
About Surveys on First Nation Reserve Lands

Why have a survey?

How do surveys fit into land management?

What does a Canada Lands Surveyor do?

What type of survey do we need?

**How can we get the best from a Canada
Lands Surveyor?**

How can we learn more?

**Production of this
information was at
the request of
Natural Resources
Canada, Surveyor
General Branch**

Why have a survey?

On First Nation Reserve lands, Band members and Chief and Council can determine how to use and allocate the land in particular ways. First Nation lands can be allocated for exclusive use, such as to a family or a business, or can be kept as common Band land used for roads, water treatment plants, community centres, or transmission lines. Agreements can be made between the Band and individual members; between individual Band members; or between the Band and non-Band members, utility companies and corporations. These agreements create rights on particular portions of land to be held by people, communities and businesses for a short time or a long time.

In formal ways, First Nations can keep track of who uses what land for what purposes to provide certainty and a shared way of knowing about rights in land. Land transaction documents for allotments, transfers, leases, subleases, and permits can be registered in a [formal on-line filing system – a land registry](#).

Registered land transactions cover an area of land, known as a parcel, with defined limits, known as boundaries. The boundaries of parcels are created by agreements between people. The purpose of a survey by a [Canada Lands Surveyor](#) for a land transaction is to show where the agreed upon boundaries are located – both on the ground and in the digital world. This is done in two ways:

1. Boundaries are marked in their actual location with survey monuments such as iron posts in the ground and visible markers to see the boundaries. They can also be marked on the ground by clearing trees on the boundary, and by reference to existing buildings and features such as roads or rivers.
2. Boundaries are shown on a Plan of Survey that is created to fit into the digital online world and can be printed on paper. A Plan of Survey shows the parcel, the portion of lands covered by the agreement. It shows what is near the boundaries, and how the surveyed boundaries fit in to the rest of the community.

The purpose of a survey for a land transaction is to show where the agreed upon boundaries are located – both on the ground and in the digital world.

Surveys are connected to the rest of the community and the rest of the world with mapping coordinate systems. Connections are made using coordinates, for example latitude and longitude, satellites using global positioning system (GPS) technology, and geographic information systems that provide online information and mapping.

A Plan of Survey by a Canada Lands Surveyor is used to give a description of land, for example “Lot 1, Plan 4567”, that is related on the ground to adjacent properties, other parcels in the community, and the rest of the world, the digital world through the [Canada Lands Survey Records](#). A description forms part of the land transaction document that provides a knowable way to be certain that the agreements made between people are recognized. Rights in land are registered in an on-line land registry so they can be transferred, inherited, renewed, or returned to the First Nation. A registered interest in land provides certainty to people as evidence of entitlement and provides assurance to financial lenders. A survey for a land transaction can prevent future boundary disputes or encroachments of other people’s interests onto parcels of land. A survey gives people certainty because it matches what is on the land with the agreements people make between themselves.

How do surveys fit into land management?

One important purpose of a survey is to provide a description by defining the extent of a parcel of land so that land transactions can be formally registered in a [on-line land registry](#). Modern surveys can do much more than protecting people's rights in individual parcels. By connecting surveyed boundaries to the physical features of the land and the community, a useful framework of information can be built for community land management, becoming known as Integrated Land Management.

[Canada Lands Surveyors](#) use modern technology including total station and global positioning system (GPS) equipment for measuring and storing information in a data collector. Satellite imagery and remote sensing, LIDAR imagery, and unmanned aerial vehicles UAV (drones) are other ways surveyors gather a wide variety of spatially referenced information.

Geographic information systems (GIS) can be powerful tools for land management on First Nation Reserve lands. Information about boundaries and physical features on the land collected by Canada Lands Surveyors in formats that are compatible with the [Canadian Spatial Reference System](#) can be related to existing mapping, local GIS, and on-line land registry systems.

Managing land with the tools of GIS can include the mapping of historical culture and traditional uses, documenting community planning processes and outcomes, mapping existing community infrastructure such as housing and roads, base mapping for engineering design for new projects such as water treatment systems and schools, and planning for emergency response and disaster management.

Land tenure information provides data about parcel boundaries and interests in land. Land tenure information combined with existing and planned land use information form a strong foundation for land management. Powerful mapping and computing tools exist to support land managers and Bands in decision making on topics such as land use zoning, assessing the implications of

Modern surveys can do much more than protecting people's rights in individual parcels. By connecting surveyed boundaries to the physical features of the land and the community, a useful framework of information can be built for community land management.

contemplated projects, considering requests for land transactions, and planning for housing development.

Geographic information systems can use “as-built” mapping to show customary allotments, investigate access issues for existing parcels, and be used to review encroachments of features over existing boundaries. Other uses include creating property addresses for emergency response planning, tracking public works maintenance and preparing inventories for natural resource management in forestry, mining, and hydro power generation.

Canada Lands Surveyors are experts in research, gathering geographically referenced data, and managing the spatially related information that feeds strong geographic information systems. Surveys completed by Canada Lands Surveyors for land transactions are an important part of building such a system for Integrated Land Management on First Nation Reserve lands.

What does a Canada Lands Surveyor do?

When a [Canada Lands Surveyor](#) is engaged to complete a survey on First Nation Reserve lands they are governed by professional [ethics](#) and the [Canada Lands Surveys Act](#). They do a lot more than field work. Here are some of the things a Canada Lands Surveyor does to provide a Plan of Survey for a land transaction:

Getting the work underway

- helps you to figure out what type of survey you need
- helps you describe problems & identify solutions
- takes directions from you about the scope of work including the intention of the parties creating the boundaries, your schedule, and any special considerations
- figures out the logistical aspects of getting the work done
- lets you know if any of the work will be subcontracted
- discusses opportunities for First Nation members' involvement in the survey work and in the supply of services such as boat rentals, accommodations, and fuel
- prepares an estimate of the costs and a schedule for the project
- signs a contract with you or a contracting authority funding the survey setting out the description of the work and the agreed upon schedule
- initiates a survey project through [MyCLSS](#) and obtains specific survey instructions from the [Surveyor General of Canada](#) and provides you with a copy and project number
- gets formal permission to enter the Reserve from the First Nation

Research

- obtains background information on your First Nation Reserve lands
- reviews existing survey information from the [Canada Lands Survey Records](#)
- researches the appropriate [land registry](#) for existing rights in property
- obtains geodetic survey control information for integrating the survey

Your working relationship with a Canada Lands Surveyor should provide an opportunity for you and other members of your First Nation to learn about surveys and how they can be used as a tool for land management.

Field Work

- meets with Band staff and members on the Reserve to review the work
- uses modern survey technology including total stations and GPS receivers
- takes measurements to determine the location of existing boundaries
- resolves conflicting evidence about boundaries
- locates existing features including buildings, utility lines, fencing, travelled roads
- integrates the measurements to the [Canadian Spatial Reference System \(CSRS\)](#)
- sets survey monuments and markers to show the boundaries to be created
- includes enough extra measurements to provide checks on the quality of work

Office work

- completes quality assurance checks of the field work
- confirms the connection of the work to the Canadian Spatial Reference System (CSRS)
- uses computer aided drafting (CAD) software to draw a Plan of Survey to show the research and field work
- follows the requirements of the Canada Lands Surveys Act and the [National Standards for the Survey of Canada Lands](#)
- discusses the Plan of Survey and the boundaries as marked in the field with you, including any issues or variations from your directions
- works to resolve any issues arising
- obtains written approval from the First Nation for the Plan of Survey
- completes a quality assurance checklist and a copy of the Plan of Survey to the [Association of Canada Lands Surveyors](#) for use in practice review through MyCLSS
- submits the Plan of Survey to the [Surveyor General Branch](#) for approval
- submits the final approved Plan of Survey for recording in the Canada Lands Surveys Records (CLSR) system
- provides you with the final Plan of Survey with a CLSR number in paper and if appropriate in a digital format for use in your geographic information system

Your working relationship with a Canada Lands Surveyor should provide an opportunity for you and other members of your First Nation to learn about surveys and how they can be used as a tool for land management.

What type of survey do we need?

Do we need a survey for all land transactions?

Descriptions for parcels of land are needed for land transactions to be formally registered in a [land registry system](#). A professional land surveyor who is authorized as a [Canada Lands Surveyor](#) (CLS) can conduct surveys under the [Canada Lands Surveys Act](#) including surveys for descriptions on First Nation Reserve lands. [National Standards for the Survey of Canada Lands](#) and a document called "[Getting a Survey Done](#)" provide directions to First Nations and Canada Lands Surveyors.

The minimum description requirements for land transactions to be registered in a land registry are summarized in part below:

Leases of land for longer than 10 years and allotments of land require a full survey Plan of Survey prepared by a Canada Lands Surveyor, that is an Approved Plan under Section 31 of the *Canada Lands Surveys Act* known as an Administrative Plan.

Leases of land for 10 years or less, a permit, and a license generally require an Explanatory Plan, a plan prepared by a Canada Lands Surveyor under Section 31 of the *Canada Lands Surveys Act* based on existing surveyed boundaries and monuments. An Explanatory Plan is also used for a Designation Vote.

A textual description, that is, a word description not based on a survey, can be prepared for leases of a building unit for 10 years or less, a utility permit over lands with no other interests, and an access agreement over allotted or leased land. Textually described parcels are not recorded in the Canada Lands Survey Records.

Canada Lands Surveyors prepare Plans of Survey known as Official Plans confirmed under Section 29(3) of the *Canada Lands Surveys Act* for describing jurisdictional boundaries of First Nation Reserves, surrenders of Parcels, and Highway or Right of Way Transfers.

There are surveys for land transactions and more: boundary markouts, construction layout, topographic and as-built mapping, real property reports, and boundary integration with geographic information systems for land management.

Additions to Reserves are typically surveyed by Canada Lands Surveyors who also have a commission as a provincial land surveyor in the applicable province. The provincial plans are recorded in the CLSR.

(information extracted from Chart A, 2014 [Interdepartmental Letter on Surveys and the Specifications for Descriptions of Land for Transactions on Reserve Lands](#))

What other types of surveys are there?

A Canada Lands Surveyor can also provide other surveying services on First Nation Reserve lands including finding property corners, staking out property boundaries, construction layout surveys, topographic surveys, real property reports for mortgage purposes, and as-built surveys to document infrastructure. They can also survey existing boundaries to provide information to address encroachments or parcels with undivided interests and unresolved estates. Surveyed parcel boundaries can be integrated with land management tools such as geographic information systems.

How can we get the best from a Canada Lands Surveyor?

Building a relationship with a Canada Lands Surveyor

First Nations and individuals who need a survey for a land transaction to be registered in a land registry need to find a [Canada Lands Surveyor](#) to complete the work. The process for obtaining and approving a survey varies depending on a number of things – whether or not you have built a working relationship with a Canada Lands Surveyor, how complicated the project is, who is going to pay for the work, and whether or not you need assistance in preparing the information to request a survey.

Even before you have finalized the details of a land transaction, a Canada Lands Surveyor can help you figure out the type of survey you need, assist you in preparing a sketch showing the intended dimensions with reference to existing features, and prepare a [land status report](#). A Canada Lands Surveyor will need this information in order to prepare an estimate of the cost of the survey and to obtain specific survey instructions from the [Surveyor General](#).

It may be a good idea to ask several Canada Lands Surveyors to quote on the work you require by providing them with the background information together with a time when the work needs to be completed. Some good advice on how to evaluate a proposal can be found in "[Guide to the Evaluation of Proposals for Resource Centre Survey Contracts](#)" June 24, 2015.

Building a working relationship with a Canada Lands Surveyor has the potential to provide your First Nation members with learning opportunities through working with the Canada Lands Surveyor from planning the project to helping with aspects of the field and office work and may provide mentoring for those who are interested in becoming a Canada Lands Surveyor.

How do you find a Canada Lands Surveyor?

What is the ACLS?

You have the final word!

See page 2

You have the final word

A Plan of Survey prepared by a Canada Lands Surveyor on First Nation lands requires approval from the First Nation authorizing the creation of the new parcel(s) as shown on the plan, and approving that the plan is suitable for the intended transaction and that the plan meets with any planning or land use requirements of the First Nation. (Section 9.1 of the [Interdepartmental Letter of Agreement related to the Cooperation in the Area of Surveys and the Specifications for Descriptions of Land for Transactions on Reserve Lands Dec 2014](#))

What is the Association of Canada Lands Surveyors?

The [Association of Canada Lands Surveyors](#) (ACLS) administers legislation to assure the public that a Canada Lands Surveyor meets entry education and experience qualifications and undergoes continuing education. They are subject to practice review by the ACLS and are required to carry professional liability insurance. If necessary, the ACLS can investigate complaints and has a discipline process.

How do you find a Canada Lands Surveyor?

The first step in building a working relationship with a Canada Lands Surveyor is to find one! The ACLS keeps a [listing](#) of all the Canada Lands Surveyors currently licensed to do surveys on First Nation Reserve lands. Close proximity to your First Nation is a factor to consider, however a Canada Lands Surveyor from any province can work on any First Nation Reserve in Canada. Provincial professional land surveyors can become Canada Lands Surveyors by application to the ACLS. Asking other First Nations or experienced land managers for a recommendation of a Canada Lands Surveyor may help you choose one.

How can we learn more?

There are research tools and reference material available on-line to help you find information about boundaries, surveys, registered rights and land management on First Nation Reserves. You can add to your knowledge base as a land manager through self-study, working with other land managers, and taking formal training. Listed below are some of the most important resources to help you understand surveys and more!

[First Nations Land Management Resource Centre \(FNLMRC\)](#)

FNLMRC provides resources, technical expertise, networking, and professional development for First Nations in the developmental or operational stage of governance under the [Framework Agreement on First Nation Land Management](#).

They have developed training and resource documents that can help all land managers:

[Guide to the Evaluation of Proposals for Resource Centre Survey Contracts](#)

[Guide to Best Practices for Land Governance Dec 7, 2015](#)

[Training material from FNLMRC](#)

[National Aboriginal Lands Managers Association \(NALMA\)](#)

NALMA provides technical expertise, networking and communication, and professional development for lands managers for First Nation lands managed under the [Indian Act](#).

NALMA offers a [Professional Lands Management Certificate Program](#)

NALMA administers [funding for surveys](#) on First Nation Reserve lands managed under the *Indian Act*.

NALMA has a listing of [Regional Land Associations](#) with individual contact information.

[Association of Canada Lands Surveyors \(ACLS\)](#)

The ACLS governs the practice of [Canada Lands Surveyors](#) in accordance with legislation. Canada Lands Surveyors are the only surveyors legally authorized to perform cadastral surveys on [Canada Lands](#) administered under the [Canada Lands Surveys Act](#).

To Find a Canada Lands Surveyor see the ACLS [map tool and listing of surveyors](#).

The Association of Canada Lands Surveyors has an Aboriginal Liaison Committee and an Integrated Land Management Working Group, striving to improve communication with First Nations. Courses developed by the ACLS are available on [GeoEd](#).

[Contact](#) the Association by phone at 613-723-9200.

[MyCLSS](#) is a collaborative site between the Association of Canada Lands Surveyors and the Surveyor General Branch of Natural Resources Canada for the initiation and management of survey projects. It includes useful links about surveys on First Nations under the headings of Research, Authorizations, and Data and Tools including a template for a [Land Status Report](#).

Natural Resources Canada, Surveyor General Branch

Staff of the [Surveyor General](#) Branch can provide advice to First Nations, issue specific survey instructions to a Canada Lands Surveyor, review survey plans, and set the national standards for surveys. Contact them at [regional offices](#) across Canada.

The [Canada Lands Survey Records](#) have search tools to find survey plans and projects in progress.

Natural Resources Canada has [extensive resources](#) for First Nations and Canada Lands Surveyors involved in land management and surveys including:

[CLSS Map Browser](#) – an interactive, map based plan and parcel search tool

[Survey Plan Search](#) – a text based search tool for all current and historical records

[Survey Project Search](#) – a text based search tool for in-progress survey projects

[Canada Lands in Google Earth](#) – an overlay providing an integrated view of boundaries and parcels in Google Earth

[Information about Parcel and Boundary Datasets for use in a GIS](#)

Surveys are geo-referenced using the [Canadian Spatial Reference System \(CSRS\)](#)

Maps of Canada Lands includes a map for [First Nations Land Management](#)

Some useful documents prepared by the Surveyor General Branch are:

[Getting a Survey Done](#) Sept 2014 V 1.0 with amendments

[National Standards for the Survey of Canada Lands September 2014](#)

[Interdepartmental Letter of Agreement related to the Cooperation in the Area of Surveys and the Specifications for Descriptions of Land for Transactions on Reserve Lands](#) Dec 2014 - see page 9 for Section 10.0 Chart A - Guideline for Minimum Land Descriptions Requirements

[Surveys, Parcels, and Tenure on Canada Lands](#) Oct 2010

[Beyond Boundaries Parcel Fabric Renewal](#) April 2014

Indigenous and Northern Affairs Canada (INAC)

INAC hosts and manages three online web based land registry systems that are available for anyone to search for ownership, leases, permits, and other interests on a parcel of First Nation Reserve land.

The Indian Land Registry System (ILRS) includes documents related to reserves administered under the [Indian Act](#).

The First Nations Land Registry System (FNLRS) is for the land records of First Nations operating under the [First Nations Land Management Act](#).

The Self-Governing First Nations Land Register (SGFNLR) is for recording documents that grant an interest in self-governed First Nation lands.

[All three of these systems](#) can be found by logging on to the Indian Lands Registry System.

The [Indian Lands Registration Manual](#) December 2014 includes examples and instructions for preparing a Land Status Report and much more.

A great deal of additional material regarding the management of lands on First Nation Reserves can be found online at the INAC website, starting at the [“Lands” page](#).

Other sources of information and learning opportunities

[Kanawayihetaytan Askiy](#) - A University of Saskatchewan Certificate Program on the management of lands and resources on First Nation Reserve lands.

[Saskatchewan Aboriginal Land Technicians](#)

[First Nations Technical Services Advisory Group Inc.](#) (in Alberta)

[Ontario First Nations Technical Services Corporation](#)

[Regional Land Associations](#)

[Tulo Centre of Indigenous Economics](#)

[First Nation Tax Commission](#)