CLASS TITLE: Electrical Engineer II

CHARACTERISTICS OF THE CLASS: Under immediate supervision, the class performs entry level professional electrical engineering work in connection with a variety of maintenance, construction and design projects including street lights, traffic signals, transit lines, fire alarms, bridges and electrical equipment; and performs related duties as required.

ESSENTIAL DUTIES: Surveys project location to identify existing utilities, systems and equipment, take field notes and draft preliminary sketches; prepares design plans detailing electrical power, equipment, material and labor needs and prepares estimates of related costs; performs calculations to determine electrical power distribution, luminance and voltage levels; orders components and parts to replace or repair broken electrical equipment; conducts field inspections of work in progress to monitor compliance with contract specifications, check materials and equipment and evaluate changes in construction plans; inspects new electrical systems and equipment for conformance to plans and specifications and recommends modifications to ensure compliance; meets with construction contractors and utility companies to coordinate electrical construction work and resolve electrical engineering problems; prepares reports on the status of electrical engineering projects.

RELATED DUTIES: Maintains records of inspections, permits, work orders, correspondence and related documentation and provides information requested by contractors.

MINIMUM QUALIFICATIONS:

Training and Experience. Graduation from an accredited college or university with a Bachelor’s degree in Electrical Engineering or a directly related field of engineering.

Knowledge, Abilities and Skill. Some knowledge of modern principles and practices of electrical engineering. Some knowledge of various electrical conduit designs. Some knowledge of advanced mathematical principles. Some knowledge of voltage and applicable safety codes and ordinances. Some knowledge of infrastructure systems.

Ability to apply basic electrical engineering theory. Ability to inspect electrical systems and components for proper operation and conformance to specifications. Ability to prepare electrical conduit designs. Ability to perform complex engineering calculations.

Some skill in the application of modern principles and practices of electrical engineering. Some skill in the use of surveying and
drafting equipment. Some skill in advanced technical math. Some skill in preparing electrical conduit designs. Good oral and written communication skills.

Code: 5812  
Operation and Construction Service  
Building Custodial and Operation Group  
Electrical Engineering Series

CLASS TITLE: Electrical Engineer II (Cont’d)

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


Equipment. Field surveying equipment. 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.

May, 2002  
City of Chicago  
Department of Personnel