



**Raul A. Velasquez, P.E., Ph.D.**  
**Geomechanics Research Engineer**

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Works at the Office of Materials and Road Research (OMRR) at the Minnesota Department of Transportation (MnDOT). He is mainly involved in conducting subsurface research with a focus on pavement foundation and related new technologies. Additionally, he provides technical assistance to the MnDOT Office of Materials Specialty Sections (e.g., Geotechnical Section), District Materials and Construction Engineers, and Local Agencies through the Local Road Research Board (LRRB) in the areas of pavement foundation analysis and design, in-situ and laboratory testing, and performance evaluation.

He worked as a Post-Doctoral Researcher at the University of Wisconsin-Madison dealing with research and educational efforts related to the thermal and mechanical behavior of asphalt materials and later as a Senior Geotechnical Engineer at Barr Engineering where he provided general geotechnical consultant services (e.g., slope stability, foundation design, etc.) and advanced computational modeling services to government agencies and clients in the mining and energy industry.

His past experience involves the experimental characterization and numerical modeling of geomaterials subjected to static, cyclic, and thermal loads. Experimental experience includes elementary and indirect testing under monotonic and cyclic loading as well as non-destructive methods. Numerical modeling includes the use of the finite element and finite difference methods.

**Education**

Ph.D. Civil Engineering, University of Minnesota, 2009.

M.Sc. Civil Engineering, University of Minnesota, 2005.

B.Sc. Civil Engineering, Universidad de los Andes, Colombia, 2002.

**Professional Network**

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