

Curriculum Vitae

RICHARD M. GRAVES, FAIA
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Current Position

Center for Sustainable Building Research
College of Design, School of Architecture: July 2014 - Present
Director, Associate Professor

Employment History

International Living Future Institute May 2012 - June 2014
Executive Director

US Green Building Council January 2010 - July 2012
Senior Vice President - Community and Education

Perkins + Will August 2008 - January
2010
Architect and Planner

WBRC Architects and Engineers, Inc. June 2000 - July 2008
Vice President, Director of Education and Sustainable Design

KRHA Architects May 1996 - May 2000
Project Architect

Education

M.ARCH, *Magna Cum laude*, Rice University May 1996
Major: Architecture
Dissertation Title: Patterns in the Landscape
Advisor: Sanford Kwinter

B.ARCH, *Cum laude*, Virginia Polytechnic Institute and State University May 1994
Major: Architecture

Licenses, Certifications and Professional Associations

Registered Architect in Texas (January 2000 – December 2008)

Registered Architect in Maine (July 2000 – present)

Registered Architect in Florida (July 2004 – December 2008)

Registered Architect in Minnesota (January 2008 – present)

International Living Future Institute. (January, 2008 - Present).

American Institute of Architects. (January 1999 - Present).

HONORS AND RECOGNITION

American Institute of Architects

College of Fellows, American Institute of Architects, Washington, DC. (February, 2023).

Latrobe Prize Finalist, American Institute of Architects, Washington, DC. (May 2017).

14% (3 of 21) of submissions became finalists.

University of Minnesota

Fellow, Institute on the Environment, University of Minnesota. (October 2016).

RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

Grants, Sponsored Research, and Contracts

Lewis, Meghan, Simonen, Katherine. (Co-PI), **Graves, Richard (Co-PI)**, Huang, Monica, Kutschke, Elizabeth and Mosimon, Garrett. Construction Materials: Environmental Impact Study. Minnesota Department of Administration. (September 26, 2021 - June 30, 2022) *\$125,000.*

Jacobson, Rolf E. (Co-PI) and **Graves, Richard (Co-PI)**. The Market for Passive House Multifamily Projects in Minnesota. Minnesota Department of Commerce. (January 26, 2021 - December 31, 2022) *\$150,000.*

Smith, Pat; Kutschke, Elizabeth; and **Graves, Richard (Investigator)**. City of Minneapolis Sustainable Building Policy. (February 14, 2020 - June 30, 2022). *\$20,000.*

Graves, Richard (Principal), Smith, Patrick, Mosiman, Garrett, Kutschke, Elizabeth and Jacobsen, Rolf. Minnesota Department of Administration, "(B3) Sustainable Building Design Guidelines and Public Buildings". (July 1, 2016 – June 30, 2026). *\$500,000 per year for five years. (Extended for 5 more years)*

Graves, Richard (Principal), Minnesota Department of Commerce, "Sustainable Buildings 2030-Phase 1/Phase 2". (July 1, 2018 - June 30, 2026). *\$500,000 per year for five years. (Extended for 5 more years)*

Graves, Richard (Principal), Kutschke, Elizabeth and Gu, Tianwei. "Resilient Building System Modeling." American Institute of Architects, Upper Midwest Resilience Studio, National Resilience Initiative. (January, 2018 – April, 2018). *\$5,000.*

Graves, Richard (Co-PI), Weber, William and Kutschke, Elizabeth, Minnesota Pollution Control Agency (MPCA), "Resilience Adaptation of Sustainable Buildings". Principal, Awarded. (April 12, 2016

– April 1, 2018). *\$30,000*.

Graves, Richard (Principal), Weber, William (Co-PI) and Kutschke, Elizabeth, Aeon, "Learning from the Rose Living Building Project". Principal, Awarded. (June, 2017 – April, 2018). *\$10,000*.

Graves, Richard (Co-PI), Zindren, Mary Margaret, (Co-PI), Handeen, Dan, Lee, Bryan, and Park, Eugene. "21st Century Development: A Resource Guide for Regenerative Development. (June 2016 to June 2019.) Funded by the McKnight Foundation. *\$20,000*

Graves, Richard (Principal), Weber, William, Kutschke, Elizabeth and Jacobsen, Rolf. The McKnight Foundation, "Minnesota Climate Positive Housing Prototypes And MNSHI". Co-Investigator, Awarded. (November 16, 2015 - February 28, 2018). *\$75,000. 15% acceptance rate.*

Graves, Richard (Principal), Strong, Richard, and Smith, Patrick. Minnesota Department of Commerce, CARD Grant with Seventhwave, Inc., "Enhancing New Construction Programs With Performance Base". Co-Investigator, Awarded. (August 7, 2015 - January 15, 2016). *\$50,000*

Graves, Richard (Principal), Smith, Patrick, Mosiman, Garrett, Kutschke, Elizabeth and Jacobsen, Rolf. Minnesota Department of Administration, "(B3) Sustainable Building Design Guidelines and Public Buildings". (August 9, 2011 - June 30, 2016). *\$500,000 per year*

Graves, Richard (Principal), Minnesota Department of Commerce, "Sustainable Buildings 2030-Phase 1/Phase 2". (June 2, 2008 - June 30, 2018). *\$500,000 per year.*

Graves, Richard (Principal), Smith, Patrick, Mosiman, Garrett, Kutschke, Elizabeth and Jacobsen, Rolf. The McKnight Foundation, "Serendipity Grants". (December 1, 2015 - May 31, 2018). *\$5,000*

Graves, Richard (Principal), Kutschke, Elizabeth and Jacobsen, Rolf. American Institute of Architects, Upper Midwest Resilience Studio, National Resilience Initiative. (January 2016 – present)

Graves, Richard (Principal) and Kutschke, Elizabeth. US Department of Energy, Better Buildings Program. Zero Energy Districts Accelerator. Partner with the Ford Site Redevelopment, St Paul, MN (October, 2016 – present)

Graves, Richard (Principal), MSR Design, Minneapolis, Minnesota. "Regenerative Design Trainings". Funded. (January 2017 - November 2017). *\$5,000*

Graves, Richard (Principal), Canadian Consulate, Minneapolis, Minnesota. "Upper Midwest Building Products Report.", (January 2017)

Projects

Graves, Richard (Principal), "Makade Ginew Gikiinaagoowin, Black Eagle Teaching Studio.", January 2023 - December, 2023. Design of an Artist Studio on the Red Lake Reservation for the Wood Artists: Robert and Victoria Fineday.

Graves, Richard (Principal), Daniel Handeen and Madeline Juve, Dodge County Environmental Center. September 2022 - January 2023. Design of an Environmental Center in Dodge County, Minnesota.

Graves, Richard (Principal), Josh Lassen, Rebecca Krinke, Christopher Leberecht, Nathan Davies, and Jennifer Preuss. Biophilia + Well-Being + Design Exhibition. HGA Gallery, College of Design, University of Minnesota. September 2021 - April 2023. Exhibition Design and Execution on the connections of Regenerative Design, Biophilia and the Well-Being of Humanity and other Living Systems.

Weber, William (Principal); Daniel Handeen, Kerry Hoagland and **Richard Graves** (Contributer): John Carmody: A Life in Sustainability Exhibition. HGA Gallery, College of Design, University of Minnesota. April 2022 - December 2022.

Graves, Richard (Principal), "Edge House", July 1, 2016 – June, 2019). Design of a complete renovation/addition to a house in Saint Paul, MN demonstrating Net Zero Energy and Social Ecological Design Principles.

Graves, Richard (Co-PI), Zindren, Mary Margaret, (Co-PI), Handeen, Dan, Lee, Bryan, and Park, Eugene. "21st Century Development: A Resource Guide for Regenerative Development. (June 2016 to June 2019.) Funded by the McKnight Foundation.

Graves, Richard (Principal), "Sustainable Building Design Guidelines", Approved, (July 1, 2016 - June 30, 2021). State of Minnesota, Department of Administration.

Graves, Richard (Principal), "Resilience Adaptation of Sustainable Buildings", Approved, (December 23, 2016 - June 30, 2019). Minnesota Pollution Control Agency.

Graves, Richard (Principal), Strong, R. B. (Co-Investigator), Smith, P. (Co-Investigator), Carmody, J. C. (Prior Principal Investigator), Weber, W. G. (Prior Principal Investigator), "Sustainable Buildings 2030", Approved, (June 2, 2008 - June 30, 2018). State of Minnesota, Department of Commerce.

Graves, Richard (Co-Investigator), Weber, W. G. (Principal), "Minnesota Climate Positive Housing", Approved, (March 1, 2016 - February 28, 2018). The McKnight Foundation.

Strong, R. B. (Principal), Smith, P. A. (Co-Investigator), **Graves, Richard** (Co-Investigator), "Enhancing new construction programs with performance based contracts". (January 1, 2016 - November 30, 2017). State of Minnesota, Department of Commerce.

Graves, Richard (Principal), "Toward a Statewide Energy Database", Approved, (February 1, 2016 - January 31, 2017). The McKnight Foundation.

Graves, Richard (Principal), "Sustainable Regional Development", Approved, (May 1, 2016 - December 31, 2016). American Institute of Architects – Minnesota.

Proposals Submitted, Unfunded

Asojo, Abimbola (Co- Principal Investigator), Amin, Massoud (Co- Principal Investigator) and **Graves, Richard (Co-investigator)** and Staples, Jamez (Co-investigator) . NSF INCLUDES Planning Grant: Collaborative Planning Process to Develop STEM Experiential Learning for Students of Color and Underrepresented Youth in Minnesota. Submitted December, 2019. Not funded.

Asojo, Abimbola (Co- Principal Investigator), Amin, Massoud (Co- Principal Investigator) and **Graves, Richard (Co-investigator)** and Staples, Jamez (Co-investigator) . Integrating the Internet of Things (IoT) and Architectural Design Strategies in Smart Schools to Promote Sustainability, Health, and Learning. Submitted September, 2019. Not funded.

Graves, Richard (Co-Principal Investigator) and Smith, Patrick (Co-Principal Investigator). "Environmental Site Design Using GIS" Legislative Citizens Commission of Minnesota. April, 2019.

Graves, Richard (Investigator) The National Science Foundation, "INFEWS/T2: Rethinking How, Where, and When Food is Grown". Under Review. September, 2018.

Graves, Richard (Co-Principal Investigator) and Baker, Chris (Co-Principal Investigator). "High

Performance + Solar: Energy Efficiency and Benefits to the Grid.” Minnesota Department of Commerce, Division of Energy Resources’ Conservation Applied Research and Development (CARD) Grant . August 27, 2018

Graves, Richard (Principal Investigator) and Kutschke, Elizabeth. “Community Engagement to Plan Resilience Hubs.” Environment and Natural Resources Trust Fund Grant Proposal. March, 2018.

Graves, Richard (Principal Investigator) and Smith, Patrick. “Site and Water Planning.” Environment and Natural Resources Trust Fund Grant Proposal. March, 2018.

Weber, William, (Co-Principal Investigator) **Graves, Richard** (Co-Principal Investigator) The McKnight Foundation, "Minnesota Climate Positive Building Prototypes: Models". Co-Investigator, Discontinued. (October 13, 2015 - November 8, 2017).

The National Science Foundation, "INFEWS/T3: Analyzing and Optimizing Solar Thermal Deep Winter Greenhouses". Co-Investigator, Declined by Sponsor. (March 2, 2017 - August 16, 2017).

Enterprise Minnesota, Inc., "TA Tools Development". Co-Investigator, Discontinued. (July 23, 2015 - July 6, 2017).

US Department of Homeland Security, "DHS S&T Critical Infrastructure Resilience Center of Excellence". Co-Investigator, Declined by Sponsor. (September 22, 2014 - June 8, 2015).

PUBLICATIONS

Books and Book Chapters.

In Progress

Graves, Richard, *Regenerative Design: Social and Ecological Architecture*. Routledge. Abingdon, UK. Initial Submission to Publisher Scheduled for September 2023.

Published

Graves, Richard, *The Paradox of Metrics. Chapter in Ecologies Design: Transforming Architecture, Landscape and Urbanism* edited by Maibritt Pedersen Zari, Peter Connolly, and Mark Southcombe: Routledge. Abingdon, UK. Published July 2020. pp 34-43.

Refereed Journal Articles

Published

Graves, Richard and Kutschke, Elizabeth: “Integrating Resilience into Sustainability Programs Guidelines and Tools.” American Council for an Energy Efficient Economy. 2022. ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2022. *Accepted and In Process.*

Graves, Richard. “Moving Beyond Green: Regenerative Design Thinking for Culture Change”.

Dialogues: The Intersection of Emerging Research + Design for Learning. Learning by Design. Issue 4 - Fall 2020. Submitted July 12, 2020.

Graves, Richard and Kutschke, Elizabeth: “Bridging Resilience and Sustainability: Guidelines, Social Infrastructure and Grid Interactive Buildings.” American Council for an Energy Efficient Economy. 2020. ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2020. *15% Acceptance Rate.*

Smith, Patrick, **Graves, Richard**, Alexander, Becky, and Baker, Christopher: “Sustainable Buildings 2030: Lessons from the First Ten Years..” American Council for an Energy Efficient Economy. 2020. ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2020. *15% Acceptance Rate.*

Graves, Richard, Weber, William and Kutschke, Elizabeth: “Regenerative Design: A Bridge Between Sustainability and Resilience.” American Council for an Energy Efficient Economy. 2018 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2018. *15% Acceptance Rate.*

Graves, Richard, Keeler, B., Hamann, M., Kutschke, E., Nootenboom, C. “A Social Ecological Approach to Architecture and Planning.”” Journal of Architecture and Construction. Volume 2, Issue 4, 2019, pp 33-44.

Graves, Richard, “A Social-Ecological Ethic for Architecture.” Journal of Architecture and Construction. Volume 1, Issue 4, 2018, pp 27-35.

Graves, Richard, Weber, William and Kutschke, Elizabeth: “Regenerative Design: A Bridge Between Sustainability and Resilience.” American Council for an Energy Efficient Economy. 2018 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2018. *15% Acceptance Rate.*

Graves, Richard and Smith, Patrick: “Minnesota Sustainable Building Guidelines: History, Effectiveness and Path for the Future.” Journal of Green Building. Volume 13, Number 2. 163-180., Spring 2018. *Invited submission..*

Graves, Richard, Baker, Chris, Strong, Richard and Smith, Patrick: “Sustainable Buildings 2030: Creating An Effective Climate Change Program For Buildings.” American Council for an Energy Efficient Economy. 2016 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2016. *15% Acceptance Rate.*

Graves, Richard; Cortese, Amy; DiNola, Ralph; Clem, Steve; and Heider, Elizabeth: “Net Zero and Living Building Challenge Financial Study: A Cost Comparison Report for Buildings in the District of Columbia.” The International Living Future Institute. April, 2014. Research and planning in 2013. Funding provided by the District of Columbia, Sustainable Innovation Grant. Authored Introduction, Methodology and Water Sections. Co-Authored and Edited all other sections. Peer reviewed by Greg Kats, Sandy Wiggins, Brad Liljequist and Kevin Hicks.

Cowan, Stuart; **Graves, Richard**; Twill, Jason; Wright-Chappelle, Theddi; “Economics of Change:

Valuation Tool Concept and Policy Recommendations.” The International Living Future Institute. November 1, 2013. Authored Policy Section and Edited Publication. Peer reviewed by Advisory Panel of Professionals and Experts.

Cowan, Stuart; **Graves, Richard**; Twill, Jason; Wright-Chappelle, Theddi; “Economics of Change”: The International Living Future Institute. October, 2012. Co-Authored Report and Edited Publication. Peer reviewed by Advisory Panel of Professionals and Experts.

Interviews

Dennis, Tom. *Beyond Energy Efficiency: For Architects, Sustainability Means So Much More*. Prairie Business Magazine. June 3, 2019.

Goetzman, Amy. *Building a Better Future*. Architecture Minnesota. May/June, 2019. Minneapolis, Minnesota.

Thomas, M. A. *The Living Building Challenge: Roots and Rise of the World's Greenest Standard*. Ecotone Publishing. Portland, Oregon. May, 2016.

Non-refereed Reports and Articles

Lewis, Meghan; **Graves, Richard**; Simonen, Katherine; Huang, Monica; Kutschke, Elizabeth and Mosiman, Garrett. Construction Materials: Environmental Impact Study. Report Submitted to the Minnesota State Department of Administration. (January, 2022.)

Graves, Richard, Smith, Patrick, Kutschke, Elizabeth and Jacobsen, Rolf: Buildings, “Benchmarks and Beyond 3.0: Revised. Indoor Environmental Quality Guidelines.” Report submitted to the State of Minnesota Departments of Commerce and Administration. (June, 2018.)

Graves, Richard, Strong, Richard, Smith, Patrick and MacDonough, Peter: Buildings, “Benchmarks and Beyond 3.0: Revised. Site and Water Guidelines.” Report submitted to the State of Minnesota Departments of Commerce and Administration. (November 2017.)

Graves, Richard, Weber, William and Kutschke, Elizabeth: “Regenerative Design: A Bridge Between Sustainability and Resilience.” Report Submitted to the Minnesota Pollution Control Agency (MPCA) Draft Submitted. (November 2017)

Graves, Richard and Gastler, Sarah: “Case Studies of Sustainable Development.” American Institute of Architects, Minnesota. August 2016.

Graves, Richard: “Unlocking the Value of the Sustainable Built Environment.” Carlson School of Management Wells Fargo Foundation Sustainability Research Grant Program.

Graves, Richard. “Regenerative Design: Learning from Royal Seaport and Hammerby.” University of Minnesota. Imagine Fund Award.

Graves, Richard, Carmody, John, Strong, Richard, Smith, Patrick: “Buildings, Benchmarks and Beyond 3.0: Process and Materials. Report” submitted to the State of Minnesota Departments of Commerce and Administration. August 2016.

Singh, Virajita, Roos, Stephen, **Graves, Richard** and Jain, Parul: “Pathway to a Resilient Sandstone.” Report to be submitted to the City of Sandstone, Minnesota. December 2015.

Graves, Richard “Strategies for Living Neighborhoods in San Francisco, An Exploratory Guide,” November 30, 2014.

Graves, Richard, “Living Communities, Vision and Engagement”, Trim Tab Magazine, v.22, July 2014. pp.54-58.

Graves, Richard and Connelly, James, “Living Buildings in China”, Trim Tab Magazine, v.20, Winter 2013. pp.34-41.

Graves, Richard, “Bend: Living Community”, International Living Future Institute, April 2014. Funded by the Summit Foundation and the City of Bend, Oregon.

Graves, Richard, “Risk, Reward and the Creative Mind,” Trim Tab Magazine, v.19, Winter 2013. pp.60-63.

Graves, Richard, “Living City: “Building the Neighborhoods We Want and Need.” Sustainable Business Oregon. August 12, 2013.

Miller, Stacia, Spataro, Katie and **Graves, Richard** (Editing and Introduction), “Making the Switch: Transitioning Toward Integrated Water Management in Puget Sound.” The International Living Future Institute. August, 2013. Funding provided by the Sustainable Path Foundation.

Graves, Richard and McLennan, Jason, “Univercity Development: From Living Building to Living Community.” The International Living Future Institute. Released August , 2013. Research and planning from 2012 to 2013. Funding provided by the Simon Fraser University Trust and the Summit Foundation.

Graves, Richard, “The Right Place”, Trim Tab Magazine, v.14, Summer 2012, pp. 96-97

PRESENTATIONS, POSTERS AND EXHIBITS

Keynote/Plenary Address

"Regenerative Design as a Bridge between Sustainability and Resilience", AIA-Iowa Annual Conference, American Institute of Architects - Iowa, Ames, Iowa, United States. **Graves, Richard** (April 2017).

"Architecture as a (Re)Generator." University of Minnesota, College of Design, School of Architecture Symposium: Sustainability is Dead, Architecture as a (Re)Generator. **Graves, Richard** (October 2016)

"Future of Sustainable Design: Living Buildings and Communities". UNEP Building Conference 2014, Quebec City, PQ, Canada. **Graves, Richard**. (October 2014)

"Future of LEED". Northern California GBC, 2012, San Francisco, CA **Graves, Richard**. (March 2012)

"Organizing for Change: Stay Hungry, Stay Foolish". Community Forum. Green Build International Conference, Toronto, ON. **Graves, Richard**. (November 2011)

"International Collaboration for Green Building." PolyTechnic Summit, 2011. Southern PolyTechnic State University. Marietta, GA. **Graves, Richard** (September 2011)

"The Future of Green Building and Energy Codes." Missouri GBC, 2011. St Louis, MO. **Graves, Richard** (March 2011)

Invited Presentations at Professional Meetings, Conferences

Graves, Richard. "Construction Materials: Environmental Impact Study." Minnesota Legislature Climate Committee. March 8, 2022.

Graves, Richard. "Resilience and Capital Construction." Minnesota Legislature Bonding Committee. March 1, 2022.

Graves, Richard. "Construction Materials: Environmental Impact Study." Minnesota Legislature Bonding Committee. February 18, 2022.

Graves, Richard, "AIA Framework for Design Excellence and Regenerative Design." Dunwoody College of Technology, School of Architecture, Minneapolis, Minnesota, United States. (February 10, 2022). *Invited*.

Graves, Richard, "SB 2030: Grid Integration, Storage and Future Strategies." Minnesota Science Museum Symposium Minnesota Science Museum, Saint Paul, Minnesota, United States. (February 3, 2022). *Invited*.

Graves, Richard, "Regenerative Design and Master Planning." Blake School, Minneapolis, Minnesota, United States. (November 23, 2021). *Invited*.

Graves, Richard, "SB2030: Clear Vision and Future Challenges," Minnesota Science Museum Symposium Minnesota Science Museum, Saint Paul, Minnesota, United States. (January 26, 2021).

Invited.

Graves, Richard, (Presenter) "21st Century Development and Community Engagement," St Paul AIA Chapter Meeting AIA Minnesota, St Paul, Minnesota, United States. (September 24, 2020). *Invited.*

Graves, Richard, (Author & Presenter) "Student Opportunities for Engaged Design," Engagement Conference University of Minnesota, Minneapolis, Minnesota, United States. (March 6, 2020). *Invited.*

Graves, Richard, "The Future of SB2030: The Business Case, Electric Vehicles, Operations, and Mechanical Systems," Minnesota Science Museum Minnesota Science Museum, Saint Paul, Minnesota, United States. (January 16, 2020). *Invited.*

Graves, Richard, (Moderator) "Sustainable Buildings: Opportunities for Improved Environmental Performance," Construction Revolution Summit Family Housing Fund, Minneapolis, Minnesota, United States. (September 16, 2019). *Invited.*

Graves, Richard, Dalrymple, Michael and Woodside, R.: "Energy Codes and Resilient Design." Midwest Building Energy Codes Conference. Midwest Energy Efficiency Association. St Louis, MO. November 28, 2018.

Graves, Richard and Lee, Bryan: "21st Century Development and Social Justice?": AIA Minnesota Workshop, Minneapolis, Minnesota. May 21, 2019.

Graves, Richard, "Buildings and Climate Change": Carbon Citizens Group, Minneapolis, Minnesota, May 11.

Graves, Richard, Keeler, B., Hamann, M., Kutschke, E., Nootenboom, C. "A Social Ecological, Design Process.." Engineering Sustainability Conference. University of Pittsburgh, Pittsburgh, PA. April 2019.

Graves, Richard and Baechler, Michael: "Energy Codes and Resilient Design." Midwest Building Energy Codes Conference. Midwest Energy Efficiency Association. St Louis, MO. November 28, 2018.

Graves, Richard, Lee, Bryan, Zindren, Mary Margaret, Handeen, Dan and Mandyck, Jeff: "The Best in Development: What Are We Aiming For? How Do We Get There?": AIA Minnesota Conference, November 16, 2018.

Graves, Richard, Seeley, Mark, Peske, Richard, Wass, Brian, Brengman, Mark and Curlee, Sara: "Designing for the Midwest Future: Integrating Resiliency and SB 2030": AIA Minnesota Conference, November 15, 2018.

Graves, Richard and Keeler, Bonnie. "EcoDistricts and Planning." International EcoDistricts Summit: Neighborhoods For All. Minneapolis, MN. October 17, 2018.

Graves, Richard. "Energy and Carbon Planning for EcoDistricts." International EcoDistricts Research Forum: Neighborhoods For All. Minneapolis, MN. October 16, 2018.

Graves, Richard. "Practicing Regenerative Design." LHB Corporate Retreat. Sandstone, MN. September 23, 2018.

Graves, Richard. “Regenerative Design, Resilience and Sustainability.” US Green Building Council, Minnesota Chapter Meeting. Minneapolis, MN. July 18, 2018.

Graves, Richard. “Minnesota Sustainable Building Guidelines and Local Green Building Policies.” Destination Medical Center. Rochester, MN. July 15, 2018.

Graves, Richard. “Regenerative Design and Product Development.” 3M Corporation, Saint Paul, MN. June 22, 2018.

Graves, Richard: “Sustainable Buildings 2030 and Energy Codes.” Science Museum of Minnesota, December 7, 2017.

Graves, Richard, Mandyck, Jeff and Turck, Jesse: “21st Century Regional Development”: AIA Minnesota Conference, November 15, 2017

Graves, Richard, Mandyck, Jeff and Turck, Jesse: “Sustainable, Resilient and Equitable Development”: AIA Minnesota Conference, November 10, 2016

Graves, Richard, Carter, Rick, and Alexander, Becky: Sustainability Simplified: The Future of Material Guidelines. AIA Minnesota Conference, November 10, 2016

Graves, Richard: “A Net Zero Energy and Carbon Planning: The Analysis And Integration Of Strategies For The Redevelopment of the Ford Plant in Saint Paul, Minnesota.” American Council for an Energy Efficient Economy. 2016 ACEEE Summer Study on Energy Efficiency in Buildings, Pacific Grove, California, August 2016.

Graves, Richard. “Regenerative Design and Resilience.” American Institute of Architects Collaborative Research Forum. Minneapolis, MN. July 24, 2018.

Graves, Richard. “Design for Community Resilience”, Meeting Society's Grand Challenges Through Community-Engaged Research, Teaching, and Learning Conference, March 31, 2016

Graves, Richard, Carter, Rick, and Alexander, Becky: Policy into Practice: Carbon Neutrality in Minnesota and Beyond. USGBC Greenbuild International Conference, November 19, 2015

Graves, Richard, Streff, Janet, Carter, Rick, and Alexander, Becky: Policy into Practice: Carbon Neutrality in Minnesota and Beyond. AIA Minnesota Conference, November 14, 2015

Graves, Richard, Pierce, Doug, and Milberg, Laura: “The Next Decade in Sustainable Design: Resilience and Regeneration Panel: The Urgent and Hopeful Future of Regenerative Design”. AIA Minnesota Conference,, November 14, 2015

Graves, Richard: “Net Zero Building Prototypes.” Science Museum of Minnesota, November 5, 2015

Graves, Richard: “Buildings, Emissions and Energy Efficiency Panel: Building a Pathway to Carbon Neutral”, 2015 Energy Summit, Wisconsin Energy Institute, University of Wisconsin, October 13, 2015, Madison, WI

Graves, Richard, Carter, Rick, and Alexander, Becky: “Policy into Practice: Carbon Neutrality in Minnesota and Beyond”. Greening the Heartland, September, 2015 (accepted to the conference,

Graves, Richard. “Inspiring Change through Storytelling”. USGBC Minnesota Green Building Impact Conference April 29 2015, Saint Paul, MN

Graves, Richard. Net Zero Energy, Net Zero Water and Living Building Cost Study for the District of Columbia. Living Future unConference 2014, Portland, OR.

Graves, Richard, Water Forum, Green Build International Conference, Philadelphia, PA, November 18, 2013.

Graves, Richard, Living Communities, Resilience Neighborhood Center, Madison, WI, November 14, 2013.

Graves, Richard, Integrating Living Communities with EcoDistrict Planning, presentation to City of San Francisco, October 18, 2013.

Graves, Richard, Creating Models for the Future. Packard Foundation, Los Altos, California, October 17, 2013.

Graves, Richard, Barnes, Jennifer and Ramsden, Alexandra, Urban EcoSystems, Design by Nature. SxSW Eco 2013, Austin, TX.

Graves, Richard, Four Ways Sports Teams and Venues Can Tackle Environmental Issues. Green Sports Alliance Summit, New York, NY 2013

Graves, Richard. Economics of Change: A Policy Vision. Oregon Policy Summit, Portland, OR July, 2013.

Graves, Richard. Living Community Visions and Lessons. Living Future unConference 2013, Seattle, WA.

Graves, Richard. Regenerative Community Design. Regenerative Community Summit #2, 2013, Seattle, WA.

Graves, Richard, Ecological Thinking: Living Buildings and Communities. Dalhousie University, January 2013, Halifax, NS

Graves, Richard. Pushing the Edge of Green Building Policy, Learning from the Living Building Challenge. Code Forum, Green Build International Conference, November 2012, San Francisco, CA.

TEACHING

Scheduled Teaching

College of Design, University of Minnesota, Minneapolis, MN– 2014 – present

Associate Professor

Spring 2021: Arch5250: Net Positive Studio: Center for Studies in Building Regeneration.

The Net-Positive Design Studio focuses on the integration of architectural design, environmental technology, and high performance regenerative practice. Architectural design integrates design excellence, beauty, and theories of architecture with the achievement of performance standards. Historically, these standards have been checklist based and focused on the built environment as “being less bad,” rather than having “positive effects.” The goal of the studio is to evolve high performance design strategies, apply processes and techniques to improve performance, and redefine architectural beauty from a socio-ecological perspective. Net Positive Studio: Center for Studies in Building Regeneration will take up the challenge of creating a new building on the University of Minnesota Twin Cities campus along the Mississippi River adjacent to the East River Flats Park for the Center for Studies in Building Regeneration (~32,000sf) that will house a new interdisciplinary research center to study, teach and train the university community on the interconnections between the built environment and the health of living systems. The center will provide experiential learning opportunities to explore the connections between Biophilic design and the benefits to public health by faculty, students and researchers from the College of Design and the School of Public Health. This studio rejects the notion that high performance design quashes architectural expression. Rather, it asserts that the ability to understand program, systems, networks, and flows can lead to design opportunities, and the ability to synthesize place making solutions based on disparate, varied and complex interactions— ecological, economic, social—is at the core of innovation and design excellence. The studio will conduct parallel explorations of (1) development in the 21st century — people, places, history, aspiration, reality; and (2) sustainability and resilience in a crowded planet. The course will emphasize drawing and modeling in a generative mode, and utilize energy modeling for the evaluation and development of schematic design.

Spring 2020: Arch5250: Net Positive Studio: East Plymouth Innovation Corridor

The Net-Positive Design Studio focuses on the integration of architectural design, environmental technology, and high performance regenerative practice. Architectural design integrates design excellence, beauty, and theories of architecture with the achievement of performance standards. Historically, these standards have been checklist based and focused on the built environment as “being less bad,” rather than having “positive effects.” The goal of the studio is to evolve high performance design strategies, apply processes and techniques to improve performance, and redefine architectural beauty from a socio-ecological perspective. Net Positive Studio: East Plymouth Innovation Corridor will take up the challenge of redeveloping a section of Plymouth Avenue in North Minneapolis with a mix of uses: green jobs training center, innovation center, offices for institutional and corporate partners, housing, daycare and retail in the context of a resilient future for the neighborhood. Integrating environmental technology and design in the pursuit of a net-positive energy plus solutions for the development. This studio rejects the notion that high performance design

quashes architectural expression. Rather, it asserts that the ability to understand program, systems, networks, and flows can lead to design opportunities, and the ability to synthesize place making solutions based on disparate, varied and complex interactions— ecological, economic, social—is at the core of innovation and design excellence. The studio will conduct parallel explorations of (1) development in the 21st century — people, places, history, aspiration, reality; and (2) sustainability and resilience in a crowded planet. The course will emphasize drawing and modeling in a generative mode, and utilize energy modeling for the evaluation and development of schematic design.

Spring 2019: Arch5250: Net Positive Studio: The Made and the Born. Adaptation, Flux and Housing.

The studio will take up the challenge of housing in the context of a resilient future. Integrating environmental technology and design in the pursuit of a net-positive energy plus solutions for prefabricated housing. This studio rejects the notion that high performance design quashes architectural expression. Rather, it asserts that the ability to understand program, systems, networks, and flows can lead to design opportunities, and the ability to synthesize place making solutions based on disparate, varied and complex interactions—ecological, economic, social—is at the core of innovation and design excellence. The studio will conduct parallel explorations of (1) housing in the 21st century — people, places, history, aspiration, reality; and (2) sustainability and resilience in a crowded planet. The course will emphasize drawing and modeling in a generative mode, and utilize energy modeling for the evaluation and development of schematic design.

Spring 2018: (with William Weber) Arch5250: Net Positive Studio: Capacity, Fit and Measure.

Capacity. Fit. Measure took up the challenge of housing in the context of a resilient future. Integrating environmental technology and design in the pursuit of a net-positive energy plus solutions for housing in an urban context. This studio rejects the notion that high performance design quashes architectural expression. Rather, it asserts that the ability to understand program, systems, networks, and flows can lead to design opportunities, and the ability to synthesize place making solutions based on disparate, varied and complex interactions—ecological, economic, social—is a at the core of innovation and design excellence. The studio will conduct parallel explorations of (1) housing in the 21st century — people, places, history, aspiration, reality; and (2) sustainability and resilience in a crowded planet. The course will emphasize drawing and modeling in a generative mode, and utilize energy modeling for the evaluation and development of schematic design.

Fall 2017: (with William Weber) Arch5550: Environmental Technology: Integrative Ecological Design for Responsive Architecture.

The course introduces the ecological design concepts and principles of daylighting, thermal, energy, and building systems integration. The course will provide students with an understanding of the primary architectural and technological implications of lighting and thermal to inform design and ecological thinking and to support sustainable design decision-making.

Fall 2016: (with Jim Lutz) Arch5550: Environmental Technology: Integrative Ecological Design for Responsive Architecture.

The course introduces the ecological design concepts and principles of daylighting, thermal, energy, and building systems integration. The course will provide students with an understanding of the primary architectural and technological implications of lighting and thermal to inform design and

ecological thinking and to support sustainable design decision-making.

Fall 2015: (Co-developed and taught with William Weber) Adapted the course Arch5516 to Arch5550: Environmental Technology: Integrative Ecological Design for Responsive Architecture.

The course introduces the ecological design concepts and principles of daylighting, thermal, energy, and building systems integration. The course will provide students with an understanding of the primary architectural and technological implications of lighting and thermal to inform design and ecological thinking and to support sustainable design decision-making. An integrated approach to the course topics will be explored from a variety of perspectives to address the following course objectives:

- Promoting Ecological and Holistic Systems Thinking: To provide students with daylighting and thermal design processes and integrated tools that enable them to evaluate, assess, and apply a holistic approach to zero-energy and carbon-neutral design.
- Understanding and application of design analysis to size and integrate passive and active systems to meet programmatic environmental building needs with an understanding of broader ecological impact of choices.
- Introduce students to the formal, aesthetic, and experiential opportunities of an ecological approach to daylighting, thermal, and systems integration in design. Environmental factors and technology should enhance architectural design quality with tectonic expression of place based design.
- Integrating Appropriate Design and Technology Applications: Learn to employ design and technology appropriately to achieve optimal social and ecological effectiveness.
- Developing Methods of Design and Performance Assessment and Testing: To introduce and apply qualitative and quantitative methods and design tools for ecological assessment and performance analysis

Spring 2015: Developed the course: The Urgent and Hopeful Future of Regenerative Design, Arch 5750,

A graduate level seminar exploring sustainable design to reframe the discipline from just reducing negative impacts, to understand the philosophy and rigorous trajectory of restorative and regenerative design which aspires to make positive impacts on the socio-ecological health of places with every act of design, planning and construction. The course will review the “cutting edge” of sustainable design including the evolution of mindset processes and tools required for a future where all life thrives.

Boston Architectural College, Sustainable Design Institute, Boston, MA – 2008 – present, Adjunct Faculty

Developed the course: The Urgent and Hopeful Future of Sustainable Design, 400 and graduate level online class exploring ecological sustainability, design process, and analysis of the context of design beyond the individual building to the ecosystem scale.

Bainbridge Graduate Institute, Bainbridge Island, WA 2012 – 2014, Faculty

Developed and delivered a sustainable building certificate program integrated into the Sustainable MBA degree at the Bainbridge Graduate Institute.

University Of Hawaii, Manoa, Architecture and Business Schools. 2013, Executive Education Program., Faculty

Developed and delivered an international sustainable executive education program for the university for architects, engineers, interior designers, contractors and developers. The majority of the attendees are from the China State Construction Engineering Corporation (CSCEC) and U.S. professionals working on sustainable projects around the world.

International Living Future Institute, 2010 – 2014, Faculty,

Living Building Challenge Workshops, Net Zero Energy Design, and Net Zero Water Design Education, Developed and delivered workshops on the Living Building Challenge, and Net Zero Energy.

US Green Building Council - July, 2008 - December, 2009, LEED Faculty

Recognized expert practitioner in the green building industry taught and developed USGBC education programs and educated thousands of professionals on green building practices and benefits and the LEED rating systems. Reviewer of LEED Workshops for New Construction and Existing Buildings.

Guest Lectures

College of Design, University of Minnesota, Minneapolis, MN– 2014 – present

“Regenerative Design and Living Communities”, Guest Lecturer, University of Minnesota, Design Duluth Studio, Ozayr Saloojee, Vince DeBrito and James Wheeler, (Fall 2016)

“Regenerative Design and Living Communities”, Guest Lecturer, Syracuse University Architecture Course: City Wild, Changing Architectures, Susan Dieterlen. (April 2016.)

“Regenerative Design”, Guest Lecturer, University of Minnesota, Architecture and Ecology Course, Dan Handeen, (March 2016.)

“Regenerative Design”, Guest Lecturer, University of Minnesota, Interior Design, Tina Patel, (March 2016.)

“Regenerative Design and Living Communities”, Guest Lecturer, University of Minnesota, Design Duluth Studio, Ozayr Saloojee, Vince DeBrito and James Wheeler, (Fall 2015)

ADVISING AND MENTORING

ADVISING COMMITTEES

Master's Thesis/Research Committee: Committee Chair

Zahra Esmaeilzadehrazlighi, Master of Science, Architecture M S, (2021)

Shaghayegh Koochi, Master of Science, Architecture M S, (2020)

Nathaly Aizpurua Miranda, Master of Science, Architecture M S, (2020)

Neva Hubbert, Master of Science, Architecture M S, (2020)

Parisa Mokhtari, Master of Science, Architecture M S, (2020)

Priyanka Saglani, Master of Science, Architecture M S, (2019)

Abhishek Khanna, Master of Science, Architecture M S, (2019)

Mona Shanbhag, Master of Science, Architecture M S, (2019)

Danielle Baehm, Master of Science, Architecture M S, (2018)

Lusine Ghushchyan, Master of Science, Architecture M S, (2018)

Alicia Freire Yagual, Master of Science, Architecture M S, (2018)

Aysegul Akturk, Master of Science, Architecture M S, (2016)

Master's Thesis/Research Committee: Committee Member

Alicia Friere Yagual, Master of Science, Architecture M S, (2018)

Joseph Messier, Master of Science, Architecture M S, (2016)

Parul Jain, Master of Science, Architecture M S, (2016 - Present)

Morgan Mangelsen, Master of Landscape Architecture, Landscape Architecture M L A, (2016)

Master's of Architecture: Advisor

Ali Karlen, Master of Architecture, (2016 – 2019)

Lucas McCann, Master of Architecture, (2016 – 2019)

Sarah Gastler, Master of Architecture, (2015 – 2018)

Steve Lin, Master of Architecture, (2015 – 2018)

Visiting Scholars and Post-Graduates: Advisor

Maaz Dixit: BHAVAN Fellowship Program, (August 2016 to February 2017)

SERVICE AND PUBLIC ENGAGEMENT

Service to the Discipline/Profession/Interdisciplinary Area(s)

Secretary

US Green Building Council, Washington, DC, United States, approximately 60 hours spent per year.
(November 2008 - December 2010).

Board Member

US Green Building Council, Washington, DC, United States, approximately 60 hours spent per year.
(November 2006 - December 2010).

Founder

Maine Chapter of the US Green Building Council, Portland, ME, United States, approximately 240
hours spent per year. (November 2001 - December 2008).

Service to the University/College/Department

University

Member, Advisory Committee, Institute on Environment, Carbon Neutral Minnesota Initiative.
University of Minnesota. (June 2019- present.)

Member. Eastcliff Building Committee. University of Minnesota. (August 2017 – present)

Representative. Regional Sustainable Development Partnerships Statewide Board. University of
Minnesota. (April 2016 – present)

Member. Grand Challenge Working Group: Enhancing Individual and Community Capacity for a
Changing World. University of Minnesota. (April 2016 – June 2016)

College

Chair, School of Architecture Curriculum Committee. College of Design. University of Minnesota.
(June 2020 - present).

Director, MS Sustainable Design Program. College of Design. University of Minnesota. (June 2018 -
present).

Member, Head of School of Architecture Search Committee. College of Design. University of
Minnesota. (June 2019 - June, 2020).

Member, Dean Search Committee. College of Design. University of Minnesota. (August 2015 - February 2016).

Member, Dean Search Committee. College of Design. University of Minnesota. (August 2014 - February 2015).

Department

Member, Faculty Search Committee. School of Architecture. College of Design. University of Minnesota. (September 2017 - present).

Member, Graduate Curriculum Committee. School of Architecture. College of Design. University of Minnesota. (September 2017 - present).

Chair of the AdHoc Technology Review Committee, School of Architecture, College of Design, University of Minnesota, (Spring 2015 to present)

Fellowship Committee: School of Architecture, College of Design, University of Minnesota. Spring 2015 to present.

Environmental Technology Curriculum Committee. School of Architecture, College of Design, University of Minnesota, Summer/Fall 2014.

Profession, Public and External Service

Reviewer, Journal of Biomimetics. Basel, Switzerland.. Article: Biomimicry in French Urban Projects. Trends and Perspectives from Practice. January 2021 - March, 2021

Technical Expert, Minnesota Departments of Commerce and Labor and Industry. Future Trajectory for the Minnesota Energy Code. September 2019 - June 2020.

Reviewer, IGI Global - *Examining the Environmental Impact of Materials*, Hersey PA. May 2019 - March 2020.

Reviewer, *Ecologies Design: Transforming Architecture, Landscape and Urbanism* edited by Maibritt Pedersen Zari, Peter Connolly, and Mark Southcombe: Routledge. Abingdon, UK. Initial Submitted to Publisher August 2019.

Reviewer, Faculty Grants. University of North Carolina, Charlotte. May, 2019.

Reviewer, Book Proposal. Elsevier. Torgal, F. Pacheco, Cabeza, Luisa F., Granqvist, Claes-Goran, Eco-efficient Materials for Mitigating Building Cooling Needs: Design, Properties and Applications, Second Edition. May, 2019.

Member, Advisory Committee, Family Housing Fund, Construction Revolution Summit, April 2019 – present.

Member Advisory Committee to the Legislative Energy Commission, State of Minnesota, (April 2015 - present.)

Strategic Advisor, International Living Future Institute, Seattle, Oregon. (July 2012 - present).

Reviewer: Ianchenko, A., Simonen, K., Barnes, C. "Residential Building Lifespan and Community Turnover" Journal of Architectural Engineering. Lincoln, Nebraska. September, 2018.

Reviewer: Cai, J. Zhang, H. and Braun, J. “A Whole Building Life-Cycle Assessment Approach to Support Decision-Making for Sustainable Buildings.” ACEEE Summer Study Conference Proceedings in the Springer Journal, Switzerland. June, 2018.

Reviewer: Sobin, R., Carley, E., Blumstein, C., Hunferford, D., McGrory, L. and Harris, J. “Energy Efficiency is Not Enough: Rethinking Building Energy Performance for Good Times and Bad.” ACEEE Summer Study Conference Proceedings in the Springer Journal, Switzerland. June, 2018.

Reviewer. “Energy Efficient Building Refurbishment.” Elsevier, Oxford, UK. July 2015.

Reviewer. “Principles for Evaluating Building Materials.” Elsevier, Oxford, UK., April, 2015.

Reviewer. “Smart Buildings.” Elsevier, Oxford, UK. (January, 2015.)

Reviewer. “Third Exposure Draft on the Valuation of Green and High Performance Property”, Background and Core Competency for the Appraisal Practices Board, Washington, DC. (December 2014.)

Contributor/Editorial Review, Trim Tab, (2012 to 2014.)