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Class Specifications
for the Class:

ELECTRONIC TRAFFIC SIGNAL TECHNICIAN
(ELECTRONIC TRAFFIC SIGNAL TECH)

Duties Summary:

Tests, repairs, modifies, installs, and maintains solid state computerized and electro-mechanical traffic signal control equipment such as controllers, coordinators, load switches, detectors, signal monitors and flashers; troubleshoots and repairs electronic modules of traffic signal systems; designs and modifies electronic and electrical circuits to meet varying traffic control requirements; inspects electrical and electronic work on contracted traffic signal installation projects; and performs other duties as required.

Distinguishing Characteristics:

This class is distinguished by the performance of the full range of electronic traffic signal systems servicing including devising specialized test jigs to test electronic traffic controllers, testing and repairing electronic modules, and designing/modifying electrical and electronic circuits to meet operational needs. Journeyman level electrical work is also performed such as installing controllers and repairing electrical motors and generators.

Examples of Duties:

Bench tests, calibrates, and repairs electronic traffic signal controllers and mini-computers; tests and replaces microprocessors; maintains, repairs, and adjusts electronic components such as oscillating, multivibrator, pulse, memory, and integrated circuits, which are used in digital computers and power units; designs and modifies electronic and electrical circuits to meet varying traffic control requirements; tests, repairs, modifies, installs and maintains solid state computerized and electro-mechanical traffic signal control equipment such as controllers, coordinators, load switches, detectors, signal monitors and flashers; plans, schedules, and maintains an effective traffic signal system preventive maintenance program; inspects contracted installation work for compliance with standards and specifications; responds to emergency breakdowns; repairs damaged traffic signal standards and heads; locates and repairs defects in wiring; repairs and maintains miscellaneous electronic and electrical equipment such as two-way radios, automatic vehicle count systems, electrical

timers, arc welders, electrical motors, generators, alternators, switches, and plugs; familiarizes police recruits in the operating theory of the various traffic signal control devices and coordinating system; operates a pick-up truck and ladder truck; recommends purchase of new or improved electronic testing equipment; estimates time, labor and material requirements; maintain current inventory of all parts and equipment; keeps records; and prepares reports as required.

Knowledge and Abilities Required:

Knowledge of: Electricity and electronic principles and theories; tools, equipment, instruments, and materials used in electromechanical and electronic repair; operating principles of rotating machines such as electrical motors and generators; electrical and electronic work hazards and safety practices; and national electric codes.

Ability to: Use electronic and electrical test instruments including oscilloscopes and volt-ohm-meters; read, understand, and prepare plans and schematic diagrams of electrical and electronic circuits; read and understand traffic signal plans; repair, maintain and modify electro-mechanical and electronic traffic signal control equipment; repair or construct printed circuit assemblies; learn to repair rotating machines such as electrical motors and generators; deal tactfully with others; ability to work at various heights; and prepare reports.

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This is the first specification for the new class ELECTRONIC TRAFFIC SIGNAL TECHNICIAN.

DATE APPROVED: 6/26/79

DONALD BOTELHO
Director of Personnel Services