



Richard J. Kristie
Patrick Marra
Brian Santouosso
WJE

Richard J. Kristie, P.E., S.E
WJE, Principal

Richard J. Kristie is a licensed structural engineer with over 42 years of experience and is currently a Principal with WJE. Since joining WJE in 1985, Richard Kristie has conducted investigations of damaged structures, evaluated existing structures, performed laboratory testing, and prepared repair plans and specifications.

He specializes in investigations involving wood structures, wood truss roof systems, hardwood floors and millwork, steel plate shell structures and steel frame structures with corrosion and welding problems, steel pole structures, and fire-damaged structures.

He has also performed investigations and developed repairs for below grade water leakage. Richard Kristie has authored several papers and articles related to the investigation and repair of wood structures.





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Patrick J. Marra, P.E., S.E
WJE, Certified Bridge Inspection Team Leader

Patrick J. Marra is a licensed Professional Engineer in Indiana and a Structural Engineer in Illinois as well as an INDOT Certified Bridge Inspection Team Leader, including Fracture Critical inspection, and Load Rating Engineer. Mr. Marra joined WJE's Northbrook, Illinois, office in 2016 and has been involved in the assessment, evaluation, rating, and rehabilitation of multiple timber, steel and concrete bridges. This work has included special and fracture critical bridge inspections, bridge instrumentation monitoring, element-level inspections, and structural analysis.

Prior to joining WJE, Mr. Marra worked as a structural engineer for a marine structures design firm. His work covered the analysis and design of a wide variety of maritime structures, including multiuse wharf structures, bulkhead sheet pile wall systems, and mooring and berthing systems.

Mr. Marra earned his BS in civil and environmental engineering and his MS in civil engineering, structures from the University of Delaware.





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Brian Santouosso
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Brian Santouosso, P.E., S.E
WJE, Team Leader

Brian J. Santosuosso is a registered Professional Engineer in Indiana and several other states, and a registered Structural Engineer in Illinois. Since joining WJE's Northbrook, Illinois, office in 2002, Mr. Santosuosso has acquired experience through extensive work on projects involving fatigue and fracture of steel bridge components, including the retrofit of fatigue sensitive details.

He has worked extensively with non-destructive test methods and structural instrumentation. He has been involved with numerous complex, fracture critical, special, and pin and hangar inspection assignments. Other projects have involved evaluation of bridge structures for rating and strategic retrofit or rehabilitation to extend service life.

Mr. Santosuosso earned his BS and MS in civil engineering at Lehigh University. He is also a Team Leader with qualifications for Complex Bridge inspections, including Fracture Critical inspection, in the State of Indiana and is registered with the American Welding Society (AWS) as a Certified Weld Inspector (CWI). Mr. Santosuosso also serves on the American Railway Engineering and Maintenance-of-Way Association's (AREMA) Committee 15 - Steel Structures.

