

BRIDGE CONSTRUCTION ENGINEER (Prin. Civil Engineer)

PLEASE APPLY ON THE CITY OF BOSTON CAREER CENTER SITE

This is a provisional appointment.

Brief Job Description (essential functions of the job):

Under the general direction of the City Engineer, the Bridge Construction Engineer will assist in the supervision and direction of design engineering work required for or related to the preparation and completion of preliminary and final engineering layouts, plans, detail designs and calculations for the construction, alteration, or reconstruction of streets and sidewalks, street lighting, and related installation in the City of Boston (a) to be constructed under the direct jurisdiction of the Public Works Department, or (b) as required to fulfill the Department's responsibilities for design engineering services in matters of concern to the City of Boston, in the design and layout of similar construction programs and other activities under jurisdiction of other municipal, State, or Federal agencies or authorities, including services to consultants or contractors engaged by the agencies or authorities.

Duties include but not limited to:

- Supervises construction being performed under contract, for repairs, reconstruction, or building of new bridges, structures, and related facilities in the City of Boston.
- Responsible for both consultant and in-house generated design engineering work related to the preparation and completion of preliminary and final engineering plans, specifications and estimates.
- Ensures that bridge projects, inclusive of bridge repairs, rehabilitation and/or replacement projects, are properly defined and designed in accordance with MassDOT standards and the AASHTO Bridge Design code.
- Assists in the preparation of scope of work for bridge projects; reviews preliminary design reports and sketch plans; reviews final designs, plans, special provisions and cost estimates; reviews State Bridge Inspection Reports and Bridge Rating reports for City owned and other applicable bridges.
- Performs related work as required.

Required to work any emergency as directed by the Chief of Streets or designee.

Minimum Entrance Qualifications:

Applicants must have at least (A) five 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, airport, soils and materials of which (B) at least three years must have been in a professional capacity and (C) at least one year must have been in a supervisory, managerial or administrative capacity or any equivalent combination of the required experience and the substitutions below. A degree in Civil Engineering is strongly preferred. EIT designation or PE License is strongly desired.

SUBSTITUTIONS:

- 1) An undergraduate degree with a major in civil engineering** may be substituted for a maximum of two years of the required (A) experience.*
- 2) A graduate degree with a major in civil engineering** may be substituted for a maximum of one year of the required (B) experience.*

**NOTE: The term civil engineering includes related engineering disciplines, such as construction, survey, hydraulics, design, transportation, structural, soils, sanitary, environmental, drafting, highway, architectural, maining, airport and materials.

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

NOTE: No substitutions will be permitted for the required (C) experience.

Extensive Knowledge of:

Design engineering principles, standards and practices applicable to the layout, detail design, and specification required for the construction of highways, and other related structures and appurtenances.

Knowledge of AutoCAD, Mathematics and soil mechanics and drainage principles applicable to the solution of fairly complex and diversified highway design problems, and the preparation of estimates of quantities and costs. Applicable laws, municipal ordinances and regulations, departmental policies and instructions.

Working knowledge of:

Civil Engineering principles, practices and terminology applicable to the design of highway facilities.

Construction materials, specifications, and costs as applicable.

Supervisory Principles and practices.

Marked ability to:

Plan and supervise diversified design engineering work.

Apply engineering knowledge and experience to the solution of diversified design engineering programs.

Work cooperatively and effectively with others.

Ability to exercise good judgment and focus on detail as required by the job.

BOSTON RESIDENCY REQUIRED

Terms:

Union/Salary Plan/Grade: AFSCME/RA- 20A

Hours: 35 per week

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