

CLASS TITLE:       **Civil Engineer V**

CHARACTERISTICS OF THE CLASS: Under general supervision, the class functions as a project engineer for complex infrastructure and building construction, maintenance and renovation projects, or functions as a working supervisor over a small engineering staff while maintaining own projects; and performs related duties as required.

ESSENTIAL DUTIES: Oversees the conduct of field surveys 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 specifications for projects such as runways, streets, water, sewer, airport and related systems and facilities; oversees subordinate engineers and inspectors engaged in monitoring infrastructure and building construction projects ensuring work is completed according to contract specifications and project time lines; interprets design plans and specifications to contractors and assists in resolving design and construction problems; prepares reports on the status and costs of engineering projects; approves partial and final payments to contractors 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; analyzes and resolves complex engineering design and construction problems; 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 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 three years of progressively responsible Civil Engineering experience including one year of supervisory experience, or an equivalent combination of training and experience, provided the minimum degree requirement is met.

Code: **5615**  
Operation and Construction Service  
Engineering, Designing and Structural Group  
Civil Engineering Series

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

Registration as a Professional Engineer (R.P.E.) is required. At the time of employment, positions must have obtained Registration as a Professional Engineer (R.P.E.) in the State of Illinois. Some positions may require a valid State of Illinois driver's license.

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

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. Ability to assign and supervise the work of professional and technical personnel. Ability to analyze and resolve complex engineering design problems.

Considerable skill in the application of modern civil engineering principles to practical problems. Considerable advanced technical math skills. Good skill in managing complex engineering projects. Good skill operating computer assisted design software. Considerable analytical skills. Good oral and written communication skills. Some supervisory 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. 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

Minimum Qualifications revised: July, 2013, June, 2016