



700 S Industrial Way  
Seattle, WA 98108

## **MARK G. NORDSTROM, P.E.**

### **SENIOR CONSULTANT**

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Mr. Nordstrom is a civil engineer with over 30 years of combined experience in engineering design, loss investigation, and expert testimony. He has over 20 years of experience in loss investigation involving municipal infrastructure, structures, soil mechanics and foundations, structural vibration damage, stormwater management, sewer and water systems, roadways and pavement, municipal design, and other disciplines traditionally associated with Civil Engineering.

Mr. Nordstrom also has experience with personal injury investigation in matters involving ADA and building code access requirements such as stairways, ramps, handrails and guardrails, illumination, slip resistivity/condition of walking surfaces, railing failures, and ladder accidents.

Mr. Nordstrom is a lifelong cyclist and has investigated numerous bicycle accidents from the aspects of pavement conditions, storm grate designs, speed control devices, signage, bicycle facility design standards, and interactions with motor vehicles.

Before and coinciding with his experience in engineering loss investigation, Mr. Nordstrom co-founded one of the first companies in the United States to offer broadcast quality engineering-accurate illustrative media to the loss investigation and legal industries. During its fifteen years in operation, Raptor Graphics, LLC innovated illustrative media ranging from simple graphic diagrams to fully interactive three-dimensional virtual environments and assisted attorneys and technical experts on matters totaling well over half a billion dollars in losses and damages.

By way of his work with digital media, Mr. Nordstrom also has extensive experience in photo and video analysis. He has provided services including photo dimensional analysis, event analysis (time/location/velocity relationships, event timelines) and the investigation of changes to site conditions over time.

Mr. Nordstrom's early career experience includes computer-based civil design and planning for residential, commercial, and municipal projects, as well as design, analysis, and structural detailing of residential and light commercial structures in areas of high snow, wind, and seismic loading conditions.

Early in his career Mr. Nordstrom performed numerous percolation tests and designed on-site septic systems for residential and high occupancy facilities in areas of problematic clay soils. His early field experience includes construction surveying, supervision and final inspection of rebar, concrete forms, structural steel connections, deep pile driving, sub-grade preparation, soil compaction, traffic control, heavy demolition, and the installation of buried sewer/water/stormwater systems.

Mr. Nordstrom is a Registered Professional Civil Engineer in the states of Washington and California.

February 2024

## Areas of Specialization

- Sanitary sewers, water supply systems, stormwater systems, buried utilities
- Structural damage, post-fire structural assessment, fire scene stabilization
- Losses due to deficient design or construction, municipal and residential
- Soil mechanics, foundations, retaining walls, slope stability/landslides, structural vibration damage
- ADA access and building code compliance
- Experience with English XL, ASM 825, ASM 925 and BOT 3000E tribometers
- Bicycle accidents related to roadway design/condition/maintenance, design standards for bicycle facilities and bicycle-safe municipal construction
- Building envelope failure/water infiltration/vapor damage
- Potable water systems, rainwater harvesting systems
- Building and municipal infrastructure construction defects
- Photo and video analysis for dimensional measurements, event reconstruction/dynamic analysis
- Roadways/pavement condition and maintenance, roadway illumination

## Education

- B.S., Civil and Environmental Engineering, University of Wisconsin Madison, 1984
- Milwaukee School of Engineering, Mechanical Engineering, 1979–1980
- Registered Professional Civil Engineer, State of Washington, #30958
- Registered Professional Civil Engineer, State of California, #C49491

## Positions Held

- ESi (Engineering Systems Inc.), Seattle, WA
  - Senior Consultant, 2024-Present
  - Senior Staff Consultant, 2016–2023
- MDE, Inc., Seattle, WA
  - Vice President & Principal, 2009–2016
  - Associate Forensic Engineer, 2003–2009
- Pacific Interactive, Seattle, WA
  - Lead 3D Digital Designer, “Bill Nye- Stop the Rock” interactive computer game (1995)
- Harmsen and Associates, Inc., Monroe, WA
  - Civil Design Engineer, 1993–1995
- Raptor Graphics, LLC, Tahoe City, CA and Seattle, WA
  - 3D graphics, animation, and virtual media production
  - President, Co-Founder, 1992–2009
- Nordstrom Design, Tahoe City, CA
  - Principal/Owner, Civil Design Engineer, 1991–1993

- Hale-Tippin Consultants, Tahoe City, CA
  - Civil Designer/Project Manager, 1990–1991
- Opitz Engineers, Kremmling, CO
  - Civil Designer, Field Technician, Draftsperson, 1986–1989

## **Training**

- Excel Tribometer training and certification, June 2017
- American Society of Civil Engineers (ASCE), “Soil and Rock Stability” Seminar, March 2017
- ASCE, "Earth Retaining Structures-Fill Walls" Seminar, September 2012
- Excel Tribometer training and certification, June 2012
- ASCE, "Investigation and Repair of Fire-Damaged Framing" Seminar, July 2011
- “Soil Mechanics and Engineering for Building Professionals” Seminar, April 2011
- The University of Washington sponsored "Cold Regions Engineering" Five-Day Seminar, November 2010
- "ATC-20 Post-Earthquake Safety Evaluation of Buildings" Seminar, June 2010  
Portland Cement Association, "Troubleshooting Concrete Floors" Seminar, September 2008