

**CLASSIFICATION:** CARTOGRAPHER II

**Class Code:** 1576-19

**Date Established:** 11-30-99

**Occupational Code:** 9-2-2

**Date of Last Revision:** 7-17-15

**Exempt Status:** Non-Exempt

**BASIC PURPOSE:** To manage and manipulate spatial data in a professional Geographic Information System (GIS) environment. To utilize the latest technology to edit and perform quality assurance in server based GIS environments. To implement standards to produce high-quality professional mapping products for a variety of purposes. To review the work of junior cartographers and to interpret aerial photography.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

- Performs geospatial data editing using industry-standard technology to digitize, audit and maintain spatial database records. Maintains proficiency and attains additional skills in GIS data management technology.
- Maintains GIS applications, relationships and data models; Maintains GIS server integrity and accuracy. Implements complex GIS data models and templates. Collects data as necessary from office and field sources. Creates, edits, and finalizes maps, graphs and charts. Performs queries of complex features and data.
- Oversees work product and supervise and trains entry-level employees in data collection procedures and the use of computers for preparing and revising maps.
- Communicates with individuals from various organizations for the purposes of producing maps and other GIS products.
- Performs quality assurance/quality control functions on maps, graphs and data tables for accuracy, completeness, appearance, and adherence to standards and specifications. Makes recommendations for changes in policies and Standard Operating Procedures as required, to ensure data integrity and system operation.
- Prepares emergency response related maps for use by state, regional and local public safety agencies; Provides GIS support and mapping production to the State Emergency Operations Center.
- Provides solutions to public safety related problems utilizing GIS tools independently at remote locations for emergencies, disasters, and drills.

**DISTINGUISHING FACTORS:**

**Skill:** Requires skill in developing formats and procedures for special applications OR in investigating and reviewing the use of equipment and data for a specialized function.

**Knowledge:** Requires knowledge of business practices and procedures or technical training in a craft or trade, including working from detailed instructions, to apply knowledge in a variety of practical situations.

**Impact:** Requires responsibility for contributing to immediate, ongoing agency objectives by facilitating the direct provision of services to the public or other state agencies. Errors at this level

result in inaccurate reports or invalid test results and require a significant investment of time and resources to detect.

**Supervision:** Requires partial supervision of other employees doing work which is related or similar to the supervisor, including assigning job duties, providing training, giving instructions, and checking work.

**Working Conditions:** Requires performing regular job functions in a controlled environment with minimal exposure to disagreeable job elements and little risk of hazard to physical or mental health.

**Physical Demands:** Requires light work, including continuous walking or operating simple equipment for extended periods of time as well as occasional strenuous activities such as reaching or bending.

**Communication:** Requires summarizing data, preparing reports, and making recommendations based on findings which contribute to solving problems and achieving work objectives. This level also requires presenting information for use by administrative-level managers in making decisions.

**Complexity:** Requires coordinating a combination of diverse job functions in order to integrate professional and technical agency goals. This level also requires considerable judgment to implement a sequence of operations or actions.

**Independent Action:** Requires objective assessment in analyzing and developing new work methods and procedures subject to periodic review and in making decisions according to established technical, professional or administrative standards.

#### **MINIMUM QUALIFICATIONS:**

**Education:** Bachelor's degree from a recognized college or university with major study in architecture, cartography, geography, geomatics, geology, surveying, engineering, computer science, graphic art, or related field.

**Experience:** One year of experience in cartography, surveying, or mapping, or in a closely related field.

Or

**Education:** Associate's degree from a recognized college or technical institute with major study in Computer Aided Design and Drafting (CAD), Geographical Information Systems (GIS), computer science, cartography, commercial art, drafting, graphic art, or a related field.

**Experience:** Three years' experience in cartography, surveying, mapping, or in a closely related field, one year of which shall have been in a supervisory capacity.

**License/Certification:** Must possess a valid driver's license for statewide travel.

#### **SPECIAL REQUIREMENTS:**

- 1) Must have good sense of design layout and proportion. Must have abilities to use the latest GIS industry-standard technology for data preparation and map production. Must be able to perform duties in stressful and time-sensitive environment; maintain, and adapt quickly to changes in GIS technologies, and have the ability to enforce accuracy in all GIS data that leaves the office.

- 2) Statewide emergencies may require working extended hours at night and on weekends.
- 3) Candidates will undergo comprehensive background investigations.

For promotion from Cartographer I to Cartographer II, employees:

- (a) Must meet the minimum qualifications and experience requirements of Cartographer II.
- (b) Must receive two (2) consecutive twelve (12) month satisfactory performance evaluations in the Cartographer I position.
- (c) Must receive written recommendation for promotion from unit manager identifying that the candidate possesses or has obtained knowledge of the following:
  - i. Practices, principles, and techniques in the field of cartography.
  - ii. State and federal mapping procedures and requirements.
  - iii. Graphic arts methods and procedures.

**RECOMMENDED WORK TRAITS:** Knowledge of the practices, principles and techniques in the field of cartography. Knowledge of state and federal mapping procedures and requirements. Knowledge of graphic arts methods and procedures. Knowledge of the New Hampshire state highway system. Knowledge of relational databases and data management techniques. Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models. Knowledge of principles and processes for providing customer and personal services; this includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction. Ability to coordinate field and office workloads. Ability to maintain harmonious relationships with other employees. Must be willing to maintain appearance appropriate to assigned duties and responsibilities as determined by the agency appointing authority.

**DISCLAIMER STATEMENT:** This class specification is descriptive of general duties and is not intended to list every specific function of this class title.