



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, MassDOT Secretary & CEO



External Posting

Requisition #: 180000KS
Posting Date: April 10, 2018
Closing Date: Open Until Filled
Official Title: Civil Engineer III
Functional Title: Civil Engineer III – Bridge Designer
Location: 10 Park Plaza, Boston, MA - Bridges and Structures
Vacancies: 1
Salary: \$64,560.61- \$89,887.64
Schedule: Full-Time
Shift: Day
Bargaining Unit: E
HR Generalist: Mary Ellen Yetman
Diversity Officer: Derrick Mann – 857-368-8541
ADA Coordinator: John Lozada – 857-368-8741

DETAILED STATEMENT OF DUTIES AND RESPONSIBILITIES:

Incumbents of this position perform the function of the Bridge Designer in the Bridge Design Unit of the Bridge Section and are responsible for the following duties:

1. Prepares Preliminary Structures Reports and Bridge Type Selection Worksheets for bridges of moderate complexity in accordance with MassDOT standards.
2. Prepares bridge Sketch Plans for bridges of moderate complexity in accordance with MassDOT standards.
3. Prepares structural design calculations, final bridge design plans, Special Provisions and Estimates for bridges of moderate complexity in accordance with AASHTO specifications and MassDOT standards.
4. Checks Preliminary Structures Reports, Bridge Type Selection Worksheets, Sketch Plans, structural design calculations, final bridge design plans, Special Provisions and Estimates for bridges of moderate complexity prepared by other engineers of the Bridge Design Unit in accordance with AASHTO specifications and MassDOT standards.
5. Prepares and/or checks bridge construction material quantity calculations and bridge project cost estimates.
6. Checks shop drawings, construction procedures, and RFI's for bridge projects of moderate complexity designed by the Bridge Design Unit.

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7. Resolves construction issues arising on bridge projects of moderate complexity designed by the Bridge Design Unit.

Preferred Qualifications at Hire for this position:

Knowledge of the principles and practices of structural engineering
Knowledge of the terminology and standard abbreviations used in bridge design
Knowledge of the structural analysis methods and mathematical computations used in solving structural engineering problems as they relate to bridge design
Knowledge of the mechanical properties and characteristics of steel and concrete as used in bridge construction
Working knowledge of the AASHTO LRFD Bridge Design Specifications
Working knowledge of the MassDOT Bridge Manual
Working knowledge of the AASHTOWare Bridge Design (OPIS) software
Working knowledge of the AutoCAD software

Minimum Entrance Requirements:

For purpose of bargaining unit designation, Unit 9 is equivalent to MassDOT Unit E.

Applicants must have at least (A) four years of full-time, or equivalent part-time, technical or professional experience in civil engineering work in such areas as construction, survey, design, transportation, hydraulics, structural, sanitary, drafting, environmental, highway, architectural, airport, soils and materials, of which (B) at least two years must have been in a professional capacity, or (C) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. An Associate's degree with a major in civil engineering** or civil engineering technology** may be substituted for a maximum of one year of the required (A) experience.*
- II. A Bachelor's degree with a major in civil engineering** or civil engineering technology**, may be substituted for a maximum of two years of the required (A) experience.*
- III. A Graduate degree with a major in civil engineering**, may be substituted for a maximum of three years of the required (A) experience and one year of the required (B) experience.*

**NOTE: The terms civil engineering and civil engineering technology include related engineering disciplines such as construction, survey, design, transportation, hydraulics, structural, soils, sanitary, environmental, drafting, highway, architectural, mining, airport and materials.

*Education toward such a degree will be prorated on the basis of the proportion of the requirements actually completed.

NOTE: Educational substitutions will only be permitted for a maximum of one year of the required (B) experience.

SPECIAL REQUIREMENT: Based on assignment, possession of a current and valid Massachusetts Class D Motor Vehicle Operator's License may be required.

FOR NON-MassDOT APPLICANTS:

Applicants for this position must possess a Bachelor's Degree in an appropriate engineering discipline and E.I.T. certification or P.E. registration for appointment to this position.

FOR MassDOT EMPLOYEES:

Applicants for this position must possess a Bachelor's Degree in an appropriate engineering discipline and E.I.T. certification or P.E. registration for appointment to this position, or hold a position in the Department in one of the next two lower titles than the position applied for, in the same or similar career ladder.

If you have any questions regarding this position, please contact Mary Ellen Yetman, Human Resources at (857) 368-8571.

First consideration will be given to those applicants that apply within the first 14 days.

An Equal Opportunity / Affirmative Action Employer. Females, minorities, veterans, and persons with disabilities are strongly encouraged to apply.