RÉMY D. LEQUESNE, PH.D., P.E., M.ASCE
rlequesne@ku.edu • 785.864.6849

Education

Ph.D., Structural Engineering	University of Michigan, Ann Arbor, MI	2011
M.S.E., Civil Engineering	University of Michigan, Ann Arbor, MI	2007
B.S.E., Civil Engineering	University of Michigan, Ann Arbor, MI	2005

Employment History

University of Kansas in Lawrence, Kansas

Stanley T. and Phyllis W. Rolfe Chair's Council Associate Professor	2022 - Present
Associate Professor	2019 - 2022
Chair's Council Assistant Professor	2018 - 2019
Assistant Professor	2013 - 2018

University of Wisconsin in Madison, Wisconsin

Post-Doctoral Research Associate	2012 - 2013

Wiss, Janney, Elstner Associates, Inc., Northbrook, IL

Engineering Associate II	2011 - 2012

Licensure

Licensed Professional Engineer, Kansas State Board of Technical Professions 2015 - Present

Individual Honors and Awards

Mete A. Sozen Award for Excellence in Structural Research 2022
Awarded by the American Concrete Institute for: Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A. (2021). High-Strength Steel Bars in Earthquake-Resistant RC T-Shaped Walls. *ACI Structural Journal*, 118(1), 215-226.

Chair's Council Assistant Professor of Civil Engineering at the University of Kansas 2018

ACI Young Member Award for Professional Achievement 2017
For contributions advancing the use of fiber-reinforced concrete in structural concrete, mentoring students, and service to ACI technical committees.

Miller Scholar Award 2017
Awarded by the University of Kansas School of Engineering for research excellence.

Gould Outstanding Undergraduate Educator Award 2016
Awarded by the University of Kansas School of Engineering for excellence in teaching. One annual awardee nominated and selected by students from among tenure-track engineering faculty.

Wason Medal for Most Meritorious Paper 2016
Awarded by the American Concrete Institute for: Lequesne, R. D. & Pincheira, J. A. (2014). Proposed Revisions to the Strength-Reduction Factor for Axially Loaded Members. *Concrete International*, 36(9), 43-49.

Miller Scholar Award 2015

Awarded by the University of Kansas School of Engineering for outstanding overall achievement in teaching, research, and service.

Outstanding Graduate Student Instructor 2011

Awarded by University of Michigan Rackham Graduate School for teaching excellence. Up to twenty awardees are selected annually from among graduate students nominated by faculty.

Publications

Peer-Reviewed

Journal Articles

Lee, H.-J., Lequesne, R. D., Lepage, A., Lin, J.-X., Wang, J.-C., and Yin, Y.-L., (Accepted). Minimum Joint Depth for Moment Frames with High-Strength Materials, *ACI Structural Journal.*

Daniel, L., Mazumder, R. K., Enderami, S. A., Sutley, E. J., & Lequesne, R. D. (2022). Community Capitals Framework for Linking Buildings and Organizations for Enhancing Community Resilience through the Built Environment. *ASCE Journal of Infrastructure Systems*, 28(1), doi:10.1061/(ASCE)IS.1943-555X.0000668

Poudel, A., Ameen, S., Lequesne, R. D., & Lepage, A. (2021). Diagonally Reinforced Concrete Coupling Beams: Effects of Axial Restraint. *ACI Structural Journal*, 118(6), 293-303. doi:10.14359/51732991, hdl.handle.net/1808/32695

Sutley, E. J., Kim, J. H., Kirkham, W. J., & Lequesne, R. D. (2021). Examining Tornado Vulnerability in Kansas with Recent Findings from an EF4 Tornado. *Natural Hazards Review*, 22(3). doi:10.1061/(ASCE)NH.1527-6996.0000476

Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A. (2021). High-Strength Steel Bars in Earthquake-Resistant RC T-Shaped Walls. *ACI Structural Journal*, 118(1), 215-226. doi:10.14359/51728091, hdl.handle.net/1808/32694

Cheng, M.-Y., Wibowo, L. S. B., Giduquio, M. B., & Lequesne, R. D. (2021). Strength and Deformation Capacity of RC Squat Walls Constructed with High-Strength Materials. *ACI Structural Journal*, 118(1), 125-137. doi:10.14359/51728082, hdl.handle.net/1808/32693

Alcocer, S., Behrouzi, A., Brena, S., Elwood, K., Irfanoglu, A., Kreger, M., Lequesne, R. D., Mosqueda, G., Pujol, S., Puranam, A., Rodriguez, M., Shah, P., Stavridis, A., & Wood, R. (2020). Observations about the Seismic Response of RC Buildings in Mexico City. *EERI Earthquake Spectra*, 36(S2), 154-174. doi:10.1177/8755293020942523

Ameen, S., Lequesne, R. D., & Lepage, A. (2020). Diagonally-Reinforced Concrete Coupling Beams with Grade 120 (830) High-Strength Steel Bars. *ACI Structural Journal*, 117(6), 199-210. doi:10.14359/51728067, hdl.handle.net/1808/32691

Lequesne, R. D., Collins, W., Lucon, E., Darwin, D., & Poudel, A. (2020). Interlaboratory Study of Standard Methods for Testing Multi-Wire Steel Prestressing Strand. *PCI Journal, 65*(4), 71-86. doi:10.15554/pcij65.4-03, hdl.handle.net/1808/32686

Li, C., Lequesne, R. D., & Matamoros, A. (2019). Girder-Deck Interface: Partial Debonding, Deck Replacement, and Composite Action. *ASCE Journal of Bridge Engineering*, *24*(1), 14 pp. doi:10.1061/(ASCE)BE.1943- 5592.0001311, hdl.handle.net/1808/32690

Sperry, J., Darwin, D., O'Reilly, M., Lepage, A., Lequesne, R. D., Matamoros, A., Feldman, L., Yasso, S., Searle, N., DeRubeis, M., & Ajaam, A. (2018). Conventional and High-Strength Steel Hooked Bars: Detailing Effects. *ACI Structural Journal*, *115*(1), 248-258. doi:10.14359/51700920, hdl.handle.net/1808/25915

Sperry, J., Darwin, D., O'Reilly, M., Lequesne, R. D., Yasso, S., Matamoros, A., Feldman, L., & Lepage, A. (2017). Conventional and High-Strength Hooked Bars - Part 2: Data Analysis. *ACI Structural Journal, 114*(1), 267-276. doi:10.14359/51689457, hdl.handle.net/1808/23282

Sperry, J., Yasso, S., Searle, N., DeRubeis, M., Darwin, D., O'Reilly, M., Matamoros, A., Feldman, L. R., Lepage, A., Lequesne, R. D., & Ajaam, A. (2017). Conventional and High-Strength Hooked Bars - Part 1: Anchorage Tests. *ACI Structural Journal, 114*(1), 255-265. doi:10.14359/51689456, hdl.handle.net/1808/23283

Cheng, M.-Y., Hung, S.-C., Lequesne, R. D., & Lepage, A. (2016). Earthquake-Resistant Squat Walls Reinforced with High-Strength Steel. *ACI Structural Journal, 113*(05), 1065-1076. doi:10.14359/51688825, hdl.handle.net/1808/23427

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2016). Seismic Response of Fiber-Reinforced Concrete Coupled Walls. *ACI Structural Journal, 113*(3), 435-445. doi:10.14359/51688822, hdl.handle.net/1808/23430

Matzke, E. M., Lequesne, R. D., Parra-Montesinos, G. J., & Shield, C. K. (2015). Behavior of Biaxially Loaded Slab-Column Connections with Shear Studs. *ACI Structural Journal, 112*(3). doi:10.14359/51687408, hdl.handle.net/1808/30081

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2013). Seismic Behavior and Detailing of High-Performance Fiber-Reinforced Concrete Coupling Beams and Coupled Wall Systems. *ASCE Journal of Structural Engineering, 139*, 1362–1370. doi:10.1061/(ASCE)ST.1943-541X.0000687

Magazine Articles

Lequesne, R. D. & Pincheira, J. A. (2014). Proposed Revisions to the Strength-Reduction Factor for Axially Loaded Members. *Concrete International, 36*(9), 43-49. hdl.handle.net/1808/23431

Magazine Articles, under Review

Dönmez, C., Lequesne, R. D., Pollalis, W., Pujol, S., & Segura, C., (Submitted). Splice Failures in Tunnel-Form Structures after 30 October 2020 Seferihisar-Samos Earthquake.

Special Publications of the American Concrete Institute

Lequesne, R. D. & Collins, W. N. (2020). Load Rating Reinforced Concrete Bridges without Plans: State-of-the-Practice. In *SP-342: Advanced Analysis and Testing Methods for Concrete Bridge Evaluation and Design*. Farmington hills, MI: American Concrete Institute. 80-97. hdl.handle.net/1808/32692

Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J. (2017). Earthquake-Resistant Fiber Reinforced Concrete Coupling Beams Without Diagonal Bars. In *SP-310: Fibre-Reinforced Concrete: From Design to Structural Applications*. Farmington Hills, MI: American Concrete Institute. hdl.handle.net/1808/24874

Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J. (2017). Elimination of Diagonal Reinforcement in Earthquake-Resistant Coupling Beams through Use of Fiber-Reinforced Concrete. In *SP-313: Proceedings of the First ACI & JCI Joint Seminar: Design of Concrete Structures Against Earthquake and Tsunami Disasters*. Farmington Hills, MI: American Concrete Institute. 8 pp. hdl.handle.net/1808/24873

Cheng, M.-Y., Wibowo, L. S. B., Lequesne, R. D., & Lepage, A. (2016). Deformation Capacity and Strength of RC Frame Members with High-Strength Materials. In *SP-311: James K. Wight: A Tribute from his Students and Colleagues*. Farmington Hills, MI: American Concrete Institute. 18 pp. hdl.handle.net/1808/23428

Lequesne, R. D. & Parra-Montesinos, G. J. (2016). A Review of Research on Shear Strength Decay in Members under Load Reversals. In *SP-311: James K. Wight: A Tribute from his Students and Colleagues*. Farmington Hills, MI: American Concrete Institute. 15 pp. hdl.handle.net/1808/23429

Lequesne, R. D., Setkit, M., Kopczynski, C., Ferzli, J., Cheng, M.-Y., Parra-Montesinos, G. J., & Wight, J. K. (2011). Implementation of High-Performance Fiber Reinforced Concrete Coupling Beams in High-Rise Core-Wall Structures. In *SP-280: Advances in FRC Durability and Field Applications*. Farmington Hills, MI: American Concrete Institute. 12 pp. hdl.handle.net/1808/32689

Lequesne, R. D., Setkit, M., Parra-Montesinos, G. J., & Wight, J. K. (2010). Seismic Detailing and Behavior of Coupling Beams Incorporating High-Performance Fiber Reinforced Concrete. In *SP-272: Antoine E. Naaman Symposium: Four Decades of Progress in Prestressed Concrete, Fiber Reinforced Concrete and Thin Laminate Composites*. Farmington Hills, MI: American Concrete Institute. 14 pp. hdl.handle.net/1808/32688

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2009). Test of a Coupled Wall with High Performance Fiber Reinforced Concrete Coupling Beams. In *SP-265: Thomas T. C. Hsu Symposium: Shear and Torsion of Concrete Structures*. Farmington Hills, MI: American Concrete Institute. hdl.handle.net/1808/32687

Conference Proceedings

Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S. (accepted). Chord Rotation Capacity of Diagonally Reinforced Concrete Coupling Beams. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.

Burgos, E. A., Huq, M. S., Lequesne, R. D., & Lepage, A. (accepted). Moment-Curvature Analysis for Strain Estimates of Concrete T-Shaped Walls Reinforced with High-Strength Steel. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.

Burgos, E. A., Huq, M. S., Lequesne, R. D., & Lepage, A. (accepted). Moment-Curvature Analysis for Deformation Capacity of Reinforced Concrete T-Shaped Walls with High-Strength Steel. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.

Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (2022). Development and Lap Splice Length of Straight Bars in Compression. *Proceedings: Bond in Concrete 2022*. Stuttgart, Germany, p. 14-25.

Rulon, R., Lequesne, R. D., Darwin, D., & Lepage, A., (2022). Lap Splicing of Large High-Strength Steel Reinforcing Bars. *Proceedings: Bond in Concrete 2022*. Stuttgart, Germany, p. 542-553.

Banaeipour, A., Darwin, D., O'Reilly, M., Lepage, A., & Lequesne, R. D., (2022). Anchorage of High-Strength No. 14 (43 mm) Hooked Bars. *Proceedings: Bond in Concrete 2022*. Stuttgart, Germany, p. 627-638.

Ameen, S., Weber-Kamin, A. S., Lequesne, R. D., & Lepage, A. (2018). Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars. *Eleventh U.S. National Conference on Earthquake Engineering*. Los Angeles, California.

Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A. (2018). High-Strength Steel Bars in T-Shaped Concrete Walls. *Eleventh U.S. National Conference on Earthquake Engineering*. Los Angeles, California.

McVey, M., Bennett, C., Collins, W., Lequesne, R. D., Luchies, C., Wilson, S., Sutley, E., Fadden, M., & Melgares, C. (2018). Peer Mentoring for All: Investigating the Feasibility of a Curricular-Embedded Peer Mentoring Structure. *American Society for Engineering Education Annual Conference and Exposition*. Salt Lake City, Utah.

McVey, M., Bennett, C., Luchies, C., & Lequesne, R. D. (2018). An Investigation of the Effect of Curriculum-Embedded Peer Mentoring on Student Learning in Two Undergraduate Mechanics Courses. *American Society for Engineering Education Annual Conference and Exposition*. Salt Lake City, Utah.

Ameen, S., Lequesne, R. D., Lepage, A., Weber-Kamin, A. S., & Ameen, S. (2017). Behavior of Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars. *16WCEE - 16th World Conference on Earthquake Engineering*. Santiago, Chile. 8 pp.

Huq, M. S., Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S. (2017). Influence of Mechanical Properties of High-Strength Steel on Deformation Capacity of Reinforced Concrete Walls. *16WCEE - 16th World Conference on Earthquake Engineering*. Santiago, Chile. 8 pp.

Committee Reports and Technical Standards with Contributions from R. Lequesne

ACI Committee 318. (2019). *Building Code Requirements for Structural Concrete (ACI 318-19) and Commentary on Building Code Requirements for Structural Concrete (ACI 318R-19)*. Farmington Hills, Michigan: American Concrete Institute. 623 pp. doi:10.14359/51716937

Not Peer-Reviewed

Conference Proceedings

Lee, H.-J., Lin, J.-X., Lequesne, R. D., Lepage, A., & Wang, J.-C. (2019). Experimental Study on Minimum Interior Joint Depth for Special Moment Frames with High-Strength Reinforcement and Concrete. *The 21st Japan-Taiwan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS 2019)*. Hsinchu, Taiwan.

Tameemi, W., Perez-Irizarry, A. L., Dudnik, V., Lequesne, R. D., & Parra-Montesinos, G. J. (2016). Correlations between Results from Compressive, Flexural, and Tensile Tests of Steel Fiber Reinforced Concrete. *BEFIB2016 - 9th Rilem International Symposium on Fiber Reinforced Concrete*. Vancouver, Canada.

Monfardini, L., Lequesne, R. D., Minelli, F., Parra-Montesinos, G. J., & Pincheira, J. A. (2015). Stability of Reinforcing Bars in Steel Fiber Reinforced Concrete Flexural Members. *HPFRCC 7 - High Performance Fiber Reinforced Cement Composites*. Stuttgart, Germany.

Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J. (2014). High-Performance Fiber Reinforced Concrete Coupling Beams: From Research to Practice. *Tenth U.S. National Conference on Earthquake Engineering*. Anchorage, AK.

Lequesne, R. D., Setkit, M., Parra-Montesinos, G. J., & Wight, J. K. (2011). High-Strength Steel Fibers as Replacement for Diagonal and Confinement Reinforcement in Coupling Beams. *9th International Symposium on High Performance Concrete – Design, Verification and Utilization.* Christchurch, NZ. 8 pp.

Parra-Montesinos, G. J., Wight, J. K., Lequesne, R. D., & Setkit, M. (2011). A Summary of Ten Years of Research on HPFRC Coupling Beams. *High Performance Fiber-Reinforced Cement Composites (HPFRCC6)*, Ann Arbor, MI. 9 pp.

Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D. (2011). The Use of High-Performance Fiber-Reinforced Concrete in the Design of Coupled Wall Systems for Earthquake Motions. *fib Symposium 2011*. Prague, Czech Republic, 503-506.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2010). High-Performance Fiber-Reinforced Concrete Coupled-Wall Systems: Design and Behavior. *14th European Conference on Earthquake Engineering.* Ohrid, Republic of Macedonia.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2010). Seismic Detailing and Behavior of Coupled-Wall Systems with High-Performance Fiber-Reinforced Concrete. *9th National and 10th Canadian Conference on Earthquake Engineering.* Toronto, Canada. 10 pp.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2010). Large-Scale Testing of High-Performance Fiber-Reinforced Concrete Coupled Walls. *Joint Conference Proceedings of 7CUEE & 5ICEE*. Tokyo, Japan. 9 pp.

Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D. (2009). The Design of Coupled Wall Systems for Earthquake Motions with High-Performance Fiber Reinforced Concrete. *WCCE-ECCE-TCCE Joint Conference Earthquake & Tsunami.* Istanbul, Turkey. 13 pp.

Wight, J. K. & Lequesne, R. D. (2008). Earthquake-Resistant Design of Coupling Beam Elements Incorporating High-Performance Fiber Reinforced Concrete. *International Seminar on Seismic-Resistant Design of Reinforced Concrete Structures*. Bogota, Columbia. 97-108.

Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D. (2007). High-Performance Fiber Reinforced Concrete for Earthquake-Resistant Design of Coupled Wall Systems. *Fifth International RILEM Workshop, High Performance Fiber-Reinforced Cement Composites (HPFRCC5).* Mainz, Germany. 8 pp.

Reports

Aljawad, Y., Lequesne, R. D., O'Reilly, M. (2022). *SL Report 22-3: Low-Shrinkage Ultra-High-Performance Concrete*. (pp. 69). University of Kansas Center for Research, Inc. hdl.handle.net/1808/33326

Rulon, R., Lequesne, R. D., Lepage, A., & Darwin, D. (2022). *SM Report No. 148: Lap Splicing of Large High-Strength Steel Reinforcing Bars*. (pp. 136). University of Kansas Center for Research, Inc. hdl.handle.net/1808/32586

Burgos, E. A., Lequesne, R. D., & Lepage, A. (2020). *SM Report No. 142: Earthquake-Resistant T-Shaped Concrete Walls with High-Strength Steel Bars*. (pp. 356). University of Kansas Center for Research, Inc. hdl.handle.net/1808/30768

Weber-Kamin, A. S., Lequesne, R. D., & Lepage, A. (2020). *SM Report No. 143: Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. (pp. 598). University of Kansas Center for Research, Inc. hdl.handle.net/1808/30647

Al-Sabawy, A., Lequesne, R. D., O'Reilly, M., Darwin, D., & Lepage, A. (2020). *SM Report No. 139: Headed and High-Strength Shear Reinforcement in Concrete Members*. (pp. 498). University of Kansas Center for Research, Inc. hdl.handle.net/1808/30355

Ameen, S., Lequesne, R. D., & Lepage, A. (2020). *SM Report No. 138: Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. (pp. 346). University of Kansas Center for Research, Inc. hdl.handle.net/1808/30314

Lucon, E., Lequesne, R. D., Collins, W., & Darwin, D. (2020). *Research Report A01-2000 - Interlaboratory Study to Establish Precision Statements for ASTM A1061/A1061M-20, Standard Test Methods for Testing Multi-Wire Steel Prestressing Strand*. (pp. 30). ASTM International.

Sutley, E., Lequesne, R. D., Gelino, B., Reed, D., Phan, N., Smith, M., Dumler, M., Bhatta, A., Enderami, S., & Snay, A. (2020). *May 28, 2019 EF4 Linwood Tornado: Six-Month Post-Tornado Recovery Report. StEER - 28 MAY 2019 LINWOOD, KS EF4 TORNADO: FIELD ASSESSMENT STRUCTURAL TEAM 1 (FAST-1)* (pp. 54). DesignSafe-CI. doi:10.17603/ds2-qbsx-ma75

Mudaliar, T., Lequesne, R. D., & Fadden, M. (2020). *SL Report 20-1: Topology Optimized Reinforced Concrete Walls Constructed with 3D Printed Formwork*. (pp. 292). University of Kansas Center for Research, Inc. hdl.handle.net/1808/30279

Weber-Kamin, A. S., Ameen, S., Lequesne, R. D., & Lepage, A. (2020). Reinforced Concrete Coupling Beams with High-Strength Steel Bars. (pp. 424). Charles Pankow Foundation.

Sutley, E., Lequesne, R. D., Li, J., Kirkham, W., Chen, Z., Al-Sabawy, A., Daniel, L., Enderami, S., Kim, J., Mudaliar, T., Taher, S., Sharma, P., & Roueche, D. (2019). *StEER - 28 May 2019 Linwood, KS EF4 Tornado: Field Assessment Structural Team (FAST) Early Access Reconnaissance Report (EARR)*. DesignSafe-CI. doi:10.17603/ds2-xz1j-nm14

Lequesne, R. D. & Collins, W. (2019). *SL Report 19-2: Synthesis of Rating Methodologies for Concrete Bridges without Plans*. (pp. 292). University of Kansas Center for Research, Inc. hdl.handle.net/1808/28738

Lequesne, R. D., Collins, W., Lucon, E., Poudel, A., & Darwin, D. (2019). *SM Report No. 131: Development of a Precision Statement for ASTM A1061*. (pp. 126). University of Kansas Center for Research, Inc. hdl.handle.net/1808/28740

Also published as: Lequesne, R. D., Collins, W., Lucon, E., Poudel, A., & Darwin, D. (2019). *Development of a Precision Statement for ASTM A1061*. (pp. 121). Precast/Prestressed Concrete Institute. www.pci.org/PCI_Docs/Design_Resources/Research_and_Development/ASTM%20A1061%20PCI%20Final%20Report%20Kansas.pdf

Weber-Kamin, A. S., Lequesne, R. D., & Lepage, A. (2019). *SL Report 19-1: RC Coupling Beams with High-Strength Steel Bars: Summary of Test Results*. (pp. 136). University of Kansas Center for Research. hdl.handle.net/1808/27676

Poudel, A., Lequesne, R. D., & Lepage, A. (2018). *SL Report 18-3: Diagonally Reinforced Concrete Coupling Beams: Effects of Axial Restraint*. (pp. 48). University of Kansas Center for Research. hdl.handle.net/1808/26713

Huq, M.S., Weber-Kamin, A. S., Ameen, S., Lequesne, R. D., & Lepage, A. (2018). *SM Report No. 128: High-Strength Steel Bars in Earthquake-Resistant T-Shaped Concrete Walls*. (pp. 398). University of Kansas Center for Research. hdl.handle.net/1808/26703

Lequesne, R. D., O'Reilly, M., Darwin, D., Lepage, A., Al-Sabawy, A., Guillen, E., & Spradling, D. (2018). *SM Report No. 126: Use of Headed Bars as Shear Reinforcement*. (pp. 265). University of Kansas Center for Research. hdl.handle.net/1808/25728

Also published as: Lequesne, R. D., O'Reilly, M., Darwin, D., Lepage, A., Al-Sabawy, A., Guillen, E., & Spradling, D. (2017). *Advanced Nuclear Technology: Use of High-Strength Headed Bars as Shear Reinforcement for Structural Concrete*. (pp. 258). Electrical Power Research Institute.

Huq, M. S., Weber-Kamin, A. S., Ameen, S., Lequesne, R. D., & Lepage, A. (2018). *High-Strength Steel Bars in Reinforced Concrete Walls: Influence of Steel Mechanical Properties on Deformation Capacity*. (pp. 318). Charles Pankow Foundation.

Li, C., Lequesne, R. D., & Matamoros, A. (2017). *Composite Action in Prestressed NU I-Girder Bridge Deck Systems Constructed with Bond Breakers to Facilitate Deck Removal*. (No. KTRAN: KU-15-1, pp. 188). Kansas Department of Transportation.

Shao, Y., Darwin, D., O'Reilly, M., Lequesne, R., Ghimire, K., & Hano, M. (2016). *SM Report No. 117: Anchorage of Conventional and High-Strength Headed Reinforcing Bars*. (pp. 334). University of Kansas Center for Research. hdl.handle.net/1808/21738

Carlton, K., & Lequesne, R. (2016). *SL Report 16-2: Charts for Preliminary Selection of NU Girder Sections Based on Kansas Department of Transportation LRFD Design Guidelines for Prestressed Concrete Beams*. (pp. 38). University of Kansas Center for Research. hdl.handle.net/1808/20904

Sperry, J., Darwin, D., O'Reilly, M., & Lequesne, R. (2015). *SM Report No. 115: Anchorage Strength of Conventional and High-Strength Hooked Bars in Concrete*. (pp. 281). University of Kansas Center for Research. hdl.handle.net/1808/20476

Tameemi, W. & Lequesne, R. (2015). *SM Report No. 114: Correlations between Compressive, Flexural, and Tensile Behavior of Self-Consolidating Fiber Reinforced Concrete*. (pp. 260). University of Kansas Center for Research. hdl.handle.net/1808/19741

Sperry, J., Al-Yasso, S., Searle, N., DeRubeis, M., Darwin, D., O'Reilly, M., Matamoros, A., Feldman, L., Lepage, A., Lequesne, R., & Ajaam, A. (2015). *SM Report No. 111: Anchorage of High-Strength Reinforcing Bars with Standard Hooks*. (pp. 260). University of Kansas Center for Research. hdl.handle.net/1808/19742

Matzke, E., Lequesne, R. D., Shield, C. K., & Parra-Montesinos, G. J. (2013). *Drift Capacity of Slab-Column Connections Reinforced with Headed Shear Studs and Subjected to Combined Gravity Load and Biaxial Displacements*. (pp. 256). Charles Pankow Foundation. doi:10.17603/DS2RP4P

Olson, C., Lequesne, R. D., & Pincheira, J. A. (2013). *Vibration Characteristics of a Voided Slab Floor System*. (pp. 23). CRSI. Included as an appendix to the "Design Guide for Voided Concrete Slabs" published by the Concrete Reinforcing Steel Institute.

Donnelly, J. P., Lawler, J. S., Rende, N. S., Krauss, P. D., Kurth, J. C., & Lequesne, R. D. (2012). *I-129 Missouri River Bridge Deck Condition Assessment Using Non-Destructive Testing Methods*. (pp. 227). Iowa Department of Transportation and Federal Highway Administration. publications.iowa.gov/id/eprint/29806

Datasets

Dumler, M., Sutley, E., Lequesne, R. D. (2021). “Contractors’ Perceptions of Tornado-Resistant Building Design,” in *PRJ-3298: Local Perceptions on Building Safety and Building Performance after the 2019 EF4 Linwood, Kansas, Tornado*. DesignSafe-CI. doi: 10.17603/ds2-f9db-p423.

Sutley, E., Reed, D., Lequesne, R. D., Kirkham, W., Li, J., Kim, J., Gelina, B., Enderami, S., Dumler, M., Taher, S., Bhatta, A., Vazquez, K., Caraway-Short, L. (2021). “Six-Month Post-Tornado Repair Progress: Wave 2,” in *PRJ-2397: StEER-28 May 2019 Linwood, KS, EF4 Tornado: Field Assessment Structural Team 1 (FAST-1)*. DesignSafe-CI. doi: 10.17603/ds2-an2v-2c39.

Sutley, E., Dumler, M., Mazumder, R., Lequesne, R. D., Li, J., Kirkham, W., Reed, D., Kim, J., Thompson, T. (2021). "One-Year Post-Tornado Repair Progress: Wave 3," in *PRJ-2397: StEER-28 May 2019 Linwood, KS, EF4 Tornado: Field Assessment Structural Team 1 (FAST-1)*. DesignSafe-CI. doi: 10.17603/ds2-5ysj-a554.

Ameen, S., Poudel, A., Lequesne, R. D., & Lepage, A. (2021). *PRJ-3077 Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. DesignSafe-CI. doi: 10.17603/ds2-dv8n-yx58

Weber-Kamin, A., Ameen, S., Lequesne, R. D., & Lepage, A. (2021). *PRJ-3053: Database of Diagonally-Reinforced Concrete Coupling Beam*s. DesignSafe-CI. doi: 10.17603/ds2-46wc-n185

Burgos, E. A., Lepage, A., & Lequesne, R. D. (2021). *PRJ-2963: Earthquake-Resistant T-Shaped Concrete Walls with High-Strength Steel Bars (Wall T5 and T6)*. DesignSafe-CI. doi: 10.17603/ds2-ak27-4d16

Weber-Kamin, A., Lequesne, R. D., & Lepage, A. (2020). *PRJ-2876: Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. DesignSafe-CI. doi: 10.17603/ds2-k0rq-s232

Sutley, E., Li, J., Chen, Z., Chao, H., Daniel, L., Lequesne, R. D., Sharma, P., Roueche, D., Taher, S., Kirkham, W., Kim, J., & Clements, J. (2020). *PRJ-2397: STEER - 28 May 2019 Linwood, KS EF4 Tornado: Field Assessment Structural Team 1 (FAST-1)*. DesignSafe-CI. doi: 10.17603/ds2-a06x-f358

Pujol, S., Puranam, A., Stavridis, A., Behrouzi, A., Elwood, K., Lequesne, R. D., Mosqueda, G., Wood, R., Brena, S., & Shah, P. (2019). *PRJ-2285: Buildings Surveyed after 2017 Mexico City Earthquakes*. DesignSafe-CI. doi: 10.17603/ds2-4b2n-at54

Huq, M. S., Lequesne, R. D., & Lepage, A. (2018). *PRJ-1817: Earthquake-Resistant T-shaped Concrete Walls with High-Strength Steel Bars*. DesignSafe-CI. doi: 10.17603/DS28D72

Dissertation

Lequesne, R. D. (2011). *Behavior and Design of High-Performance Fiber-Reinforced Concrete Coupling Beams and Coupled-Wall Systems*. Ann Arbor, MI: University of Michigan. pp. 277. hdl.handle.net/2027.42/86316

Presentations (name of presenter underlined)

Invited

Lequesne, R. D., Darwin, D., Lepage, A., Rulon, R., Neupane, U., & Niyonyungu, F. (2022, May 24). *Lap Splicing of Large Steel Reinforcing Bars.* Construction Innovation Workshop for Advanced Nuclear Reactors, Electric Power Research Institute, Charlotte, NC.

Lequesne, R. D. (2019, July 25). *Simpler Robust Coupling Beams*. National Center for Research on Earthquake Engineering (NCREE) and National Taiwan University (NTU), Taipei, Taiwan.

Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E. (2019, March 1). *Development of a Precision Statement for the ASTM A1061 Test Method*. PCI Spring Convention, Louisville, KY.

Lequesne, R. D. & Lepage, A. (2018, March 1). *High-Strength Steel in Structural Concrete: From Research to Building Codes*. 63rd Annual Structural Engineering Conference, Lawrence, Kansas.

Lequesne, R. D. (2014, June 12). *Strut-and-Tie Models for Shear Design: AASHTO Specifications*. Kansas ASCE Structural Group Meeting, Topeka, KS.

Lequesne, R. D. (2014, March 6). *Fiber-Reinforced Concrete and Earthquake-Resistant Design*. 59th Annual Structural Engineering Conference, Lawrence, KS.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2013, March 28). *Behavior and Design of High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems*. University of Nebraska, Lincoln, NE.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2013, February 28). *Behavior and Design of Coupling Beams and Coupled Walls Constructed with High-Performance Fiber Reinforced Concrete*. University of Kansas, Lawrence, KS.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2013, February 7). *High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems: Behavior and Design*. University of Minnesota, Duluth, MN.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2011, September 16). *Behavior and Design of High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems*. Structural Engineers Association of Ohio, Annual Meeting, Columbus, OH.

Other

Lequesne, R. D., (2022, July 27). *Update on Bond Provisions in ACI Committees 408 and 318*. 5th Bond in Concrete, Stuttgart, Germany.

Banaeipour, A., Darwin, D., O'Reilly, M., Lepage, A., & Lequesne, R. D., (2022, July 26). *Anchorage of High-Strength 43-mm Hooked Bars*. 5th Bond in Concrete, Stuttgart, Germany.

Rulon, R., Lequesne, R. D., Darwin, D., & Lepage, A., (2022, July 25). *Lap Splicing Large Reinforcing Bars*. 5th Bond in Concrete, Stuttgart, Germany.

Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (2022, July 25). *Development and Lap Splice Length of Straight Bars in Compression*. 5th Bond in Concrete, Stuttgart, Germany.

Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S., (2022, June 29). *Chord Rotation Capacity of Diagonally-Reinforced Concrete Coupling Beams*. 12th National Conference on Earthquake Engineering, Salt Lake City, Utah.

Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D. (2021, October 17). *Development and Splice Length of Straight Bars in Compression.* ACI 408 Committee, Remote.

Lequesne, R. D. (2020, June 4). *Update on Progress of ACI Committees 408 and 318*. fib Task Group 2.5, Remote.

Lee, H.-J., Lin, J.-X., Lequesne, R. D., & Lepage, A. (2020, June 3). *Bond of High-Strength Reinforcement in Joints of Earthquake-Resistant Concrete Moment Frames*. ACI Summer Virtual Sessions, Remote.

Kim, J., Sutley, E. J., Lequesne, R. D., Kirkham, B., Li, J., & Chen, Z. (2020, April). *Multi-Hazard Damage Observations from the May 2019 Linwood, KS Tornado*. ASCE SEI Structures Congress, St. Louis, MO.

Sutley, E. J., Lequesne, R. D., Kim, J., Kirkham, W., & Clements, J. (2019, October). *Leveraging Recent Post-Tornado Damage Findings to Evaluate Kansas Tornado Vulnerability*. THWARTS: Tornado Hazard Wind Assessment and ReducTion Symposium, Urbana-Champaign, IL.

Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E. (2019, May 15). *Proposed Revisions of the ASTM A1061 Standard*. ASTM Committee Days, Denver, CO (remote).

Mudaliar, T., Lequesne, R. D., & Fadden, M. (2019, April 25). *Structural Behavior of Optimized RC Walls Constructed with 3D Printed Formwork*. ASCE SEI Structures Congress, Orlando, FL.

Lequesne, R. D. & Collins, W. (2019, March 26). *Load Rating Reinforced Concrete Bridges without Plans: State-of-the-Practice*. ACI Spring Convention, Quebec City, QC, CA.

Lequesne, R. D. (2018, October 25). *Developments in Bond at ACI Committees 408 and 318*. fib Task Group 2.5, Turin, Italy.

Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E. (2018, October 13). *Development of a Precision and Bias Statement for the ASTM A1061 Test Method*. PCI Committee Days, Research and Development Council, Rosemont, IL.

Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E. (2018, October 11). *Development of a Precision and Bias Statement for the ASTM A1061 Test Method*. PCI Committee Days, Committee on High Strength Steel and Prestressed Reinforcement, Rosemont, IL.

Lequesne, R. D., Ameen, S., Weber-Kamin, A. S., & Lepage, A. (2018, June 28). *Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. 11th National Conference on Earthquake Engineering, Los Angeles, CA.

Lequesne, R. D., Huq, M. S., Burgos, E. A., & Lepage, A. (2018, June 28). *High-Strength Steel Bars in T-Shaped Concrete Walls*. 11th National Conference on Earthquake Engineering, Los Angeles, CA.

McVey, M., Bennett, C., Collins, W., Lequesne, R. D., Luchies, C., Wilson, S., Sutley, E., Fadden, M., & Melgares, C. (2018, June 26). **POSTER:** *Peer Mentoring for All: Investigating the Feasibility of a Curricular-Embedded Peer Mentoring Structure*. American Society for Engineering Education Annual Conference and Exposition, Salt Lake City, UT.

McVey, M., Bennett, C., Luchies, C., & Lequesne, R. D. (2018, June 25). *An Investigation of the Effect of Curriculum-Embedded Peer Mentoring on Student Learning in Two Undergraduate Mechanics Courses*. American Society for Engineering Education Annual Conference and Exposition, Salt Lake City, UT.

Pincheira, J.A., Olson, C., & Lequesne, R. D., (2017, November). *Vibraciones de Pisa en un Edificio con Losas Aligeradas*. 5th International Congress of Engineering Materials and Structures, Universidad Militar Nueva Granada, Bogota, Colombia.

Yasso, S., Lepage, A., Darwin, D., Lequesne, R., & O'Reilly, M. (2017, March 27). *Development Length of High-Strength Bars in Tension*. American Concrete Institute Spring 2017 Conference, Detroit, MI.

Weber-Kamin, A., Ameen, S., Lequesne, R., Lepage, A., & Huq, M. S. (2017, January). *Behavior of Diagonally Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. 16WCEE - 16th World Conference on Earthquake Engineering, 16WCEE - 16th World Conference on Earthquake Engineering. Santiago, Chile.

Weber-Kamin, A., Huq, M. S., Lepage, A., Lequesne, R., & Ameen, S. (2017, January). **POSTER:** *Influence of Mechanical Properties of High-Strength Steel on Deformation Capacity of Reinforced Concrete Walls*. 16WCEE - 16th World Conference on Earthquake Engineering, 16WCEE - 16th World Conference on Earthquake Engineering. Santiago, Chile.

Lequesne, R. D., Tameemi, W., Perez-Irizarry, A. L., Dudnik, V., & Parra-Montesinos, G. J. (2016, September 20). *Correlations between Results from Compressive, Flexural, and Tensile Tests of Steel Fiber Reinforced Concrete*. BEFIB2016 - 9th International Symposium on Fiber Reinforced Concrete, Vancouver, Canada.

Lequesne, R. D., Darwin, D., Lepage, A., O'Reilly, M., Al-Sabawy, A., & Spradling, D. (2016, April 18). *Use of Headed Grade 80 Bars as Shear Reinforcement*. ACI Convention, Committee 445 Meeting, Milwaukee, Wisconsin.

Parra-Montesinos, G. J., Lequesne, R. D., Monfardini, L., Minelli, F., & Pincheira, J. A. (2015, June 2). *Stability of Reinforcing Bars in Steel Fiber Reinforced Concrete Flexural Members*. High Performance Fiber Reinforced Cementitious Composites 7 (HPFRCC 7), Stuttgart, Germany.

Cheng, M.-Y., Wibowo, L. S.B., Lequesne, R. D., Lepage, A., & Giduquio, M. B. (2014, October 27). *Deformation Capacity and Strength of RC Frame Members Constructed with High-Strength Materials*. ACI Fall Convention, Session: James K. Wight: A Tribute from His Students and Colleagues, Washington, D.C.

Lequesne, R. D. & Parra-Montesinos, G. J. (2014, October 26). *Understanding Shear Behavior under Load Reversals through James K. Wight's Research*. ACI Fall Convention, Session: James K. Wight: A Tribute from His Students and Colleagues, Washington, D.C.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2010, July 28). *Seismic Detailing and Behavior of Coupled Wall Systems with High-Performance Fiber-Reinforced Concrete*. 9th National and 10th Canadian Conference on Earthquake Engineering, Toronto, ON, Canada.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2010, March 20). *Seismic Response of High-Performance Fiber-Reinforced Concrete Coupled Walls*. 6th International Workshop on Structural Concrete in the Americas, Chicago, IL.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2009, June 10). **POSTER:** *Innovative Applications of Damage Tolerant Fiber-Reinforced Cementitious Materials for New Earthquake-Resistant Structural Systems and Retrofit of Existing Structures*. NSF Program CMMI Meeting, Honolulu, Hawaii.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2009, February 12). **POSTER:** *Seismic Detailing and Behavior of Precast High-Performance Fiber Reinforced Concrete Coupling Beams*. EERI Annual Meeting, Salt Lake City, Utah.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2008, November 3). *Earthquake Resistant Design of Coupled Wall Systems Incorporating High-Performance Fiber-Reinforced Concrete*. 2008 ACI Fall Convention, Session: ACI Student Fellowships and Young Member Initiatives, St. Louis, MO.

Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K. (2008, March 31). *High Performance Fiber Reinforced Concrete in Earthquake-Resistant Coupled Wall Systems*. 2008 ACI Spring Convention, Session: Part 1: Session Honoring Antoine E. Naaman: Four Decades of Progress in Fiber Reinforced Concrete, Los Angeles, CA.

Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J. (2007, July 10). *High Performance Fiber Reinforced Concrete for Earthquake Resistant Design of Coupled Wall Systems*. Fifth International RILEM Workshop, High Performance Fiber-Reinforced Cement Composites (HPFRCC5), Mainz, Germany.

Grants

External Research Funding

Funded

Bennett, C. (Principal), Lequesne, R. D. (Co-Principal), Li, J. (Co-Principal), Collins, W. (Co-Principal), Lepage, A. (Co-Principal), Darwin, D. (Co-Principal), O'Reilly, M. (Co-Principal), Hansen, A. (Co-Principal), Husic, A. (Co-Principal), "Improving the Performance of Concrete Dam Infrastructure through Use of Fiber Reinforced Polymers," U.S. Army Corp of Engineers. Budgeted amount: $7,740,921 (April 2022 - April 2027). Y1 contracted and Y2 to Y3 appropriated for a total of $4,286,377; Years 4 and 5 pending.

Lequesne, R. D. (Principal), Lepage, A. (Co-Principal), Darwin, D. (Co-Principal), "Splicing, Coupling, and Anchorage of Large High-Strength Steel Reinforcing Bars in Earthquake-Resistant Structures," Electric Power Research Institute, $650,000 (March 2020 - December 2023).

Darwin, D. (Principal), Lequesne, R. D. (Co-Principal), O'Reilly, M. (Co-Principal), "Bond Behavior of Epoxy Coated Reinforcing Bars in Non-proprietary UHPC," Oklahoma Department of Transportation, $251,820 (October 2021 – September 2023).

Lequesne, R. D. (Principal), Collins, W. (Co-Principal), "Legal Truck Load Ratings for Standard Reinforced Concrete Boxes and Rigid Frame Boxes for HL-93 Loading," Kansas Department of Transportation, $44,049 (August 2022 - August 2023).

Lequesne, R. D. (Principal), Collins, W. (Co-Principal), "Re-decking Prestressed Concrete Girders Phase I: State-of-the-Practice and Preliminary Analysis Recommendations," Kansas Department of Transportation, $73,329 (August 2021 - May 2023).

Lequesne, R. D. (Principal), Lepage, A. (Co-Principal), Darwin, D. (Co-Principal), "Development of Hooked, Headed, and Straight Bars in Compression," Concrete Reinforcing Steel Institute, $90,000 (May 2020 - December 2022).

Husic, A., (Principal), Collins, W., (Co-Principal), Lequesne, R. D., (Co-Principal), Roundy, J., (Co-Principal), "Development of Condition Factors and Bridge Load Ratings through Statistical Analyses of the NBI Database," Kansas Department of Transportation, $46,501 (August 2021 - August 2022).

Darwin, D. (Principal), Lequesne, R. D. (Co-Principal), Lepage, A. (Co-Principal), O'Reilly, M. (Co-Principal), "Development of Large High-Strength Headed Reinforcing Bars," Charles Pankow Foundation, ACI Foundation, BarSplice Products, Headed Reinforcement Corporation, Pentair, and CRSI Education and Research Foundation, $380,000 (August 2018 - August 2022).

Lequesne, R. D. (Principal), O'Reilly, M. (Co-Principal), "UHPC Mixture Design for Accelerated Bridge Construction," Kansas Department of Transportation, $56,702 (January 2021 - December 2021).

Lequesne, R. D. (Principal), Collins, W. (Co-Principal), "Synthesis of Rating Methodologies for Concrete Bridges without Plans," Kansas Department of Transportation and Federal Highway Administration, $39,488 (February 2018 – January 2019).

Lequesne, R. D. (Principal), Collins, W. (Co-Principal), Darwin, D. (Co-Principal), Lucon, E. (Consultant), "Development of Precision and Bias Statement for ASTM A1061," Precast/Prestressed Concrete Institute, $105,288 (October 2017 - September 2018).

Lepage, A. (Principal), Lequesne, R. D. (Co-Principal), "Reinforced Concrete Coupling Beams with High-Strength Steel Bars," Charles Pankow Foundation, $150,000, (January 2017 - September 2018).

Lepage, A. (Principal), Lequesne, R. D. (Co-Principal), "Deformation Capacity of Concrete Structural Walls Reinforced with Grade 100 Steel Bars," CMC, $50,000 (September 2016 - March 2018).

Lepage, A. (Principal), Lequesne, R. D. (Co-Principal), "Deformation Capacity of Concrete Structural Walls Reinforced with ASTM A1035 Steel Bars," MMFX Technologies Corporation, $55,000, (July 2016 - December 2017).

Darwin, D. (Principal), Lequesne, R. D. (Co-Principal), Lepage, A. (Co-Principal), O'Reilly, M. (Co-Principal), "Use of Headed Bars as Shear Reinforcement," Electric Power Research Institute, $400,000 (August 2014 - August 2017).

Lequesne, R. D. (Principal), Matamoros, A. (Co-Principal), "Composite Action in Prestressed NU I-Girder Bridge Deck Systems Constructed with Bond Breakers to Facilitate Deck Removal," Kansas Department of Transportation, $83,000 (August 2014 - April 2017).

Lepage, A. (Principal), Lequesne, R. D. (Co-Principal), "High-Strength Steel Bars in Reinforced Concrete Walls: Influence of Mechanical Properties of Steel on Deformation Capacity," Charles Pankow Foundation, $112,000 (November 2014 - October 2016).

Internal Funding

Roundy, J. (Principal), Husic, A. (Co-Principal), Hansen, A. (Co-Principal), Tran, D. (Co-Principal), Lequesne, R. D. (Co-Principal), Young, B. (Co-Principal), Misra, A. (Co-Principal), "Integrating PYTHON Based Active Learning Modules into the CEAE Curriculum," CTE Course Transformation Grant, $3,000 (March 2021 - May 2022).

Parsons, R. (Principal), Bennett, C. (Co-Principal), Kondyli, A. (Co-Principal), Lequesne, R. D. (Co-Principal), Li, J. (Co-Principal), Lines, B. (Co-Principal), McVey, M. (Co-Principal), Medina, M. (Co-Principal), Roundy, J. (Co-Principal), Sutley, E. (Co-Principal), "Benchmarks for Teaching Effectiveness Project; Application for Cohort Three: Department of Civil, Environmental, and Architectural Engineering," Internal Sub-Award from larger National Science Foundation Grant, $5,000, (December 2019 - December 2020).

Lequesne, R. D. (Principal), "Pilot Study: Deformation Capacity of Interior Slab-Column Connections with Openings," University of Kansas General Research Fund, $7,280, (July 2016 - June 2017).

Fadden, M. (Principal), Lequesne, R. D. (Co-Principal), McVey, M. (Co-Principal), "University of Kansas TRESTLE Course Transformation Grant: CE 310 - Strength of Materials Laboratory Transformation," National Science Foundation, $3,750 (October 2016 - May 2017).

Lequesne, R. D. (Principal), "Quantification of Fiber Distribution and Orientation in Fiber Reinforced Concrete Materials," University of Kansas New Faculty General Research Fund, $7,951 (September 2015 - August 2017).

Graduate Student Supervision

Ph.D.

N. Abbas, *Behavior and Retrofitting of Lift Joints of Concrete Dams*, Chair (ongoing)

U. Neupane, *Mechanical Bar Couplers in Earthquake-Resistant Construction*, Chair (ongoing)

F. Niyonyungu, *Earthquake-Resistant Column-Foundation Connections*, Chair (ongoing)

A. Al-Sabawy, *Headed and High-Strength Shear Reinforcement in Concrete Members*, Chair (May 2020)

S. Ameen, *Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*, Co-Chair (December 2018)

M. S. Huq, *High-Strength Steel Bars in Earthquake-Resistant T-Shaped Concrete Walls*, Co-Chair (August 2018)

C. Li, *Composite Action in Prestressed NU I-Girder Bridge Deck Systems Constructed with Bond Breakers to Facilitate Deck Removal*, Chair (August 2017)

M.S. Thesis Option

B. Adhikari, *Re-Decking Prestressed Girders: State of the Practice and Preliminary Analysis Recommendations*, Chair (expected May 2023)

G. Valentini, *Compression Development of Deformed Steel Reinforcing Bars*, Chair (expected December 2022)

Y. Aljawad, *Low-Shrinkage Ultra-High-Performance Concrete*, Chair (June 2022)

R. Rulon, *Lap Splicing of Large High-Strength Steel Reinforcing Bars*, Chair (December 2021)

T. Mudaliar, *Topology Optimized Reinforced Concrete Walls Constructed with 3D Printed Formwork*, Chair (January 2020)

W. Tameemi, *Correlations between Compressive, Flexural, and Tensile Behavior of Self-Consolidating Fiber Reinforced Concrete*, Chair (September 2015)

M.S. Project Option

A. Poudel, *Diagonally-Reinforced Concrete Coupling Beams: Effects of Axial Restraint*, Chair (July 2018)

K. Carleton, *Charts for Preliminary Selection of NU Girder Sections Based on Kansas Department of Transportation LRFD Design Guidelines for Prestressed Concrete Beams*, Chair (May 2016)

C. Lomonaco, *Influence of Bar Size on Shear Strength of Reinforced Concrete Beams without Stirrups*, Chair (May 2015)

Teaching

Courses Taught: University of Kansas

CE 310 - Strength of Materials (Ten semesters, mean evaluation: 4.8/5.0)

CE 563 - Design of Reinforced Concrete Structures (Three semesters, mean evaluation: 4.8/5.0)

CE 764 - Advanced Design of Reinforced Concrete Structures (Six semesters, mean evaluation: 4.7/5.0)

CE 862 - Behavior of Reinforced Concrete Members (Two semesters, mean evaluation: 4.7/5.0)

Courses Taught: University of Wisconsin – Madison

CEE 340 - Structural Analysis I (mean evaluation: 4.5/5.0)

Enrichment Activities

Participant in *Center for Teaching Excellence Best Practices Institute* (2014)

Service

Professional Memberships

American Concrete Institute (ACI) (Since 2007)

American Society of Civil Engineers (ASCE) (Student Member Grade 2003 - 2010, Associate Member Grade 2014 - 2016, Member Grade Since 2016)

Earthquake Engineering Research Institute (EERI) (2014 - 2020)

Precast Concrete Institute (PCI) (Since 2018)

International Professional Service

Member

fib Task Group 2.5 - Bond and Material Models (Since 2019)

Bond in Concrete 2022 Scientific Committee (2022)

National Professional Service

Chair

ACI-ASCE Committee 408 - Bond and Development of Steel Reinforcement (Since 2018)

ACI-ASCE Committee 352-Task Group 2 - Beam-Column Joints & Connections (Since 2016)

Secretary

ACI-ASCE Committee 408 - Development and Splicing of Deformed Bars (2012 - 2018)

Member

PCI Prestressing Reinforcement Committee (Since 2019)

ACI-ASCE/SEI Committee 90-03 - TAC Subcommittee on ACI/ASCE-SEI Joint Committees. (2018 - Present)

ACI Committee 133 - Disaster Reconnaissance (Since 2021)

ACI Sub-Committee 318-J - Joints and Connections (Since 2014)

ACI-ASCE Committee 352 - Joints and Connections in Monolithic Concrete Structures (Since 2014)

ACI-ASCE Committee 352-Task Group 1 - Slab-Column Joints & Connections (Since 2014)

ACI Committee on Awards for Papers - Subcommittee SC3 Mete A. Sozen Award for Excellence in Structural Research (Appointed) (2020 - 2021)

StEER Linwood, KS, Tornado Reconnaissance Team (2019)

ACI Reconnaissance Team for the September 19, 2017 Central Mexico Earthquake (2017)

Associate Member

ACI Committee 445 - Shear and Torsion; Member of Sub-Committee 445-C - Punching Shear (Since 2014)

ACI Committee 374 - Performance-Based Seismic Design of Concrete Buildings (Since 2008)

ACI Committee 544 - Fiber-Reinforced Concrete (2014 - 2017)

Session Organizer / Moderator

Co-Moderator of the *Transfer and Development* session, Bond in Concrete (2022)

Co-Moderator of the *Joint FIB/ACI* session, Bond in Concrete (2022)

Moderator of the *Buildings Session*, 66th Annual KU Structural Engineering Conference (2021)

Co-Moderator of *The Intersection of Bond, Development Length, and Anchorage*, Fall ACI Convention (2020)

Co-Moderator of *Recent Findings in High-Strength Steel and Engineered Cementitious Composites (ECC)*, 11th National Conference on Earthquake Engineering (2018)

Co-Organizer of three *Bond in Concrete* sessions at the Spring ACI Convention (2017)

Co-Moderator of *Bond in Concrete – Part 3*, Spring ACI Convention (2017)

Proposal Reviewer

Small Business Innovation Research Program Phase I / Small Business Technology Transfer Program Phase I, National Science Foundation (2019 - 2020)

Engineering for Civil Infrastructure Program, National Science Foundation (2018)

Engineering for Natural Hazards Program, National Science Foundation (2016)

Manuscript Reviewer

ACI Concrete International (2016, 2018)

ACI Special Publications (2013 - 2015, 2019)

ACI Structural Journal (2013 - 2019, 2021)

ACI Technical Activities Council, External Ad-hoc Reviewer (2019 - 2020)

ASCE Journal of Structural Engineering (2013 - 2017, 2019 - 2021)

ASCE Journal of Materials Engineering (2015)

Canadian Journal of Civil Engineering (2013, 2014, 2020)

EERI Earthquake Spectra (2017 - 2019)

Engineering Structures (2015 - 2016, 2021)

Journal of Building Engineering (2016, 2020 - 2021)

PCI Journal (2021)

Structural Engineering and Mechanics (2016)

Structural Engineering International (2017)

Oxford University Press; Textbook Chapter Pre-Publication Technical Review (2020)

University Representative

Consortium of Universities for Research in Earthquake Engineering (2014 - 2016)

University Service

President

Faculty Senate President (Elected) (2021-2022)

Chair

Faculty Senate Executive Committee (Elected) (Ex-Officio) (2021-2022)

Member

COACHE Survey Dissemination Committee Core Team (2022-2023)

Ad-Hoc Committee: Review of Procedures of the Faculty Rights Board for Hearing Cases Involving Dismissal of a Tenured Faculty Member (2021 - 2022)

Faculty Rights Board (2020-2022)

Faculty Senate (Elected) (2019 - 2022)

Kansas Board of Regents Council of Faculty Senate Presidents (Elected) (2021 - 2022)

Libraries Committee (2019 - 2022)

Staff Senate (Ex-Officio) (2021 - 2022)

Staff Senate Executive Committee (Ex-Officio) (2021 - 2022)

University Senate (Elected) (2019 - 2022)

University Senate Executive Committee (Elected) (Ex-Officio) (2021 - 2022)

Return to Campus Simulation Committee (Summer 2020)

School of Engineering Service

Member

Diversity Task Force (2019 - 2021)

Student Academic Misconduct Hearing Panel (2019)

Academic Standards Committee (2015 - 2016)

Other

Instructor at Project Discovery Summer Camp (2015, 2017)

Judge for Graduate Engineering Association Research Competition (2014, 2016)

Civil, Environmental, and Architectural Engineering Department Service

Chair

Sabbatical Leave Committee (2022)

Member

Diversity and Equity Task Force (2020 - 2021)

Graduate Studies Committee (Since 2019)

Promotion and Tenure Committee (Committee of the Whole) (Since 2019)

Structural Engineering Conference Planning Committee (Since 2013)

Search Committee - Construction Engineering Faculty Member (2019 - 2020)

Student Retention Committee (2013 - 2016)

Search Committee - Laboratory Technician (2016)

Search Committee - Three Structural Engineering Faculty Members (2014 - 2015)

Faculty Advisor

American Society of Civil Engineers Student Chapter (2014 - 2020)

American Concrete Institute Student Chapter (2013 - 2016)

External Member

Annual Internal ABET Review of Geomaterials Group (2016)

Annual Internal ABET Review of Transportation Group (2016)

Reviewer

Peer Teaching Evaluation (Since 2019)

Service Presentations

Lequesne, R. (2020, February 19). *On Licensure and Ethics*. National Society of Professional Engineers - KU Student Chapter.

Lequesne, R. (Spring 2016, 2018 - 2020). *F.E. Exam Review, Topic: Strength of Materials*. Civil, Environmental, and Architectural Engineering at the University of Kansas.

Lequesne, R. (2016, September 13). *Why Structural Engineering?* Architectural Engineering Institute - KU Student Chapter.

Lequesne, R. (2016, February 17). *Structural Engineering; Why I Enjoy It.* American Concrete Institute - KU Student Chapter.

Lequesne, R. D. (2014, October). *Introduction to Structural Engineering*. Three lectures for CE 191 – Introduction to Civil Engineering.

Lequesne, R. (2014, March 31). *Strut-and-Tie Models: AASHTO Specifications vs. ACI Code*. KU CEAE Department Professional Development Series.