

**THE MAIL BAG**

The Editor, -

North York Twp. Survey Spec's.

Our Township has recently required many road, easement and other public land surveys. Since we do not have field survey crews on land surveys, we have our work done by a number of private surveyors, and found the work well performed. In doing this, we found it necessary to draw up a standard set of specifications to obtain what we deem to be our needs for draughting. These specifications are to allow us to have all our land survey plans of the same standard.

A few surveyors thought that you may be interested in receiving a copy, for possible publication in "The Ontario Land Surveyor". Perhaps your readers may find them of use, and perhaps they may make beneficial suggestions for improvement of the specifications.

As a further note, we would advise your readers that prints of the survey plans may be obtained from the Engineering Department for the cost of printing the plans. The field notes are retained by the surveyor who did the work, but are still Public property. These notes are also available, at no cost except for copying, to any other surveyor who may have need of them in his work.

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Engineering Department  
Township of North York

*Editor's Note: We regret that space does not permit publication of the accompanying map and title page. Anyone interested could, we are sure, obtain copies from Mr. Davey's office.*

**SPECIAL ARTICLE**

-o/s-

SPECIFICATIONS FOR LEGAL SURVEYSREQUIRED BY THE MUNICIPALITY OF THE TOWNSHIP OF NORTH YORKPart 1      DEFINITIONS

Hereinafter:

- (a) "Corporation" shall mean The Corporation of the Township of North York.
- (b) "Engineer" shall mean the Township Engineer for the Corporation, or his duly appointed representative.
- (c) "Surveyor" shall mean the Ontario Land Surveyor appointed to conduct specific legal surveys for the Corporation.
- (d) Reference Drawings LS-371-A - Title Block Sample  
LS-372-C - Information Sample

Part 2      GENERAL

- (1) All surveys will be conducted to conform to the various acts of legislation governing the conduct of legal surveys in the Province of Ontario.
- (2) Existing legal survey plans and prints of registered plans and other plans pertaining to the survey will be supplied by the Corporation.

- (3) The Surveyor will conduct a proper search of other sources of survey information to ensure a correct survey.
- (4) Legal descriptions will be written at the request of the Engineer, and shown as a separate item on the invoice.
- (5) The original linen tracing of the completed survey will become the property of the Corporation and must be turned in to the Engineer on completion of the survey.
- (6) The signing Ontario Land Surveyor only will be permitted to make alterations and additions to the original linen tracing once it has been turned in, and appropriate revision notes must be made adjacent to the title block after such alterations and additions have been made.
- (7) The field notes made during the conduct of the survey will become the property of the Corporation, but will remain on file with the Surveyor. The field notes may be claimed by the Corporation at any time, in which case the Surveyor will provide himself with true copies for his own files. The field notes are to be made available to any other practising O.L.S. for his purpose at no cost.
- (8) All curves shall be defined by the arc method, using Radius = 5729.578 feet for a one degree curve.

### Part 3      DRAFTING STANDARDS

#### (1) LINEN SIZES

All roll plans will be drawn on the dull side of Imperial Tracing Cloth, which will be trimmed to 14" in width, with 13-1/2" between borders. Smaller plans where possible will be drawn on 8-1/2" x 14" overall dimensions or multiples thereof (17" x 14", 25-1/2 x 14, etc.). When larger linens are required see the Engineering Department for special size.

#### (2) SCALE

All street-line retracement plans, easements and surveys to open or close public highways will be plotted at a scale of 1" = 40'. Area surveys may be plotted at a scale to fit the above linen sizes, or of sufficient scale to show all detail clearly. The scale 1" = 40' is preferable for all Corporation requirements and is only to be varied on approval of the Engineer. Enlargements not to scale should be used for congested areas.

#### (3) LETTERING

All lettering will be done with a Leroy lettering instrument, with the following template and pen sizes:-

Township Lot and concession	175/2	(slant)
Owners' names	140/1	
Instrument numbers	100/0	
Registered Plan numbers	140/1	(slant)
Lots on plans	120/0	
Boundaries between Plans, township lots, etc.	100/0	(slant)
Street name	200/2	
Side Streets	175/2	
Bearings, distances, building ties	80/00	

By-Laws

100.00

Road Allowances between lots or concessions

140/1

(4) TITLE BLOCK and NORTH ARROW

Attached is a sample title block, with template sizes in brackets near the appropriate item. The standard North arrow as shown thereon will also be the only style used, and will appear at least every five feet on the plan.

Part 4 INFORMATION TO APPEAR ON PLAN

1. Original centre-line of the Statutory Road Allowance or Street will be the working line of the survey, and all monuments, evidence of such statutory Road Allowances, streets and property boundaries will be tied in at right angles to this centre-line. Intersecting side streets will have their centre-lines produced to intersect the controlling centre-line of the survey.
2. A plus chainage will be established as follows:
  - (a) Zero at the South end on streets running generally North-South in direction;
  - (b) Zero at the Yonge Street end on streets running generally East-West in direction;
  - (c) Zero will be located at the intersection of the centre-lines on Road Allowances between Concessions and Lots in the Township structure;
  - (d) Zero will be located on the intersection of the centre-line of the street being surveyed and the line of the limit of the street at which the survey is begun for all other streets;
3. Measured distances will be shown between points of plus chainage on centre-line.
4. Every point of evidence found and monument planted will have a plus chainage shown on centre-line.
5. All dimensions will be in feet and decimals thereof except when reference is made to the size of evidence found (e. g. Fd. 2" x 2" wood stake).
6. Chainage on curved centre-line will be carried along the arc with the equation of chainage shown at the point of intersection of tangents.
7. Curved boundaries will be dimensioned by Radius, arc, chord, and chord bearing.

Part 5 MONUMENTATION AND EVIDENCE

1. Evidence used to establish boundaries must be shown clearly and its statutory location must be accurately tied in. This applies to intersecting side streets as well as the survey itself. Other found evidence must be shown as agreeing, or not agreeing with this establishment (e. g. Fd. 2" x 2" W.S. O-23N, O. 46W.) and having so established the disagreement, the true point rather than the evidence will be tied to the survey.
2. (a) Monuments in the form of 1" x 1" x 4' long iron bars, stamped or otherwise identified by the surveyor's official designation numbers or letters will be planted at the following points: -

1. At all intersections of side streets.
  2. At the intersection of street limit and limit between Registered Plans.
  3. At all changes in direction of the limits and at beginnings and ends of curves.
  4. At the intersection of easement limits with the street limit.
  5. When conducting an easement survey, the intersecting limit of the easement with the street limit will be monumented as above.
  6. Where the intersecting side street limits are rounded by a small radius curve, the Beginning of Curve, End of Curve, and Point of Intersection will be monumented as above.
  7. At the intersecting limit of Corporation owned lands (such as parks, school sites, drainage easements, etc.).
  8. At the intersecting limit of other Public lands (Queen's Highway, Railway, Hydro Right-of-Way, Consumers' Gas and other utility).
- (b) Monuments will be planted at no greater than 500 foot intervals and where possible they shall be set in pairs on opposite limits of the street, perpendicular to a single point on centre-line. In no case shall the monument be planted at a stated offset from the limit.
- (c) If, due to ground conditions, a monument cannot be planted as in (a), the point will be established and tied to the survey.
- (d) Monuments will be tied to local permanent physical objects, and a description of such tie will be shown on the plan. (Most common: - diagonal ties to firm foundation of dwellings. When dwellings are used, type of construction and municipal street number of the dwelling will be shown on the plan. Other ties are to be of a like permanent character). Ties are to be less than 100 feet in length. Where no permanent tie as above is possible, one of the following ties will be obtained in the stated order of preference: -
1. Crosses cut in concrete curb or sidewalk on the production of street line.
  2. Crosses cut by cold chisel on manhole rim.
  3. Nail and scribed arrow in Bell Telephone or Hydro pole.
- The defacing of grown trees by a blaze and nail for a reference tie is not recommended.
- (e) Monuments are to be planted flush with ground level in landscaped areas, and may be left 2 inches above ground in areas where they are not likely to create a hazard. All monuments will be marked by a 2" x 2" x 4' long wood stake planted no closer than 6" to the monument, unless it falls in a landscaped area, where no marker will be used.

Part 6      RETRACEMENT COMPARISONS

1. When the distance along the street limit between points of evidence found agrees with the registered plan or deed distance therefor, it shall be so stated (e. g. 250.00 (net) ).
2. When the distance along the street limit between points of evidence found and planted agrees with the registered plan or deed distance therefor, it shall be so noted in brackets after the distance (e. g. 250.00 (plan and meas.) ).
3. When the distance along the street limit between points of evidence found does

not agree with the registered plan or deed distance therefor, it shall be qualified (e. g. 250.06 (meas.) 250.00 (plan) ).

4. When the distance along the street from planted monument to found evidence does not agree with the registered plan or deed distance therefor, the measurement on either side of the planted evidence shall be qualified to clearly represent the method used to determine the position of the planted monument (e. g. 250.06 (proportion) 250.00 (plan) ).
5. On curved boundaries where there are several lots fronting on a street between the Beginning and End of Curve, the comparison between plan and measured distances will refer to the element of the curve stated on the registered plan (e. g. arc: 250.00 (plan) (250.06 Meas.) and chord: 250.00 (calc. from plan 250.06 (meas.) ).

Part 7      BEARING CONTROL

Reference will be made to existing Corporation surveys in the general area of the work to be done, and the new survey bearing reference will be carried forward from the existing survey. If this method of bearing reference is economically unfeasible, bearing control will be designated by the Engineer.

Part 8      REGISTRY OFFICE AND LAND TITLES SEARCH

When a street or easement abuts an original township lot, or when it is necessary to qualify a point of evidence found on a lot division in a registered plan of subdivision, a complete registry or land titles search will be conducted and the names of the last registered owner and the appropriate instrument numbers will appear on the plan. A search of the remainder of abutting lands covered by Registered Plan will be made to locate Corporation owned lands and easements in favour of the Corporation, which will be shown as above on the plan.

Streets that have been opened, closed, widened or otherwise affected by By-Law will have the By-Law number or other dedicating conveyance shown on the plan.

Streets that have been opened or widened with no dedicating By-Law shall be noted "Unregistered Widening".

Neat, legible copies of abstract and instruments shall be maintained in the surveyor's files for examination by the Corporation on request.

Part 9      AREAS

For a survey to be used for obtaining of widening, easement or parcel, the area in square feet or acres, is to be shown with the name of the last registered owner and Instrument Number.

Part 10      SURVEY REPORT

A survey report may be required to state how the survey was enacted, or to clear contentious evidence as found during the work. The Survey Report is to be placed on the plan, and is to be clear in context to adequately explain the method of survey.