

# BOUNDARIES

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MARCH 2008

## Alberta's Township System

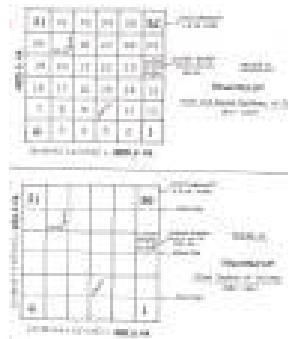
The following information is excerpted from Doug Barnett's *Early Surveys and Settlements in Central Alberta*.

*Continued from the last issue.*

The Dominion Land Survey System therefore established a practical, accurate solution to the subdivision of vast tracts of land in Western Canada. The framework of meridians and base lines provided the basis for township subdivision in the System. While readily understood and used by early settlers and even by people today, it was highly technical and complicated to layout while keeping errors under control. This required skilled government surveyors (DLS) to accomplish. Based on lines of latitude and longitude determined by astronomic field observations it covered the largest tract of land ever surveyed in North America under a single integrated system.

Township surveys subdivided the Crown land into parcels which could be sold for settlement, development and other public purposes. The figure above (on the left) shows the structure of a typical township of the Third System of Survey (the First and Second Systems, which

differed mainly in allotment and width of road allowances, were laid out in southern Manitoba and south-eastern Saskatchewan up to about 1881; after that, the remainder of the Prairie Provinces was subdivided according to the Third System of Survey). North-south road allowances run every mile apart; east-west road allowances are spaced at two mile intervals. Each township contains three blind lines (east-west section lines where no road allowance is provided - called "blind lines" because they were not measured on the earlier surveys). Distances shown on the early township plans are in Chains, and areas are shown in acres. These British (Imperial) units have been retained for most township plans even after the metric system was adopted in Canada.



Each section is one mile on a side, or 80 Chains square (approximately), containing 640 acres. A Third System township therefore measures approximately 486 Chains east-west and 483 Chains north-south. Road allowances provide public access to each quarter-section. Sections are sometimes broken down into smaller units called legal subdivisions of 40 acres each; each

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section contains 16 legal subdivisions as shown in figure above to the right. These smaller tracts are used for smaller divisions of land bordering on rivers and lakes, Indian reserves, settlements, and for oil and gas well spacing units.

The introduction of the Torrens land registration system in Alberta, effective January 1, 1887, was made possible by the accuracy of the original township and settlement surveys and the careful collection and preservation of survey plans. The Torrens System was devised in Australia by Sir Robert Torrens in 1858, and is one of the most efficient land titles systems in the world. A government land titles office

has custody of all original land titles and documents registered against them (such as mortgages, caveats and liens), thus guaranteeing the title and protecting it from fraud and wrongful possession.

The Torrens system remains in use to this day for all dealings with land ownership, leasing, and related records at the Edmonton and Calgary land titles offices in Alberta, giving citizens ready access to all important land titles information related to buying, selling, and holding property.

## Perfect 100% on Trig-Alta Challenge

Gina Ge of Edmonton's Jasper Place High School is the inaugural winner of the Trig-Alta Challenge, a survey-themed math contest developed jointly by experienced math teachers and Alberta Land Surveyors showing how, in a real-world setting, Alberta Land Surveyors use math everyday.

Gina scored a perfect 100% on the Trig-Alta Challenge. Gina's classmate, Wendy Laio, tied for second with a score of 97%. Luke Wrubleski of Leduc Composite and Jonathan Ma of Centennial High School also scored 97%. Six of the top 11 students were from Calgary's Centennial High School.



Some 454 Alberta students from 29 Alberta high schools wrote the Trig-Alta Challenge.

"Congratulations to all students who wrote the Trig-Alta Challenge," said Bob Wallace, president of the Alberta Land Surveyors' Association. "This was an opportunity for Alberta students to find out if they might have what it takes to follow in the footsteps of legendary explorer and surveyor David Thompson."

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## Four Provinces, Three Drainages, and Two Centuries of History

Alberta Land Surveyors will be taking part in the David Thompson Brigade this spring and summer as the biggest event of the David Thompson Bicentennial Celebration from 2007 to 2011.

The 2008 David Thompson Brigade will travel from Rocky Mountain House, AB to Fort William, ON (near modern-day Thunder Bay) covering a total distance of 3,300 km. The route includes paddling downstream, upstream, across open water, and approximately 35 portages. The journey will begin on May 10, 2008 and finish on July 12, 2008.

Wherever David Thompson traveled, so did the voyageurs engaged by him. Just as the voyageurs were the backbone of the fur trade, the voyageurs under Thompson, in many respects, were the backbone of his explorations.

For over 200 years, the use of the canoe from the beginning of the fur trade era until near its end was a vital part of the transportation

## In the News around the World

[Villagers In Heated Stand-Off over Trees](#)

The Cornishman, UK – March 19

[When your lakeside lot starts to grow](#)

Toronto Star, Canada - 1 Mar 2008

network of goods and also provided a mode of transportation for David Thompson in many of his explorations. Following his crossing of Howse Pass in June of 1807, David Thompson began his return trip in the spring of 1808 to report his findings to the partners of the North West Company.

Several surveyors are on a Brigade team of 20 paddling one of fourteen 25' voyageur canoes. They will be paddling the 1130 km part of the entire Brigade route from Rocky Mountain House to Prince Albert Saskatchewan. At least 10 canoes are paddling the whole route. The survey Brigade canoe is sponsored in part by the Alberta Land Surveyors' Association, Alberta Historical and Educational Foundation for Land Surveying, private corporations and other survey associations in Canada.

For more information, visit [www.thompsonbrigade2008.com](http://www.thompsonbrigade2008.com)

Follow the 2008 David Thompson Brigade via [GPS Live Tracking](#) and help commemorate the Bicentennial of David Thompson's work as an explorer, surveyor and mapmaker.

[Georgia lawmakers OK resolution urging border change with Tennessee](#)

Florida Times-Union, FL - 20 Feb 2008



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## Alberta Land Surveyor Elected to Legislature



Alberta Land Surveyor Ken Allred was elected to the Legislative Assembly of the Province of Alberta in a general election on March 3, 2008 as a representative of the Alberta Progressive Conservative Party.

Ken was elected as a vice-president of the International Federation of Surveyors (FIG) in Athens in 2003 for a four year term which ends on December 31, 2008. He currently serves as the Vice President in charge of FIG's financial affairs. He was chair of Commission 1 – Profession Practice from 1994-1998 and has served on several FIG Task Forces.

Mr. Allred has a long history of service to the surveying profession and to his community. He served as President as well as Executive Director of the Alberta Land Surveyors' Association and also as President of the Canadian Council of Land Surveyors. He also served as an Alderman for the City of St. Albert for 15 years and chaired the Edmonton Metropolitan Regional Planning Commission. He has practiced as an Alberta and Canada Lands Surveyor since 1965. More recently he has been involved in adjudication involving land and boundary disputes as well as on native rights, health, insurance and employment tribunals.

## Free Brochures

*"The Real Property Report," "Understanding Easements and Rights of Way," "Alberta's Subdivision Process," and "I destroyed survey evidence—a practical guide to survey markers for the homeowner, handyman and contractor"* are free brochures available from the ALSA and can be ordered by visiting our website, [www.alsa.ab.ca](http://www.alsa.ab.ca)

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