Definition: This is technical work in the field of electronics.

An employee in this class is responsible for the design and fabrication of a variety of electronic and electrical equipment. Work is performed independently and usually without available recourse to technical assistance or well-defined guidelines. Work is assigned in broad outline by an administrative supervisor and reviewed for overall adequacy of the completed projects or repair program.

<u>Examples of Work</u>: Designs, fabricates, and repairs various electronic, electrical, and mechanical testing devices used for field and laboratory testing of materials used in highway construction.

Constructs amplifiers, oscillators, and other electronic equipment from schematics or rough sketches; fabricates chassis, control panels, cabinets, and mounting devices.

Tests the operation of repaired or fabricated equipment.

Tests, repairs, and calibrates various electronic, electrical, and mechanical test equipment such as nuclear activated moisture and density equipment, electronic recorders and thermometers, hydraulic beam breakers, and other similar types of equipment used in laboratory and field testing of construction materials.

Tests, repairs, and calibrates electronic, electrical and mechanical components of photoelectric, magnetic, radar, and treadle vehicle detection and recording devices.

Maintains equipment, tools, and work area in clean and operating condition.

Maintains contact with company representatives and reads technical manuals and reports to maintain a current knowledge of the latest developments in equipment.

Maintains required parts inventories and requisitions or orders all necessary supplies and parts.

Required Knowledges, Skills, and Abilities: Knowledge of the basic principles of electronics.

Knowledge of the standard types and uses of electronic and electrical test equipment.

Ability to use standard electronic and electrical test equipment.

Ability to use bench and hand tools.

Ability to understand and follow oral and written instructions.

Ability to analyze complex wiring diagrams.

Ability to understand electronic and electrical specifications and manuals.

Ability to learn to design, fabricate, repair and install various types of electronic, electrical, and mechanical equipment.

Ability to independently perform all work associated with the testing and repair of electronic and electrical equipment.

Ability to establish and maintain effective working relationships with staff, field personnel, associates, and company representatives.

<u>Minimum Experience and Training</u>: One year of experience in the testing and repairing of electronic equipment; and graduation from high school or vocational school. Full-time training in electronics, electricity, or closely related fields may be substituted, year-for-year, for experience.

or

Any equivalent combination of experience and training.