

CLASS SPECIFICATION
Computer Aided Drafting Technician I

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

GENERAL PURPOSE

Under general supervision, performs routine to moderately difficult computer aided drafting (CAD) assignments to create and modify facilities maps and drawings, including water service and hydrant installations and facility adjustments of street improvement projects; updates maps with as-built information; reproduces and distributes maps and drawings; researches, interprets and verifies data; reconciles conflicting and/or missing data by reviewing records, maps and plan and making field site visits; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Computer Aided Drafting Technician I is the entry-level drafting class in the Computer Aided Drafting Technician series. Incumbents perform standard to moderately difficult CAD mapping and drafting duties, including preparing, updating and reproducing maps, profiles, plans and drawings in accordance with bureau standards and assignments given and reviewing and making limited corrections to maps and drawings prepared by consultants to ensure conformance with bureau standards. Completed work is reviewed for accuracy and compliance with instructions.

Computer Aided Drafting Technician I is distinguished from Computer Aided Drafting Technician II in that incumbents in the latter class perform more difficult CAD drafting assignments on projects that are typically larger, more complex and involve multiple engineering disciplines, requiring more specialized and highly technical knowledge of engineering principles and disciplines.

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. Operates CAD software to create, update and maintain electronic drawings and maps of water, sewer, streets, stormwater, transportation, street systems and other easement, infrastructures and facilities, including plans, detailed drawings, site plans, cross sections and/or drawings for alterations to buildings, utilities or structures.
2. Updates and maintains database records, microfiche and electronic files.
3. Creates standard to moderately difficult drawings of facilities and construction plans using base maps and other available data; prepares detailed drawings for the construction and alteration of buildings, utilities, structures, street, pedestrian and other improvements; copies various original plans and City and bureau records for internal and external agency use; distributes original and reproduced drawings, work orders, estimates and permits; requests mylar, blue-line and black-line reproductions of main

installation plans; makes onsite visits to check base map accuracy and ensure no conflicts with construction plans; collects and analyzes field data.

4. Checks drawings for standards; creates and scans documents into electronic format from hard-copy originals and updates them to be used by bureau staff; ensures drawings are ready for archiving and processes updated drawings onto microfilm; manipulates electronic data into proper filing systems.
5. Updates originally recorded engineering drawings, maps, profiles and plans with new as-built data, utilizing computer-aided drafting techniques; converts paper plans to current as-built plans; edits existing drawings to reflect as-built conditions; updates as-built progress reports for use by bureau managers in budget projections.
6. Performs a variety of engineering technical duties to support City engineering staff, including assisting engineers with research, field inspections, analysis and verification of legal descriptions and other engineering support duties as assigned; performs engineering drafting work as assigned.
7. Reviews and analyzes engineering surveys and records for proper composition of construction drawings.
8. Makes standard engineering calculations involving elevations and angles relating sewer and sanitary pipe placement to other utility lines.
9. Researches and responds to requests by general public and consultants for information and/or maps; interprets construction plans, survey information and codes and standards to co-workers, field crews, citizens and others to ensure cooperation and code compliance.
10. Organizes and files various hard-copy and electronic maps, drawings, records and files; maintains drawing files.
11. Records dates of incoming drafting requests and assigns case file numbers; records dates of distribution of preliminary plans, filing of drafting requests and distribution of plans with permits.
12. Creates custom maps and graphics for other City bureaus and requesting agencies.

OTHER DUTIES

1. Archives and organizes old drawings; maintains and updates records for future reference.
2. Explains policies, procedures and progress of pending and past projects to contractors, government agencies and the public.
3. Participates in the preparation of project cost estimates; assists in contract compliance and payment documentation.
4. Orders and stocks supplies for printers, scanners, copiers, and large format plotters.

5. May assist in other special projects.

MINIMUM QUALIFICATIONS

Knowledge of:

1. Terminology, methods, practices, techniques and nomenclature of civil, mechanical and/or electrical engineering drafting by hand and using computers.
2. CAD software and drafting media.
3. Modern drafting and mapping procedures.
4. Algebra, geometry and trigonometry as applied to drafting formulas.
5. City operating policies and departmental work procedures and quality standards.
6. Basic methods and procedures for archiving and retrieving map and drawing information.

Ability to:

1. Work on a variety of computer-aided drafting applications.
2. Precisely follow written and oral instructions.
3. Perform detailed work thoroughly, neatly, accurately and efficiently.
4. Properly use and care for drafting equipment, instruments, hardware and software.
5. Read and interpret standard field notes and engineering and construction drawings.
6. Perform basic engineering computations.
7. Prepare maps, plans and records.
8. 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, supplemented by courses in mechanical drawing, engineering drafting and computer-assisted drafting; and two years of engineering drafting 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.

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.

Class History:

Adopted: 07-01-01 New class created as part of COPPEA Classification and Compensation study.
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 6031 to 30000328, due to system change.
July 2017 – Updated union name from COPPEA to PTE