Appendix 35

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Foundations of Real Property Assessment and Mass Appraisal

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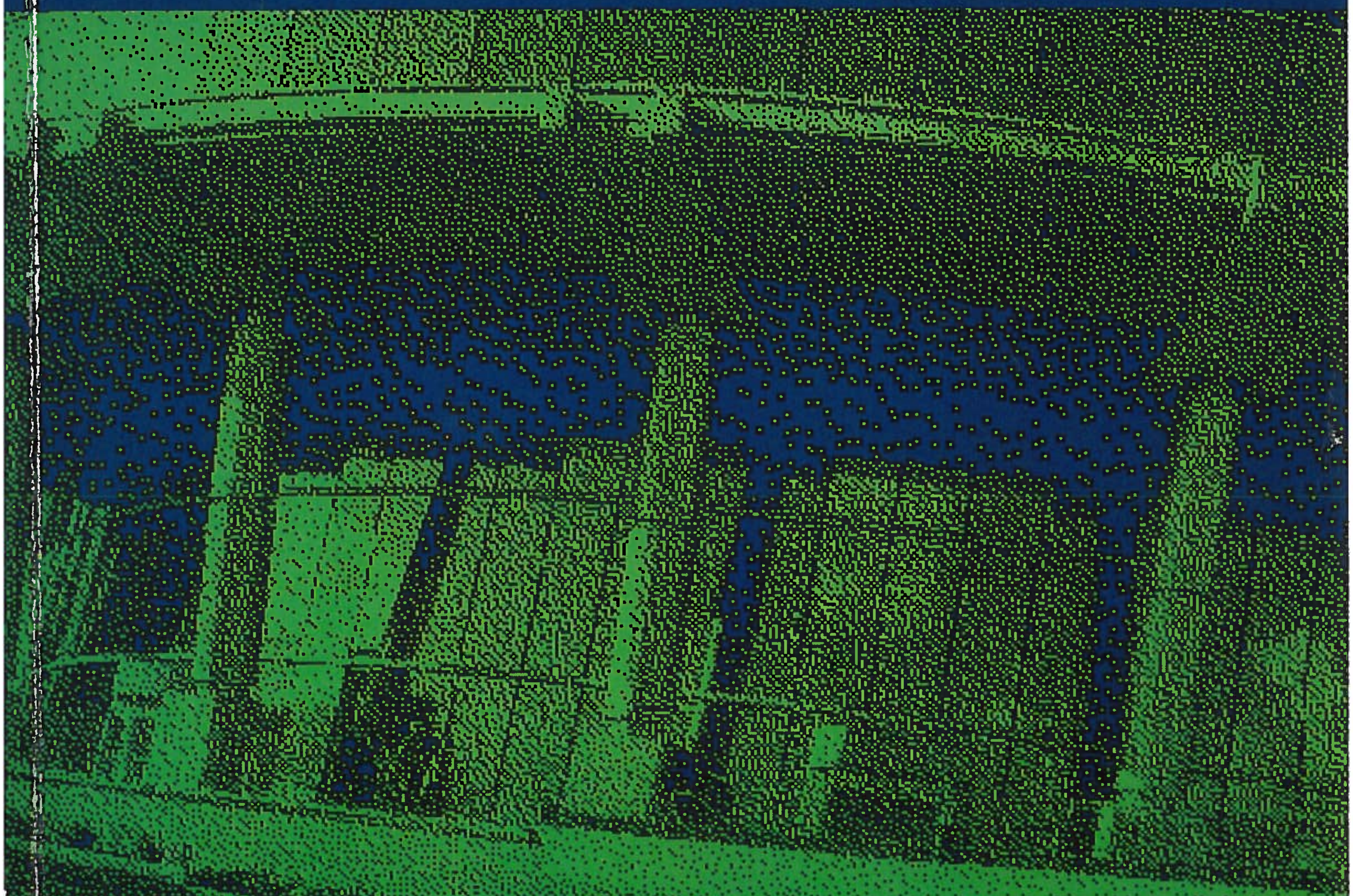

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Recording and Analyzing Property Sales Data

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LEARNING OBJECTIVES:

After studying this chapter, a student should be able to:

- describe the legal instruments that are used to transfer the ownership of real property;
- discuss, in general, land registration systems used in Canada;
- explain which sales data are useful;
- describe how to identify non-market transactions;
- discuss the need for adjustments for personal property, financing, and time; and
- outline methods used to obtain income and expense data.

Introduction

Accuracy in real property valuation is not possible without good quality data, so it is essential for assessment offices to maintain accurate property records. This chapter discusses techniques for recording and analyzing property records and sales information. The first section discusses property transfers and ownership records. The next section explores sales data analysis. Sales must be screened and, if necessary, adjusted for personal property, financing, and time. Finally, accurate income and expense data must be recorded and maintained for appraisals of income-producing properties.

Land Information and Ownership Records

Assessors and cadastral mappers should understand constitutional, statutory, and common law governing parcel mapping and ownership determination, and then develop policies to cover basic problems. They also need to communicate effectively and knowledgeably with vendors, purchasers, and fellow land information professionals in the banking, surveying, real estate, and land title fields. In some jurisdictions it may be possible to research ownership records online through the Internet; this also could be done with field computers using a wireless connection to the Internet.

The Legal Framework

An understanding of property law and an ability to communicate about it are essential for two reasons: land is valuable and land owners have emotional bonds with their properties that may produce strong reactions when an assessor's office processes a conveyance and discovers apparent problems with ownership or boundaries.

One major task is determining who should receive a parcel's assessment notice and tax bill. For many properties, where there is a continuous chain of title evidenced through recorded instruments, this is relatively simple. However, many conveyances are not so straightforward. These typical problems may arise: purchaser

Many real estate appraisers and brokers retain data for property owned by their clients and others. They will often share information, usually for reciprocity rather than payment.

Sales Screening and Analysis

Sales must be screened to identify sales that require adjustment or are not indicative of market value. It is also helpful for an assessment agency to develop a sales coding system. One example of a sales coding system assigns numerical identification to the type of sale, source of sale, and sale validity. Such a sales coding system assists other agency employees and the public alike in reviewing existing sales data. In general, sales fall into seven categories:

Market Value Sales (Single Parcel)

This group includes all single-parcel sales that appear to be arm's-length and representative of market value. They may require adjustments for financing, personal property, or time of sale before being used for ratio studies or for the direct comparison approach.

Multiple-Parcel Sales

Sales including more than one parcel are common, particularly in commercial, industrial, and agricultural categories. In general, these sales are as valid as single-parcel sales, but all parcels included in the sale must be identified. In sales ratio studies, the appraised or assessed values should be summed before they are divided by the sale price. The sale price should be adjusted for any plottage value; that is, the incremental value of the combined parcels in excess of the sum of their individual values.

Non-Arm's-Length Sales

Such sales should not be used in ratio studies. Some typical examples are:

- *Sales involving courts, governmental entities, or public utilities*: These may be forced sales, such as expropriation or tax sales.

- *Sales involving charitable, religious, or educational institutions*: These are often full or partial gifts and thus not representative of market value.

- *Sales in which a financial institution is the purchaser*: These sales are often made in lieu of a foreclosure and are not exposed to the open market. However, open-market sales in which a financial institution is a willing purchaser, such as the purchase of vacant land for a branch bank, are likely to be valid. Sales in which a financial institution is the *vendor* should be viewed cautiously but may be valid if made on the open market.

- *Sales between relatives or corporate affiliates*: These are not open-market sales and are usually made at prices favourable to the purchaser. Relationships between purchasers and vendors are usually best identified by a direct question on the affidavit of value or sales questionnaire. (A difference in surnames is never a sufficient indication of no relationship.) Occasionally, sales between relatives do represent market value. Corporate sales often require considerable research to determine legal relationships.

- *Sales of convenience*: Sales of this kind are made to change or correct the title or deed. The purchaser and vendor may be the same, and the sale price is usually nominal. A review of the transfer document is usually the best method of identification.

- *Estate sales*: Sales in which the *purchaser* is an executor or trustee are usually non-market sales at nominal consideration. Sales in which an estate is the *vendor* may well be valid arm's-length sales. However, sales from an estate may be made to satisfy the debts of the deceased or the wishes of an heir and may not be arm's-length.

Partial Interest Sales

Sales of partial interests require careful analysis to determine whether they are open-market, arm's-length sales. It may be possible to impute the value of the fee simple interest in a property if the sum of partial interests sold at the same time equals 100% and all the sales were at arm's-length. Plottage should be considered. However, these sales often involve related parties and may not represent full market value. Inclusion in a ratio study is only possible if a combination of sales conveying full interest occurs at one time. (Even in this rare situation, the sale should be used only if needed to produce an adequate sample.)

Agreement for Sale

This is an instalment sale in which the purchaser initially pays only part of the purchase price and agrees to make additional payments at stated intervals. Title does not transfer until the final payment is made. However, the date of sale is the date on which the contract was signed, not when the deed was recorded or title transferred. These differences from a standard purchase may necessitate adjustments to be sale price before it is useful for assessment purposes. As well, because the contract may not initially be recorded, discovery of these sales is difficult until the deed is finally recorded. By then, the sale is often too old to be of any use.

Trades

A trade includes items of real or personal property as a portion of the price. The transaction should not be used if the items traded constitute the entire price. Otherwise, if the value of the traded items is stipulated, can be ascertained, or is small in comparison with the total price, the sale *can* be used by including the value of the items traded in the total purchase price. As a general rule, however, exclude sales involving trades if the full price cannot be reliably established and there is an otherwise adequate number of valid sales.

Outliers

Outliers are properties with very high or very low assessment-to-sale price ratios (ASRs). They may result from poor or outdated appraisals, non-arm's-length sales, or a mismatch between the property sold and the property appraised. Particularly when the sample is small, outliers can distort ratio studies and therefore should be reviewed carefully. One reasonable approach is to flag for review all ratios that lie above or below selected cut-off points, say 0.25 and 2.00. Another approach is to review all ratios that fall more than two standard deviations from the mean ratio (usually about 5% of the ratios).

Table 1 contains an example of an outlier ratio, 2.200 associated with the tenth sale. If that sale is invalid, its elimination will improve the accuracy of ratio statistics calculated for the sample. When samples are large, outliers can be ignored or, preferably, automatically excluded by cut-off points set to exclude predominantly invalid sales. The outliers can be examined on an individual basis.

Table 1
Example of Outlier Ratio

Sale number	Appraised value (A)	Sale price (S)	Ratio (A/S)
1	$150,000	$250,000	0.600
2	150,000	220,000	0.682
3	170,000	200,000	0.850
4	190,000	220,000	0.864
5	250,000	270,000	0.926
6	240,000	250,000	0.960
7	250,000	250,000	1.000
8	200,000	160,000	1.250
9	350,000	250,000	1.400
10	550,000	250,000	2.200

Although sales screening and verification are necessary, their goal is to obtain an adequate number of valid sales, not to find reasons to exclude sales. Most sales are usable for the direct comparison approach and ratio studies, although many require adjustments. In large samples, the accidental inclusion of a few invalid sales will have little effect on ratio studies. Outlier sales require further research. Often the outlier sales status can be resolved in the office based on data supplied by a third-party sales source. In situations where data supplied by a third-party sales source cannot resolve the outlier sales status, field inspection of these sales can often reveal property data characteristic errors that, when corrected, transform the outlier sale into a usable sale.

Adjustments for Personal Property

Many sales include personal property of significant value. If these sales are used in ratio studies or mass appraisal, the value of the personal property must be estimated and subtracted from the sale price to determine the price paid for the real property alone. Statutory and administrative definitions help determine what constitutes personal property. The preferred method of adjusting for personal property is to identify the personal property items in each sale, obtain or make an estimate of their market value, and subtract it from the total purchase price. Personal property items often included in the purchase of residential property are rugs, curtains, draperies, furniture, above-ground swimming pools, refrigerators, and other movable appliances. In new residences, estimated value can usually be obtained from the purchaser or builder. In older residences, personal property has usually depreciated, making an estimate more difficult. If the purchaser or vendor has furnished an estimate of personal property value that appears reasonable, the estimate can be accepted and subtracted from the sale price. If the items are listed and described without giving a value, an appraiser can make a reasonable estimate or, if the value appears trivial, assume zero value.

In commercial, industrial, and multi-family residential sales, personal property is usually more than a small percentage of the total sale price. A reasonable value for personal property must be estimated. Personal property usually included in such sales are machinery and equipment, trade fixtures, inventories, furnishings, and business licenses. Transfer documents and sales questionnaires can include questions that identify and obtain the estimated value of such items. A personal inspection may be required for unusual items or for sales in which the value of personal property is a large proportion of the sale price. When the amount of personal property is substantial and a reliable estimate of value cannot be obtained, the sale may be excluded.

When adequate data on personal property are not available, another procedure is to estimate reasonable percentage allowances by type of property. This is best done by reviewing a sample of transfers for each type of property and determining the percentage of the purchase price usually attributable to personal property.