
Ethan C. Dodge | Principal Engineer, Large/Complex Loss, PE

Stratham, New Hampshire

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Professional Summary:

Mr. Dodge is a structural/materials engineer with over twenty years of experience that includes evaluations of existing facilities and failure investigations for a variety of construction materials.

Mr. Dodge holds a bachelor's degree in Civil Engineering and a master's degree in Structural Engineering/Materials Science. He spent the first four years of his career applying nondestructive test techniques to a wide variety of structural evaluations. For the past seventeen years, his practice has primarily been involved in the evaluation of structures where the application of field and laboratory testing are beneficial. Mr. Dodge has led and supported hundreds of complex diagnostic assessments throughout the United States and abroad. Clients value his practical, cost-conscious approach to assignments ranging from single family homes to large infrastructure and new construction projects.

Areas of expertise include, but are not limited to:

- Structural Evaluation and Conceptual Repair
- Construction Defect Evaluations
- Concrete Material Characterization
- Contract and building code compliance

Licenses and Certifications:

Professional Engineer, Connecticut, #34587

Professional Engineer, Illinois, #062.056214

Professional Engineer, Massachusetts, #54482

Professional Engineer, Maine, #PE16511

Professional Engineer, New Hampshire, #12095

Professional Engineer, Texas, #141019

National Council of Examiners for Engineering and Surveying (NCEES) #25501

Project Experience:

Transbay Tower, San Francisco, California

Forensic and Failure Investigation

Worked with experts and stakeholders to develop investigation scope. Designed and implemented the field evaluation. Provided documentation of existing conditions to all stakeholders and assisted the design team in determining the suitability of in place construction.

Ford Island Bridge, Honolulu, Hawaii

Forensic and Failure Investigation

Worked with stakeholders to develop investigation scope. Directed field evaluation and coordinated interpretation of field and laboratory test data.

O'Hare Canopy, Chicago, Illinois

Forensic and Failure Investigation

Reviewed weld test results performed by others and determined the information could not be relied upon., Directed fabrication of samples with characteristic defects and designed a verifiable test program for evaluation of difficult to access welded connections

LNG Tank Evaluation, Sakhalin Island, Russia

Forensic and Failure Investigation

Developed project scope and project lead for evaluation of damage causation and extents. Worked with repair contractor to develop repair means and methods.

John Coffee Bridge, Florence, Alabama

Structural Evaluation

Developed and managed complex field and laboratory diagnostic assessment of mile-long bridge including topside and marine access. Multiple nondestructive and laboratory test methods were used to assess current conditions and predict future performance.

GIWW Bypass Barge, New Orleans, Louisiana

Structural Evaluation

Developed scope of work, project lead, and project manager for structural investigation and material characterization of light weight barge concrete.

Professional Experience:

EFI Global, Principal Engineer, 2021 - present

CTLGroup, Senior Engineer, 2006-2021

Simpson Gumpertz & Heger, Senior Engineer/Staff Engineer, 2003-2006

CTLGroup, Engineer I/II, 1999-2003

Education:

M.S. Structural/Materials Engineering, University of New Hampshire, Durham, NH 1999

B.S. Civil Engineering, University of New Hampshire, Durham, NH, 1996

Affiliations:

American Concrete Institute (ACI), Voting member of 228

Publications and Presentations:

Saldua, Dodge, Kolf, Olson "Reinforced Concrete Antenna Pedestal", Concrete International, April 2018

Dodge, Ethan C, Villalobos, Salvador "Impulse Response data analyzed for repeatability and numerical magnitudes", NDT-CE, Fall 2015

Dodge, Ethan C, Lewis, Aaron R "Waterproofing and elevation profiling of a subsurface drainage layer", Elsevier Construction and Building Materials, April 2010

Dodge, Ethan, Sherman, Matthew "Structural Evaluation and Repair of Internally Damaged Concrete, ASCE Forensic Engineering Fourth Congress, 531-541, Oct 2006