

**CLASS SPECIFICATION**  
**Materials Testing Technician II**

FLSA Status: Covered  
Union Representation: Professional and Technical Employees (PTE)

**GENERAL PURPOSE**

Under general supervision, performs specialized materials testing assignments, including collecting and preparing samples of materials; tests and analyzes asphalt, concrete, aggregate, soils and other common construction materials; operates, calibrates and maintains testing tools and equipment; and performs related duties as assigned.

**DISTINGUISHING CHARACTERISTICS**

Materials Testing Technicians II are responsible for performing specialized collecting, testing, analysis, logging, storing and disposing of samples of asphalt, concrete, aggregate and soils. Incumbents also operate, calibrate and perform maintenance and upkeep of materials testing laboratory equipment.

Materials Testing Technician II is distinguished from Materials Testing Technician I in that incumbents in the latter class perform routine materials testing assignments on a limited array of samples and maintain the testing laboratory and equipment in a clean and orderly fashion.

Materials Testing Technician II is distinguished from Materials Testing Technician III in that incumbents in the latter class provide lead work direction and are responsible for project coordination including development of time lines, schedules and budgets.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Inspects and tests materials in the field and laboratory, including concrete, asphalt, steel, galvanized products, aggregate and soils; tests concrete cylinders for compressive strength; cuts and caps miscellaneous masonry units to test for compressive strength; tests soils and aggregate for compaction, sieve analysis, gradation and sand equivalents; performs accurate calculations for soil, concrete and aggregate testing.
2. Inspects and measures cast iron and welded steel products.
3. Stores and logs samples to be tested; retrieves cylinders from field projects; disposes of tested samples.
4. Maintains, repairs and calibrates testing equipment.
5. Trains staff and contract personnel in work processes and procedures.

6. Responds to requests for technical information from City inspection staff, Construction Project Managers, and the public.

#### **MINIMUM QUALIFICATIONS**

##### **Knowledge of:**

1. Terminology, methods, practices, techniques and nomenclature used in materials testing in various situations.
2. Modern materials testing procedures, standards and requirements, including American Society of Testing Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) procedures.
3. Operation and use of materials testing equipment, including Oregon Department of Transportation (ODOT) test methods, standards and procedures.
4. Construction and manufacturing methods and specifications related to materials tested.
5. Algebra, geometry and trigonometry as applied to testing formulas.
6. City operating policies and departmental work procedures and quality standards.
7. Standard procedures for storing and disposing of samples.

##### **Ability to:**

1. Conduct a wide variety of materials testing assignments, including sampling and testing concrete, soil and aggregate for various physical properties.
2. Properly calibrate, operate and maintain materials testing equipment.
3. Record, read and interpret field and laboratory notes.
4. Perform materials testing computations and record results.
5. Establish and maintain effective working relationships with bureau management and staff, contractors and others encountered in the course of work.

##### **Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school, trade school or vocational school, or G.E.D. equivalent; and two years of materials testing experience; or an equivalent combination of training and experience. Experience in a public agency is preferred.

##### **Licenses; Certificates; Special Requirements:**

A valid state driver's license may be required for certain assignments.

ODOT Asphalt Tech, Density Tech, Embankment Tech, and Aggregate Tech certifications.

Nuclear densometer safety training certification

ACI Field Tech I certification

ACI Laboratory Tech I certification

#### **PHYSICAL AND MENTAL DEMANDS**

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

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#### **Class History:**

Adopted: 08-04-93 Engineering Technician II (3108) – Materials Testing specialty created.

Revised: 07-01-01 Spec revised as part of the COPPEA Classification and Compensation study. Materials Testing Technician II (6072) class created from the following COPPEA classes:  
3108 Technician II (Materials Testing specialty)

Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.

Revised: 08-07-06 Revised FLSA status from “Non-exempt” to “Covered.”

June 2009 - Change Job Class number from 6072 to 30000345, due to system change.

July 2017 – Updated union name from COPPEA to PTE