RDG Planning and Design	Ames, IA
Ralph Kreider	Penn State University	Columbia, MD
Ole Kristian Kvarsvik	dRofus AS	Oslo, Norway
OhSung Kwan	CH2M Hill	Abu Dhabi, UAE
Jeffrey Leighton	Victaulic	Allentown, PA
Thomas Lewis	Assa Abloy Door Security Solutions	Prairie Village, KS
Shannon Lightfoot	McCarthy Building Companies, Inc.	St. Louis, MO
Brian Lighthart	Eric Hall Architects	Eugene, OR
Ed Lowe	Burgess & Niple, Inc.	Painesville, OH
Pete Mackenzie	MCAA	German Valley, IL

Deborah MacPherson	Cannon Design	Arlington, VA
Dr. Marcel Maghiar	Georgia Southern University	Statesboro, GA
Sean McCartney	IN THE NICK OF TIME	Carl Junction, MO
David McCool	McCarthy Building Companies, Inc.	Newport Beach, CA
Tammy McCuen	University of Oklahoma	Norman, OK
John Messner, PhD	Pennsylvania State University	State College, PA
Jay Miller	BHB Consulting Engineers, P.C.	Salt Lake City, UT
Ryan Mislán	Group2 Architecture Engineering Ltd.	Calgary, AB
Rich Mitrenga	Autodesk, Inc.	Somonauk, IL
Chris Moor, Chair	American Institute of Steel Construction	Tampa, FL
Roberto Morfin	CRB Consulting Engineers	Carlsbad, CA
Get Moy	AECOM	Clifton, VA
Volker Mueller	Bentley Systems	Chapel Hill, NC
William T. Napier	Wisconsin Department of Administration, Division of State Facilities	Madison, WI
Ken Nasatka	Victaulic	Easton, PA
Nicholas Nisbet	AEC3 UK Ltd	High Wycombe, UK
Jeffrey W. Ouellette, Vice Chair	Nemetschek Vectorworks, Inc.	Austin, TX
Allan Partridge	Group 2 Architecture	Alberta, Canada
Rachelle Porter	Spectrum Engineers	Salt Lake City, UT

John Przybyla	Woolpert, Inc.	Dayton, OH
David Quigley	Emerson Research	Milford, NH
Greg Ralph	Varitronics Systems	Bound Brook, NJ
Issa Jafar Ramaji	Pennsylvania State University	State College, PA
Alan Redmond	University of California - Irvine	Irvine, CA
Jason Reece	Balfour Beatty Construction	Fairfax, VA
Laureen Reinke	Weber Murphy Fox	Erie, PA
Amanda Ringer		Philadelphia, PA
Keith Roberts	Entech Engineering	Reading, PA
James Robertson	Robertson Sherwood Architects pc	Eugene, OR
Brian Russell	Ayers Saint Gross, Inc.	Baltimore, MD
Youssry Salman	ZFP	Jeddah, Saudi Arabia
Dale Sawyer	Ice Edge Business Solutions	Calgary, AB, Canada
Dr. Paul Scarponcini	Bentley Systems, Inc.	Littleton, CO
Scott Simmons	CACI	Fort Collins, CO
Andy Smith, AIA	Bentley Systems, Inc.	Mooresville, NC
Thomas Soles	Sheet Metal and Air Conditioning Contractors' National Association	Chantilly, VA
Stephen Spangler	U.S. Army Corps of Engineers	Vicksburg, MS
Jamie Spartz	C.D. Smith Construction	Fond du Lac, WI
Igor Starkov	EcoDomus	Reston, VA

R.K.Stewart	Perkins Will	Salt Lake City, UT
William Strenth	Pittsburg State University	Pittsburg, KS
Jason Sturniolo	RRMM Architects	Chesapeake, VA
Joseph Stypka	JAHN, LLC	Chicago, IL
John Sullivan	Autodesk, Inc.	Washington, DC
Simon Taylor	Questant	Yardley, PA
Graham Thomas	Leuterio Thomas	Alexandria, VA
Stephen Thomson	Thomson Architects, PC	New York, NY
Renee Tietjen	Department of Veterans Affairs-CFM1A	Washington, DC
Ray Topping	FIATECH	Austin, TX
Josephine Valente	Rosendin Electric, Inc	San Jose, CA
Leon van Berlo	Netherlands Organisation for Applied Scientific Research TNO	Delft, Netherlands
Xin Wang	XTWO International LLC	San Marino, CA
James Watson		Plymouth, MI
Drake Wauters	Perkins + Will	Washington, DC
David Ways	BIMPage, LLC	Bradenton, FL
Allen Weidman	infoComm International	Fairfax, VA
Anthony Wheeler	Merrick and Company	Greenwood Village, CO
Rachel Riopel Wiley	HRD, Inc.	St.Paul, MN

Todd Williams	CRB Consulting Engineers	Kansas City, MO
Scott Wood	HOK	St. Louis, MO
Darren Young	Southland Industries	Irvine, CA
Natan Zimand	Architect of the Capitol	Washington, DC

NBIMS-US V3 Planning Committee (PLC)

The NBIMS-US Planning Committee (PLC) administered the business affairs, agenda and consensus process of the NBIMS-US Project Committee (PC) and oversaw the work of the Subcommittees (SC) and generally served as the governing body of the PC in accordance with the NBIMS-US™ Rules of Governance (ROG). The scope of responsibility of the PLC included, but was not necessarily limited to, the format of application forms, ballot submittal forms, and ballots; methods of PC communication, collaboration, and balloting; PC timelines, schedules, and revision cycles; meeting venues and media, and any other responsibilities defined in the ROG.

The PLC consisted of the Project Committee chair, vice chair and secretary, and the chairs of the standing subcommittees and no fewer than 3 and no more than 5 additional members of the BOD, who served at the discretion of the PC chair. All members of the PLC must have been members in good standing of the PC. The term of the PLC members expired upon release of version 3 of the NBIMS-US™.

Name	Organization	Role
Chris Moor	American Institute of Steel Construction	Chair
Jeffrey W. Ouellette	Nemetschek Vectorworks, Inc.	Vice-Chair, MES Chair
Connor Christian	Kiewit Corporation	Secretary, SPS Chair
Paul Audsley	NBBJ	bSa Board
Mark Butler	HDR	IS Co-Chair
Peter Cholakis	4Clicks Solutions	TGS Chair
Bill East	USACE	TS Chair
John Fortune	Bullock Tice Associates	NCS BIM AHTT Liaison

Lamar Henderson		IS Co-Chair
Susan Keenlside	BuildingSMART Canada	PDS Chair
William T. Napier	Wisconsin Department of Administration, Division of State Facilities	bSa Board
John Sullivan	Autodesk, Inc.	bSa Board
Ray Topping	Fiotech	bSa Board
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Nominating Committee (NC)

The following NBIMS-US Planning Committee (PLC) members were appointed to the NBIMS-US V3 Nominating Committee (NC). Members of the NC were appointed and served at the discretion of the PLC. Members of the NC selected and recommended NBIMS-US Project Committee Chair nominees for appointment by the Institute Chair of the Board of Direction.

Name	Organization	Role
Andy Smith	Bentley Systems, Inc.	Chair
Mark Butler	HDR	Member
Greg Ceton	Construction Specifications Institute	Member
Louis Hecht		Member
Deborah MacPherson	Cannon Design	Member
Tammy McCuen	University of Oklahoma	Member
Greg Schleusner	HOK	Member
Dominique Fernandez	National Institute of Building Sciences	Staff

Deke Smith

National Institute of Building Sciences

Staff

NBIMS-US V3 Technical Subcommittee (TS)

The charge of the Technical Subcommittee was to ensure the technical accuracy and consistency of all information exchange ('technical' and 'reference') ballots and NBIMS-US™ content as guided by the buildingSMART International (bSI) best practice documentation and specifications. [Subcommittee Charge](#)

Name	Organization	Role
Bill East	USACE	Chair
Robert Anderson	Nemetschek Vectorworks, Inc.	Vice Chair
Alfred Bogen	USACE ERDC	Secretary
Peter Bredehoeft	CH2M Hill	Member
Greg Ceton	Construction Specifications Institute	Member
Tim Chipman	Constructivity	Member
John Messner	Penn State University	Member
Rich Mitrenga	Autodesk, Inc.	Member
Ken Nasatka	Victaulic	Member
Nicholas Nisbet	AEC3 UK Ltd.	Member
Allan Partridge	Group2 Architecture Interior Design Ltd.	Member
Rachel Riopel Wiley	HDR	Member
Keith Roberts	SSM Group, Inc.	Member
Paul Scarponcini	Bentley Systems, Inc.	Member

Greg Schleusner	HOK	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Terminology Subcommittee (TGS)

The role of the Terminology Subcommittee was to develop and maintain a set of terminology definitions and police their use throughout NBIMS-US™ ballots and content.

[Subcommittee Charge](#)

Name	Organization	Role
Peter Cholakis	4Clicks Solutions	Chair
Lamar Henderson	Design Ecology	Vice-Chair
Bob Smith	Tall Tree Labs	Vice-Chair
Phillip Cousins	Sofi Executive Systems LLC	Secretary
Ralph Kreider		Member
Brian Lighthart	Eric Hall Architects	Member
Volker Mueller	Bentley Systems, Incorporated	Member
Darven Young	Southland Industries	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Implementation Subcommittee (IS)

The role of the Implementation Subcommittee was to develop and maintain the overall style and content structure of NBIMS-US™, and develop and manage a 'ballot to content' process that streamlines production of the end product.

[Subcommittee Charge](#)

Name	Organization	Role
Mark Butler	HDR	Co-Chair
Lamar Henderson	Design Ecology	Co-Chair
Jason Sturniolo	RRMM Architects	Secretary
Monte Chapin	Graphisoft	Member
Louis Hecht		Member
Steve Holzer	eM8s, LLC	Member
Nick Kramer	HMC Architects	Member
Jeff Leighton	Victaulic	Member
Deborah MacPherson	Cannon Design	Member
Bob Smith	Tall Tree Labs	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Product Development Subcommittee (PDS)

The role of the Product Development Subcommittee was to develop the means and methods of proactively seeking, collecting, monitoring, developing and balloting any existing (and ongoing) industry initiatives and projects that may result in future NBIMS-US™ content.

[Subcommittee Charge](#)

Name	Organization	Role
Chris Moor	American Institute of Steel Construction	Co-Chair
Susan Keenlside	buildingSMART Canada	Co-Chair
Jason Reece	Balfour Beatty Construction	Secretary

Andrew Baranowski	ESD	Member
Monte Chapin	Graphisoft	Member
Yunfeng Chen	Purdue University	Member
Stephen Hagan	Hagan Technologies LLC	Member
John Messner	Pennsylvania State University	Member
Alan Redmond	Anglia Ruskin University	Member
Andy Smith	Bentley Systems	Member
Igor Starkov	EcoDomus	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Standard Practice Subcommittee (SPS)

The role of the Standard Practice Subcommittee was to develop, manage, maintain and evolve the "best practices" aspect of NBIMS-US™ (ballots and content).

[Subcommittee Charge](#)

Name	Organization	Role
Connor Christian	Kiewit Corporation	Chair
Stephen Thomson	co4architecture.pc	Vice Chair
Kristine Fallon	Kristine Fallon Associates	Member
Robert Glover	Wiley Wilson	Member
John Grady	Epic BIM	Member
Frank Heitzman	Heitzman Architects	Member

Jim Kendzel	American Society of Plumbing Engineers	Member
Tammy McCuen	University of Oklahoma	Member
Rachel Riopel Wiley	HRD, Inc.	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

NBIMS-US V3 Market Education Subcommittee (MES)

The role of the Market Education Subcommittee was to actively promote NBIMS-US™ and educate the market about the overall effort and product.

[Subcommittee Charge](#)

Name	Organization	Role
Jeffrey W. Ouellette	Nemetschek Vectorworks, Inc.	Chair
Steve Holzer	eM8s, LLC	Vice Chair
David McCool	McCarthy Building Companies	Secretary
Henry Brummel	The Public Building Commission of Chicago (PMO)	Member
Dominique Fernandez	National Institute of Building Sciences	Staff
Deke Smith	National Institute of Building Sciences	Staff

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