

# Derek Nener-Plante, EIT

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## OBJECTIVE

Obtain a full-time position utilizing education and demonstrated skills in pavement materials, highway design, and transportation engineering after completion of graduate work in May of 2010.

## CERTIFICATION

### Engineer in Training (EIT)

Awarded by the State of Maine on June 26, 2008, #5869

## EDUCATION

### University of Connecticut

M.S., Transportation Engineering, May 2010

#### GPA 3.94

Related Coursework: Bituminous Materials, Case Studies in Transportation, Highway Design, Pavement Design, Polymer Viscoelasticity, Transportation Planning

### University of Maine

B.S., Civil Engineering, May 2008, Summa Cum Laude

#### GPA 3.98

Related Coursework: Advanced Roadway Design, Transportation Planning, Transportation Safety, Geotechnical Engineering

## SKILLS

- Experienced in Abaqus, DigitalHighway, EverPave, MATLAB, MathCAD, ME-PDG, Microsoft Office 2003/2007, Microstation, SAS, WiseCrax
- Knowledge of Superpave testing and design procedures for asphalt pavements
- Experience with AASHTO Geometric Design of Highways and Streets handbook, MUTCD, and state construction specifications
- Outstanding communication skills (written and oral) and ability to work in a team environment
- Ability to learn new tasks quickly and proficiently

## WORK EXPERIENCE

### Connecticut Transportation Institute/University of Connecticut, Storrs, CT

May 2008 - Present

#### Graduate Assistant

- Independently managed all facets of research project on the indentation behavior of asphalt mixtures from start to finish
- Analyzed and drew conclusions from indentation test results using MATLAB and spreadsheet software
- Conducted Superpave experiments on asphalt binders and mixtures
- Reduced and analyzed WiseCrax data obtained from ARAN vans in order to determine amount of existing distress on state roadways
- Used ME-PDG to conduct pavement distress analysis and design
- Conducted literature reviews on technical subjects within transportation engineering including: congestion pricing, material transfer vehicles, indentation of viscoelastic materials, pavement preservation, and perpetual pavements

### Worcester Polytechnic Institute, Worcester, MA

June 2007 - Sept. 2007

#### Student Researcher

- Managed and coordinated a National Science Foundation research project concerning the use of warm-mix technology in mixes with high recycled material contents
- Conducted Superpave mix design for virgin and warm-mix asphalt concrete
- Fabricated experimental asphalt pavement specimens
- Conducted statistical ANOVA analysis of experimental results
- Evaluated the effectiveness of a warm-mix technology for pavement performance based upon experimental and statistical data
- Wrote a report detailing the results of the experimental study of warm-mix asphalt technology that lead to multiple technical articles

### MassHighway, Boston, MA

May 2006 - Sept. 2006

#### Pavement Management Intern

- Conducted pavement design reviews using the AASHTO 1993 method
- Read and analyzed technical drawings of roadway structures
- Revised the *Materials* and *Subbase, Base Courses, Shoulders, Pavements, and Berms* state specification sections for supplemental specifications
- Researched the topic of "pavement preservation" and wrote a Pavement Preservation Guide to educate those in the department of potential maintenance operations

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## HONORS AND AWARDS

2009 Eisenhower Fellowship Recipient  
2009 National Science Foundation Fellowship Honorable Mention  
2008 Francis J. Hovey Award (for the outstanding graduate in Civil Engineering)  
2007 University of Maine Fraternity Man of the Year  
2004 University of Maine Presidential Scholar Award

## ACTIVITIES

Secretary, Alpha Gamma Rho Fraternity Alumni Association, 2008 - Present  
Secretary, University of Connecticut Institute of Transportation Engineers, 2008 - Present  
Member, Francis Crowe Society, Inducted 2008  
Member, Chi Epsilon Honor Society, Inducted 2007  
Member, Order of Omega Honor Society, Inducted 2007  
President, Alpha Gamma Rho Fraternity, 2006  
Treasurer, Alpha Gamma Rho Fraternity, 2005-2007

## PUBLICATIONS

Yut I., Nener-Plante D., Zofka A., Case Study on Perpetual Flexible Pavement in Connecticut. Accepted to be presented at First International Conference on Pavement Preservation, Newport Beach, California, April 13-15, 2010  
Yut I., Nener-Plante D., Zofka A., Preservation of Flexible Pavements in Connecticut - Case Study. Accepted to be presented at the 89th Annual Meeting of the Transportation Research Board, Paper No. 10-3492, January 2010  
Zofka A., Yut I., Nener-Plante D., RAP Study for Asphalt Mixtures Used in Connecticut. Proceedings of II International Conference Environmentally Friendly Roads, ENVIROAD, Warsaw Poland, October 15-16, 2009  
Yut I., Nener-Plante D., Zofka A., Case Study on Perpetual Pavement in Connecticut. Proceedings of International Conference on Perpetual Pavement, Columbus, Ohio, September 30 - October 2, 2009  
Nener-Plante D., Zofka A., Long-Term Study on Asphalt Mixture Segregation in Connecticut: Preliminary Results on Use of MTV. Proceedings of Eighth International Conference on the Bearing Capacity of Roads, Railways, and Airfields, June 29 - July 2, 2009 - Champaign, Illinois

## PROFESSIONAL DEVELOPMENT ACTIVITIES

Pavement Surface Properties Consortium, Connecticut Department of Transportation Sponsored Presentation, 9/24/09, Rocky Hill, CT  
Workshop on Best Practices for Concrete Pavements, Connecticut DOT/FHWA Concrete Pavement Technology Program, 4/29/09 - 4/30/09, Rocky Hill, CT  
MATLAB Fundamentals, MATLAB course, 4/13/09 - 4/17/09, online  
Transportation Research Board 88<sup>th</sup> Annual Meeting, 1/11/2009-1/15/2009, Washington D.C.  
Introduction to Abaqus, Abaqus course, 9/22/08 - 9/26/08, Warwick, RI