

Michelle L. Macauley, P.E., LEG
Curriculum Vitae

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Principal Professional Specialties

I am a Geotechnical Engineer and Trenchless Expert that specializes in aspects of new installation and rehabilitation projects for infrastructure replacement, improvement, and capacity enhancement using trenchless technologies.

Qualifications, Training, Accreditation

M.S., Geological Engineering, University of Alaska, Fairbanks, 1996
B.S., Geological Sciences, University of Washington, 1994

Washington: Professional Engineer (Civil), 2001, Cert. No. 36520
Alaska: Professional Engineer (Civil), 2006, Cert. No. 11636
California: Professional Engineer (Civil), 2008, Cert. No. 74224
Oregon: Professional Engineer (Civil), 2015, Cert. No. 90289PE
Texas: Professional Engineer (Civil), 2015, Cert. No. 121112
Washington: Licensed Engineering Geologist, 2002, Cert. No. 75564



Past and Present Positions

Present positions:

Principal Geotechnical Engineer, Macauley Trenchless, PLLC, Federal Way, WA (02/2018 to present).

Past positions:

National Trenchless Practice Lead, Jacobs Engineering, Bellevue, WA (07/2015 to 12/2018).
Trenchless Design Engineer, GeoEngineers, Redmond, WA (03/2010 to 07/2015).
Senior Project Engineer, Staheli Trenchless Consultants, Bothell, WA (06/2006 to 02/2010).
Senior Geotechnical Engineer, Landau Associates, Edmonds, WA (01/2004 to 06/2006).
Geotechnical Engineer, HWA GeoSciences, Lynnwood, WA (10/1996 to 12/2003).

Memberships of Professional Organizations

North American Society for Trenchless Technology (NASTT)

- Member since 2006
- Program Committee Member since 2007
- Board Member 2017 to present

American Society of Civil Engineer (ASCE)

- Member since 1996
- Member of the Trenchless Installation of Pipes (TIPS) sub-committee since 2015
- Committee member to update the Manual of Practice for Pipe Ramming, 2017-present
- Founding member of Direct Pipe committee to author the Manual of Practice for Direct Pipe, 2018-present
- Committee member to update the Manual of Practice for Pipe Bursting, 2018-present

Technical Papers and Presentations

1. 2019 No-Dig North Conference (presentation and published paper), Calgary, Alberta, Canada “Unique Horizontal Drain Installation Under A Building Using Pilot Tube Guided Auger Bore Methods”
2. 2019 ISTT’s No-Dig Conference (presentation and published paper), Florence, Italy “Unique Horizontal Drain Installation Under A Building Using Pilot Tube Guided Auger Bore Methods”
3. 2019 PCNWA Short School, Lynnwood, WA. “Trenchless Case Histories”.
4. 2019 NASTT’s No-Dig Conference (presentation and published paper), Chicago, IL “Unique Horizontal Drain Installation Under A Building Using Pilot Tube Guided Auger Bore Methods”
5. 2019 City of Tacoma, “Managing Risk on Trenchless Projects”
6. 2019 Washington Association of Water and Sewer Districts dinner meeting, 2-part series, co-presented with Trenchless Construction Services, “Case History of a Trenchless Installation under a Building”
7. 2018 Guest speaker at the University of Colorado Boulder “Introduction to Civil Engineering” course.
8. 2018 PCNWA Short School, Lynnwood, WA. “Trenchless Road Crossings – Case Histories”.
9. 2018 ASCE Pipelines Conference, Toronto, Canada, (author of a presentation and published paper) “Evaluating ArrowBore™ – A case study from the Engineers perspective”.
10. 2018 NASTT No-Dig Conference, Palm Springs, California, (supporting author of a presentation and published paper) “Comparison of Different Inadvertent Return Methods and an Approach to Integrate Them”.
11. 2018 NASTT No-Dig Conference, Palm Springs, California, (primary author of a presentation and published paper) “Evaluating ArrowBore™ – A case study of a patented technology from the Engineers perspective”.
12. 2017 PNCWA Conference, Vancouver, Washington, Presentation of “Innovative Microtunnel Contracting for the King County Wastewater Treatment Division Fremont Siphon Replacement Project”
13. 2017 Western Washington Short School and Trade Show, Lynnwood Convention Center, hosted by the Northwest Washington Subsection PNWS – AWWA and the Western Washington Region PNCWA, presented on “Managing Risk on Trenchless Projects”
14. 2017 ASCE Pipelines Conference, Phoenix, Arizona; (co-author of a presentation and published paper) of “JEA Scores Twice—2 Major HDDs Launched from Jaguars Stadium Parking Lot”.
15. 2017 ASCE Pipelines Conference, Phoenix, Arizona; Co-leader of a Direct Pipe Roundtable Discussion.
16. 2017 NASTT No-Dig Conference (co-author of a presentation and a published paper), Washington DC, “Innovative Microtunnel Contracting for the King County Wastewater Treatment Division Fremont Siphon Replacement Project”
17. 2016 NASTT No-Dig Conference (presentation and published paper), Dallas, Texas, “It’s not just a culvert. It’s a tunnel”
18. 2016 NASTT No-Dig Conference (presentation and published paper), Dallas, Texas, “Auger Bore Challenges Under a State Highway”
19. 2015 Pacific Northwest Chapter of NASTT, Trenchless Symposium, SeaTac, Washington, “Multiple Grade-Sensitive Pipe Rams in Soft Soils”
20. 2015, Idaho Transportation Department, Coeur d’Alene, ID “Trenchless Technologies for Roadway Crossings (lunch-and-learn)”
21. 2015 NASTT No-Dig Conference (presentation and published paper), Denver, Colorado, “Multiple Grade-Sensitive Pipe Rams in Soft Soils”

Technical Papers and Presentations (continued)

22. 2014 GeoEngineers Shareholders Meeting, “Navy Culvert Replacement”, Case History - Tunnel liner plate tunneling for a new fish-friendly culvert.
23. 2014 ASCE Portland Geotechnical Group Meeting, Portland, Oregon “Trenchless Road Crossings”
24. 2012 NASTT No-Dig Conference (presentation and published paper), Nashville, Tennessee “Challenging HDD Water Mains Up Steep Slopes”
25. 2011 NASTT No-Dig Conference (presentation and published paper), Washington D.C. “Mixing Oil and Water –Lessons Learned from Oil/Gas and Municipal Projects” 2011
26. 2011 Idaho Transportation Department, Project Development Conference, Boise, ID “Trenchless Technologies for Culvert Replacement”
27. 2011 ASCE Pipelines Conference (presentation and published paper), Seattle, Washington “Over or Under: Geotechnical Considerations for Pipeline Levee Crossings”
28. 2011 Underground Construction Technologies Conference, Houston, Texas “Fairwood Culvert Replacement – Hammer Assist Auger Bore”
29. 2010, Over 20 Client and Owner lunch-and-learn presentations, “Trenchless Technology: applications and limitations”
30. 2010 American Public Works Association (APWA) Fall Conference, Wenatchee, Washington “Why go Trenchless?”
31. 2009 NASTT No-Dig Conference (presentation and published paper), Toronto, Ontario “Field Challenges and Successes with Pilot Tube Microtunneling”
32. 2009 NASTT No-Dig Conference (presentation and published paper), Toronto, Ontario “Installation of a Sewer Line on a Steep Slope using HDD”
33. 2009 Rapid Excavation and Tunneling (RETC) Conference, Las Vegas, Nevada “King County Ballard Siphon Replacement Project”
34. 2008 NASTT No-Dig Conference (presentation and published paper), Dallas, Texas “Ballard Siphon Replacement Project”
35. 2008 NASTT No-Dig Conference (presentation and published paper), Dallas, Texas “Pilot Tube Microtunneling in Alaska”
36. 2007 NASTT No-Dig Conference (presentation and published paper), San Diego, California “Willamette River Poses HDD Challenges”