

HIGHWAY LAND SURVEYOR

DESCRIPTION: Under general supervision of a Registered Land Surveyor, performs administrative and field operation tasks in preparation, conducting, and completing cadastral surveys; performs related work as required.

EXAMPLES OF WORK: (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Establishes coordinate values on property corners, right-of-way breaks and centerlines by using Nebraska Geometric Traverse Computations ("Nebraska Traverse") and other surveying software programs to determine correct bearings, angles and distances; determines traverse closure accuracy.

Locates property corners and places calculated survey points, following proper procedures, on the ground using pertinent related survey data.

Field checks the error of closure of a survey traverse using a calculator.

Measures angles and distances in the field using precision survey instruments.

Down-loads Global Positioning System (GPS) data; manipulates and analyzes data segments to establish latitude and longitude to determine coordinates.

Gathers satellite information for mission planning of GPS surveys.

Prepares and maintains field notes, reports, documents, and related records for permanent filing within the Department of Roads and the State Surveyor's office.

Drafts final plats using Computer Aid Design (CAD).

Demonstrates and explains the use of surveying equipment and survey software use to survey personnel.

Writes, draws, and interprets right-of-way deeds as directed by supervisor.

Independently researches survey records at county courthouses and in NDOR archives.

Supervises the survey crew in the absence of the Registered Land Surveyor.

Responsible for the maintenance of technical survey equipment and vehicles; assures equipment batteries are operational.

FULL PERFORMANCE KNOWLEDGE, ABILITIES AND SKILLS REQUIRED: (These may be acquired on the job and are needed to perform the work assigned.)

Knowledge of: the requirements for filing legal survey documents; land surveying practices; the location of pertinent archived survey information; GPS principles; NDOR Design and Right-of-Way operations; the rectangular system of public lands.

HIGHWAY LAND SURVEYOR (continued)

Ability to: operate various surveying instruments designed for angle, distance and elevation determinations; research and copy survey records; draft survey plats using CAD; interpret legal descriptions; compute survey information for the determination of bearings, distances and coordinate values in the field and office; prepare and process final survey information for review by supervisor; supervise field personal when directed by supervisor; determine the accuracy of surveys by the use of calculators, computers and "Double Meridian Distances"; download and process GPS data for the determination of coordinates.

Skill in: the use of CAD; "Nebraska Traverse"; "MICRO-STATION", "GPSURVEY" "TRIMNET"; retracing centerline and previous surveys; the correct placement and measurements of reference monuments and ties.

ENTRY KNOWLEDGE, ABILITIES, AND SKILLS REQUIRED: (Applicants will be screened for possession of these through written, oral, performance, and/or other evaluations.)

Knowledge of: basic land surveying techniques; "Nebraska Traverse"; State Plane Coordinate System; location of survey records within the Nebraska Department of Roads.

Ability to: interpret legal descriptions, determine accuracy of survey by using a calculator; draft survey plats; locate section corners with limited direction; interpret highway plans; download and operate GPS receivers.

Skill in: accurately measuring and computing angles, distances and elevations; drafting techniques used for survey plats; the use of hand held calculators for computations of survey data; coding and inputting survey data for the computations used by the Registered land Surveyor.

JOB PREPARATION GUIDELINES: (Entry knowledge, abilities, and/or skills may be acquired through, BUT ARE NOT LIMITED TO, the following coursework/training and/or experience.)

Any combination of training and/or experience that will enable the incumbent to possess the required knowledge, abilities and skills. A general qualification guideline for positions in this class is high school education or equivalent AND education or experience in cadastral surveying.

SPECIAL NOTE

A valid drivers license is required.

Some overnight travel may be required.