



## David Transue

PE

### Senior Managing Engineer

#### Department

Engineering Services

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#### Locations

Denver, CO

## Biography

David is a consulting engineer with over 20 years of construction and engineering experience including condition evaluation and failure assessment of buildings and the restoration, repair and retrofit of structures. He has expertise in engineering and construction of masonry, non-destructive testing, material analysis, and evaluation of historic structures. David has experience as a contractor specializing in restoration of structures and monuments. He has led multi-disciplinary forensic engineering evaluations of construction defects and building failures. His work has included building envelope issues, material failures, construction defects, water penetration, condensation, damage to structures from earthquakes, tornadoes, hail, wind, vehicle impact, construction vibrations, and expansive soils. David has published several technical works, including two chapters for ASCE handbooks. His speaking experience includes lectures at the University of Colorado, conference presentations, technical presentations to professional and trade organizations, and continuing education courses. David has defended his work in mediation, deposition, and trial.

## Credentials

- PE | Professional Engineer

## Representative Consulting Assignments

- Waterfront Condominium Building - Damage Assessment | Dillon, Colorado | Structural Analysis of Pile Foundation Resistance to Ice Loading
- Health Club Natatorium - Litigation Support | Westminster, Colorado | Damage Assessment and Multi-Disciplinary Construction Defect Evaluation
- Condominium Development - Litigation Support | Aurora, Colorado | Multi-Disciplinary Construction Defect Evaluation
- Health Club | Denver, Colorado | Evaluation of Damage to Steel Mid-Rise Building from Upper Level Health Club Facility
- Cathedral - Condition Assessment | Baltimore, Maryland | Non-Destructive Evaluation and Materials Testing and Analysis
- Baked Goods Factory | Chicago, Illinois | Masonry Condition Evaluation and Repair Recommendations
- Multi-Family Housing Building - Litigation Support | Denver, Colorado | Multi-Disciplinary Construction Defect Evaluation of Building on Podium Slab over Parking Structure
- Stone Obelisk Monument - Condition Assessment | Saratoga, New York | Non-Destructive Evaluation and Masonry Repair Quality Control

## Professional Experience

- 2021 - Current | Senior Managing Engineer | YA Engineering Services
- 2020 - 2021 | Senior Project Engineer | Envista Forensics
- 2017 - 2019 | Senior Structural Engineer | Western Engineering & Research Corporation

- 2011 - 2017 | Managing Engineer | Exponent
- 2008 - 2010 | Project Engineer | Western Engineering & Research Corporation
- 2005 - 2021 | Project Engineer | Transue Engineering Associates
- 2000 - 2008 | President | Preservation Technology
- 1999 - 2004 | Research Assistant and Project Engineer | Atkinson-Noland & Associates
- 1996 - 1999 | Research Assistant | University of Colorado at Denver

## Area of Practice

- ADA Compliance Assessment
- Building Envelope
- Condition Assessment
- Construction Administration
- Damage Assessment
- Earthquake Engineering
- Failure Analysis
- Fire and Life Safety Systems
- Historic Preservation
- Infrared Thermography
- Litigation Support
- Marine Structures
- Non-Destructive Testing
- Repair and Rehabilitation Design
- Repair Cost Estimating
- Roofing
- Seismic Evaluations and Retrofit Design
- Structural Analysis
- Sustainability
- Water Leakage Testing and Analysis

## Publications and Presentations

- Transue, D.J, Reston, VA, "Masonry Material Evaluation", Proceedings of ASCE Structures Congress 2006, Structural Engineering and Public Safety, American Society of Civil Engineers
- Transue, D.J., Project report for the National Center for Preservation Technology and Training, National Park Service, Natchitoches, LA, "Nondestructive Method for Hardness Evaluation of Mortars", Rocky Mountain Masonry Institute, the University of Colorado at Denver, and Atkinson-Noland & Associates, Grant Agreement No. MT-2210-7-NC-013
- Tanner, J. and Transue, D.J., "History and Preservation of Bradford-Perley House Architectural Interpretation Site", The Masonry Society Journal, Volume 28, Number 1
- Transue, D.J., Hanley-Wood, Addison, IL, "Conducting In-Place Shear Tests", Masonry Construction, Volume 16, Number 7
- Grimm, C.T., D.J. Transue (2010 Revisions and Updates), McGraw-Hill, New York, Forensic Structural Engineering Handbook, Forensic Structural Engineering Handbook, Second Edition, Chapter 13 on Masonry
- Transue, D.J., University of Colorado at Denver, Denver, CO, Nondestructive Method for Hardness Evaluation of Mortars, M.S. Thesis
- Transue, D.J., K.L. Rens, and M.P. Schuller, American Society of Civil Engineers, NY, NY, "A Study of the Practicality of Acoustic Tomographic Imaging for the NDE of Concrete Structures", Infrastructure Condition Assessment: Art, Science, and Practice, Ed. Mitsuru Saito

- Transue, D.J., American Society of Civil Engineers, Chapter 18 on Masonry, Structural Condition Assessment, SEI/ASCE, Edited by Robert T. Ratay, PhD, PE, Structural Engineering Institute, John Wiley & Sons, Inc
- Transue, D.J., Colorado Preservation, Denver, CO, "Tech Notes: Using Ethyl Silicate Consolidants on Bricks", • Transue, D.J., "Tech Notes: Using Ethyl Silicate Consolidants on Bricks," Colorado Preservationist,, Volume 14, Number 1
- Rens, K.L. and D.J. Transue, Account 353-6614, "Cement Manufacturing Project: Improving Plant Output by Mitigating Static Electricity", Report for the Portland Cement Association
- Rens, K.L. and D.J. Transue, American Society of Civil Engineers, NY, NY, "Recent Trends in Nondestructive Inspections in State Highway Agencies", Journal of Performance of Constructed Facilities, Technical Note, Volume 12, Number 2
- Transue, D.J., The Masonry Society, "Sounding for Grout and Steel in Masonry Walls", TMS Responds, Volume 1, Number 2
- Rens, K.L., C. Nogueira, & D.J. Transue, ASCE, Journal of Performance of Constructed Facilities, Bridge Evaluation and Nondestructive Evaluation, The Denver Management System
- Rens, K.L. and D.J. Transue, Concrete Repair Bulletin, Des Plaines, IL, "Tomographic Imaging of Cracked Pier Cap of Evans over Santa Fe Bridge", International Concrete Repair Institute, Volume 15, Number 4
- Transue, D.J., University of Colorado at Denver, Denver, CO, "Examination of Ultrasonic Signal Attenuation as an Indicator of Compressive Strength", Graduate Research Opportunity Project
- Transue, D.J., M.P. Schuller, and K.L. Rens, The Masonry Society, Austin, TX, "Use of the Pendulum Hammer Hardness Test for Mortar Evaluation", Proceedings of the Eighth North American Masonry Conference
- Rens, K.L., C.L. Nogueira, and D.J. Transue, Forensic Engineering, San Diego, CA, "Bridge Evaluation using Nondestructive Evaluation -- The Denver Management System", "Bridge Evaluation using Nondestructive Evaluation -- The Denver Management System", Proceedings of the third congress
- Rens, K.L., D.J. Transue, M.P. Schuller, American Society of Civil Engineers, NY, NY, "Acoustic Tomographic Imaging of Concrete Infrastructure", Journal of Infrastructure Systems, Volume 6, Number 1, 15-23

## Education

- University of Colorado at Denver - Master of Science - Civil Engineering (Structural) - Denver - Colorado
- The College of Wooster - Bachelor of Arts - Philosophy - Wooster - Ohio
- University of Colorado at Denver - Bachelor of Science - Civil Engineering - Denver - Colorado

## Affiliations

- The Masonry Society (TMS)
- ASTM International

## Licenses

- PE 36700 - Colorado - Civil Engineer