



SURVEYING

General Summary

Surveying/Geomatics is the science, art, and technology of determining the relative position of points above, on or beneath the earth's surface. Surveying/Geomatics entails all methods of measuring and collecting information about the physical earth and our environment, processing that information, and disseminating a variety of resulting products such as establishing and maintaining legal boundaries, land, facilities and infrastructure, airspace, riparian boundaries, certified plats, deeds, and legal descriptions to a wide range of clients.

Surveyor Intern I

Jobcode: ENSI17

Pay Band: EC

FLSA Status: Non-Exempt

Distinguishing Characteristics

This position is the entry level of the Surveyor Series which performs survey measurements and analysis to determine horizontal and vertical mapping creation as well as the preparation of map exhibits. Work is performed under the direction of a Professional Licensed Surveyor.

Recommended Education and Experience for Full Performance

Bachelor of Science Degree from an accredited college or university in a relevant Surveying/Geomatics discipline with two (2) years of relevant experience. Must have passed the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Surveying Exam.

Minimum Qualifications

Bachelor of Science Degree from an accredited college or university in a relevant Surveying/Geomatics discipline or a State of New Mexico Board of Licensure for Professional Engineers and Professional Surveyors (NMBLPEPS) approved related Bachelor of Science Degree with required credits in Surveying/Geomatics. Must be qualified to sit for the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Surveying Exam.

Essential Duties and Responsibilities*

- Responsible for the collection of geospatial field data for the creation of right-of-way maps, improvement, and topographic surveys in support of planning, design, and construction of NMDOT's multimodal transportation system.
- Research County, Federal, and State government agency records, including documents related to chain of title.
- Analyze and interpret legal documents, unrecorded and recorded, to calculate spatial data to support field surveys.
- Aiding the surveyor by mentoring the survey technicians.
- Utilizes CADD and geomatics software and tools to create maps and documents in support of NMDOT surveying operations.

Surveyor Intern II

Jobcode: ENSI20

Pay Band: ED

FLSA Status: Non-Exempt

Distinguishing Characteristics

This position is the journey level of the Surveyor Series which performs complex survey calculations, measurements, and analysis to provide initial electronic deliveries in support of final surveying and mapping products for all NMDOT highway transportation projects. Work is performed under the direction of a Professional Licensed Surveyor.

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Recommended Education and Experience for Full Performance

Bachelor of Science Degree from an accredited college or university in a relevant Surveying/Geomatics discipline or a (NMBLPEPS) approved related Bachelor of Science Degree with required credits in Surveying/Geomatics and four (4) years of relevant experience. Must be a registered New Mexico Surveyor Intern.

Minimum Qualifications

Bachelor of Science Degree from an accredited college or university in a relevant Surveying/Geomatics discipline or (NMBLPEPS) approved related Bachelor of Science Degree with required credits in Surveying/Geomatics and two (2) years of relevant experience. Must be qualified to become a registered New Mexico Surveyor Intern

Essential Duties and Responsibilities*

- Performs all essential duties and responsibilities of the Surveyor Intern.
- Accountable for geospatial data collection, data analysis, quantity estimating and the compilation of data for legal documents and topographic mapping in support of planning, design, and construction of NMDOT's multimodal transportation system.
- Performs higher level analysis in support of mapping and documents for of NMDOT surveying operations.
- Independently utilizes CAD and geomatics software and tools to create maps and documents in support of NMDOT surveying operations.

Professional Surveyor I

Jobcode: ENSP23

Pay Band: EE

FLSA Status: Exempt

Distinguishing Characteristics

This position is the first level of licensed professionals in the Surveyor Series which performs complex and wide ranging data gathering methods. These methods consist of conventional and emerging technologies such as Global Navigation Satellite System, Lidar (Aerial, Mobile, and Terrestrial), Photogrammetric applications, and Robotic Total Stations. Incumbents at this level sign and seal plans.

Recommended Education and Experience for Full Performance

Licensed Professional Surveyor in the State of New Mexico with six (6) years of relevant surveying experience.

Minimum Qualifications

Licensed Professional Surveyor in the State of New Mexico with four (4) years of relevant surveying experience.

Essential Duties and Responsibilities*

- Performs all essential duties and responsibilities of the Surveyor Intern II as required.
- Utilizes CADD and geomatics software for statistical data analysis and for electronic deliverables to support surveying and mapping operations for planning, design, and construction of NMDOT's multimodal transportation system.
- Accountable for certifying legal documents.
- Performs equipment evaluation and testing to ensure accuracy of measurements.
- Reviews, analyzes, and interprets recorded and unrecorded legal documents to clearly identify intent.
- Performs property boundary analysis and determination to include right-of-way, easements, and non-right-of-way boundaries related NMDOT jurisdiction.

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- Leads assigned field survey units to independently perform surveying and mapping operations in support of planning, design, and construction of NMDOT's multimodal transportation system.
- Mission planning and allotment of resources to perform and complete assigned tasks.
- Performs complex horizontal and vertical datum transformation translating legacy data to current NMDOT project coordinate system standards.
- Performs complex creation and preparation of right-of-way maps, boundary surveys, topographic surveys, riparian surveys, wetland mitigations surveys, hydrographic surveys, utility location surveys, and legal documents; also performs construction staking activities.

Professional Surveyor II

Jobcode: ENSP26

Pay Band: EF

FLSA Status: Exempt

Distinguishing Characteristics

This position is the second level of licensed professionals in the Surveyor Series which performs the most complex and wide ranging methods of geospatial data gathering. These methods consist of conventional and emerging technologies such as Global Navigation Satellite System, Lidar (Aerial, Mobile, and Terrestrial), Photogrammetric applications, and Robotic Total Stations. Incumbents at this level sign and seal plans.

Recommended Education and Experience for Full Performance

Licensed Professional Surveyor in the State of New Mexico with eight (8) years of relevant surveying experience.

Minimum Qualifications

Licensed Professional Surveyor in the State of New Mexico with a minimum of six (6) years of relevant surveying experience.

Essential Duties and Responsibilities*

- Performs all essential duties and responsibilities of the Professional Surveyor I as required.
- Utilizes CADD and geomatics software for statistical data analysis and for electronic deliverables to support surveying and mapping operations for planning, design, and construction of NMDOT's multimodal transportation system.
- Manages surveying databases and spatial data.
- Mentors lower level professional surveyors and staff.
- Accountable for complex geospatial data analysis and review.
- Performs equipment evaluation and testing to ensure accuracy of measurements.
- Reviews, analyzes, and interprets recorded and unrecorded legal documents to clearly identify intent.
- Property boundary analysis and determination to include right-of-way, easements, and non-right-of-way boundaries related to NMDOT jurisdiction and operations.
- Performs construction staking at a highly complex level.
- Performs project planning and budgeting and project management of highly complex surveying projects.
- Participates in the preparation of new rules and regulations and the revision to existing rules and regulations.
- Participates in establishing NMDOT standards and workflows for internal and external surveying operations.
- Participates in project scoping, planning, and development.
- Reviews final surveying and mapping deliverables with Project Development Engineers and Consultant Engineers.

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- Participates and contributes to the advancement of the surveying/geomatics profession.
- Performs complex horizontal and vertical datum transformations and establishes NMDOT project control and creates low distortion projections for NMDOT internal and contracted projects.
- Serves as source of testimony and expert advice to professionals in other agencies, in court litigation and in professional hearings.

Professional Surveyor Manager I

Jobcode: ENSX30

Pay Band: EG

FLSA Status: Exempt

Distinguishing Characteristics

This position is the first level of management in the Surveyor Series in which the focus is on resource management and allocation, accountability for leadership and mentoring of staff. Manages an organizational section with assigned support units to meet operational goals. Signs and seals plans.

Recommended Education and Experience for Full Performance

Licensed Professional Surveyor in the State of New Mexico with ten (10) years of relevant surveying experience, four (4) years of which must be supervisory or managerial experience.

Minimum Qualifications

Licensed Professional Surveyor in the State of New Mexico with a minimum of eight (8) years of relevant surveying experience.

Essential Duties and Responsibilities*

- Performs all essential duties of Professional Surveyor II
- Oversees, directs, and supervises the duties and responsibilities of subordinate surveyor positions.
- Provides administrative and technical supervision through leadership of professional and vocational staff for assigned sections and organizational units.
- Accountable for the results of assigned sections and organizational units work outcomes and integration with other organizational units and sections.
- Manages allocated resources to accomplish department objectives.
- Ensures the work of the assigned sections and organizational units are performed in accordance with overall management objectives.
- Reviews and reports on work progress and outcomes.
- Performs as a technical resource expert to the assigned sections and organizational units.
- Manages surveying databases and spatial data. Mentors professional level contributors.
- Serves as source of testimony and expert advice to professionals in other agencies, in court litigation and in professional hearings.
- Performs as project manager when designated for that role as required.

Professional Surveyor Manager II

Jobcode: ENSX35

Pay Band: EH

FLSA Status: Exempt

Distinguishing Characteristics

This is the second level of management in the Surveyor Series which is responsible for the overall results of multiple organizational sections and units. The primary focus of this position is the direction of subordinate managerial and supervisory staff. Develops and mentors staff.

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Recommended Education and Experience for Full Performance

Licensed Professional Surveyor in the State of New Mexico with twelve (12) years of relevant surveying experience, six (6) years of which must be supervisory or managerial experience.

Minimum Qualifications

Licensed Professional Surveyor in the State of New Mexico and ten (10) years of relevant surveying experience, four (4) years of which must be supervisory or managerial experience.

Essential Duties and Responsibilities*

- Performs all essential duties of Professional Surveyor Manager I.
- Oversees, directs, and manages the duties and responsibilities of subordinate surveyor positions.
- Accountable for planning, organizing, budgeting, allocating resources, and oversight of assigned surveying and mapping functions by staff.
- Managerial and technical accountability for the overall results of the assigned organizational units.
- Serves as Assistant Manager to the Professional Surveyor Manager III.
- Accountable for development of plans for assigned sections and organizational units by delegating objectives to relevant teams.
- Manages and engages in effective people management activities such as recruitment, training, development, and employee evaluations.
- Serves as source of testimony and expert advice to professionals in other agencies, in court litigation and in professional hearings.
- Performs as project manager when designated for that role.

Professional Surveyor Manager III

Jobcode: ENSX40

Pay Band: EI

FLSA Status: Exempt

Distinguishing Characteristics

This is the most senior level of management in the Surveyor Series which is responsible for managerial and technical accountability for the overall results of the assigned organizational sections and units. This position directs and coordinates the cooperative efforts with local, state, and federal government agencies, tribal entities, legislative officials, consultants, and the general public to plan and prioritize statewide surveying and mapping activities in support of the State Transportation Improvement Program (STIP) projects.

Recommended Education and Experience for Full Performance

Licensed Professional Surveyor in the State of New Mexico with fourteen (14) years of relevant surveying experience, eight (8) years of which must include supervisory or managerial experience.

Minimum Qualifications

Licensed Professional Surveyor in the State of New Mexico with a minimum of twelve (12) years of relevant surveying experience, six (6) years of which must be supervisory or managerial experience.

Essential Duties and Responsibilities*

- Performs all essential duties of Professional Surveyor Manager II as required.
- Participates in the research and adoption of advancing technologies and the continued development of staff to ensure sustainable growth within geospatial data industry in order to better serve the public.

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- Oversees, directs, and manages the duties and responsibilities of all subordinate Surveyors, Managers, and Supervisory Positions.
- Accountable for planning, organizing, budgeting, allocating resources, and oversight of assigned functions by organizational staff.
- Manage and review budget allocation for internal and external contracts to ensure prudent use of public funds.
- Integrates activities between divisions and high-level areas within government agencies and ensures compliance with State and Federal codes and regulations.
- Accountable for development of plans for assigned organizational sections and units by delegating objectives to relevant teams.
- Defines scope, standards, and policies with managerial and technical accountability for the overall results of the assigned organizational sections and units.
- Manages and engages in effective people management activities such as recruitment, training, development, and employee evaluations.
- Serves as source of testimony and expert advice to professionals in other agencies, in court litigation and in professional hearings.

Bargaining Unit:

Statutory Requirements: All applicants for the Professional Surveying Classifications must be licensed in accordance with Engineering and Surveying Practice Act, Sections 61-23-1 through 61-23-32 NMSA 1978 and 16.39.1 through 16.39.8 NMAC, as applicable. Registration as a Professional Surveyor by the NM Licensing Board. You must include your license or certificate number in the "License" section of the application form.

Conditions of Employment: N/A

Working Conditions: Working Conditions for individual positions in this classification will vary based on each agency's utilization, essential functions and the recruitment needs at the time a vacancy is posted. All requirements are subject to possible modification to reasonably accommodate individuals with disabilities.

Established: 06/16/2017

Revised:

**Essential Duties and Responsibilities are intended to be cumulative for each progressively higher level of work. The omission of specific statements does not preclude management from assigning other duties which are reasonably within the scope of duties. Classification description subject to change. Please refer to SPO website (nm.spo.state.nm.us) to ensure this represents the most current copy of the position.*

***Means two (2) or any combination of full-time equivalent (FTE) status that equals at least two (2) regular or term status employees in non-temporary positions.*