A LEGAL FRAMEWORK FOR EMBRACING BOUNDARY LOCATION USING ONLY COORDINATES[1]

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A public that increasingly expects the delivery of boundary line, property corner establishment and retracement, in a virtual environment with no "hard features" referenced to the ground, may seem like the exact opposite of what is seen as "certain," such as a cadastral monument. Yet, increasing capacity to model boundary location using digital mapping is challenging our traditional views of how evidence, based on co-ordinates, is to be treated. This paper explores these developments with a view to understanding the further changes that are needed in the legal framework for determining boundary location based on co-ordinates.[3]

Un public qui s'attend de plus en plus à la détermination d'une limite, à l'établissement d'une borne et au réarpentage d'une limite de propriété dans un environnement virtuel sans « éléments physiques » référencés au sol peut sembler exactement à l'opposé de ce qui est perçu comme « certain », par exemple une borne cadastrale. Toutefois, l'augmentation de la capacité de modéliser l'emplacement des limites en utilisant la cartographie numérique remet en question notre vision traditionnelle de la façon dont la preuve, fondée sur les coordonnées, doit être traitée. Le présent article examine ces avancées dans le but de comprendre les changements additionnels qui sont requis dans le cadre juridique pour déterminer l'emplacement des limites en fonction des coordonnées.[3]

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Overview

The definition of cadastral boundary, based not on a reference to a "hard feature,"[4] but on a mathematical model, means that the model is an attempt to replicate the hard feature. At common law, this had been accomplished by the adherence, in respect of legal boundaries, to one simple goal, and was captured by the simple adage: place most reliance on things which are least likely to be mistaken.[5] The principles of boundary retracement are then replete with variations of this adage in order to achieve the implementation of that goal.[6] This may well be fine if the hard feature is capable of being found or replaced as a most probable position of a line or a corner sought to be reliably re-established. However, what if the model is itself the end result? What if the model is the *only* means of re-establishing a line or corner which was never related to a hard feature in the first place? This is no longer an academic or legal

1 This paper served as a basis for the presentation made at the National Surveyors Conference at Edmonton, Alberta, in May, 2016. It has also been expanded into a full chapter found in de Rijcke, I., *Principles of Boundary Law in Canada*, 2016, Four Point Learning, Guelph, at chapter 10: Boundaries and Co-ordinates.

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3 Note that Ontario will be the subject of discussion in this paper, regarding current practice and regulations; other jurisdictions in the world (primarily Ireland and New Zealand) are considered and recent literature will be reviewed for further discussion regarding trends, the law, and how this topic can be better understood.

Il est à noter que l'Ontario fera l'objet d'une discussion dans cet article au sujet de la pratique et des règlements actuels; d'autres pays dans le monde (principalement l'Irlande et la Nouvelle-Zélande) sont pris en considération et la littérature récente sera examinée en vue de discussions ultérieures au sujet des tendances, de la loi et de la façon dont ce thème peut être mieux compris.

4 "Hard feature" in this context means a physical, tangible "thing" of topographic feature, which can be seen and touched.

5 *Diehl v Zanger*, 39 Mich 601 (1878).

6 The hierarchy of evidence is but a reflection of this principle.