Making Sense of Proportioning

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Measurement proportioning is employed occasionally by surveyors as a method of replacing obliterated original boundary marks. The method of proportioning originated as a principle of ancient equity in common law and, where there is legislation governing surveys, the common law principle has been codified in statute law.

In Ontario, the method is authorized in Plans of Subdivision by section 55 of the *Surveys Act*, R.S.O 1990, c. S.30. The same procedure is sanctioned in certain circumstances for replacement of posts planted in original Crown surveys. In all cases where proportioning is statutorily permitted in Ontario, the overriding limitation in application is set out in the legislation. For example, the preamble to section 55 states:

> "55. *A surveyor in re-establishing a line, boundary or corner shown on a plan of subdivision shall obtain the best evidence available respecting the line, boundary or corner*, but if the line, boundary or corner cannot be re-established in its original position from such evidence, the surveyor shall proceed as follows: ..."

Too often in the past the method was used in survey work that ignored the limitation, resulting in court cases such as *Home Bank v. Might Directories Ltd.*[1] and *Martin v. Kellogg*[2]. In both of those cases, surveyors applied proportioning to the disturbance of settled boundaries that were physically evidenced by either building walls or fences that could be reasonably related to the location of original posts. Much similar survey work was done in the 20th century, but was not tested by the courts and it remains for surveyors today to deal with the implications.

Be that as it may, where proportioning is correctly applied, the principle underlying the method is to follow a course, or construct a mathematical model, that would put a lost corner back in the most likely place that it existed before it was obliterated. The principle is based on the presumption of a consistent measuring error in the original posting; theoretically, the proportioning method evenly distributes the consistent error.

If original posts are completely obliterated, there can never be complete certainty that any replacement method is absolutely accurate. Nevertheless, if the error is reasonably small, a proportional distribution should, theoretically, put a replacement post very near to the position of an obliterated original. The law, being unconcerned with trivialities (*de minimis non curat lex*), views this repositioning as an accurate replacement of the obliterated original.

However, the principle should not be applied in situations where significant differences from recorded values are measured. Large discrepancies usually result from blunders or inconsistent errors. Any mathematical model that, by proportional distribution of measured differences, either upsets settled occupation or significantly varies the values returned in original field notes or set out on a plan of subdivision, does not logically serve the underlying principle. This is not just a matter of common sense; from the legal perspective, the differences are no longer trivial.

The proportioning method is correctly applied to compensate for relatively small, consistent errors, and only when there is no better evidence of boundaries. Evenly distributing a discrepancy resulting from a blunder (as opposed to consistent error) would not logically be a valid replacement of an original posting. For example, if the "starting points" that the proportioning is based upon, even if undisputed, are of questionable origin, and a large discrepancy in overall measurement is found, then blind application of the principle as a "rule" will not serve the underlying purpose.

As a general guideline, if a significant discrepancy in measurement is found, then the existence of blunder should be considered probable. A mistake, if found, should be isolated so that the remaining, and useable, retracement information (values from original plans, field notes or deeds) can be applied with little, if any, disturbance.

It is the responsibility of the professional surveyor to rationalize perceived discrepancies in measurements and avoid universal application of simplistic rules

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1. - (1914), 31 O.L.R. 340, 20 D.L.R. 977 (C.A.)
2. - [1932] O.R. 274, 2 D.L.R. 496 (H.C.J.), aff'd. 41 O.W.N. 356, [1932] 4 D.L.R. 617 (C.A.)