

MICHIGAN CIVIL SERVICE COMMISSION
JOB SPECIFICATION

DRAFTING TECHNICIAN

JOB DESCRIPTION

Employees in this job perform manual and computer-aided drafting (CAD) activities in the areas of engineering, electrical, right-of-way, cartography, or architecture to lay out and prepare drawings of new or existing facilities, roadways, bridges, property, maps, equipment, and systems.

Position Code Title - Drafting Technician-E

Drafting Technician 8

This is the entry level. The employee performs a range of Drafting Technician assignments while learning the methods of the work.

Drafting Technician 9

This is the intermediate level. The employee performs an expanding range of Drafting Technician assignments in a developing capacity.

Drafting Technician E10

This is the experienced level. The employee performs a full range of Drafting Technician assignments and uses independent judgment to make decisions in specific work situations.

Position Code Title - Drafting Technician-A

Drafting Technician 11

This is the advanced level. The employee functions as a lead worker overseeing the work of lower-level Drafting Technicians and performing experienced-level Drafting Technician assignments; or as a senior worker performing the most complex assignments.

Position Code Title - Drafting Technician-SS

Drafting Technician 12

This is the staff specialist level. The employee uses specialized technical knowledge to perform highly complex Drafting Technician assignments involving sole, full time responsibility and authority for an assigned specialty area.

NOTE: Employees can progress to the experienced level based on satisfactory performance and possessing required experience.

JOB DUTIES

NOTE: Listed job duties are typical examples of work of positions in this classification. Not all duties assigned to every position are included, nor will all positions be assigned every duty. The general description of job duties does not authorize performance contrary to any state or federal licensing or certification requirements.

Prepares plans and sketches of roadways, right-of-ways, buildings, structures, airports, utilities, equipment and equipment adaptations, and office layouts.

Draws architectural and engineering details of roadways, buildings, structures, and topographical features.

Details grades, geometrics, drainage, utilities, and structures, and computes dimensions.

Computes and verifies mathematical data, and plots for surveys, construction centerlines, ties, and alignment data.

Plots physical, cultural, and geographic features.

Delineates boundaries according to legal description, date, means of acquisition, restrictions, and sales of access.

Compiles large-scale topographical maps from aerial photography using stereoplotting instruments.

Interprets and plots field and survey notes, checks general land office records, and draws maps to scale.

Sketches freehand involving lettering, pencil layouts, and ink work on engineering charts and graphs.

Plots horizontal control data on base manuscripts.

Analyzes spatial needs of departmental work areas and relates to the design of interior layouts.

Plots, checks, and interprets property descriptions to prepare maps, charts, and graphs.

Determines materials necessary to meet planning criteria and coordinates the work and changes with the construction crew and others.

Prepares charts and graphs for the presentation of statistical data.

Visits job sites to obtain additional data, measurements, and photographs.

Maintains sets of drawings, test reports, work changes, vouchers, and daily reports for projects.

Orders drafting supplies and maintains files and vendor catalogs.

Performs related work and other tasks as assigned.

Additional Job Duties

Drafting Technician 11 (Lead Worker)

Assigns work to lower-level Drafting Technicians.

Instructs and trains in proper work methods and processes.

Reviews job performance by observing and critiquing work techniques and completed assignments.

Prepares and maintains records related to the work.

Drafting Technician 11 (Senior Worker)

Regularly performs the most complex and difficult assignments in the work area.

Drafting Technician 12 (Staff Specialist)

Performs technician assignments involving responsibility for coordinating an assigned specialty area.

Serves as a recognized expert within a specialty area and provides technical assistance to other departmental staff.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge in the area listed is required at the entry level, developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level, thorough knowledge is required at the advanced level, and extensive knowledge is required at the staff specialist level.

Knowledge of the function and of computer-aided drafting equipment and computer graphics equipment.

Knowledge of nomenclature and conventional symbols of mapping, architectural, and engineering drawings.

Knowledge of engineering and architectural plans.

Knowledge of design and commercial planning concepts and techniques.

Knowledge of the techniques of lettering, spacing, arrangement, and margin requirements.

Knowledge of standard drafting instruments and materials and their use.

Knowledge of scale determination and conversion.

Knowledge of survey notes and computations.

Knowledge of legal and surveying terms used in property descriptions.

Knowledge of general land office plots, field notes, and other guide material in the development of maps.

Knowledge of mathematics used in the work.

Ability to operate automated drafting and computer graphics equipment.

Ability to prepare maps, drawings, and tracings.

Ability to make drawings to scale from field notes, designs, and sketches.

Ability to reduce and plot field notes.

Ability to read and interpret plans, maps, drawings, and charts.

Ability to develop charts, graphs, diagrams, and tables.

Ability to use instruments and perform manual drafting techniques.

Ability to prepare scale and full-size working drawings.

Ability to design, organize, and conduct planning for organizational layouts.

Ability to make mathematical calculations.

Ability to maintain records and prepare reports related to the work.

Ability to communicate effectively.

Additional Knowledge, Skills, and Abilities

Drafting Technician 11 (Lead Worker)

Ability to train and oversee the work of others.

Ability to prioritize, organize, and coordinate the work of the unit.

Ability to prepare and maintain records related to the work.

Drafting Technician 11 (Senior Worker)

Ability to perform the most complex Drafting Technician assignments.

Drafting Technician 12 (Staff Specialist)

Knowledge of the programmatic and developmental aspects of assigned specialty area.

Ability to organize and coordinate an assigned specialty area.

Ability to adapt to new technology and methods to increase specialty area effectiveness.

Working Conditions

Some jobs require travel.

Physical Requirements

None

Education

Possession of an associate degree in civil technology, drafting technology, or architectural technology.

Experience

Drafting Technician 8

No specific type or amount is required.

Drafting Technician 9

One year of experience equivalent to a Drafting Technician 8.

Drafting Technician E10

Two years of experience equivalent to a Drafting Technician, including one year equivalent to a Drafting Technician 9.

Drafting Technician 11

Three years of experience equivalent to a Drafting Technician, including one year equivalent to a Drafting Technician E10.

Drafting Technician 12

Four years of experience equivalent to a Drafting Technician, including two years equivalent to a Drafting Technician E10 or one year equivalent to a Drafting Technician 11.

Alternate Education and Experience

Drafting Technician E10

Possession of a bachelor's degree or higher with 16 semester (24 term) credits in job specific or related course work may be substituted for the education and experience requirements.

NOTE: Civil Service can individually evaluate equivalent combinations of education and experience providing required knowledge, skills, and abilities to qualify.

Special Requirements, Licenses, and Certifications

See individual position descriptions.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code

DRAFTTCH

Job Code Description

DRAFTING TECHNICIAN

Position Title

Drafting Technician-E

Drafting Technician-A

Drafting Technician-SS

Position Code

DRAFTCHE

DRAFTCHA

DRFTCHSS

Pay Schedule

L32-006

L32-012

L32-013

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08/03/2025