DAWN ELLEN LEHMAN

Curriculum Vitae

Civil and Environmental Engineering 214 B More Hall, Box 352700 Seattle WA 98195 Phone: 206.715.2108 Fax: 206.543.1543 Email: delehman@uw.edu

EDUCATIONAL HISTORY

University of California, Berkeley, CA Ph.D., Civil and Environmental Engineering December 1998 Dissertation: Performance-Based Seismic Design of Well-Confined Concrete Columns

University of California, Berkeley, CA M. Eng., Civil and Environmental Engineering December 1992 Thesis: Second-Order Effects in Steel Moment Frames

Tufts University, Medford, MA B.S., Civil Engineering May 1989

EMPLOYMENT HISTORY

University of Washington Civil and Environmental Engineering Professor, 2014 - present

University of Washington Civil and Environmental Engineering Associate Professor, 2009-2014

University of Washington Civil and Environmental Engineering Assistant Professor, 2002 - 2009

University of Washington Civil and Environmental Engineering Acting Assistant Professor, 1998-2002

University of California Berkeley, CA USA Graduate Student Researcher, 1992-1998

Alameda College Alameda, CA USA Lecturer, 1995

University of California

Berkeley, CA USA Graduate Student Instructor, 1992-1994

United Engineers and Constructors Boston MA USA Structural Engineer, 1989-1990

AWARDS AND HONORS

Chaired Positions

John R. Kiely Professor in Civil and Environmental Engineering, 2006 -2010, UW

Awards

Chair's Service Award, UW CEE, 2018 Transitional Support Program Award, ADVANCE, 2017, UW 2008 Munro Prize, The Engineering Structures Award for the Best Paper of the Year Outstanding Earthquake Spectra Paper, 2007, Earthquake Engineering Research Institute Transitional Support Program Award, ADVANCE, 2004, UW Outstanding Graduate Student Instructor, 1993, UC Berkeley

Nominations

Faculty Innovator: Research, 2010, College of Engineering, UW Distinguished Teaching Award, 2006, UW Outstanding Educator Award in the College of Engineering, 2004, UW

AFFILIATIONS AND OTHER APPOINTMENTS

(All appointments at University of Washington)

Computer Science and Engineering Special Advisor on Construction, 2016-2018

Clean Energy Institute Special Advisor on Infrastructure, 2015-2016

Office of Planning and Budgeting Special Advisor to the Vice Provost on Space Use and Planning, 2013-2015

College of Engineering Associate Dean for Infrastructure, 2012-2015

PUBLICATIONS

Refereed Archival Journal Publications

1. Zhao M, Lehman D and Roeder C. (2021) "Modeling Recommendations for RC and CFST Sections in LS-Dyna including Bond Slip" Engineering Structures, February 2021.

- Zhao M., Wang Y., Lehman D., Geng Y. and Roeder C. (2021) "Response and Modeling of Axially-Loaded Concrete-Filled Steel Columns with Recycled Coarse and Fine Aggregate" Engineering Structures, May 2021.
- Behrouzi A., Mock A., Lehman, D., Lowes L. and Kuchma D. (2020) "Impact of Bi-Directional Loading on the Seismic Performance of C-Shaped Piers of Core Walls", Engineering Structures, January 2020.
- 4. H Asada, AD Sen, T Li, JW Berman, DE Lehman (2020) <u>Seismic performance of chevronconfigured special concentrically braced frames with yielding beams</u>, Earthquake Engineering & Structural Dynamics, 2020.
- Zhang, H., Calvi, P., Lehman, D., Kuder, K. and Roeder, C. (2020) "Response of Recycled Coarse Aggregate Concrete Subjected to Pure Shear", ASCE Journal of Structural Engineering, 146 (5), 04020075.
- Guo, Z. Jiang, T., Zhang, J., Kong, X. Chen, C. and Lehman, D. (2020) Mechanical and durability properties of sustainable self-compacting concrete with recycled concrete aggregate and fly ash, slag, silica fume. Construction & Building Materials. Volume 231, 20 January 2020, 117115.
- Lowes, L., Lehman, D and Baker, C. (2020) SP-339-11: Recommendations for Modeling the Nonlinear Response of Flexural Reinforced Concrete Walls Using Perform. ACI Special Publication, 2020.
- 8. Zhang H, Wang Y, Lehman D, Geng Y, (2020) Autogenous-shrinkage model for concrete with coarse and fine recycled aggregate Cement and Concrete Composites, 2020, Volume 111, August 2020, 103600.
- 9. Wang H, Wang W, Bao Y, Lehman D (2020) Numerical investigation on progressive collapse resistance of steel-concrete composite floor systems. Structure and Infrastructure Engineering, 2020.
- Zhanggen G., Chen C, Lehman D., Xiao W, Zheng S. and Fan B. (2020) Mechanical and durability behaviour of concrete made with recycled coarse and fine aggregates. Pages 171-189 | Published online: 05 Sep 2020.
- Roeder C., Sen D., Asada H., Ibarra S., Lehman D., Berman J., Tsai, K., Tsai, C., Wu A., Wang K., and Liu R. (2019) Seismic Performance and Design of Multistory Chevron Braced Frames with Yielding Beams, Journal of Constructional Steel Research, Journal of Constructional Steel Research, October 2019.
- 12. Roeder, C., Sen, A., Tempstra, C., Ibarra, S. Liu, R., Lehman, D. and Berman, J. (2019) "Effect of beam yielding on chevron braced frames." Journal of Constructional Steel Research 159:428-441. July 2019. DOI: 10.1016/j.jcsr.2019.04.04
- Sen, A., Berman, J., Roeder C. and <u>Lehman, D</u>. (2019) "Nonlinear Modeling of Concentrically Braced Frames, Journal of Constructional Steel Research, 2019. <u>https://doi.org/10.1016/j.jcsr.2019.02.007</u>
- Lowes, L., <u>Lehman, D</u>. and Whitman, Z. (2019) Investigation of failure mechanisms and development of design recommendations for flexural reinforced concrete walls. May 2019. Engineering Structures 186:323-335 DOI: 10.1016/j.engstruct.2019.01.122
- 15. Li T., Sen A., Roeder C., <u>Lehman D</u>., Berman, J., Eberhard, M., and Marafi, N. (2019) "Seismic Performance of Special Concentrically Braced Frames in Deep Basins during Subduction-Zone

Earthquakes", Engineering Structures, March 2019, Engineering Structures 188(1):87-103, DOI: 10.1016/j.engstruct.2019.02.057

- Wang, J., Wang, W., Lehman, D. and Roeder, C. (2019) "Effects of different steel-concrete composite slabs on rigid steel beam-column connection under a column removal scenario", Journal of Constructional Steel Research 153:55-70, DOI: 10.1016/j.jcsr.2018.09.025
- Marafi, N., Kamal, K., Lehman, D. and Lowes, L. (2019) "Variability in Seismic Collapse Probabilities of Solid and Coupled-Wall Buildings", Journal of Structural Engineering, April 2019
- Wang, J., Wang, W., Lehman, D. and Roeder, C. (2019) "Effects of different steel-concrete composite slabs on rigid steel beam-column connection under a column removal scenario", Journal of Constructional Steel Research, 153, 55-70, 2019, <u>https://doi.org/10.1016/j.jcsr.2018.09.025</u>
- 19. <u>Lehman, D</u>., Roeder, C., Heid, A. and Yoo, J.H. (2018) "Shear Response of Concrete Filled Tubes Part II: Analytical Study", Journal of Constructional Steel Research, 153, 169-178, 2018
- Lehman, D., Roeder, C., Heid, A., Maki T., and Khaleghi, B. (2018) "Shear Response of Concrete Filled Tubes Part I: Experiments", Journal of Constructional Steel Research, 150, 528-540, 2018
- Guo Z., Tu, A., Chen, C., <u>Lehman, D</u>. (2018) "Mechanical properties, durability, and life-cycle assessment of concrete building blocks incorporating recycled concrete aggregates" Journal of Cleaner Production 199, 136-149, 2018
- 22. Welt, T. <u>Lehman, D</u>., Lowes, L. and Lafave, J. "A Constitutive Model Incorporating Compressive Energy for Rectangular RC Sections Across a Range of Confinement Conditions", Engineering Structures, 193, 344-362, 2018
- Roeder, C., Stephens, M. and <u>Lehman, D</u>. (2018) "Concrete Filled Steel Tubes for Bridge Pier and Foundation Construction", International Journal of Steel Structures 18(1): 1-11 (2018), DOI 10.1007/s13296 March 2018, Volume 18, <u>Issue 1</u>, pp 39–49
- Shegay, A., Motter, C. <u>Lehman, D</u>., Lowes, L., Elwood, K. and Henry, R. (2018) "Impact of Axial Load Ratio on the Seismic Response of Rectangular Walls", Journal of Structural Engineering, Journal of Structural Engineering 144 (8), 04018124
- 25. Stephens, M., <u>Lehman, D</u>. and Roeder C. (2018) "Seismic Performance Modeling of Concrete-Filled Steel Tube Bridges: Tools and Case Study", Engineering Structures, 165, 88-105
- 26. Welt T., <u>Lehman D.</u> and LaFave J. (2018) "Boundary Element Detailing in Special Concrete Structural Walls" ACI Structural Journal 115 (3), 635-647
- Lowes, L. Pugh, J. and <u>Lehman D.</u> (2017) "Accurate Methods for Elastic Seismic Demand Assessment of Reinforced Concrete Walls", ASCE Journal of Structural Engineering, Journal of Structural Engineering, Vol. 143, Issue 8 (August 2017) <u>https://doi.org/10.1061/(ASCE)ST.1943-541X.0001669</u>
- Z Guo, C Chen, B Fan, DE Lehman, W Sun (2017) "Experimental study on frame structures with recycled aggregate concrete under lateral cyclic loads" Structural Concrete 19 (2), 411-421.

- Sen A., Roeder C., <u>Lehman D.</u> and Berman, J. (2017) "Development and Evaluation of Seismic Retrofit Alternatives for Older Concentrically Braced Frames", Journal of Structural Engineering 142 (12), 04016123.
- Welt, T., Massone, L., LaFave, J., and <u>Lehman, D</u>. (2017) "Confinement Behavior of Rectangular Reinforced Concrete Prisms Simulating Wall Boundary Elements", ASCE Journal of Structural Engineering, April 2016
- 31. Chen, J., Kuder, K., <u>Lehman D</u>., Roeder C., and Lowes L. (2017) "Creep Modeling of Concretes with High Volumes of Supplementary Cementitious Materials and its Application to Concrete-Filled Tubes", Materials and Structures, 50(1) February 2017.
- Z Guo, Z Xu, C Chen, B Zhang, DE Lehman, S Cao. (2017) "Behavior of GFRP retrofitted reinforced concrete slabs subjected to conventional explosive blast" Materials and Structures 50 (6), 236
- H Zhu, MT Stephens, CW Roeder, DE Lehman (2017) "Inelastic response prediction of CFST columns and connections subjected to lateral loading" Journal of Constructional Steel Research 132, 130-140
- 34. E Jung, SH Lee, JH Yoo, C Roeder, D Lehman (2017) "Shear behavior of large-diameter concrete filled tube (CFT)" International Journal of Steel Structures 17 (4), 1651-1665
- Stephens, M., <u>Lehman, D</u>. and Roeder, C. (2016) "Design of CFST Column-to-Cap Beam Connections for Moderate and High Seismic Regions" Engineering Structures 122:323-337 September 2016 DOI: 10.1016/j.engstruct.2016.05.023
- Moon, J., <u>Lehman, D.</u>, Roeder, C., Lee, H and Lee, T. (2016) "Analytical Evaluation of Reinforced Concrete Pier and Cast-in-Place Steel Shell Pile Connection Behavior considering Steel-Concrete Interface" Journal Advances in Materials Science and Engineering, Volume 2016, Article ID 4159619, 14 pages.
- Sen, A.D., Sloat, D., Ballard, R., Johnson, M.M., Roeder, C.W., <u>Lehman, D.E.</u>, and Berman, J.W. (2016). "Experimental evaluation of the seismic vulnerability of braces and connections in older concentrically braced frames." *ASCE Journal of Structural Engineering*. 10.1061/(ASCE) ST.1943-541X.0001507, 04016052.
- Stephen, M., Berg, L., <u>Lehman, D</u>., and Roeder, C. (2016) "Seismic CFST Column-to-Precast Cap Beam Connections for Accelerated Bridge Construction" ASCE Journal of Structural Engineering, *J. Struct. Eng.*, 10.1061/(ASCE)ST.1943-541X.0001505.
- Sen, A.D., Roeder, C.W., Berman, J.W., <u>Lehman, D.E.</u>, Li, C.H., Wu, A.C., and Tsai, K.C. (2016). "Experimental investigation of chevron concentrically braced frames with yielding beams." *Journal of Structural Engineering*, 10.1061/(ASCE)ST.1943-541X.0001597.
- Palmer, K., Roeder, C. and <u>Lehman, D</u>. (2016) "Connection Design Recommendations for Improved BRBF Performance", AISC Engineering Journal, January 2016, Issue 53, Pages 29-45.
- Lowes, L. Pugh, J. and <u>Lehman D</u>. (2015) "Line-Element Modeling of Flexural Reinforced Concrete Walls", Engineering Structures, Vol. 104, December 2015, Pages 174–192 10.1016/j.engstruct.2015.08.037
- 42. Birley, A., Lowes, L. and Lehman, D. (2014) "Evaluation of ASCE 41 Modeling Parameters for Slender Reinforced Concrete Structural Walls" ACI Special Publication 297, Issue: 1-18
- 43. Stephens, M.¹, <u>Lehman D.E.</u>, and Roeder, C.² "(2014) Concrete Filled Tubes for Accelerated Bridge Construction" Journal of the Transportation Research Board, DOI: 10.3141/2406-06, 2014.

- 44. <u>Lehman, D.E.</u>, Kuder, K.², Gunnarsson, A.K.¹, Roeder, C.W.², and Berman, J.W.² (2014) "Circular Concrete Filled Tubes for Improved Sustainability and Seismically Resilience" *J. Struct. Eng.* 141, SPECIAL ISSUE: Sustainable Building Structures, B4014008.
- 45. <u>Lehman, D.</u> and Roeder, C.² (2013) "A New Connection for Seismic Performance Enhancement of Marginal Wharves" ACI Special Publication, Recent Advances in the Design of Prestressed Concrete Piles in Marine Structure in Seismic Regions, September 2013.
- 46. Moon, J.¹, <u>Lehman, D.E.</u>, Roeder, C.W.², and Lee, H-E² (2013) "Evaluation of Embedded Concrete Filled Tube (CFT) Column-to-Foundation Connections," *Engineering Structures*, Elsevier, http://dx.doi.org/10.1016/j.engstruct.2013.04.011.
- Lehman, D., Lowes, L.², Turgeon, J.¹, Birely A.¹, Kuchma D.², Marley, K. and Hart C. (2013) "Seismic Behavior of Modern Coupled Walls", *ASCE Journal of Structural Engineering*, 139, SPECIAL ISSUE: NEES 2: Advances in Earthquake Engineering, 1371–1381, July 2013.
- Chiaramonte, M. ¹Arduino, P.², <u>Lehman, D.</u>, and Roeder C.², (2013) "Seismic Analyses of Conventional and Improved Marginal Wharves." *Earthquake Engineering and Structural Dynamics*, Article first published online: Jan 10 2013 DOI: 10.1002/eqe.2280.
- Lehman, D, Roeder, C.W.², Stringer, S.J.¹, and Jellin, A.¹ (2013) "Seismic Performance of Improved Pile-to-Wharf Deck Connections," *PCI Journal*, Precast/Prestressed Concrete Institute, Summer 2013.
- Moon J.¹, <u>Lehman D.</u>, Ko H., and Lee H. (2013). "Analytical Simulation of Axial Behavior of RCFT Wall". Applied Mechanics and Materials, Vol. 284-287, pp. 1220-1224. doi:10.4028/www.scientific.net/AMM.284-287.1220.
- 51. Hsaio, P.¹ <u>Lehman, D</u>. and Roeder, C.² (2013) "Evaluation of the Response Modification Coefficient and Collapse Potential of SCBFs", *Earthquake Engineering and Structural Dynamics*, to appear in print. Published online: 14 Feb 2013, DOI: 10.1002/eqe.2286.
- Palmer, K.¹, Roeder, C.², <u>Lehman, D</u>., Okazaki, T², and Shield, C.² (2013) "Experimental Performance of Steel Braced Frames Subjected to Bi-Directional Loading", *Journal of Structural Engineering 139, SPECIAL ISSUE: NEES 2: Advances in Earthquake Engineering, 1274–1284. doi: 10.1061/41171(401)266.*
- 53. Palmer, K.¹ Roeder, C.², <u>Lehman, D</u>., Okazaki, T.² and Shield, C.² (2012) "Concentric X-Braced Frames with HSS Bracing", *International Journal of Steel Structures* (IJoSS), International Journal of Steel Structures, September 2012, Volume 12, <u>Issue 3</u>, pp 443-459.
- 54. Moon, J.¹, <u>Lehman, D. E.²</u>, and Roeder, C. W.² (2012). "Strength of Circular Concrete-filled Tubes (CFT) with and without Internal Reinforcement under Combined Loading." *ASCE Journal of Structural Engineering*, Permalink: <u>http://dx.doi.org/10.1061/(ASCE)ST.1943-541X.0000788</u>.
- 55. <u>Lehman, D.E.</u> and Roeder, C.W.² (2012) "Foundation Connection for Circular Concrete Filled Tubes," *Journal of Constructional Steel Research,* Vol. 78, November 2012, pgs. 212-25, Elsevier.
- Lumpkin, E.J.¹, Hsiao, P-C¹, Roeder, C.W.², <u>Lehman, D.E.</u>, Tsai, C-Y, Wu, A-C, Wei, C-Y, and Tsai, K-C, (2012) "Investigation of the Seismic Response of Multi-Story Braced Frames," *Journal of Constructional Steel Research*, Vol. 77, Oct 2012, pgs 131-144.
- 57. Birely¹, A.C., Lowes, L.N., Lehman, D.E. (2012) "Linear Analysis of Concrete Frames Considering Joint Flexibility" *ACI Structural Journal* 109(3) (2012): 381-391, May 2012.

- Hsiao, P-C¹, <u>Lehman, D.E.</u>, and Roeder, C.W.² (2012) "Improved Analysis Model for Special Concentrically Braced Frames," *Journal of Constructional Steel Research*, v 73, p 80-94,June 2012;ISSN: 0143974X;DOI: 10.1016/j.jcsr.2012.01.010.
- Lowes, L.², <u>Lehman, D</u>., Birley A.¹, Kuchma D.², Marley, K¹. and Hart C.¹ (2012) "Seismic Behavior of Slender Planar Walls with Well-Confined Boundary Elements," *Engineering Structures*, Volume 43, October 2012, p. 31-47. [J] ISSN: 0141-0296 DOI: 10.1016/j.engstruct.2012.04.040.
- Hsiao, P-C¹, <u>Lehman, D.E.</u>, Berman, J.W.², Roeder, C.W.², and Powell, J.¹ (2012) "Seismic Vulnerability of Older Braced Frames," *Journal of Performance of Constructed Facilities*, ASCE, Reston, VA, DOI 10.1061(ASCE) CF.1943-5509.0000394.
- 61. Hsiao, P.¹, Roeder, C.² and <u>Lehman D.</u> (2012) "A Model to Simulate Special Concentrically Braced Frames beyond Brace Fracture.", *Earthquake Engineering and Structural Dynamics*, Article first published online: 11 May 2012 DOI: 10.1002/eqe.2202.
- Moon, J.H.¹, Roeder, C.², <u>Lehman D</u>. and Lee, H.² (2012) "Analytical Modeling of Bending of Circular Concrete-filled Tubes", *Engineering Structures*, Vol. 42, September, 2012. p. 349-36.
- Hsiao, P.¹, <u>Lehman, D</u>. and Roeder C.² (2012) "Improved Analytical Model for Special Concentrically Steel Braced Frames", *Journal of Constructional Steel Research* Volume 73, June 2012, Pages 80–94.
- 64. Kuder, K.², <u>Lehman, D.</u>, Berman, J.², Hannesson G.¹ and Shogren, R. (2012) "Mechanical Properties of Self Consolidating Concrete Blended with High Volumes of Fly Ash and Slag" *Construction & Building Materials*, Volume 34, September 2012, Pages 285-295.
- 65. Hannesson, G.¹, Kuder, K.², Shogren R. and <u>Lehman, D</u>. (2012) "The Influence of High Volume of Fly Ash and Slag on the Compressive Strength of Self-Consolidating Concrete" *Construction & Building Materials*, May 2012, Pages 161-168.
- 66. Lumpkin, E.¹, Roeder, C.² and <u>Lehman, D</u>., (2012) "Seismic Performance Assessment of Concentrically Braced Frames", *Earthquake Spectra*, May 2012, Vol. 28, No. 2, pp. 709-727.
- Birely, A¹, Lowes, L.², and <u>Lehman D.</u> (2012) "A Model for the Practical Nonlinear Analysis of Concrete Moment Frame Systems including Joint Flexibility", *Engineering Structures*, <u>Volume 34</u>, January 2012, pages 455–465.
- 68. Berman, J.W.¹, Wang, B-S.¹, Olson, A.W.¹, Roeder, C.W.², and <u>Lehman, D.E.</u> (2012) "Rapid Assessment of Gusset Plate Safety in Steel Truss Bridges," ASCE, *Journal of Bridge Engineering*, Vol 17, No. 2, Reston, VA pgs 221-31.
- Lumpkin, E.J.¹, Hsiao, P.C.¹, Roeder, C.W.², <u>Lehman, D.E.</u>; Tsai, C.Y.; Wu, A.C.; Wei, C.Y.; Tsai, K.C.² (2012) "Investigation of the Seismic Response of Three-Story Special Concentrically Braced Frames" *Journal of Constructional Steel Research* vol. 77 October, 2012. p. 131-144.
- 70. Lumpkin, E.¹, Roeder, C.² and <u>Lehman, D</u>. (2011) "A Balanced Design Method for Special Concentrically Braced Frame Connections", *Journal of Constructional Steel Research*, Volume 67, Issue 11, November 2011, pages 1760-1772.
- 71. Roeder C.², <u>Lehman D</u>., Clark K.¹, Powell, J.¹, Yoo, JH¹, Tsai KC², Lin CH and Weic CY, (2011) "Influence of Gusset Plates Connection and Braces on the Seismic Performance of X-Braced Frames" *Earthquake Engineering and Structural Dynamics*, Volume 40, Issue 4, pages 355–374, 10 April 2011.

- Roeder, C.², <u>Lehman, D</u>. and Bishop, E.¹ "Strength and Stiffness of Circular Concrete Filled Tubes", *ASCE Journal of Structural Engineering*, Vol. 136, No. 12, December 2010, pp. 1545-1553, (doi 10.1061/(ASCE)ST.1943-541X.0000263).
- Alire, D.¹, <u>Lehman, D</u>., and Stanton, J². (2011) "Seismic Evaluation of Older Reinforced Concrete Beam-Column Joints", *ASCE Journal of Structural Engineering*, 10.1061/(ASCE)ST.1943-541X.0000463, Jun. 2011.
- 74. Roeder, C.², <u>Lehman, D</u>. and Thody, R.¹ "Composite Action in CFT Components and Connections", AISC, *Engineering Journal*, Vol. 46, No. 4, Chicago, IL, pgs 229-42.
- 75. Yoo, J. H.¹, Roeder, C.² and <u>Lehman, D</u>. (2009) "Simulated Behavior of Multi-Story X-Braced Systems", *Engineering Structures* 31 182-197. [24 cites]
- <u>Lehman, D.</u>, Roeder, C.², Johnston, S.¹, Herman D.¹, and Kotulka, B.¹ (2008) "Improved Seismic Performance of Gusset Plate Connections", *ASCE Journal of Structural Engineering*, Vol. 134, No. 6, pp. 181-189. [43 cites]
- 77. Lowes, L.N.², Oyen, P.¹, and <u>Lehman, D.E.</u> (2009) "Evaluation and Calibration of Load-Deformation Models for Concrete Walls" *ACI-SP 265: Thomas T.C. Hsu Symposium: Shear and Torsion in Concrete Structures.* Ed. A. Belarbi, Y.L. Mo, A. Ayoub. Farmington Hills: American Concrete Institute: 171-198.
- Yoo, J. H.¹, Roeder, C.², and <u>Lehman D.</u> (2008) "Analytical Performance Simulation of Special Concentrically Braced Frames", *ASCE Journal of Structural Engineering*, Vol. 134, No. 6, pp. 190-198. [19 cites]
- Berry M.¹, <u>Lehman D.</u>, and Lowes L.², (2008) "Lumped Plasticity Models for Seismic Performance Simulation of Bridge Columns", *ACI Structural Journal*, Vol 103, No. 5, pp 270-279. [18 cites]
- 80. Yoo, J.H.¹, <u>Lehman, D.E.</u>, and Roeder, C.W.², (2008) "Influence of Connection Design Parameters on the Seismic Performance of Braced Frames," *Journal of Constructional Steel Research*, Elsevier, Vol. 64, pgs 607-623. [21 cites]
- Yoo, J.H., Roeder, C.W.², and <u>Lehman, D.E.</u>, (2008) "FEM Simulation and Failure Analysis of Special Concentrically Braced Frame Tests," *ASCE Journal of Structural Engineering*, Vol.134, No. 6, Reston, VA, pgs 881-89.
- Anderson, M.¹, <u>Lehman, D.</u>, and Stanton, J.² (2008) "A Cyclic Shear Stress-Strain Model for Joints without Transverse Reinforcement", *Engineering Structures*, Volume 30, Issue 4, pp. 941-954.
- Elwood, K.², Matamoros, A.², Wallace J.², <u>Lehman, D.</u>, Heintz, J.², Mitchell, A.², Moore, M.², Valley, M.², Lowes, L.², Comartin, C.² and Moehle, J.² (2007) "Update to ASCE/SEI 41 Concrete Provisions." *Earthquake Spectra*, 23(3), pp. 493-523. [54 cites]
- Kingsley, A.¹, Williams, T.¹, <u>Lehman, D</u>. and Roeder, C.² (2005) "Experimental Investigation of Column Base Connections for High-Strength Vanadium Steel Concrete Filled Tube Construction", *International Journal of Steel Structures*, V. 5, No. 4. November 2005, pp. 377-387.
- 85. Moehle, J.² and <u>Lehman, D</u>. (2006) "Seismic Response of Columns", *ACI Special Publication*, Vol. 238, October 2006, pp. 23-42.
- 86. Roeder, C.², <u>Lehman, D</u>. and Yoo. J.H.¹ (2005) "Improved Design of Steel Frame Connections", *International Journal of Steel Structures*, v.5, n.2, July 2005.

- 87. <u>Lehman, D</u>., Roeder, C.², and Larson, R.¹ (2005) "Design of Cotton Duck Bridge Bearing Pads", *ASCE Journal of Bridge Engineering*, Volume 10, Issue 5, pp. 555-563 (September/October 2005).
- Lehman, D., Moehle, J.², Calderone, A.³, Henry, H.³ and Mahin, S.² (2004) "Experimental Evaluation of Seismic Design Provisions for Circular Reinforced Concrete Columns", *ASCE Journal of Structural Engineering*, June 2004. [54 cites]
- 89. Raynor, D.¹, <u>Lehman, D.</u>, and Stanton, J.², (2002) "Bond-Slip Response of Reinforcing Bars Grouted in Ducts", *ACI Structural Journal*, Sept.-Oct. 2002, Vol. 99, No. 5. [31 cites]
- 90. Kimura, Y., Tagawa, H., <u>Lehman, D</u>. and MacRae, G.², (2001) "Report of Damage to Building Structures Caused by the Nisqually Earthquake in 2001", *AIJ Journal of Technology* and Design, Architectural Institute of Japan, No. 14, pg. 373-376, December 2001.
- 91. <u>Lehman, D.</u>, Elkin, S.³, Nacamuli, A.³, and Moehle, J.² (2001) "Repair of Earthquake-Damaged Bridge Columns", *ACI Structural Journal*, March-April 2001. [37 cites]
- Elkin, S.³, Nacamuli, A.³, <u>Lehman, D</u>., and Moehle, J. (1999) "Seismic Performance of Damaged Bridge Columns", *Earthquake Engineering and Engineering Seismology*, September 1999, Vol. 1, No.1.

Refereed archival journal discussions

- 1. Lehman, D., Roeder, C. and Zhao, M. (2020) Discussion of "Shear Strength of Composite Circular Reinforced Concrete–Filled Steel Tubes" by Hadi Kenarangi and Michel Bruneau. *ASCE Journal of Structural Engineering*, November 2020.
- LaFave, J.² and <u>Lehman, D</u>. "Discussion of Test of High-Rise Core Wall: Effective Stiffness for Seismic Analysis (Title no. 104-S52) by Adebar and Ibrahim" *ACI Structural Journal*, July 2008.
- Moehle, J.P.², Rodriquez, A.³ and <u>Lehman, D</u>., "Discussion of Simulated Seismic Load Tests on Reinforced Concrete Columns by Watson and Park," *ASCE Journal of Structural Engineering*, February 1996, Vol. 122, No. 2.

Conference proceedings and other non-journal articles

Fully refereed publications (Last Update 2018)

- Lehman, D. and Sumarell, J. EVALUATION OF RC FRAME BUILDINGS DAMAGED IN 2016 MEINONG EARTHQUAKE IN SOUTHERN TAIWAN. Session Title: *Tt011. Learning From Earthquakes 1: Structural Observations*, 11th National Earthquake Engineering Conference, Los Angeles CA, June 2018
- Marafi, M., Lowes, L. and Lehman, D. COLLAPSE ANALYSIS OF RC WALL ARCHETYPES AND SENSITIVITY TO CONSTITUTIVE MODEL PARAMETER UNCERTAINTY, 11th National Earthquake Engineering Conference, Los Angeles CA, June 2018
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- Eberhard, M.O., Stanton, J.F., Tran, H.V., Stephens, M.T., Lehman, D.E., Roeder, C.W., Barbosa, A.R., Trejo, D., Link, T., Nielson, D., Manzarei, V. (2015) "High Performance Bridge Systems for Lifeline Corridors in the Pacific Northwest", Final Report for the Pacific Northwest Transportation Consortium. Report Number PACTRANS12-03.
- Stephens, M.T., Lehman, D.E., and Roeder (2015b) "Concrete-Filled Tube Bridge Pier Connections for Accelerated Bridge Construction", Final Report for the California Department of Transportation. Report Number CA15-2417.
- Roeder, C.W., Lehman, D.E., and Stephens, M.T. "Seismic Design of Concrete Filled Tubes and Their Connections", Proceedings of the 2013 EERI Annual Meeting, 12 February - 15 February 2013, Seattle WA.
- Roeder, C.W., Lehman, D.E., Stephens, M.T., and Moon, J. "Seismic Design of Concrete Filled Tubes and Their Connections", Proceedings of the Western Bridge Engineers Seminar, 3 September - 6 September 2013, Bellevue WA.
- 6. Stephens, M.T., Roeder, C.W., Lehman, D.E., and Moon, J. "Seismic Design of Concrete Filled Tube Bridge Pier Connections for Accelerated Bridge Construction", Proceedings of Quake Summit 2013, 7 August - 8 August, Reno NV.
- Lehman, D. and Roeder, C. (2012) "Foundation Connections for Concrete-Filled Tube Columns in High Seismic Regions", Final Report to the California Department of Transportation.
- 8. Roeder, C. and Lehman, D. (2012) "Connections and Engineering Properties of CFT Cassions", Final Report to the Washington Department of Transportation.
- 9. Lehman, D. Hannesson, G., Kuder, K. (2010) "Mechanical Properties of High-Volume SCM Concretes", Final Report to Transportation Northwest
- Berman, J.W., Wang, B.S., Roeder, C.W., Olson, A.W., and Lehman, D.L. (2010) "Triage Evaluation of Gusset Plates in Steel Bridges." Report *WA-RD* 757.1, Washington State Department of Transportation, Olympia, WA.
- Inouye, B., Lehman, D. and Stanton, J. (2004) "Seismic Evaluation of the SR-99 Spokane Street Overcrossing", Final Report to Washington State Department of Transportation, Olympia, WA.
- 12. Lehman, D.E, Roeder, C.W., Larsen, R.A., and Curtin, K., (2003) "Cotton Duck Bearing Pads: Engineering Evaluation and Design Recommendations," Final Report to Washington State Department of Transportation, Olympia, WA.
- Roeder, C.W., Lehman, D.E., and Larsen, R., (2002) "Strength, Stiffness and Durability of Cotton Duck Bearing Pads for Bridge Applications," Final Report to Arkansas State University, Dept. of Civil Engineering, U. of Washington, Seattle, WA, August 2002.
- 14. Lehman, D.E. Performance Characterization of Non-Ductile Building Frame Components, PEER Report Series, in press.
- Calderone, A., Lehman, D., Moehle, J. (2001) Behavior of Reinforced Concrete Bridge Columns Having Varying Aspect Ratios and Varying Lengths of Confinement, PEER 2000/08, Jan 2001, 136 pp. [23 cites]
- 16. Lehman, D. and Moehle, J. (2000) Performance-Based Seismic Design of Well-Confined Concrete Columns, PEER Research Report 1998/01, December 2000. [92 cites]
- 17. Lehman, D. (1998) Performance-Based Seismic Design of Well-Confined Concrete Columns, Ph.D. Dissertation, University of California, Berkeley, CA, October 1998.
- Moehle, J., Nicoletti, J. and Lehman, D., (1994) Review of Seismic Research Results on Existing Buildings, Product 3.1 of the Proposition 122 Seismic Retrofit Practices Improvement Program, SSC Report No. 94-03, Fall 1994.
- 19. Architectural Institute of Japan, Preliminary Reconnaissance Report of the 1995 Hyogoken-Nanbu Earthquake, English Edition, April 1995.
- 20. Moehle, J. P. Editor, *Preliminary Report on the Seismological and Engineering Aspects of the January 17, 1994 Northridge Earthquake*, EERC, UBC/EERC-94/01, January 1994.

Other significant research dissemination (web sites, software, Wikis, etc.)

UTC Webinar: Concrete Filled Steel Tube Bridge Pier Connections – An ABC Solution <u>https://abc-utc.fiu.edu/mc-events/concrete-filled-steel-tube-bridge-pier-connections-an-abc-solution/?mc_id=148</u>

ATC Webinar: "Assessment of the Performance of Slender Reinforced Concrete Walls under Significant Lateral Loads"

NEES Webinar "Behavior, Design and Analysis of Slender RC Walls" https://www.scribd.com/document/137803891/2013-NEES-Webinar-Lowes-Lehman-Slides

NEESR Wall Project You Tube: http://www.youtube.com/user/NEESRWallProject?feature=watch

NEES Wall Test Documentation including Data, Reports and Publications: http://nees.org/resources/3677

International Hybrid Simulation of Tomorrow's Concentrically Braced Frame Database: <u>http://nees.org/warehouse/project/605</u>

Research to Practice Webinar: Improving Seismic Performance of Concentrically Braced Frames http://nees.org/announcements/researchtopractice-improvingseismicperformance

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars

- 1. Seismic Resilient Concrete-Filled Steel Tube Substructures, Part of the In-depth Webinar Training
- 2. "CFST Components and Connection for Transportation Infrastructure", PEER Researcher Workshop, August 2019.
- 3. "CFST Pile Foundations and Connections", Portland OR, May 2019.
- 4. "CFST Connections", Webinar for FIU FHWA ABC Center Research Day, May 2019.
- 5. "Use of CFSTs for Deep Foundations", SuperPile, Seattle WA, May 2019.
- 6. "Seismic Evaluation and Retrofit of Concentrically Braced Frames" Steel Conference, St. Louis MO, April 2019.
- 7. "Seismic Performance of Chevron-Configured SCBFs with Yielding Beams", SEAW EEC, March 2019.
- 8. "Seismic Evaluation of Frame Structures Damaged in the 2016 Southern Taiwan Earthquake", ATC 134 Project Review Panel Meeting, June 2018.
- 9. "Recommendations for Analysis, Design and Detailing of Walls in Regions of High Seismicity", Webinar, Civil Engineering Department Seminar Series, University of British Columbia, March 2018.
- 10. "Seismic Behavior and Design of Concrete Walls", 500 Seminar Series, CEE UW, March 2018.
- 11. "Concrete Filled Steel Tubes: Structural and Geotechnical Response" WSDOT, January 2018.
- 12. "Concrete Filled Steel Tube Piles" Caltrans, October 2017.
- 13. "Design and Analysis Tools for Performance-Based Earthquake Engineering of Structural Walled Buildings" UC Davis, October 2017.

- 14. "New Recommendations for Seismic Design and Analysis of Structural Walled Buildings", KPFF.
- 15. "Improved Seismic Performance using Concrete Filled Tubes" (2017) Structural Engineers Associate of Northern California.
- 16. "Impact of Stiffness Irregularities on Collapse Potential of Walled Buildings" (2017) BSSC PUC Issue Team on Shear Walls.
- 17. "Detailing Recommendations for Wall Boundary Elements" (2015) Earthquake Engineering Committee of SEAW, Seattle WA
- 18. "Recommendations for Boundary Element Detailing in Special Concrete Walls" (2015) Wall Institute, Santa Barbara, CA
- 19. "Experimental Evaluation of Boundary Elements in Planar Concrete Walls" (2014) Wall Institute, UCLA.
- 20. "Resilient and Rapid Construction of Concrete Filled Tube Bridges" (2014) Earthquake Engineering Committee of the California Department of Transportation, January 2014.
- 21. "Rapid Construction of CFT Bridges" (2013) University of Texas at Austin, September 2013.
- 22. "Improving the Seismic Performance of Concentrically Braced Frames with Buckling and Buckling-Restrained Braces" (2013), KPFF Engineers, Portland OR, July 2013.
- 23. "Seismic Performance of Braced Frames: Analysis and Performance Assessment", (2013) Cast Connect Technical Seminar, Seattle, WA, July 2013.
- 24. "Concrete Filled Tubes for Accelerated Bridge Construction" (2013) AISI Steel Bridge Meeting, February 2013.
- 25. "Performance Evaluation of New and Older Braced Frames", (2012) AISC Steel Camp, Portland OR, July 2012, 3-hour seminar
- 26. "Accelerated Bridge Construction with Concrete Filled Tube Components" (2012), NCHRP 20-68A Domestic Scan Visit to Washington State. April 2012
- 27. "Seismic Performance of Structural Walls", (2012) ACI 374 Committee, ACI Convention, March 2012
- 28. "Evaluation of Older Walls", (2012) ACI 369, ACI Convention, March 2012
- 29. "Seismic Performance of Structural Walls", (2012) SEAW Earthquake Engineering Committee, March 2012
- "Improving Seismic Performance of Concentrically Braced Frames", (2012) NEES-EERI Webinar, February 2012
- "Improving Seismic Performance of Concentrically Braced Frames", (2012) SEAOSC Seminar, February 2012, 4-hour seminar
- 32. "Accelerated Bridge Construction through Concrete Filled Tubes", (2011), Skyline Steel Workshop, San Francisco CA, March 2011
- "Accelerated Bridge Construction through Concrete Filled Tubes", (2011), Skyline Steel Workshop, Chicago II, March 2011
- 34. "Accelerated Bridge Construction through Concrete Filled Tubes", (2010), Skyline Steel Workshop, Toronto CA, December 2010.
- 35. "Pile-to-Wharf Connection for Improved Seismic Performance", (2010) PEER Transportation Research Meeting, August 2010
- 36. "Accelerated Bridge Construction through Concrete Filled Tubes", (2010), California Department of Transportation, February 2010.
- 37. "Advances in Connections for SCBFs", (2009) Magnussun Klemencic Associates, February 2009.
- 38. "Damage-Resistant Pile-to-Wharf Connections" (2009) Seismic-Mitigation of Port Systems, Georgia Tech, February 2009.
- 39. "Part-Time Faculty Position: An Oxymoron?" (2008) Advance Quarterly Leadership Workshop, February 2008.

- 40. "Emerging Trends in the Seismic Design of Braced Frames" (2007) SEAOC Annual Meeting, Lake Tahoe, CA, September 2007.
- 41. "Rapid Construction using Concrete-Filled Tube Piers and Columns", (2006) WashDOT Seminar, Washington Department of Transportation, Olympia, WA, July 2006.
- 42. "Seismic Response of Beam-Column Connections", (2006) Seminar on Seismic Performance of Existing Reinforced Concrete Buildings. Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006.
- 43. "CFVST in Military Structural Applications", (2006) Vanadium In-Process Review, Pittsburgh, PA, March 2006.
- 44. "Seismic Performance of Connections in SCBFs", (2006), Georgia Institute of Technology, Structural Engineering Seminar, Atlanta, GA, January 2006.
- 45. "Seismic Response of Beam-Column Connections", (2006) PEER Annual Meeting, San Francisco, CA, January 2006.
- 46. "Concrete-Filled Tube Elements for Army Structural Applications", (2005) Vanadium In-Process Review, Pittsburgh, PA, April 2005.
- 47. "High-Strength Vanadium-Alloy Columns and Their Connections", (2005) ACI Committee 335, Composite Construction, April 2005.
- 48. "Engineering Evaluation and Design of Cotton Duck Bearing Pads", (2003) Washington Department of Transportation, Lacey, WA, June 2003.
- 49. "Performance of Non-ductile Building Components", (2003) PEER-NSF Site Review, Berkeley, CA, May 2003.
- 50. "Research Needs in Performance-Based Seismic Evaluation of Non-Ductile R/C Buildings", (2003) PEER Annual Meeting, Palm Springs CA, February 2003.
- "Experimental Evaluation of Non-Ductile Reinforced Concrete Beam-Column Joints", (2001) US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, Seattle WA, August 2001.
- 52. "Performance-Based Seismic Assessment of Non-Ductile Building Components", (2001) Structural Engineers Association of Washington, Lateral Forces Committee, Seattle, WA, July 2001.
- 53. "Response of Non-Ductile Building Components", (2001) NSF Site Review, PEER center, May 2001.
- 54. "Building Component Characterization", (2000) PEER Annual Meeting, Berkeley, CA, January 2000.
- 55. "Seismic Performance of Reinforced Concrete Beam-Column Connections", (2000) US-Japan Workshop on Performance-Based Seismic Design of Reinforced Concrete Buildings, September 2000.
- 56. "Capacity Assessment", (2000) PEER-NSF Site Review, PEER Research Center, Richmond CA, May 2000.
- 57. "Performance-Based Seismic Engineering of Reinforced Concrete Structures", (1999) Workshop for Engineering Educators, NSF, Washington DC, September 1999.
- 58. "Performance Evaluation of Modern Bridge Columns", (1998), University of Washington Faculty Seminar Series, Seattle WA, November 1998.
- 59. "Performance-Based Design of Bridge Columns", (1998), UCD Seminar Series, Davis CA, March 1998.
- 60. "Performance Evaluation of Modern Bridge Columns", (1998), University of Kansas Seminar Series, Lawrence KS, February 1998.
- 61. "Performance Evaluation of Modern Bridge Columns", (1998), University of Massachusetts Seminar Series, Amherst MA, February 1998.
- 62. "Performance Evaluation of Modern Bridge Columns", (1997), UCSD Seminar Series, November 1997.

63. "Performance Evaluation of Modern Bridge Columns", (1997), UCLA Seminar Series, May 1997.

Presentations given at conferences (only selected presentations made by Lehman listed/student or other colleague presentations are not listed)

- 1. "Triage Procedures for Non-Ductile Concrete Buildings", 11th National Conference on Earthquake Engineering, Los Angeles, CA June 2018
- 2. "New Nonlinear Analysis Constitutive Models for Concentrically Braced Frames", 11th National Conference on Earthquake Engineering, Los Angeles, CA June 2018
- 3. "Investigation of Openings on RC Walled Buildings", Structures Congress, Ft. Worth TX, April 2018
- 4. "Triage Procedures for Non-Ductile Concrete Buildings", Structures Congress, Ft. Worth TX, April 2018
- 5. "Shear Strength of Concrete Filled Tubes", ABC Convention, December 2017, Miami, FL.
- "Comparing the Performance of Reinforced Concrete and Concrete Filled Steel Tube Bridge Systems Subjected to Seismic and Tsunami Hazards", ABC Convention, December 2017, Miami, FL.
- 7. "Design of Accelerated Construction Connections for Concrete Filled Tubes", ABC preconvention workshop, December 2017, Miami FL
- 8. "Performance-Based Design of Structural Concrete Walls", ACI Fall Convention, October 2017.
- 9. "Concrete-Filled Tubes for Accelerated Bridge Construction", Western Bridge Conference, Portland OR, September 2017.
- 10. "Impact of Stiffness Irregularities on Collapse Potential of Walled Buildings", Tall Buildings Council, LA, May 2017.
- 11. "New Approaches and Design Methods for the Retrofit of Seismically Deficient Concentrically Braced Frames", SEAOC Convention 2016, Maui Hawaii
- 12. "Comparing the Seismic Performance of Conventional and Novel Structural Systems Using PBEE", SEAOC Convention 2016, Maui Hawaii
- 13. "CFT Bridge Pier Connections for Accelerated Construction in Seismic Regions", PCI/National Bridge Conference, Nashville, TN, March 2016
- 14. "CFT Bridge Pier Connections for Accelerated Construction in Seismic Regions", Accelerated Bridge Conference, Miami FL, December 2015
- 15. "New Connection Design Methods and Standardized Design Procedures for CFT", Special Session organized by WSDOT, Miami FL, December 2015.
- 16. "Recommendations for Confinement in Boundary Elements of Special Concrete Walls", SEAOC, Bellevue WA, September 2015.
- 17. "Rapid Construction of CFT Bridges", Transportation Research Board, January 2014, Washington DC.
- 18. "CFT Bridges in High Seismic Zones", ACI, Phoenix AZ, October 2013.
- 19. "Evaluation of detailing and other aspects of walls design: Chile 2010 and beyond", ACI, Phoenix AZ, October 2013.
- 20. "Use of Concrete Filled Tubes as Drilled Shafts in Bridges", AASHTO, Portland OR, July 2013.
- 21. "Performance-Based Design of Walls" NEES Annual Meeting, July 2012, Boston MA
- 22. "Seismic Evaluation of Older Braced Frames" NEES Annual Meeting, July 2012, Boston MA
- 23. "Precast Pile-to-Wharf Connections for High Seismic Regions" ACI Convention, Dallas TX, March 2012
- 24. "Seismic Behavior, Analysis and Design of Complex Wall Systems" ACI Convention, Dallas TX, March 2012

- 25. "Seismic Damage Mitigation of Precast Pile to Wharf Connections" PCI Convention, Salt Lake City UT, October 2011
- 26. "Seismic Performance of Coupled Walls" SEAOC Annual Meeting, Las Vegas NV, September 2011
- 27. "Seismic Vulnerability of Older (pre-1988) Steel Braced Frames" SEAOC Annual Meeting, Las Vegas NV, September 2011
- 28. "SCM Rich Concrete in Composite Construction", (2010) SEAOC Annual Meeting, Palm Springs CA, September 2010
- 29. "Seismic Performance of a Three-Story Braced Frame" (2010) 9th National Earthquake Engineering Meeting, August 2010
- "Seismic Performance of Planar Concrete Walls" (2010) 9th National Earthquake Engineering Meeting, August 2010
- "Concrete Filled Tubes for Rapid Construction of Bridges", (2010), Seismic Committee, TRB, Washington DC January 2010
- 32. "Seismic Performance of Structural Concrete Walls", (2009), SEAOC Annual Meeting, San Diego CA September 2009
- 33. "Experimental Evaluation of Planar Walls", (2008), SEAOC Annual Meeting, Hawaii, September 2008
- 34. "Emerging Trends in Seismic Design of Concentrically Braced Frames", (2008), NEES Annual Meeting, Portland OR, June 2008.
- 35. "Seismic Performance of Planar Walls", (2008), NEES Annual Meeting, Portland OR, June 2008.
- "Seismic Performance of Special Concentrically Braced Frames with Buckling Restrained Braces", (2006) Eighth National Conference on Earthquake Engineering, San Francisco, CA, April 2006.
- 37. "Seismic Performance of Bridge Columns", (2005) ACI Spring Convention, Charleston North Carolina, March 2005.
- 38. "Seismic Evaluation and Retrofit Techniques for Reinforced Concrete Bridges", (2004) ACI Spring Convention, March 2004.
- 39. "AASHTO Design Criteria for Cotton Duck Bearing Pads", (2004) TRB Annual Meeting, Washington DC, January 2004.
- 40. "Engineering Evaluation of Cotton Duck Bearing Pads", (2003) AASHTO Annual Meeting, Albuquerque, NM, June 2003.
- 41. "Simulation of Beam-Column Joint Performance", (2003) ASCE Structures Congress, Seattle, WA, May 2003.
- 42. "Performance-Based Design of Bridge Columns: Field and Laboratory Observations", (2003), ACI Spring Convention, Vancouver British Columbia, March 2003.
- 43. "Seismic Performance of Beam-Column Joints", (2000), ACI Fall Convention, Toronto, Canada, October 2000.
- 44. "Seismic Performance of Non-Participating Elements", (2000), ACI Spring Convention, San Diego CA, March 2000.
- 45. "Performance-Based Seismic Design of Bridge Columns", (2000), ACI Spring Convention, San Diego CA, March 2000.
- 46. "Performance-Based Seismic Design of Bridges", (2000), World Conference on Earthquake Engineering, Auckland, New Zealand, January 2000.
- 47. "Seismic Design of Reinforced Concrete Bridges", (1999), ACI Fall Convention, Baltimore MD, November 1999.
- 48. "Seismic Design and Repair of Reinforced Concrete Bridge Columns", (1998), Industrial Liaison Program, U. C. Berkeley, Berkeley CA, March 1998.
- 49. "Influence of Longitudinal Reinforcement Ratio on Column Response", (1997), National Seismic Conference on Bridges and Highways, Sacramento, CA, July 1997.

- 50. "Strength and Stiffness Degradation in Bridge Columns," ACI Spring Convention, (1997), Seattle WA, May 1997.
- 51. "Design of an Experimental Study on the Influence of Aspect Ratio and Longitudinal Reinforcement Ratio on Column Response," (1996), Fourth Caltrans Seismic Research Workshop, Sacramento, CA, July 1996.

Professional society memberships

American Society of Civil Engineers American Concrete Institute American Institute of Steel Construction

GRADUATE STUDENTS

Chaired/co-Chaired Doctoral Degrees

Student Name	Dissertation Title	Completed (Voor)	Current Employer
Nicolette Lewis (with Motley)	Assessment of Tsunami Demands on Vertical Evaluation Structures including Fluid-Structure Interaction (National Science Foundation)	2025 (expected)	
Andrew Sen (with Roeder and Berman)	Improving Non-Ductile Chevron Braced Frames through Retrofit Technologies (National Science Foundation/AISC)	2018	University of Washington (Postdoc)
Kamal Ahmed (with Lowes)	Investigation of the Behavior and Seismic Performance of Flanged Walls using High Performance Analytical Simulation	(expected 2021)	
Travis Welt (with Jim Lafave at UIUC)	Compressive Response of Boundary Elements in Seismic Concrete Walls (NIST)	2015	University of St. Thomas, Assistant Professor
Max Stephens (with Roeder)	CFT Column to Cap Beam Connections for Rapid Construction of Bridges (Caltrans)	2016	University of Pittsburg
Josh Pugh (with Lowes)	Analysis Methods for Slender and Squat Concrete Walls (NSF/ATC)	2012	Structural Engineer at EDG Consulting Engineers
Keith Palmer (with Roeder)	Bi-directional Loading Effects on SCBFs with Buckling and Buckling Restrained Braces (NSF/AISC)	2012	Senior Staff II - Structural Engineering, <u>Simpson Gumpertz &</u> <u>Heger</u> Inc
Po-Chien Hsaio (with Roeder)	Engineering Tools for PBEE of SCBFs (NSF/AISC)	June 2012	NCREE/STC
Anna Birley (with Lowes)	Performance-Based Engineering of Complex Wall Systems (NSF/ATC)	2012	Civil Engineering, Texas A&M
Jung Han Yoo (with Roeder)	Analytical Investigation on the Seismic Performance of Special	2006	Seoul National University of Science and Technology

Concentrically Braced Frames	
(NSF/AISC)	

Chaired/co-Chaired Masters Degrees

Student Name	Level of Supervision	Thesis (funding agency)	Completed (Year)	Current Employer
Ray Yu	Thesis	Ready Mix Concrete	2021	
(with Lowes)		Foundation	(expected)	
Joseph Kaldestad	Thesis	AISC	2021	
(with Roeder &			(expected)	
Berman)				
Will Bergendahl	Thesis	AISC	2021	
(with Roeder &			(expected)	
Berman)				
Spencer Lindsley	Thesis	PEER	2021	
(with Roeder)			(expected)	
Austin Anderson	Thesis	NSF	2020	
(with Roeder)			(expected)	
Stephen Ahn (with Calvi)	Thesis	ACI	2020	TBD
Ken Sullivan (with	Thesis	NSF	2020	TBD
Roeder)	111010	1.21		122
Chris Pyke (with	Thesis	NSF	2020	TBD
Roeder)	111010	1.21		122
Alec Yuetter (with	Thesis	NSF	2020	KPFF
Roeder)	111010	1.21		
Jakob Sumearll (with	Thesis	ATC	2019	KPFF
Lowes)	111010			
Sara Ibara (with	Thesis	AISC	2018	KPFF
Roeder and Berman)	111010	1120	-010	
Clare Terpstra (with	Thesis	AISC	2017	Degenkolb
Roeder & Berman)				Engineers
Francesca Galeotti	Thesis	NSF	2017	KPFF
Marsha Swatosh	Thesis	NSF/AISC	2016	CPL
(with Roeder and				
Berman)				
Ashley Heid (with	Thesis	Valle/WSDOT	2016	KPFF
Roeder)	TT1 '	WODOT	2015	ODI
I odd Maki (with	Thesis	wsb01	2015	CPL
Roeder)	Thesis	NCE	2015	KDEE
Ryan Ballard (with Dermon and Deeder)	Thesis	INSF	2015	KPFF
Zeeh Whitmen (with	Thesis		2015	CDI
Lowes)	1 110818	AIC	2015	CL
Kevin Martin (with	Thesis	WSDOT	2014	
Roeder)	1110315		2017	
Molly Johnson	Thesis	AISC	2014	SGH
(with Berman and			2011	~ 011
Roeder)				
Lisa Berg (with	Thesis	PacTrans	2014	KPFF
Roeder)				

Dan Sloat (with Berman and Roeder)ThesisNSF2014DegenkolbBerman and Roeder)ThesisATC2015n/aArni K Gunnarsson with Berman and Roeder)ThesisTransNow2012Verkis Consulting EngineersKenneth O'Neill (with Roeder)ThesisCaltrans2012Reid Middleton consulting engineersGuðmundur Marteinn Hannesson (with Roeder)ThesisCaltrans2010EFLA - consulting engineersGuðmundur Marteinn Hannesson (with Roeder)ThesisWashDOT2011Senoir Structural Higher and Aron Olson (with Roeder)Jake Turgeon (with Roeder)ThesisNSF2011IfGA Higher and Higher and ArchitectsMaurizio (with Roeder)ThesisPEER Caltrans2011Heigher and Higher and ArchitectsMaurizio (with Roeder)ThesisCaltrans2011Berger/ABAM Consulting EngineersStuart Stringer (with Roeder)ThesisCaltrans2011Berger/ABAM Consulting EngineersStuart Stringer (with Roeder)Thesis(California Department of Transportation)2009Reid/Middleton VicheldEric Bishop (with Roeder)Thesis(NSF)2009Senoir Engineer at Thomoton TormasettiEnily Brackman (with Roeder)Thesis(NSF)2009Disaster Assistance Employee- Public Assistance Employee- Public Assistance Engineering2009Disaster Assistance Employee- Public Assista	Student Name	Level of Supervision	Thesis (funding agency)	Completed (Year)	Current Employer
Zach WhitmanThesisATC2015n/aArni K Gunnarsson Roeder)ThesisTransNow2012Verkis Consulting EngineersKenneth O'Neill (with Roeder)ThesisCaltrans2012Reid MiddletonGuomundur Martein Hannesson (with Roeder)ThesisTransNow2010EFLA - consulting engineersAaron Olson (with Roeder)ThesisWashDOT2011Senoir S 	Dan Sloat (with Berman and Roeder)	Thesis	NSF	2014	Degenkolb
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(with Lowes) (INSF) December Unknown 2008	Plake Doenkon	Thesis	(NSF)	December	unknown
	(with Lowes)	1110313		2008	UIIKIIOWII

Student Name	Level of Supervision	Thesis (funding agency)	Completed (Year)	Current Employer
Wayne Brown (with Stanton)	Thesis	Effect of Spiral Properties on Bar Buckling in Bridge Columns (NSF through PEER Center)	2008	Degenkolb Engineers
Danya Mohr (with Lowes)	Thesis	Nonlinear Analysis and PBEE for Reinforced Concrete Coupled Shear Walls (NSF)	2007	Magnussun Klemencic Associates
Claudio Esteban Osses-Henriquez (with Lowes)	Thesis	Advancements on the Disturbed Stress Field Model (NSF)	2007	KPFF Consulting Engineers
Brandon Kotulka (with Roeder)	Thesis	Analysis for a Design Guide on Gusseat Plates used in SCBFs (NSF)	2007	KPFF Consulting Engineers, Special Projects Division
David Herman (with Roeder)	Thesis	Further Improvements on SCBFs (NSF)	2007	Magnussun Klemencic Associates
Ryan Thody (with Roeder)	Thesis	Experimental Investigation of Flexural Properties of High-Strength CFTs (ARMY)	2006	Design Engineer at DBM Contractors
Paul Oyen (with Lowes)	Thesis	Evaluation of Analytical Tools for Determining the Seismic Response of Walls (NSF)	2006	Structural Engineer, Simpson Gumpertz and Heger Los Angeles
Travis Williams (with Roeder)	Thesis	Experimental Investigation of High-Strength CFTs with Embedded Column Connections (ARMY)	2006	unknown
Dylan Freytag (with Stanton)	Thesis	Bar Buckling in Reinforced Concrete Bridge Columns (NSF through PEER Center)	2006	Senior Engineer at WDP & Associates, P.C.
Aaron Sterns	Projects	(NSF)	2006	unknown
Angela Kingsley (with Roeder)	Thesis	Experimental and Analytical Investigation of CFT Column-Base Connections (ARMY)	2005	Bridge Engineer at HNTB
Adam Christopulos (with Roeder)	Thesis	Improved Seismic Performance of Buckling Restrained Braced Frames (NSF)	2005	
Jason Evers	Project	(ARMY)	2005	ARMY

Student Name	Level of Supervision	Thesis (funding agency)	Completed (Year)	Current Employer
Shawn Johnson (with Roeder)	Thesis	Improved Seismic Performance of SCBFs (NSF)	2005	Senior Bridge Engineer at T.Y. Lin International
Steve Smith (with Stanton)	Thesis	Models for Performance Evaluation of Older Joints (NSF through PEER center)	2005	Retired
Ingvar Gunnarsson (with Roeder)	Thesis	Numerical Performance Evaluation of Braced Frame Systems (VALLE)	2004	
Meredith Anderson (with Stanton)	Thesis	Analytical Modeling of Existing Reinforced Concrete Joints (NSF through PEER)	2003	Structural Engineer at Read Jones Christoffersen Ltd.
Russell Larson (with Roeder)	Thesis	Strength, Stiffness, and Durability of Cotton Duck Bearing Pads for Bridges (WashDOT)	2003	Magnussun Klemencic Associates
Daniel Alire (with Stanton)	Thesis	Seismic Evaluation of Existing Joints (NSF through PEER Center)	2002	KPFF Consulting Engineers, Seattle
Steve Walker (with Stanton)	Thesis	Seismic Performance of Existing R/C Joints (NSF through PEER center)	2001	Business Unit Director at Power Engineers
Daniel Raynor (with Stanton)	Thesis	Bond Assessment of Hybrid Frame Continuity Reinforcement (Pankow)	2000	American Bridge International
William (Greg) Mosier (with Stanton)	Thesis	Seismic Assessment of Reinforced Concrete Joints	2000	

Other significant student supervision

Student Name	Level of Supervision	Thesis/Paper Title (if applicable)
	("thesis," "project" or	
	"coursework only")	
Nasser Masrafi	Dissertation	Committee member
Michael Berry	Dissertation	Committee member
Nilanjan Mitra	Dissertation	Committee member
Peter Brown	Thesis	Committee member
Micheal Berry	Thesis	Committee member
Chaitanya Paspuleti	Thesis	Committee member
Myles Parrish	Thesis	Committee member
Adam Theiss	Thesis	Committee member
Hakon Bardson	Thesis	Committee member
Stephen Day	Thesis	Committee member

Amit Mookerje	Thesis	Committee member
Juan Carlos Ramirez	Thesis	Committee member
Rebecca Hix	Thesis	Committee member

RESEARCH ACTIVITIES

Funded	Research (only Pending and	l Awarded Proje	cts Listed)		
PIs	Title	Award Total	Your Amount	Funding Agency	Period
Lehman (PI)	Minimum Reinforcement	\$880,500	\$560,00	RMCA Foundation	PENDI
Lowes	Requirements of RC and				NG
	FRC Walls		*=* ***		
Lehman (PI)	Connection Details for Pier	\$70,000	\$70,000	FIU ABC UTC	2020 - 2021
Roeder	to Permanently Cased Shaft				2021
Lahman (DI)	Files	\$100.802	\$55,000	DMCA Foundation	2020
Leninari (P1)	Requirements for Insulated	\$109,802	\$33,000	KIVICA Foundation	2020-
Lowes	Concrete Forms Wall				2021
	Systems				
Lehman (PI)	Investigation of Seismic	\$175,000	\$100,000	AISC	2020-
Roeder	Performance of SCBFs with				2022
	A1085 HSS Braces				
		** * • • • •	*1 • • • • •		
Roeder (PI)	Parametric Investigation of	\$35,000	\$10,000	AISC	2019
Lenman	Braced Frames				
L ohmon (DI)	CET Systems for USD	\$20,000	\$20,000		6/2010
Roeder	CITI Systems for HSK	\$20,000	\$20,000	Center	6/2019-
Roeder				Center	0/2020
Lehman (PI)	Development of 3D Printed	\$40,000	\$30,000	PacTrans	10/2018
Lowes	Materials for Rapid	+	. ,		-
Ganter	Fabrication of Pedestrian	\$30,000 (match)			10/2019
	and Bicycle				
	Infrastructure to Increase				
Lahman (aa	Mobility	\$50,000	\$20,000	ACI	0/2019
DI)	Shear Friction Capacity of	\$30,000 + \$30,000	\$30,000	ACI	9/2018-
Calvi (PI)	Concrete Joints with High	(match)			9/2020
Lehman (PI)	Seismic Pier-to-CEST Pile	\$125,000	~\$60.000	PEEB	9/2019-
Roeder	Connections for	\$125,000	400,000	I LLK	9/2011
1100001	Transportation Structures				<i>,,_</i> ,_,
Lehman (PI)	Seismic Pier-to-CFST Pile	\$40,000	\$40,000	FHWA/FIU ABC	6/2018-
Roeder	Connections for High-	. ,	. ,	Center	6/2019
	Speed Rail				
Lehman (PI)	Vertical Evacuation	\$1,007,491	~\$400,000	NSF	6/2017
With Motley,	Structures for Tsunami-				—
Arduino and	prone Regions				6/2020
Roeder	A	¢450.922	N T / A	NOF	2017
Lenman (co-	Acquisition of an advanced	\$450,822	N/A	NSF	2017-
Uith Wang	multidisciplinary research		(equipment only)		2019
(PI) and others.	and training		(my)		

Lehman (with Pijd), Pardue Research: Investigation of Research: Investigation of Buildings Damaged in the University Buildings Damaged in the University Buildings Damaged in the Magnitude 6.4 Southern separate \$25,858 S25,858 NSF April 2016- June University through Magnitude 6.4 Southern separate Taiwan Earthquake of award) 2017 Storti and Rapid Deployment of Ganter (ME). Designer Materials in S20,000 from Cere \$50,000 CoF N/A CoF and CEF July Ganter (ME). Designer Materials in S20,000 from Cere \$20,000 from S20,000 from Cere 2015 Boydyston Devices and Smart & CEF CEF July Lehman and Lohman (c) (SRI) Enabled by Additive Lowes (CEE) \$20,000 \$125,000 WSDOT 2016 Lehman (P) High-Performance Bridge S100,000 \$100,000 \$50,000 PacTRANS 2012- 2014 Roeder (PI) NEESE: Innovations for Corridors in the Pacific from OSU \$20,000 S225,000 NSF 2015 Roeder (PI) NEESE: Innovations for Corridors in the Pacific from OSU \$20,000 Caltrans 2012- 2014 Roeder (co-PI) Roadel Frames UCB UCB 2014 2014 Lehman (co-PI) Rorder Frames UCB	PIs	Title	Award Total	Your Amount	Funding Agency	Period
(with Pujol, Research: Investigation of Purdue Reinforced Concrete Junce University Buildings Damaged in the Magnitude 6.4 Southern Taiwan Earthquake of award) February 2016 Storti and Rapid Deployment of S50,000 CoE N/A CoE and CEE July Ghenr (ME), Designer Materials in S20,000 from 2016 Chem), Resilient Infrastructure CEE (With Chem), Resilient Infrastructure (SRI) Fnabled by Additive Lahman and (SRI) Fnabled by Additive Continue of for CFT and RCFT Bridge S100,000 S125,000 WSDOT 2013- Lehman (P) System for Lifeline Cubernate Frames Processor (Corridors in the Pacific from OSU) NSF 2012- Berman (co-P) Resign Expressions S10,000,000 S225,000 NSF 2012- Berman (P) NEESR: Innovations for \$1,000,000 \$225,000 NSF 2012- Corridors in the Pacific from OSU) NSF 2012- Roeder (P) NEESR: Innovations for \$1,000,000 \$225,000 NSF 2012- Northwest S20,000 S25,000 Caltrans 2012- Northwest Corridors in the Pacific from OSU) NSF 2012- Receder (co-P) Rehabilisting Vulnerable \$325,000 S25,000 Caltrans 2012- Northwest Corridors in the Pacific from OSU S1,000,000 S25,000 Caltrans 2012- Corridors in the Pacific from OSU Caltrans 2012- Northwest Corridors for CFT \$400,000 \$25,000 Caltrans 2012- Northwest Corridors S1,000,000 S25,000 Caltrans 2012- Receder (co-P) An Environmentally- \$50,000 \$25,000 Caltrans 2011 Roceder (co-P) Conscious Structural Xanes 2011 Roceder (co-P) Conscious Structural Xanes 2010- Nacemer (co-P) Conscious Structural Xanes 2010- Receder (co-P) Conscious Structural Xanes 2010- Receder (co-P) Conscious Structural Xanes 2010- Roceder (co-P) Conscious Structural Xanes 2010- Receder (co-P	Lehman	RAPID/Collaborative	\$25,858	\$25,858	NSF	April
Purdue University through separate Reinforced Concrete Wagnitude 64 Southern Taiwm Earthquake of award) June 2017 Storti and Ganter (ME) Boydston Lehman and Lehman and CCEE Repid Deployment of S20,000 from S20,000 from S20,000 from S20,000 from S20,000 from CCEE N/A CoL and CEE July July 2015 Keili (ent Infrastructure (SRI) Enabled by Additive Lowes (CEE) Designer Materials in Manufacturing" S20,000 from S20,000 N/A CoL and CEE July 2016 Roeder (PI) Lehman (co Shear Design Expressions for CFT and RCFT Bridge S250,000 S125,000 WSDOT 2013- 2016- 2017) Lehman (co For CFT and RCFT Bridge S100,000 S50,000 PacTRANS 2012- 2014 Roeder (PI) Shear Design Expressions for CFT and RCFT Bridge \$100,000 S50,000 PacTRANS 2012- 2015 Roeder (PI) NEESR: Innovations for Roeder (co-PI) \$100,000 \$225,000 NSF 2012- 2015 Roeder (PI) NetESR: Innovations for Reader (roPI) \$1,000,000 \$225,000 NSF 2014 Lehman (PI) An Environmentally- S250,000 \$20,000 Caltrans 2014 Lehman (PI) An Environmentally- S50,000 \$25,000 TransNOW 2014 Lehman (PI) An Environmentally- S50,000 \$28,500 TransNOW 2014 Lehman (co- P)	(with Pujol,	Research: Investigation of				2016-
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Roeder (co-PI) Gusset Plates 2010 Lehman (co- PI)	Berman (DI)	Evaluation Procedures for	\$200.000	\$60.000	WashDOT/FUW A	2000
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DI)	Lehman (co-	Gussel I lates				2010
111	PI)					

PIs	Title	Award Total	Your Amount	Funding Agency	Period
Lehman (PI)	Construction of Bridge	\$350,000	\$175,000	Caltrans	2008-
Roeder (co-PI)	Piers with Improved				2011
L 1	Seismic Performance	¢(70,540,(+++1))	\$(70.549	NCE/LIV	2007
Lenman (PI)	MRI: Acquisition of Equipment to Simulate	$\frac{5079,348 (101al)}{8550,548 (NSE)}$	\$079,348	INSF/UW	2007-
Stanton	Collapse of Engineered	\$339,348 (INSF) \$120,000 (UW)			2010
Lowes Miller	Systems under Extreme	\$120,000 (C W)			
(co-PIs)	Loads				
+ 4 SP					
Lehman (co-	NEES-SG: International	\$1,420,000	\$443,715	NSF	2006 -
PI)	Hybrid Simulation of	subcontracts			2010
Roeder (PI)	Tomorrow's Braced Frame	UCB (\$192,570),			
With	Systems	UMinn			
Mahin (UCB),		(\$340,000),			
Okazaki (UM),					
Defense)					
Lehman (PI)	Damage Models for Hybrid	\$85,000	\$42 500	NSF through PFFR	2006-
Stanton (co-PI)	Connections	\$65,000	¢ 12,500	center	2000
Lehman and	NEES-GC: Seismic Hazard	\$270,000	\$135,000	NSF	2005-
Roeder UW	Mitigation of Port Systems	Subcontract from			2010
Rix (GTech) PI		Georgia School			
		of Technology			
Lehman (co-	Improved Seismic	\$30,000	\$15,000	AISC	2006-
PI)	Performance of Braced				2007
Roeder (PI)	Frame Systems				
Lehman (co-	Vanadium Allov Steel	$\$100\ 000\ (vr\ 4)$	\$580,000	LIS ARMY	2001-
PI)	Tubes for Army	\$575.00 (yr 3)	\$200,000	00711011	2001
Roeder (PI)	Engineering Applications	\$350,000 (yr 2)			_007
with	0 0 11	\$92,000 (yr 1)			
Miller (Yr		\$45,000 (case			
2&3)		study)			
MacKenzie (Yr		\$ 1,160,000			
3)		(total)	*12 ~ ~ ~ ~		2 004
Lehman (PI)	Damage Models for Bar	\$85,000 (yr 3)	\$130,000	NSF through PEER	2004-
Stanton (co-PI)	Buckling in Beams and	\$85,000 (yr 2) \$00,000 (sr 1)		center	2007
	Columns	$\frac{590,000 (yr 1)}{1}$			
Lehman (co-	NFFSR-SG: Behavior	\$1 540 000	\$395,000	NSF	2004-
PI)	Simulation, and	with	\$575,000	NOI	2004
Lowes (PI)	Performance of Structural	\$750,000			
with	Wall Systems	subcontracts to			
Kuchma		UIUC and			
(UIUC)		UCLA			
Zang (UCLA)		\$20(27)	\$1.40.000	2105	2002
Lehman (co-	Performance-Based Seismic	\$296,278	\$148,000	NSF	2003-
PI) Deader (DI)	Design of Concentrically				2006
Koeder (PI)	Draced Frames				
Lehman (co-	REU supplemental to NSF	\$15,000	\$7.500	NSF	2004-
PI)	Braced Frame Project	<i><i><i>410</i>,000</i></i>	<i><i><i><i></i></i></i></i>	1.51	2006
Roeder (PI)	5				

PIs	Title	Award Total	Your Amount	Funding Agency	Period
Lehman (PI)	Validation of Simulation	\$75,000	\$37,500	NSF through PEER	2003-
Stanton (co-PI)	and Performance Models			center	2004
	for Beam-Column Joints				
Lehman (co-	Design Recommendations	\$45,000	\$22,500	WashDOT	2002-
PI)	for Cotton Duck Bearing				2003
Roeder (PI)	Pads				
Lehman (PI)	Development of	\$80,000	\$40,000	NSF through PEER	2001-
Stanton (co-PI)	Performance Tools for			center	2002
Lowes (co-PI)	Reinforced Concrete Beam-				
	Column Joints				
Lehman (co-	Assessment and Retrofit of	\$140,000	\$70,000	WashDOT	2001-
PI)	Outrigger Bents				2003
Stanton (PI)					
Kramer (co-PI)					
Lehman (co-	Cotton-Duck Pad Bridge	\$93,000	\$46,500	Arkansas Office of	2000-
PI)	Bearings			Science and	2002
Roeder (PI)				Technology	
Lehman (PI)	Decision-Making about	\$75,000	\$75,000	NSF through PEER	2000-
Meszaros (co-	Seismic Performance			center	2002
PI)					
(UW Bothell)					
Lehman (PI)	Non-Ductile RC Building	\$20,000	\$20,000	NSF through PEER	2000-
	Frames			center	2001
Lehman (PI)	Seismic Performance of	\$250,000	\$125,000	NSF through PEER	1999-
Stanton (co-PI)	Existing RC Beam-Column			center	2002
	Joints				
Lehman (co-	Performance of Grouted	\$50,000	\$25,000	Pankow Builders	1999-
PI)	Reinforcing Bars for Use in				2000
Stanton (PI)	a Hybrid Frame System				
Lehman and	Anchorage of Headed	\$40,000	\$20,000	ACI and Mobil	1998-
Lowes	Reinforcement Subjected to			Corporation	1999
(administered	Cyclic Loading				
by Moehle					
UCB)					
Lehman	Repair of Severely	\$55,000	\$55,000	Caltrans	1997-
(administered	Damaged Bridge Columns				1999
by Moehle					
UCB)					

DOCUMENTATION OF TEACHING EFFECTIVENESS

Courses Taught & Student Evaluations

Course	Title	Quarter	Credit	Enrollment	Item	Item	Item	Average,
		-	Hrs		1	3	4	Items 1-4
CEE	RC Concrete	Autumn	3	11	4.7	5	4.9	4.8
452		1999						
CEE	Structural	Winter 1999	3	22	3.9	3.9	3.6	3.9
502	Dynamics							
CEE	Structural	Winter 2000	3	21	3.3	3.3	3.1	3.3
502	Dynamics							
CEE	Capstone	Winter 2000	3	7	3.8	3.7	3.7	3.8
442	Design							
CEE	RC Concrete	Autumn	3	45	3.6	3.8	3.6	3.6
452	~ 1	2000						
CEE	Structural	Winter 2001	3	13	4.0	4.1	4.2	4.1
502	Dynamics		2	10	2.2	2.6	2.2	2.2
CEE	RC Concrete	Autumn	3	19	3.3	3.6	3.3	3.3
JII CEE	DC Comonata	2001	2	40	4.0	4.1	4.0	4.0
152 UEE	KC Concrete	2002	5	40	4.0	4.1	4.0	4.0
CEE	Structural	Winter 2003	3	12	4.0	41	3.8	3.9
502	Dynamic	Winter 2005	5	12	ч.0	7.1	5.0	5.7
CEE	RC Concrete	Autumn	3	47	44	47	46	44
452		2003	5	.,		,		
CEE	RC Concrete	Autumn	3	65	3.7	3.6	3.6	3.7
452		2005						
CEE	RC	Autumn	3	48	4.0	4.4	4.2	4.2
452	Concrete	2008						
CEE	Capstone	Spring 2011	4	42	3.3	2.2	2.3	2.9
442	Design							
CEE	Design of		3	59	3.9	3.8	3.5	3.8
452	RC	Fall 2011						
	Structures							
CEE	Capstone	Spring 2012	4	48	4.1	4.0	3.8	4.0
442	Design							
CEE	Capstone	Spring 2013	4	33	3.8		3.1	3.3
442	Design							
CEE	Capstone	Spring 2015	5	41	3.8		3.1	3.3
442	Design							
CEE	Capstone	Spring 2016	5	49	3.8		3.1	3.3
442	Design							
CEE	Capstone	Spring 2017	5	49	4.1	4.0	3.8	4.0
442	Design							
CEE	Capstone	Spring 2018	5	33	4.1	4.0	3.8	4.0
442	Design							
CEE	Capstone	Spring 2018	5	38	4.1	4.0	3.8	4.0
442	Design							
CEE	Capstone	Spring 2019	5	35	4.1	4.0	3.8	4.0
442	Design							

CEE	Capstone	Spring 2020	5	36	4.1	4.0	3.8	4.0
442	Design							

Supervision of independent study (design projects and research) Hailey Stensil Taneum Luciana Becky Gilbertson Jeffery McKlintock Ben Swarmer Travis Corigliano Rachel Liberty Stuart Stringer Matthew Godsey Matthew Koch Amanda Jellin George Gimas Tim Grant Russell Larson Chris Nickerson Danya Mohr Violaine Thomassin

SERVICE

Departmental service

2019-present	Member, Departmental Affairs Committee
2019- present	Director, Structural Research Laboratory
2018-2019	Member, Undergraduate Research Committee
2017-2018	Member, Departmental Affairs Committee
2016- present	Member, UW Structural Research Laboratory Committee
2016 - 2019	Lead, ABET
2016-2018	Chair, CEE Promotion and Tenure Committee
2015	Member, CEE Promotion and Tenure Committee
2013- present	Chair, Mentor Committee, Michael Motley
2010 - 2012	Member, Space Committee
2010 - 2012	Member, Mentor Committee for Anne Goodchild
2010 - 2012	Member, Mentor Committee for Michael Dodd
2006 - 2012	Director, UW Structural Research Laboratory
2009	Member, CEE Chair Search Committee
2009	Member, CEE Committee on Mentoring Committees
2008 - 2009	Member, CEE Strategic Hiring Committee
2007 - 2008	Member, CEE Search Committee
2006 - 2012	Director of Structural Research Laboratory
2001	Open House Coordinator
2000	Member, Environmental Engineering Chemistry Search Committee

College service

2016-2018	Special Advisor on Technical Facilities, Allen School of CS&E
2016-2017	Special Advisor on Technical Facilities, CEI

2012-2015	Associate Dean for Infrastructure
1998-1999	Student Affairs Committee

University service

Faculty Council on Faculty Affairs, Member, 9/16/2018 - 9/15/2021.

Panelist WISE conference, March 2014

Panelist Advance Career Workshop, June 2013

Member, UW Seismic Resilience Committee, 2012-present

Member, Construction Review Committee, 2013-2014

Panelist for Career Symposium for Doctoral Students and Post-Docs, Balancing Career and Family, UW Graduate School, November 2005

Panelist for National UW-ADVANCE Summer Leadership Workshop for Department Chairs on Career Choices, Strategies for Facilitating Transitions in Faculty Careers: "Family-Friendly" Policies, July 2005

Panelist for Seminar on Careers, Academia, and Children, Center for Workforce Development, January 2004

Professional society and other service

2020 - present	Chair: PEER Institutional Board Representative
2020	AISC TC5 Composite Committee (direct to AISC code), member
2019	PEER Research Review Committee, member
2019	PEER Annual Meeting Organizing committee, member
2019- present	ACI 318 H Seismic Committee (direct to ACI 318 code), Member
2019 – present	Co-chair for IBC on Seismic Effects on Bridges Workshop, Seattle WA.
2019 – present	Level 4 Member of STEER
2018- present	ACSE 7 Seismic Committee, Member
2016 – present	Member of GEER
2017 - 2019	BSSC IT4 Committee on New Design Approaches for Walls (SK Ghosh Chair)
2018 - present	PEER Institutional Board Representative for UW
2017	ACI Committee on Awards, Member
2017	Chair ACI Award Committee: Seiss Award
2016	ACI Award Committee: Seiss Award
2016 - 2017	AISC Awards Committee: Higgins Lecture
2013	Steering Committee for 14 th National Earthquake Engineering Conference,
	emphasis on Bridges
2012-present	Member of American Concrete Institute (ACI) Committee 369, Evaluation and
	Rehabilitation of Existing Structures, Chair of Subcommittee on Concrete Walls.
2011	ATC-94: Recommendations for Seismic Design of Reinforced Concrete Wall
	Buildings, Based on Studies of the 2010 Chile Earthquake
2011	NEHRP Document on "Best Design Practices for Concrete Walls"
2010	ATC-58 Development of Fragility Functions for Slender Concrete Walls
2010	ATC-58 Development of Fragility Functions for Steel Braced Frames
2006-2008	Member of ASCE-41 Ad Hoc Committee for the Development and Verification of
	Seismic Evaluation Procedures for Older RC Structures
2002-present	Member of American Concrete Institute (ACI) Committee 352, Joint and
	Connections for Monolithic Construction
2000-2003	Member of Steering Committee for 2003 Structures Congress
2000-present	Chair of ACI Subcommittee 341-C, Retrofit of Concrete Bridges
1999-present	Member of American Concrete Institute Committee 341, Earthquake-Resistant
	Concrete Bridges
1999-present	Member of American Concrete Institute Committee 374, Performance-Based
	Seismic Design of Concrete Buildings.

Community service

2013	Career Day Seattle Public Schools
2012	Featured Speaker at Seattle Public Schools Middle School Science Fair

International, national or governmental service 2000 to present: NSF Review panelist

All other service

2007 - 2008	Graduate Student Mentoring Program (Center for Workforce Development)
1999-2000	Faculty and Graduate Student Mentoring Program