



VALUE IN CONTRIBUTION & LANDLOCKING

BY GORDON E. MACNAIR, SR/WA





Introduction

From an appraisal viewpoint, there is very little information on the concept of landlocking and even less on the topic of value in contribution. Employed with the City of Ottawa, I am continually faced with the challenge of estimating value in contribution for the disposal of remnant¹ parcels and from time to time we encounter landlocking situations as a result of acquisitions.

Value in Contribution

There are many different examples of where value in contribution could apply. The typical situation is where an authority owns a remnant parcel and the adjacent owner has expressed an interest in acquiring it. In this instance, the authority will look at what incremental value the remnant parcel will add or detract to the adjacent landowner's parcel. It is the City of Ottawa's practice to look at what the value in contribution of the remnant property is in relation to the adjacent property as part of the new larger parcel² (refer to Illustration A). A definition for value in contribution is "the concept that the value of a

particular component is measured in terms of its contribution to the value of the whole property, or as the amount that its absence would detract from the value of the whole."³ I define value in contribution as the difference in value that a particular component adds or detracts in its contribution to the new larger parcel.

Illustration A



Typically, the appraiser is asked to arrive at market value⁴ when estimating value in contribution. This assumes typical market conditions i.e., buyer and seller are typically motivated. In this instance, there could be only one potential seller and purchaser and furthermore a market may not even exist. It is

recognized there are situations with more than one purchaser. For the purposes of this article, there is only one adjacent landowner as this is a common occurrence with remnant parcels. As a result, it boils down to how motivated the purchaser is to buy the remnant parcel. Conversely, how motivated is the seller to dispose of the parcel? What you really have in this instance, as pointed out in David Enns article "Property Markets & Monopoly Elements," is a bilateral market. "A bilateral market is a market structure that is far removed from a competitive market of many buyers and sellers. A bilateral market is a market structure that has only one seller and only one buyer."⁵

Based on the above premise, value in contribution represents a position for one party and should not be considered as market value. The next step is the negotiation game and the final price will depend on a number of things including the experience of the people negotiating the transaction and their motivation to reach a deal. I've seen ranges of 0 percent to 100 percent for the estimate of

value in contribution. Simply put, there have been instances where the authority has agreed to dispose of the remnant parcel for \$1 to avoid potential liability issues and generate tax revenue. On the other hand, there have been situations where the purchaser was motivated and the authority was able to obtain 100 percent of the value. As an example, if a remnant parcel is surrounded by commercial land, the contribution could be as high as a 100 percent on the basis of the utility that it provides for the new larger parcel. This can be illustrated as follows:

Adjacent Parcel - 10,000 sq.ft.
and is valued at \$ 10.00/sq.ft. = \$ 100,000

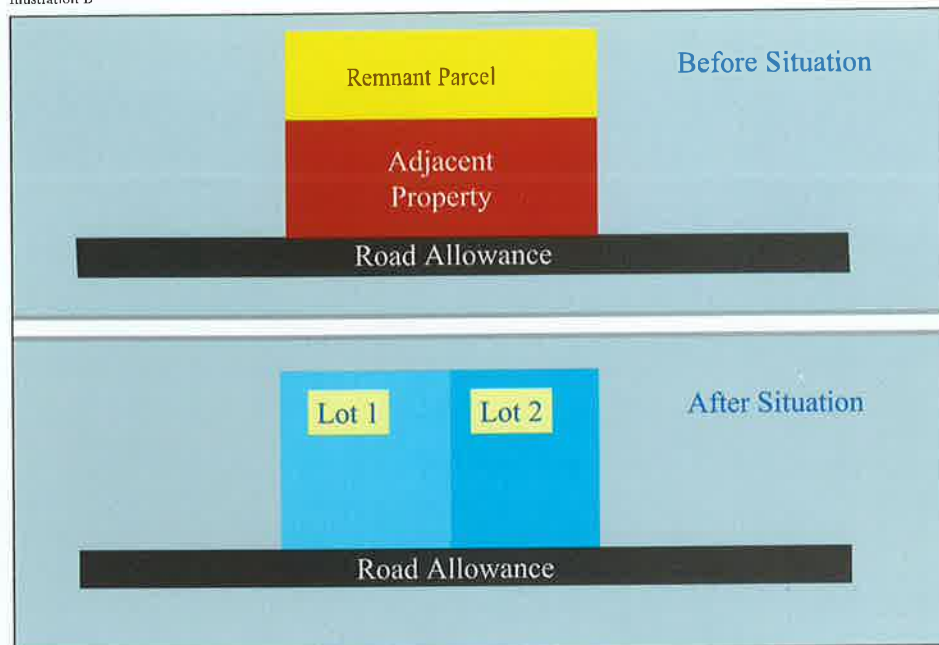
*Remnant Parcel - 1,000 sq.ft.
and is valued at \$ 10.00/sq.ft. = \$ 10,000

New Larger Parcel -
11,000 sq.ft. @ \$10/sq.ft. = \$ 110,000

*provides similar FSI and utility

In another situation, the remnant parcel might only be providing excess land to an adjacent residential parcel. Therefore the utility is a lot less desirable and might only add 10 percent to the value of the new larger parcel. It should also be mentioned that there are situations

Illustration B



where the remnant parcel when combined with the adjacent parcel creates plottage.⁶ An example of plottage is outlined in Illustration B, which demonstrates that the combined utility is proportionately greater than the sum of the individual parts. In this instance, with the addition of the remnant parcel to the adjacent parcel, it has created two viable lots. The adjacent parcel in the before situation was estimated to have a market value of \$75,000. However, with the addition of the remnant

parcel, the highest and best use has changed since the combination of both parts created two residential lots. In the after situation, based on the value of contribution, two lots have been created with an estimated value of \$135,000. The price has not doubled since an allowance must be considered for factors such as the cost for a new survey, planning requirements, timing issues, and other incidental costs related to creating two lots. With value in contribution, the appraiser must

Examples of remnant parcels sold based on value in contribution:

REMNANT PARCEL		NEW LARGER PARCEL		REMNANT PARCEL (Value in Contribution)	NEGOTIATED PRICE		
PIN # AND LAND AREA	USE	AREA	MARKET VALUE RATE (PER APPRAISAL) & PROPOSED USE	APPRAISED UNIT RATE	% OF APPRAISED LARGER PARCEL RATE	% OF APPRAISED LARGER PARCEL RATE	INSTRUMENT & SALE DATE
part of PIN 14525-1444 17,578 sq.ft.	Road Allowance	91.17 Ac	\$60,000/acre (\$1.37/sq. ft.) Future Residential	1.37/sq. ft.	100%	100%	OC67323 May 01/02
part of PIN 04093-0020 2,096 sq.ft.	Laneway	18,144 sq. ft. (C) 198,950 sq. ft. (I)	\$25-\$30/sq. ft. (C) & \$5.50-\$6/sq. ft. (I) Commercial & Institutional	\$12.50-\$15/sq. ft. \$2.75-\$3/sq. ft.	50%	50%	OC188803 April 16/03
new PIN 04029-0128 1,438 sq.ft.	Laneway	4,786 sq. ft.	\$18-\$20/sq. ft. Residential	\$4.50-\$5/sq. ft.	25%	18%	OC154481 Dec 20/02
closed road PIN 04545-0124 5,378 sq.ft.	Road Allowance	18,565 sq. ft.	\$8,000-\$10,000/lot (\$0.43-\$0.54/sq. ft.) Residential	\$0.21-\$0.27/sq. ft.	50%	50%	OC133011 Oct 23/02
part of closed road PIN 14525-2131 15,494 sq.ft.	Road Allowance	5.63 acres 245,055 sq. ft.	\$60,000-\$70,000/acre (\$1.37-\$1.61/sq. ft.) Residential Development	\$70,000/AC (\$1.61/sq. ft.)	100%	100%	OC196553 May 09/03
04522-0267 391 sq.ft.	Daylight Triangle	2,994 sq. ft.	\$12 - \$15 /sq. ft. Residential	\$12-\$15/sq. ft.	100%	100%	OC252107 Sep 29/03

*It is important to note that the above sale prices do not always reflect the appraised value. The sale price is based on the bilateral monopoly theory. In other words, the sale price will depend on the motivation of the parties.

Courtesy of the City of Ottawa

have a good knowledge of the appraisal process. This includes a good understanding of the highest and best use analysis and familiarity with land use regulations.

In order to establish a base line for value in contribution, the ideal test is to go to the market and complete a paired data sales analysis. In our real estate market, a number of sales in the marketplace provide information for the appraiser to complete this task. Examples are where the different government agencies (federal, provincial and municipal) have disposed of remnant parcels. As well, there are examples of private individuals and railroad companies who have sold excess land to interested adjacent property owners. Linear regression models can also be developed through the collection of data to determine an adjustment for this feature.

Another way of looking at value in contribution is to think of the expropriation/condemnation process. In this instance, the value in contribution method is a "reverse" before and after method. In other words, what is the before value versus the after value, taking into account the incremental/additional value for the remnant parcel? The difference, in theory, is the value in contribution. To illustrate this concept, consider the following example:

Value of New Larger Parcel	\$60,000 (after)
(Less) Value of Adjacent Parcel	\$50,000 (before)
Value of Remnant Parcel	\$10,000 (value in contribution)

In the above example, \$10,000 represents the value in contribution and should not be confused with market value.

A third approach is the old "rule of thumb" of using the Assessor's Rule 4-3-2-1. This is a concept used by Assessors in Canada and the United States for valuing real estate with excess land. The idea is the majority of the lot's value (40 percent) lies in the front portion (first quarter) which fronts the road allowance and each quarter is thereby reduced resulting in the back portion (fourth quarter) representing (10 percent) of the overall contributory value of the lot. As an example, if the remnant parcel is to be added to the rear of an adjacent residential parcel, and contributes excess land,

the Assessor's rule would indicate that the value would probably be in the area of 10 percent. Once again, I would caution that the Assessor's rule is only a rule of thumb but helps to demonstrate the concept of value in contribution when dealing with excess land. Another method for estimating the value in contribution would be to complete an independent survey and interview potential sellers and purchasers to determine their motivation. There is also case law on this subject such as *Duggal v. District of Surrey* 33 L.C.R. 158 (20 percent of the adjacent land value).

The City of Ottawa's experience indicates that remnant parcels (unencumbered with no restrictions such as easements) abutting individual residential properties will sell for less than 50 percent of the new larger parcel, whereas other types of properties such as commercial, industrial and large tracts of land are within the range of 50 percent to 100 percent. It is the City of Ottawa's practice to look at what the value in contribution of the remnant property is in its relationship to the new larger parcel. Examples of some of the remnant parcels that the city has sold based on value in contribution can be found on page 14.

Appraisers should also be aware of the differences that can occur with the reverse before and after method and the new larger parcel method. This is demonstrated below with the following two scenarios:

SCENARIO 1 - REVERSE BEFORE AND AFTER METHOD

New Larger Parcel - 265,000 sq.ft. @ \$10.00/sq.ft. =	\$2,650,000
(Less) Adjacent Parcel - 220,000 sq.ft. @ \$10.50/sq.ft. =	\$2,310,000
Value of Remnant Parcel	\$340,000

SCENARIO 2 - NEW LARGER PARCEL METHOD

New Larger Parcel - 265,000 sq.ft. @ \$10.00/sq.ft. =	\$2,650,000
Value of Remnant Parcel 45,000 sq.ft. @ \$10/sq.ft.	\$450,000

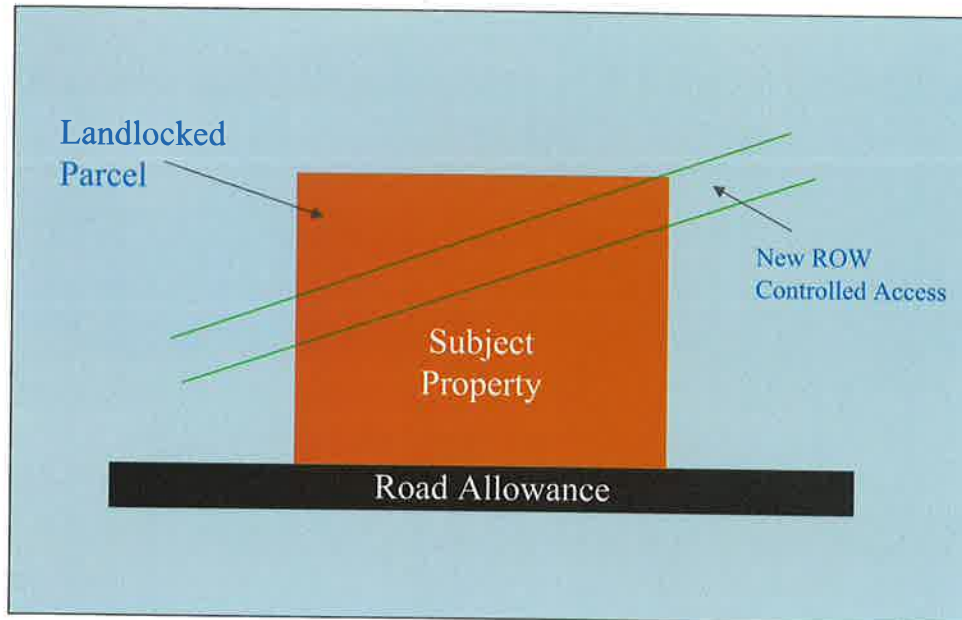
Landlocked Parcels

Another challenge for appraisers is estimating the market value of a landlocked parcel as a

result of an acquisition/expropriation/condemnation (acquisition). This is the converse concept of value in contribution. A landlocked parcel is created when an acquisition creates severance damages to a portion of the property and leaves it as a remnant or nonviable parcel. See Illustration C. It is now the appraiser's task to determine the loss in value due to the taking. In this example, the owner is left with something less than what they had in the first instance as their bundle of rights has been affected. J.D. Eaton discusses the valuation of landlocked parcels in his book "Real Estate Valuation in Litigation." He states, "The value of landlocked property is typically measured by analyzing similarly situated properties, which have been sold recently. The agencies then resell the landlocked parcels as excess rights of way." In other words, the acquisition creates the remnant parcels and the authority then disposes of the parcels based on the concept of value in contribution or some other method.

In *Parks v. Ministry of Transportation and seven other claims*, 56 L.C.R. 166, the board was persuaded that the market for such landlocked parcels was somewhat restrictive and that the parties would be in different relative bargaining positions than with non-landlocked parcels. The board did, however, recognize that the various sales reviewed by the appraisers indicated a clear tendency toward land assemblies in order to provide for comprehensive development plans. As such, the board found that a 50 percent reduction in value seems most reasonable and sensible in terms of what a reasonably prudent purchaser might seek from a reasonably motivated vendor.⁸

As cited in the above case, it is often difficult for appraisers to arrive at a value for landlocked parcels. It is therefore prudent for appraisers to compile information, where possible, through the paired data sales analysis in addition to the collection of case law that relates to landlocked properties. The benefit of using a paired data sales analysis to justify the appraiser's estimate of damages is outlined in a recent case *J.P. Lazar v. Hydro One*, O.M.B. File No. L01005. There are also ways for authorities to mitigate injurious affection⁹ or severance damage as illustrated in *McWhinnie v. The Queen*, 36 L.C.R. 257. The board ruled



A landlocked parcel is created when an acquisition creates severance damages to a portion of the property and leaves it as a remnant or nonviable parcel.

that the damages for the severed land were 25 percent provided an access easement could be granted. If not, the owner was entitled to 100 percent of the land value.

When the remainder is left landlocked, the owner is generally at the mercy of his neighbors, both in the timing of a sale and obtaining the price. "Remainder parcel studies of landlocked remainders reveal that their value is often relative to the number of adjacent ownerships capable of using them. When several neighboring parcels can make profitable use of the landlocked remainder, the probability of its selling at a reasonable price is reasonably good. When only one or two adjacent ownerships exist, the property might remain unmarketable at even a very low price."¹⁰

As with estimating the value in contribution, the appraiser can apply the paired data sales analysis for landlocked parcels. A survey method could be developed for interviewing potential buyers and sellers to support the conclusion. And finally, there is case law on this topic. Following is a summary of other land compensation reports related to landlocking:

Clarke et al. v. City of Ottawa 73 L.C.R. 256

Parks v. Ministry of Transportation and seven other claims 62 L.C.R. 252 (No. 2)

Parna v. Stoney Creek (City) 57 L.C.R. 316

Brash v. Township of Pittsburgh 35 L.C.R. 347

Hewitt v. Minister of Transportation and Communications 33 L.C.R. 194 (No. 2)

Hewitt v. Minister of Transportation and Communications 31 L.C.R. 227

Burke v. The Queen in Right of Nova Scotia 30 L.C.R. 8

With landlocking, it is important appraisers have a basis to support their conclusion of damages for the landlocked parcel. This will assist in providing appraisers with a defensible conclusion.

Summary

Value in contribution and landlocking provide interesting challenges for the appraiser. However, in most instances, if the appraiser looks hard enough, information can be found to solve these problems.

In arriving at value in contribution, we must remember that it forms the basis for negotiations and may not be synonymous with market value. Value in contribution as defined by this appraiser is, "the difference in value that a particular component adds or detracts in its contribution to the new larger parcel." This method is used for the disposal of remnant parcels and support for this concept can be obtained from the market with the paired data sales analysis. It can also be supported with other information such as linear regression models, the Assessor's rule (rule of thumb), case law and surveys. And it should also be recognized that the estimated value in contribution and the actual sale price are distinct items due to the bilateral monopoly theory.

For landlocking, which is the converse of value in contribution, it is recognized that it is difficult for the appraiser to arrive at a value for a landlocked parcel but information is also available in the market place to support the conclusions. Landlocking, as a general rule, is created through acquisitions by various government agencies. And similar to value in contribution, information can also be obtained from case law and surveys from potential buyers and sellers. ♦

REFERENCES

- ¹*Remnant*, The Real Estate Dictionary, 7th Edition, published by Financial Publishing Company defines remnant as "a parcel of land, after a partial taking by eminent domain, so small or poorly shaped as to have practically no value."
- ²*Larger Parcel*, 2003 Canadian Uniform Standards of Professional Appraisal Practice, Definitions Section, "Larger Parcel is defined as the subject property when considered together with contiguous or nearby property, the value of which is impacted by common ownership."
- ³*Contribution*, The Dictionary of Real Estate Appraisal, 3rd Edition, Appraisal Institute, p. 76.
- ⁴*Market Value*, 2003 Canadian Uniform Standards of Professional Appraisal Practice, Lines 6143 to 6167 defines Market value as "The most probable price which a property should bring in a competitive and open market as of the specified date under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus."
- ⁵*Property Markets & Monopoly Elements*, by David Enns, B.Sc.Agr., M.B.A., AACI The Canadian Appraiser, Spring 2002.
- ⁶*Plottage*, The Dictionary of Real Estate Appraisal, 3rd Edition, Appraisal Institute, p. 269, "The increment of value created when two or more sites are combined to produce greater utility."
- ⁷*Real Estate Valuation in Litigation*, Second Edition (pp. 310 - 311), by J.D. Eaton, MAI, SRA, Appraisal Institute.
- ⁸*Parks v. Ministry of Transportation and seven other claims*, 56 L.C.R. 166, p. 229, "While the board is persuaded that the market for such landlocked parcels is somewhat restrictive and that the parties would be in different relative bargaining positions than with non-land-locked parcels, it does recognize that the various sales reviewed by the appraisers seem to indicate a clear tendency towards land assemblies in order to provide for comprehensive development plans. As such, the board finds that a 50 percent reduction in value seems most reasonable and sensible in terms of what a reasonably prudent purchaser might seek from a reasonably motivated vendor."
- ⁹*Injurious Affection*, Ontario Expropriations Act, Revised Statutes of Ontario, 1990 Chapter E.26, June 1993, Section 13(2)(c) and Section 21.
- ¹⁰*Principles of Right of Way* (p. 141), Seventh printing, 1987, International Right of Way Association.