

CLASS TITLE:       **Civil Engineer IV**

CHARACTERISTICS OF THE CLASS: Under general supervision, the class performs senior level professional civil engineering duties, working independently on tasks related to the construction, maintenance and design of moderate to complex infrastructure and building projects; and performs related duties as required.

ESSENTIAL DUTIES: Conducts field surveys to collect data for planned improvements and to identify conditions that may impact the scope of proposed construction, repair and maintenance projects and recommends modifications as needed; prepares and reviews engineering designs, drawings, calculations, specifications and cost estimates for infrastructure and building construction, maintenance, and repair projects; drafts preliminary specifications and estimates for labor, material and equipment costs for projects such as runways, streets, water, sewer, airport and related systems and facilities; serves as resident engineer at the site of large maintenance and construction projects, monitoring construction methods and work in progress, inspecting materials and ensuring work is completed according to contract specifications and project time lines; prepares reports on the status and costs of engineering projects; reviews payment vouchers submitted by engineering and construction firms ensuring payment requests reflect completed work according to contract specifications; reviews design plans, contract documents, cost estimates and engineering calculations for construction or rehabilitation projects prepared by consultants to ensure compliance with established design criteria, project scope and budget specifications, and recommends changes as needed; monitors work in progress and determines the appropriateness of engineering changes, contract amendments and related costs submitted by contractors and recommends approval or modification.

RELATED DUTIES: May review permit applications submitted by developers for activities affecting foundations, waterways, traffic and City landmarks; may prepare grant applications to secure project funding; may consult with other departments and agencies to coordinate personnel engaged in project engineering activities; may assist in training and providing guidance to lower level staff; may provide technical information on engineering projects at hearings and legal proceedings; may research new materials, techniques and software for use in engineering projects.

DESIRABLE MINIMUM QUALIFICATIONS:

Training and Experience. Graduation from an accredited college or university with a Bachelor's degree in Civil Engineering or a directly related field of engineering supplemented by two years of progressively responsible Civil Engineering experience, or an equivalent combination of training and experience, provided the minimum degree requirement is met.

CLASS TITLE:       **Civil Engineer IV (Cont'd)**

Some positions may require a valid State of Illinois driver's license.

Knowledge, Abilities and Skill. Good knowledge of the principles and practices of civil engineering design and construction. Good knowledge of advanced mathematical principles. Good knowledge of modern construction methods, materials and equipment. Good knowledge of computer assisted design software. Good knowledge of infrastructure systems. Good knowledge of project costing, monitoring and reporting techniques.

Ability to perform complex engineering calculations. Ability to estimate costs and schedules for engineering projects. Ability to meet and consult with engineers, contractors and the public. Ability to interpret engineering plans and specifications.

Good skill in the application of modern civil engineering principles to practical problems. Good advanced technical math skills. Good skill in the use of surveying and drafting equipment. Good skill operating computer assisted design software. Working skill in managing complex engineering projects. Good skill in conducting standard engineering tests and surveys. Good analytical skills. Good oral and written communication skills.

Physical Requirements. Ability to access work sites during various stages of construction or repair.

Working Conditions. Inside: General office environment. Outside: Occasional exposure to inclement weather and extreme temperatures.

Equipment. Field surveying equipment. CAD system. Standard office equipment including personal computers.

NOTE: While the list of essential duties is intended to be as inclusive as possible, there may be other duties which are essential to particular positions within the class.

March, 2002  
City of Chicago  
Department of Personnel

Driver's license added June, 2018