

CONTROL SURVEYS FOR MAPPING ONLY ARE CARRIED OUT. THESE TO BE TIED IN TO EXISTING ONTARIO CO-ORDINATE SYSTEM. MONUMENTS MAY BE PLACED ON FLAT ROOFS OF BUILDINGS.

AERIAL PHOTOGRAPHS OF TOWNSHIP ARE OBTAINED AND ACCURATE BUT UNFINISHED (PROOFS) ORTHOPHOTO MAPS ARE PRODUCED. CONTROL GRID IS SHOWN. CONTOURS ARE DRAFTED ONTO AN OVERLAY, AND NOT ONTO THE MAP ITSELF.

LAND SURVEYOR PREPARES AN OVERLAY ON STABLE MATERIAL SHOWING CONCESSION LINES, LOT LINES AND SUBDIVISION PLANS (ALL ORIGINAL CORNERS.).

MAPPING COMPANY PREPARES FINAL ORTHOPHOTO MAPS AND LEGAL SURVEY FABRIC OVERLAY (TITLE BLOCKS, BORDERS, ETC) HAVING NEATLINES COINCIDENT WITH CONVENIENT ROAD ALLOWANCES, LOT LINES.

SURVEYOR CHECKS PLOTTING OF BOUNDARIES, NOTES CONFLICTS, AND SELECTS BEST SURVEYABLE DESCRIPTION FROM THOSE AVAILABLE FOR INCLUSION UNDER NEW SYSTEM.

MAPS AND OVERLAYS ARE FORWARDED FOR TITLE SEARCH AND PLOTTING OF PROPERTY LIMITS, HAVING DUE REGARD FOR OCCUPATION SHOWN ON ORTHOPHOTO MAPS.

LEGAL PERSONNEL CHECK SEARCH AND PREPARE STATEMENT OF TITLE FOR INCLUSION UNDER NEW SYSTEM.

REGISTRY OFFICE ACCEPTS MAPS, OVERLAYS, DESCRIPTIONS AND TITLE STATEMENTS. SERIOUS CONFLICTS AS TO BOUNDARY LOCATIONS ARE TO BE RESOLVED BY FIELD SURVEY.

DESCRIPTIONS ARE FILED IN REGISTRY OFFICE.

PARCEL IDENTIFIERS, BASED ON POSTAL CODE (A1B 2C3 D4) ARE ALLOCATED. IF THE POSTAL CODE PROVES TO BE UNSUITABLE THEN ANY IDENTIFIER MUST BE NATIONAL IN SCOPE.

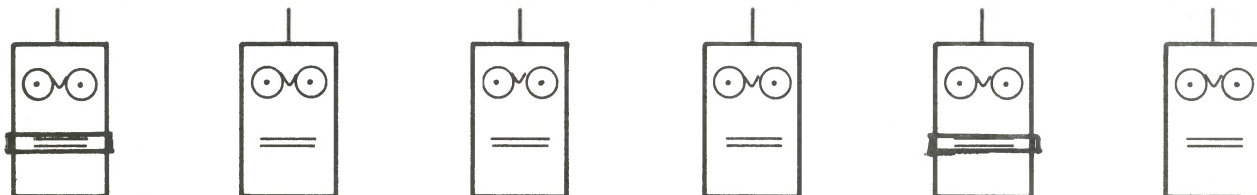
TITLE STATEMENTS AND CURRENT DOCUMENTS ARE FILED IN REGISTRY OFFICE.

CO-ORDINATES OF CENTROIDS AND GEO-CODING TO BE INTRODUCED LATER

COMPUTERISATION OF REGISTRY OFFICE TO BE INTRODUCED, IF NECESSARY, AFTER CHANGEOVER TO NEW SYSTEM IS COMPLETE

STATISTICS CANADA ASSESSMENT DEPT. PLANNERS AGRICULTURE INCOME TAX SOCIAL SERVICES

(COMPUTERS TO BE INTRODUCED GRADUALLY AS ECONOMICS AND DEMAND DICTATES.)



(CLASSIFIED)

COMPUTERS COMMUNICATE WITH EACH OTHER.

BY TUDOR JONES

Over the past year or two, I have become more and more concerned about the slow progress and lack of initiative shown by our Association towards implementing reforms in land registration, and the setting up of a modern cadastre throughout all of Ontario.

I attended the First National Conference on Urban Surveying and Mapping in Toronto in 1971. At that time, the then Minister of Urban Affairs said, "Tell us what you want to do, and we will give you the money to do it", or words to that effect.

During the same year, the Ontario Law Reform Commission published its report on Land Registration.

In 1973, the Second National Conference on Urban Surveying and Mapping was held in Ottawa.

In October, 1974, another conference was held in Ottawa on The Basic Concepts of a Modern Cadastre.

It was not until the receipt of the Winter 1976 issue of our O.L.S. Quarterly and an article therein entitled, "Polaris — Land Registration of the Future", that I was able to see what had been going on, at least in this Province, during the preceding five years.

I have read the article over again a few times since then, and what it seems to say is that in the future the identification of all parcels of land in Ontario will be under the Ontario Co-Ordinate System, and that all boundaries will be confirmed and co-ordinated.

This is contrary to a statement in the "Report on Land Registration" by The Ontario Law Reform Commission which says on page 51 that "the entire (co-ordinate) system should be established only in areas that are sufficiently developed to make a justifiable use of its potential, and probably need not ever be established throughout Ontario."

I can understand why this statement has to be ignored, because we certainly do not want two new systems of land registration, one under the Co-Ordinate System, and one under something else.

Control Surveys:

How much work will be involved to co-ordinate all boundaries?

First of all, control surveys are going to have to be installed. Dr. T. J. Blachut of the N.R.C., in a paper entitled, "Cadastre as a Basis of a General Land Inventory of the Country", stated

that, "It should be realized that the establishing of property boundaries is a geometric and technical problem which can be solved in an unequivocal way only by a simple but appropriate surveying operation. Any alleged complications or difficulties in this regard are imaginary."

At first glance, this would appear to be a perfectly logical statement. After all, what is so difficult about installing a network to the required accuracy, and maintaining same? Or instructing someone else on how to proceed to set up third order control?

If it is so easy and straight-forward, then where are the specifications and procedures that we have been waiting for, for the last ten years? For we certainly need to all follow the same procedures. We need something like the "Manual of Geodetic Leveling" published by the former U.S. Coast and Geodetic Survey. Don't let anyone tell you that procedures are not required, and that any educated surveyor can put in a horizontal control network! That answer is a cop-out, and should not be accepted.

The fact of the matter is, that to design and install a network to a pre-determined accuracy is not easy at all. It is a highly complex and intricate task.

A recent independent examination of three third order control networks installed by the Corporation of the City of Ottawa, proved in the opinion of the person making the examination, that the calculated positions of the third order monuments had not been established to third order accuracy. Although every facet of our field and office work was approved, nevertheless the results were not good enough. In one case, I will admit, the cause was shown to be in the adjustment of the second order control surrounding our lower order network.

There are some that say these high orders of accuracy are not required. That so long as there is a monument at an intersection, for example, then all nearby legal survey evidence can be tied in to it, and subsequently re-established from it whenever it becomes necessary to do so. The monument itself is well referenced to nearby "permanent" structures.

What these people are advocating, even if they do not know it, is an elaborate system of witness posts, and not a control network in the true sense of the word.

Our present system of legal survey and its retracement, according to Dave Lambden, has endured since the time of Magna Carta, a period of over 750 years. Now it is proposed to change all that by tying property corners into permanent control networks.

Any change, of course, should only be made if the new proposal is to be better than, or at least as good as, what has gone before. And, although it is a bit unreasonable to insist on planning for the next 750 years, I do not believe it to be unreasonable to look forward 75 years.

Now I maintain that there is no such thing as a permanent control network. In this world we live in, nothing is permanent. There may be control networks, and there may be renewable control networks, but there are no permanent control networks.

A renewable control network needs funds if it is to be maintained, and these funds have to be guaranteed. I say that there is no way to guarantee these funds for the next 75 years.

When you consider that Dr. Chrzanowski, of U.N.B. states that between 5% and 20% of control monuments are destroyed each year, this means that even considering the lower figure, thousands of monuments are going to have to be replaced in Ontario alone on an annual basis if this Polaris scheme goes through. Where is a Government, that considers it necessary to close hospitals to save money, to find the vast sums to keep these networks maintained?

Legal Surveys:

Once the control surveys are established, however, then it will be time to start in on the real work, by tying in all existing survey evidence. It will not be good enough to tie in the four corners of an existing plan of subdivision and to calculate the positions of all the lot corners from there, of course. Each and every property corner that has been established by survey is going to have to be connected, one way or another, to the new control networks.

Only then can work begin on the calculations. And this work, as well as the field work that has gone before, is going to have to be done very, very carefully. Because all this work must be done without making a single mistake.

Once an incorrect co-ordinate value of a property corner has been filed in the Land Registry Office, I believe that

it should be a fairly difficult procedure to have it changed. I would think that an Order of a Court would have to be the least stringent requirement.

How many properties are there to be processed in Ontario?

According to the Report on Land Registration, to guarantee title to 85% of the properties in Ontario within five years, means that 1,500 properties are going to have to be searched every working day during that five year period.

This means that we, The Association of Ontario Land Surveyors, if we are going to keep up the same pace, as we will be expected to do, are going to have to survey 1,500 properties every day during the same period of time.

Not all of these properties are 50' x 100' lots in the city. Some are hundreds of acres in extent, covered in dense bush over some of the roughest terrain in the whole world, and are not readily accessible.

You will understand by now why I felt it necessary to read Mr. Logan's article over and over again to make sure that I understood what was being said. I agree that, given unlimited funds and time, Polaris could be made to work in the Oshawa-Whitby test area, but as for the rest of the Province, forget it!

Who needs all this highly accurate control anyway? The planners do not need it, nor the tax people, nor the engineers, nor even the geo-coders. The latter can get their data to sufficient accuracy by using a digitizer and controlled ortho-photo maps.

So who does need this control? Only the land surveyors!

I refer you now to our Annual Meeting in 1973, when the Land Surveying Committee in its report stated that: "The Committee is opposed to the use of co-ordinates alone to create boundaries for the following reasons:

- (c) The Association will lose control of the system as others besides surveyors would be able to establish boundaries. We have come to the conclusion that corners must be established by survey to protect the public trust and therefore monuments must govern property corners over co-ordinates."

To show that this was not a "slip of the pen", the same Committee reported in 1974 that:

"The Committee still feels that property corners must be established by survey to protect corners over co-ordinates." . . . "It is obvious, without a complete revamping of our common law, that there would be complete chaos in our survey world if co-ordinates were taken as best evidence over the original posts."

RETIREMENT OF H. F. "TY" PALLECK

On September 1, 1976, Ty Palleck retired from the Ontario Hydro Surveys and Mapping Department after 25½ years of dedicated service.

Ty Palleck, during his surveying career, spent more than 44 years with various government departments and agencies.

Department of Northern Development, 1934-1936, Department of Transport,

I think it is fairly obvious that not only is Polaris not needed, but is just going to be physically impossible to implement in the life time of anyone reading this today.

An Alternative:

Does this mean that a further five years is going to be necessary to research an alternate system? I do not think that will be required at all. Most of the work done so far can still be put to good use.

What form should a new system take? Many books have been written on this subject, so to attempt to outline my proposals on a subject as large as this in the limited space available here is practically impossible. Nevertheless, on the opposite page in block form, is a procedure based on the manual system in the Report on Land Registration.

It attempts to comply with the requirements set out by the Director General of the National Geographic Institute of El Salvador, who says that, "on carrying out the analysis for the adoption of a (cadastral) system, it is necessary to determine the true requirements from a highly realistic and above all practical point of view in order to avoid a waste of time and involvement in unnecessary details."

I believe that it is also flexible enough to be introduced gradually, into the worst areas first, and then as its benefits become known, into the remaining areas of the Province.

A United Nations report pointed out: "A cadastre is no less a cadastre if it covers only certain areas of a country; it can be extended and improved as need dictates or resources allow."

To close, I would refer you to a Mr. Bezenberg, of Bonn, Germany, who away back in 1818 said: "The essential detail of a cadastre is to finish it." I would like to paraphrase that and say that the essential detail of a cadastre here in Ontario is to get the darn thing started. Some of the Land Registry Offices in this Province, in my opinion, are in a state of crisis. It is imperative that a start on reform be made as soon as possible.

(Federal), 1937-1942, R.C.A.F. Flying Officer (Navigator), 1942-1945, Department of Highways, 1946-1951.

He was articled to Harold Howden, Department of Highways, and obtained his certification as an O.L.S. on September 9, 1948.



TY PALLECK

Ty joined Ontario Hydro on April 2, 1951 and held various supervising positions in the field of surveying and was responsible for engineering and legal surveys covering a variety of work from river reconnaissance in the north, to complex engineering and legal surveys in core areas of cities in the south.

During his career with Ontario Hydro, Ty Palleck was posted to and lived in London, Kenora, Port Arthur and Ottawa. He became District Surveyor on March 6, 1969 and managed the London Office until his retirement.

He is a member of the Canadian Institute of Surveying, South Western Group of Ontario Land Surveyors, Ilderton Curling Club, St. Pius X Church, London and London New Comer's Club.

Ty's and Mona's son Brian, a graduate engineer, lives in Ottawa with four grandchildren. Son Steven, also a graduate engineer, resides in Three Rivers, Quebec. Daughter Nora intends to pursue her teaching career starting in Sioux Lookout. Daughter Sharon is living in London.

Ty and Mona intend to continue residence in London. Immediate plans are for a trip to the United Kingdom and a winter trip to Arizona with some summer months spent at their cottage on Lake Winnipeg.

We wish him a long and happy retirement.

Ty Palleck is succeeded by W. J. (Jim) Hughes who joined Ontario Hydro in 1971.