Chapter 12

Residential Property Valuation

According to sec. 70.32(c)(3), Wis. Stats., "Residential" includes any parcel or part of a parcel of untilled land that is not suitable for the production of row crops, on which a dwelling or other form of human abode is located and which is not otherwise classified under this subsection".

The assessor should consider the following guidelines to determine whether vacant should be classified as residential:

- Are the actions of the owner(s) consistent with an intent for residential use?
- Is the size of the parcel typical of residential or developing residential parcels in the area?
- Is the parcel zoned residential or is residential zoning likely to be allowed?
- Is the parcel located in a residential plat, subdivision, CSM or near other residential development?
- Does the parcel's topography or physical features allow for residential use?
- Is the parcel located in an urban or rapidly changing to urban area, as contrasted with a location distant from much residential activity
- Are there any other factors affecting the parcel which would indicate residential use is reasonably likely or imminent

In addition to certain vacant lands and parcels with traditional dwellings, the following are also considered residential (class 1) properties:

- Mobile homes not in mobile home parks or courts
- Apartments with three or fewer units
- Condominiums and time-share units used for residential purposes

Apartment buildings of four or more units, hotels, motels, summer resorts, and mobile home courts should be classified as commercial property. Farm homes as part of an operating farm operation are classified as "Other." See WPAM Chapter 14 for the administrative rule definition of "Other."

The basic appraisal principles discussed in WPAM Chapter 9 apply when developing an opinion of the fair market value of residential property. This chapter will explore those principles in greater depth; discussing techniques for collecting data about the subject property and comparable sales, conducting property viewings, analyzing data, and utilizing the three approaches to value as they apply to properties in the residential class.

Part I. Valuing Land

In performing the assessments, the assessor must separate the value of the land and improvements for each parcel. If the land is an improved site, although the land and improvements are valued separately, their combined value must reflect the value of the property as a whole. Site differs from raw land in that a site is considered to be improved to the extent that it is ready to be used for the purpose for which it is intended, that is, as if it were cleared, filled, equipped with utilities, etc.

Site and Use Analysis

Before residential land can be valued, its significant features must be identified and their effect on the market value of the property determined. In analyzing the site, the assessor must properly identify the property location and size. This is accomplished through the use of maps and legal descriptions. Once this information is known, it is possible to analyze the property and determine its highest and best use.

There are four basic factors to be considered in site analysis: physical, economic, social, and legal-governmental:

- Physical factors include location, size, frontage, width, depth, natural features, shape, topography, and soil condition to name a few.
- Economic factors to be considered are the prices of comparable sites in the area, level of assessment, taxes, special assessments, and the cost of services in the area.
- Social factors include population trends, family size, education trends, crime rates, and age distribution.
- Legal-governmental factors can affect the use of a site and include zoning, municipal services, tax and assessment policies, and title data such as deed restrictions, liens, interest held, etc.

Highest and Best Use

In determining the highest and best use of a property, the assessor must consider those uses which are physically possible for the site, those uses which are allowable according to zoning or other local ordinances, and feasible uses which will provide a net return to the owner. The use providing the highest net return to the owner is generally considered the highest and best use for the site.

A site is valued as if vacant and available to be put to its highest and best use, even if the property has improvements on it. The current improvements are not relevant when estimating the site value. However, the total property value (site and improvements) must take into consideration any existing improvements on the site.

Non-Conforming Use

If a property has improvements that are not consistent with the sites highest and best use, the property is considered under-improved, over-improved, or non-conforming. If a current property use represents a non-conforming use, the difference between the total property value and the site value is assigned to the value of the improvements. Therefore, if the current improvements are not the highest and best use (if they represent a non-conforming use), it is the improvements that are assumed to suffer the loss in value, not the site.

For example, assume a site in a commercially developed and zoned area has a house on it. This current property use represents a non-conforming use in the sense that the residential usage does not represent the highest and best use of the site. The value of the site in such a case is not derived from the current use, but rather from the highest and best use.

In highest and best use analysis, it is necessary to determine to what use the typical informed

purchaser would put the property. It is assumed that in this particular case, the highest and best use is commercial, therefore, the site would be valued at a rate similar to the rate determined for adjacent commercial sites. In this case, the residential use does not represent the optimum use of the site, and the improvement on the site, therefore, exhibits economic (or locational) obsolescence and will suffer any loss in value.

To estimate the value of this type of property, two separate value estimates must be made: a total property value and a site value. The total property value would take into account the current property characteristics and locational attributes. The site value would reflect the highest and best use of the site. The difference between the site value and the total property value is assigned to the improvements. In this case, the improvements may have little value.

Sales Comparison Approach

The sales comparison method is generally the most appropriate method for the valuation of residential vacant land. There are certain conditions that must be met in order to use this method. There must be sufficient verified sales data available, the sales used must be truly comparable to the subject, there must be an active market for sites such as the subject, and the assessor must have a complete and detailed site description for not only the subject property, but each of the comparables as well.

All sales should be investigated and analyzed by the assessor and a written sales analysis prepared. Unless adjusted, only those sales which meet the definition of an arm's-length transaction should be used. The analysis should show the relevant physical features of each sale property such as shape, size, frontage, natural features, width, depth, topography, utilities, and other significant factors which may have affected the sale price including location, zoning, market and economic conditions, and date and terms of each sale.

To use the information from properties that have sold to make the assessment of another property, it is important that a system of comparing one parcel with another be used. The residential property record card (PRC) contains a checklist of the most common elements which have been found to affect the value of residential land. Location, size, depth, topography, natural features, neighborhood, zoning, and utilities available are some of the key elements. It is important that each of these factors should be considered in making comparisons, and that the assessor notes these elements on the PRC when viewing each parcel.

Units of Comparison

When comparing sales data, it is desirable to reduce the sales price of each site to a per unit basis. This is particularly appropriate where there are minor variations between the sites being compared and where the sites are irregularly shaped. Common units used in analyzing residential land sales are the front foot, square foot, standard lot, and acre. The market will generally dictate the appropriate units to be used.

The **front foot** is generally used for lots with water frontage, and in built up areas where the lots are relatively small. A front foot is a strip of land one-foot wide with frontage on a street or body of water and extending to the rear of the parcel. Front footage is generally measured

in terms of a standard depth, and it is therefore necessary to make adjustments for variances in lot depth using depth factor tables. The premise behind depth factors is that portion of the lot nearest the street, lake, river, or road is more valuable than the land which is in the rear of the lot and should be taken into consideration when the assessment is placed on the property. Examples of depth factor tables are found in the Appendix to Volume 2.

The **square foot** is an appropriate unit of comparison in areas where the lots are irregularly shaped and where frontage is not the primary factor contributing to the value of the site. This method is used where lots are found to be selling for an average price per square foot.

In analyzing sales, the assessor should determine the square foot values for the minimum square footage necessary for building, and for any excess land. This is done because when a lot is excessively large, the excess amount of land (the amount beyond the standard sized lot) will generally sell for less per square foot than the rest of the lot. For example, assume the minimum lot size required by zoning is 12,000 square feet. Sales indicate that lots in a specific area are selling for $2.00 for the first 12,000 square feet and $1.00 per square foot for the excess land. If the assessor is determining the value of a lot with 16,000 square feet, the first 12,000 square feet would be valued at $2.00 per square foot (12,000 x $2.00= $24,000), and the excess 4,000 square feet would be valued at $1.00 per square foot (4,000 x $1.00 = $4,000) for a total value of $28,000 for the lot.

A **standard lot** value is appropriate in areas where land use is less intense and minor differences in lot sizes do not significantly affect value. This is likely to occur in suburban or rural areas and is becoming more common in subdivisions. An example of this would be in a subdivision where all lots are similar in size and shape and enjoy the same amenities. If lots are all selling for nearly the same amount with only slight variations, the standard lot value is the simplest unit of comparison when determining the value of a site in that subdivision. Local zoning will generally dictate the minimum size of the standard lot.

The **acre** is more commonly used as a unit of comparison in valuing raw land rather than a site; however, it may be used in the valuation of residential land in rural areas and on the fringe of a village or city. Such tracts of land are generally purchased on a per acre basis and are appropriately valued as such. Small residential sites will sell for more per acre than large acreage agricultural land, so the assessor must be certain that the sales used in determining the per acre value of a rural residential parcel are in fact comparable to the subject, i.e., the land sold must have been purchased for residential purposes, not for farming. Units of comparison allow the assessor to account for differences in size when comparing competitive properties; however, not all differences in size can be compensated for through the use of units of comparison. The differences must be relatively small, otherwise, the properties may not be truly comparable.

Developing Standard Unit Values

When estimating the value of land, assessors may want to develop standard unit values for a given area or property type. The most common way to do this is by either using the base lot method or the comparative unit method. These methods establish land value “benchmarks” which can then be used to estimate the value of individual land parcels.

Base Lot Method

Using the base lot method, the assessor selects a typical, centrally located lot and adjusts all of the sales in that neighborhood so the sale prices reflect the characteristics of the selected base lot. By establishing a standard unit value for the base lot, the assessor has a physical benchmark to use when appraising other land parcels in the area. It is easier to determine if a certain property should be assessed higher or lower than the standard unit value when there is actually a physical lot representing the standard against which other lots to be appraised can be compared.

Comparative (Average) Unit Value

The average unit value method can be used in areas where the lots are very similar in size, shape, location, and other factors. Using this approach, the assessor determines an average value for each land unit (square foot, front foot, or standard lot) using the time adjusted unit sale prices. This method is easy to use since the only adjustments to the sale prices are for time; however, because it does not take into consideration variances in lot attributes, it is very important that the parcels be truly similar.

Land sale prices are stratified into categories by primary value factors (location, property use, etc.). The typical per unit value can be estimated by analyzing the available sales data for each land category. The typical per unit value could be the median or mean sale price per unit in a given category.

The assessor should be cautious deriving a median or mean per unit value if there are only a few sales to analyze in a given category or if the sale prices per unit vary considerably. If the sale prices per unit vary considerably in a given category, the assessor should check to see if the appropriate unit of comparison is being used. For example, when analyzing small apartment land sales, the sales prices per square foot may vary considerably while the sales prices per dwelling unit may be more consistent.

Benchmark Value Applications

Once standard unit value ranges have been developed for neighborhoods, it is possible to determine unit values by block. When determining the various block unit values, it will be necessary for the assessor to evaluate each block in terms of its desirability in relation to the rest of the neighborhood. This is where the map that has been prepared, showing the sales and their unit values will be particularly helpful to the assessor. By reviewing the map, it will be possible for the assessor to detect value patterns throughout the neighborhood. In some cases, the same unit value may be appropriate for many of the individual blocks; however, there may be some blocks that are more or less desirable than others, warranting higher or lower unit values.

After the unit values have been established for each block, the assessor can determine land values for each individual parcel by multiplying the unit value by the number of units in each parcel. Further adjustment of the unit values may be required for individual parcels depending on shape, size, access, utilities, topography, or other factors which have been previously discussed.

Adjustment Process

Since no two properties are exactly alike, the assessor must make adjustments to account for differences between the subject and comparable sales. By modifying the sale prices of comparable properties to reflect the characteristics of the subject, the assessor can estimate the value of the subject property. It is important that each sale be adequately described so the assessor can readily identify major characteristics and compare them to the property being appraised. The assessor should consider only the pertinent characteristics of each sale, making adjustments which are based on the market.

The principle of contribution is the underlying principle in the adjustment process. The assessor must determine what a particular feature contributes to the value of the property as a whole, i.e., how much more or less would a purchaser typically pay for a property with or without a certain characteristic.

Any adjustments must be supported by the available market evidence. The assessor must determine the reaction of typical buyers to the lack of or presence of certain factors. Market reactions can be measured by comparing the sale prices of properties which are the same in every respect except for the presence or lack of the one factor in question. The difference in the sale prices indicates the amount of adjustment required to compensate for the particular factor under consideration.

When making adjustments, the subject property is the standard and all adjustments are made to the comparable sales, not the subject. In general, sales are first adjusted for time to reflect the sale price as of the appraisal date. All other adjustments are made to the time adjusted sale price. If the sale property is superior to the subject in some respect, a minus adjustment is made to the sale price of that property; or conversely, if the sale property is inferior to the subject, a positive adjustment is made. It is possible that the presence or absence of some factors will have no effect on the sale price of a property. In such cases, no adjustments should be made for those features.

Generally, at least three good comparables should be used. A sale must be truly comparable to the subject property if it is to provide a reliable value indication. Any sale requiring adjustments which exceed 15-20% of the total sale price may not be in the same market as the subject, and should not be relied upon in estimating the value of the subject property.

Characteristics for which adjustments are typically made include time of sale, location, and physical factors. Other adjustments may be warranted based upon analysis of the economic and legal-governmental factors affecting the subject and the comparable sales. One of the most common adjustments made to land is for size or depth. Larger parcels typically sell for less per unit then smaller parcels.

Depth Tables

Depth tables provide a means for adjusting front-foot values for parcels of non-standard depth. Depth tables apply the principle of contribution, which states that the value of a characteristic is measured by its contribution to the value of the whole.

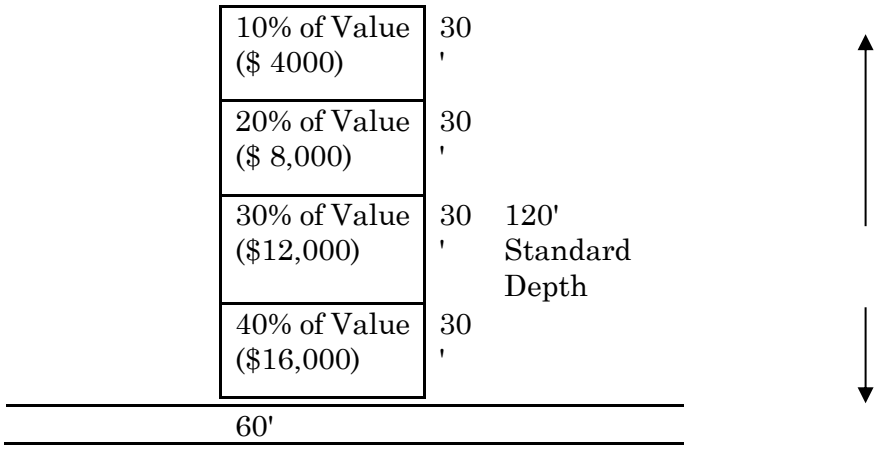
Depth tables can be used to assist in the measurement of changes in value caused by lot depth. The most easily understood basis for computing depth tables is the "4-3-2-1 rule." According to this rule the first 25 percent of a lot's depth is 40 percent of the total lot value, the second 25 percent equals 30 percent of value, the third 25 percent of depth represents 20 percent of value, and the fourth 25 percent of depth equals the remaining 10 percent of value. Figure 12-1 illustrates this principle.

The total estimate of value for the lot is $40,000. The 4-3-2-1 rule allocates 40 percent of the total value or $16,000 to the first 30 feet of the depth; the second 30 feet represents 30 percent of the value or $12,000; the third 30 feet is 20 percent of the value or $8,000; and the remaining 30 feet is worth the final 10 percent of value or $4,000.

In order to make the calculation of the effect of depth on the value of a lot easier, depth tables have been developed. The tables can be found in the Appendix to Volume 2.

Figure 12-1

4-3-2-1- Rule



Front Foot Value = $667
Total Lot Value = 60' x $667 = $40,000

Valuation Case Study

The following example illustrates how adjustments can be made. The same technique can be used in any market comparison for all types of property. A rating grid is utilized, listing the comparable sales vertically. The units of comparison can be any factors that are found to have an effect on price. This displaying of data allows information to be categorized, viewed, and analyzed.

The adjustments in the following example are made in lump sum dollar amounts. Adjustments, however, can be applied in several ways:

- by adding/subtracting dollar amounts
- by adding/subtracting percentages
- by multiplying factors

To illustrate the difference between adding/subtracting and multiplying factors, say a property which sold for $50,000 requires two adjustments: one for location (+10%) and one for access (-5%).

- If these adjustments are summed, the net adjustment is +5%: 0.10 + (-.05) = +.05
- The $50,000 sale price is adjusted to $52,500 ($50,000 * 1.05)
- If the adjustments are multiplied, the net adjustment is +4.5%: (1 + .10) * (1 - .05) = 1.045
- The $50,000 sale price is adjusted to $52,250: ($50,000 * 1.045).

Example: The parcel of land to be valued is Lot 7, Block 12 of Peaceful Acres Subdivision. School and playground areas are 2 blocks north of the subject lot with a shopping area ½ mile down Major Boulevard. Recent sales in the area are shown in Figure 12-2.

Figure 12-2

Market Comparison Data				
Sale No. 1	Lot 10	Block 7	$37,000	Current Sale-W.D.
Sale No. 2	Lot 18	Block 11	$27,000	One year ago-W.D.
Sale No. 3	Lot 6	Block 12	$29,000	Current Sale-W.D.
Sale No. 4	Lot 13	Block 6	$26,000	Two years ago-W.D.
Sale No. 5	Lot 1	Block 13	$36,000	Two years ago-W.D.

When the market comparison chart (Figure 12-3) is viewed, it becomes apparent that Sales 1 and 5 are not comparable to the subject property. Sale 1 is located on a hillside corner lot in an area of more expensive homes. Sale 5, although in an area of average homes, is not comparable because of lot size, shape, and corner location. Therefore, Sales 2, 3, and 4 are the most comparable physically. When the sale prices of these lots are viewed, they are seen to be appreciating at $2,000 per year. The prices for the sales, which were not current, were adjusted on the chart accordingly.

Figure 12-3

Market Comparison Chart

	Subject	**No. 1**	**No. 2**	**No. 3**	**No. 4**	**No. 5**
Sale Price	------	$37,000	$27,000	$29,000	$26,000	$36,000
Time Adj.	Now	Current	1 yr. +2,000	Current	2 yrs. +4,000	2 yrs. +4,000
Site Imp.	Curb, gutter sidewalks	Same	None +5,000	Same	None +5,000	Same
Lot Size	6,000 SF	12,000 SF	6,000 SF	6,000 SF	6,000 SF	15,000 SF
Location	Middle of block	Hillside corner lot	Middle of block	Middle of block	Middle of block	Corner lot
Neighbor-hood	Class C homes	Class B homes	Class C homes	Class C homes	Class C homes	Class C homes
Adj. Price	---	$37,000	$34,000	$29,000	$35,000	$40,000

When the values of all the comparable lots are viewed, a value range of $29,000 to $35,000 is indicated for lots comparable to the subject. The assessor must determine which of the sales is actually the most comparable to the subject property. Those sales requiring the least adjustment are generally the most reliable indicators of value provided proper adjustments have been made. Based on the information given in the example, the assessor would probably select sale 3 as the most comparable sale, since it has the most comparable location, is the most current sale, and requires no adjustments. Using sale 3, a value estimate of $29,000 is indicated for the subject lot.

Land Valuation With Insufficient Sales

When there are not enough vacant land sales to reliably use the sales comparison approach, the appraiser must rely on other methods. These methods include abstraction, allocation, capitalization of ground rents and the development cost method. These methods tend to be less reliable than the sales comparison approach because they may not adequately reflect the actions of market participants. These methods also require analysis that is more complex and therefore require very careful research and judgment.

Abstraction Method

Often, there will not be enough unimproved lot sales to determine residential land values. In such cases the assessor may have to rely upon sales of improved properties. Under this method the assessor arrives at a land value by subtracting the estimated market value of the improvements from the total sale price. To determine the amount of the total sale price that is attributable to the improvements, the assessor must estimate the replacement cost new, less accrued depreciation, for the improvements. The abstraction method (also known as the land residual method) relies upon the cost approach for the determination of the replacement cost new of improvements, and requires an accurate estimate of depreciation by the assessor. Because of the difficulty in estimating accrued depreciation on older improvements, this method is best used on newer properties with little depreciation.

The following example illustrates how this method works:

Sale Price of Property		$150,000
Estimated reproduction cost new of improvement as of sale date	$122,000	
Estimated Accrued Depreciation of All Type	- $ 2,000	
Estimated Depreciated Cost of Improvement		$120,000
Indicated Value of Site		$ 30,000

Where there are several sales of improved properties in a neighborhood the assessor may begin to see a pattern in the values. For example, analysis of five different sales using this method may indicate that typical sites in a given neighborhood have a value of $29,000 to $31,000.

There are definite limitations to this method of land valuation since it relies heavily on accurate estimates of replacement cost new and depreciation. In addition, the sales used must be very similar to the subject under consideration. Even when these conditions can be met, the value estimate is not conclusive enough to be relied upon as the sole means of deriving value in most cases.

The abstraction method may be used in conjunction with the allocation method, described below.

Allocation Method

The allocation method (also known as the land ratio method) is premised on the notion that there may be a consistent overall relationship between land and improvement values for certain property types or in certain areas.

Where there are a sufficient number of comparable improved sales, the assessor may find it helpful to break each sale down as described in the abstraction method above, and establish land to building ratios for particular neighborhoods or for particular property types. For example, after analyzing a number of comparable sales in one neighborhood, the assessor may find that sites represent about 20 percent of the total property value in that area, or a land to building ratio of 1:4. Therefore, if a property sold for $150,000 and it is known that sites represent approximately 20 percent of the total value, the site value would be $30,000 ($150,000 x .20 = $30,000). Or, if a property has not sold, but the depreciated improvement value is known to be $120,000 and the assessor has found the land to building ratio for that area to be 1:4, the site would be valued at $30,000 ($120,000 x 1/4 = $30,000).

There are definite limitations to this method of land valuation since it relies heavily on accurate estimates of replacement cost new and depreciation. In addition, the sales used must be very similar to the subject under consideration. Even when these conditions can be met, the value estimate is seldom conclusive enough to be relied upon as the sole means of deriving value in most cases.

Capitalization of Ground Rents

When land is rented or leased independently of the property improvements, capitalization of the ground lease (rent) payments is a reasonable method of determining land value. This method is usually only applicable to agricultural or commercial land that is typically leased on a triple net basis (the lessee is responsible for paying the property taxes and any other land-related operating expenses). To use this method reliably, the ground lease payment should be at current market levels.

For example, say a parcel of land has been recently leased for 10 years at $10,000 per year, triple net. The appraiser determines that the appropriate capitalization rate is 10%. In this case, the land value is derived as follows:

$10,000/0.10 = $100,000.

Careful market analysis should be conducted to determine an appropriate capitalization rate. If the ground lease is not triple net, the appropriate operating expenses incurred by the landowner must be subtracted from the ground lease payment before it is capitalized.

Cost of Development Method

The cost of development method can be used for land ripe for subdivision. The appraiser projects improvements to the land, estimates the total revenues and development costs, and calculates the value residual to the land after subtraction of all costs, expenses, and profit. The method is based on the principle of surplus productivity. Land value is calculated as a residual after the requirements of labor, capital, and management are satisfied.

For example, assume that the subject property is a 40-acre parcel zoned for residential use with four home sites allowed per acre. Developers are currently selling 1/4 acre lots in the area, with street improvements and utilities, for $17,500 to $22,000 ($20,000 is typical). Site preparation, street improvements, and utilities will cost approximately $1,400,000; planning, administrative, sales, and other overhead costs average 25 percent of gross sales in such projects; and a reasonable allowance for interest expenses, other holding costs, and profit is 40% of net income. The estimated value is calculated as follows:

Projected sale price of lots:	(160 * $20,000)	$ 3,200,000
Site development costs:		- 1,400,000
Total overhead costs	(25% of $3,200,000)	- 800,000
Net income before holding costs and profit:		$ 1,000,000
Holding costs and profit:	(40% of $1,000,000)	- 400,000
Indicated value of undeveloped land:		$ 600,000

This method involves considerable speculation and should be used cautiously. The projected improvements must represent the most probable use of the land. Estimated costs should include the direct costs of site preparation, utility hookups, all indirect costs, and a reasonable allowance for profit. As long as the land is not subdivided, anticipated revenues and expenses should be discounted for time. (The above section is taken from IAAO Property Appraisal and Assessment Administration)

Land Valuation – Unplatted Areas

Unplatted areas are primarily found in rural townships and on the fringes of villages and cities, and generally contain large dissimilar sized parcels. These properties often present a problem to the assessor because small residential tracts usually sell for a higher amount per acre than adjoining large acreage sold for agricultural purposes. Because land use will vary with frontage, width, depth, and overall area, these factors must be carefully considered in the valuation process. When analyzing sales in unplatted areas, the assessor must determine what adjustments may be required in the sale prices to account for variations in the relative utility value of the land due to excessive or insufficient frontage or size.

Figure 12-4 represents a typical unplatted area of residential property at the intersection of two highways and illustrates some of the factors to be considered by the assessor when valuing properties of this type.

Tracts 8 and 12 are each one-acre. It could be expected that Tract 8 would sell for more than

Tract 12 for the reason that Tract 8 could be divided into two lots one-half acre each and a building located on each, while the back portion of Tract 12 would have no access to the highway.

Tracts 10 and 2 are comparable in size, location, and contour, and could be expected to sell for the same price. While Tract 1 contains four acres and is two times as large as Tracts 10 and 2, the owner would realize very little more for Tract 1 for the reason that the rear portion of the lot does not have access to the highway, and, therefore has little utility except for garden purposes.

Tract 3 could be expected to sell for the same amount per acre as Tracts 2 and 10. However, Tract 4 has greater exposure to the highway and would be worth more than Tract 3. When valuing larger Tracts 14 and 15, the assessor must realize that while Tract 14 is 10 times larger than Tracts 10 and 2, it may not bring 10 times more money; and Tract 15 being 20 times larger would not necessarily bring 20 times the money than Tracts 10 or 2.

The north 16 rods of Tracts 14 and 15, which are shown by the broken line in Figure 12-4, would bring considerably more per acre if offered for sale than the south 64 rods because it has access to the highway. The south 64 rods would be expected to sell for the approximate value of the land of a regularly operated farm in the area.

The purpose of the above discussion is to point out that, because Tract 10 containing two acres sold for $5000, or $2500 per acre, does not mean that tract 15 containing 40 acres would also sell for $2500 per acre. It is possible that the 8 acres of Tract 15 near the highway would sell for approximately the same, but the south 32 acres might not bring in excess of $500 per acre.

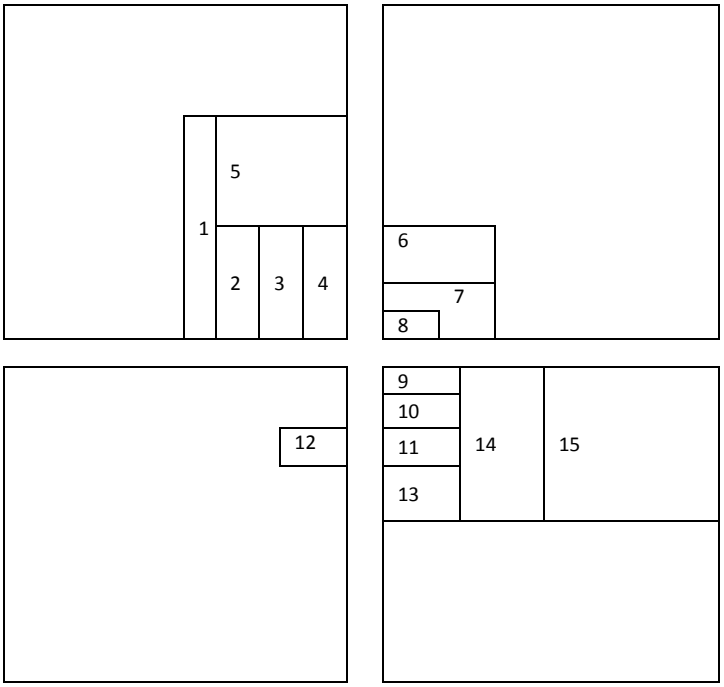
The above dollar amounts are used as an example only. The assessor must study the sales in the area to establish the unit value per acre to be used for assessment purposes.

In some instances, an individual will purchase a larger tract of land, construct a residence, and use it in the same manner as those owning smaller tracts. As an example someone might purchase 80 acres of forest land on which to build a home. In cases such as this, the only portion of the land that is being used for residential purposes is that portion which the home uses. It is suggested that the assessor consider one acre or more, as the case may be, as residential land. The land used for residential purposes should be valued according to its contributory value as a site to the entire parcel. The market value of the residential portion may be the same value as other comparable small tracts of residential land, depending on specific market conditions. The remaining 79 or less acres should be assessed and classified as forest lands at a value commensurate with the amount that could be obtained for the 79 acres if placed on the market as a unit and a value established which is comparable to the assessment on other similar forest lands.

In all cases, septic tanks, wells, sidewalks, driveways, fences, retaining walls, and other land improvements should be included with the value of the residential improvements.

Figure 12-4 Unplatted Area

Parcel No.	Dimension	Area In Rods
1	8x80	4 Ac.
2	8x40	2 Ac.
3	16x40	4 Ac/
4	16x40	4 Ac.
5	40x40	10 Ac.
6	24x40	6 Ac.
7	8x40	3 Ac.
8	8x20	1 Ac.
9	8x40	2 Ac.
10	8x40	2 Ac.
11	24x20	6 Ac.
12	8x20	1 Ac.
13	40x40	10 Ac.
14	20x80	20 Ac.
15	80x80	40 Ac.



Land Valuation – Platted Areas

Platted parcels are usually those found in a recorded subdivision. They are characterized by orderly street layouts and are generally more densely utilized than unplatted areas. These areas are commonly found in cities and villages and along lake or river frontage. Assessors will usually value this type of property on either a standard lot size or a front foot basis. Because the lots may be of various sizes and shapes and with different amounts of frontage, good maps are essential for the assessor to accurately determine the size, shape, location, and relationship of one parcel to another.

Sales in some newly platted areas are for the bare lots without such items as septic tanks, wells, fences, etc. Through a study of the sales, the assessor can determine the value of the lots without the land improvements. The value to be added for land improvements can be determined from the study of the costs of such improvements and the study of the sale of improved lots.

If there are enough sales in each case, direct comparisons can be made with properties that have sold and those that have not. If the properties sold are not directly comparable, then the assessor must make adjustments to the selling prices in order to estimate the amount the subject property may be expected to bring if placed on the market.

In analyzing all of the sales data available, the sales prices should be adjusted to the January 1 assessment date and posted on a set of maps. This will enable the assessor to readily identify where the sales have occurred and to develop standard unit values for specific areas or neighborhoods.

Land Valuation Case Study

The following example illustrates the adjustment of basic front foot values for depth and other variations in shape and location. While the example uses lakeshore lots for illustration, the same principles are also applicable to other platted areas.

Referring to the plat along the lakeshore shown as Figure 12-6, it will be noted that a road runs along the south side of the plat. There is also a road between lots 5 and 15 which serves lots 6 to 14, and a road between lots 19 and 21 which provides access to lot 20.

Lots 1 through 3 are individually owned and are all 120 feet deep and 100 feet in width with a good beach. After making a study of the sales of other comparable lakeshore lots in the municipality, it is determined that the ordinary market value would be $2000 per front foot for a standard 120 foot lot. Any variances from the standard depth must be adjusted through the use of depth factors. Since the standard depth is 120 feet, the 120 Feet Standard Lot Depth Table, which is found in the Appendix to Volume 2, will be used to obtain the appropriate depth factor.

In computing the value of **Lot 1** that is 100 feet wide, the assessor will multiply the width by the $2000 front foot value which results in a value estimate of $200,000. Since the depth of lot 1 is the standard 120 feet, no adjustment for depth is required to the $200,000 value indication.

Lots 2 and 3 are comparable to Lot 1, and the same method is used in determining their values.

Lots 4 and 5 are owned by the town, and are used for a park. Lot 4 has a good beach for swimming, and also a public boat landing. Lots 4 and 5 are exempt; however, the assessor must determine if such public use has an effect on the value of adjacent lots.

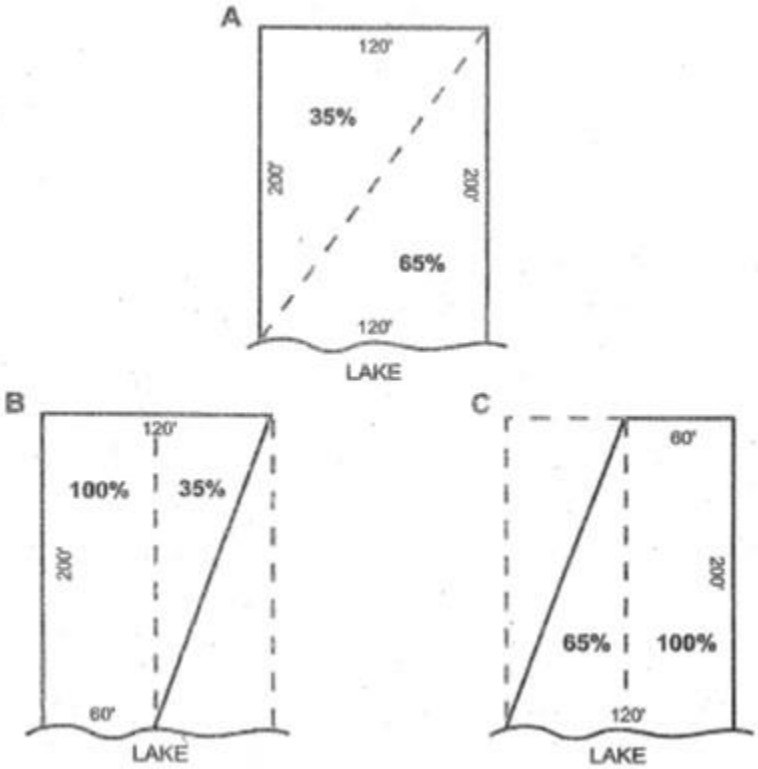
Lot 6 is 100 feet wide, 150 feet deep on the south side, and 110 feet deep on the north side. This presents a different problem. When valuing this lot, add the two sides and divide by two to obtain the average depth of 130 feet (110’ + 150’ = 260’/2 = 130’). Lots 6 through 10 have good sand beach suitable for swimming, and when these lots sell they bring $3000 per front foot. To compute the value of lot 6 multiply the 100-foot width by the $3000 front foot value resulting in a value of $300,000. Since the average depth of 130 feet is not standard, it is necessary to refer to the depth factor chart in the Appendix of Volume 2 to obtain the factor to be used in modifying this value. The chart shows a factor of 104; therefore, the $300,000 obtained above is multiplied by 104 percent to obtain a value of $312,000 (1.04 x $300,000 = $312,000) for lot 6.

Lot 7 is 100 feet wide and 110 feet deep. To determine the value of this lot, multiply the 100 foot width by the $3000 front foot value for a standard lot value of $300,000 (100’ x $3000 = $300,000). Since the lot is 110 feet deep, the assessor again refers to the depth factor tables and finds that a 110-foot lot represents 96 percent of the value of a 120-foot standard depth lot. The depth factor of 96 times $$300,000 indicates a value of $288,000 for lot 7 ($300,000 x .96 = $288,000).

Lot 8 is valued in the same manner as Lot 6.

Lot 9 is a triangular lot, which poses another problem. Because the lot is irregularly shaped and is not the standard depth, the front foot value must be adjusted to account for both the depth and shape of the lot, using the 65/35 rule in conjunction with the depth factor. See Figure 12-5. The 65/35 rule is based on the premise that a right angle triangular shaped lot with frontage at its base has 65 percent of the value of a rectangular lot, and that a right angle triangular shaped lot with frontage at its apex has 35 percent of the value of a rectangular lot. Lot 9 is 75 feet deep with a width of 100 feet on the lake. The 100-foot width represents the base of the triangular lot. To calculate the value of this lot, the assessor must first multiply the 100 foot width of the lot by the front foot value of $3000 for a value of $300,000 (100' x $3000 = $300,000). This figure is then modified by the 75 foot depth factor, which is 79 percent for a value of $237,000 ($300,000 x .79 = $237,000). This value, in turn, is multiplied by 65 percent to account for the triangular shape of the lot, which results in a value indication of $154,050 ($237,000 x.65 =$154,050), which would be rounded to $154,100. In this particular case we have made the assumption that the lot is not subject to flooding and that there are not stringent zoning requirements which would require minimum set-back for buildings on the lake. In practice, however, the assessor must be aware that there are many situations where it may not be appropriate to use the 65/35 rule for the valuation of triangular lots. For example, assume that every spring as the snow melts, the lake rises, flooding part of the lot. In such a case, it is possible that the lot could not be used for building since the widest part of the lot would be underwater each spring. If this were true, the lot would probably be more desirable if the water frontage were located at its apex rather than its base since it would still be possible to build a home on that portion of the lot away from the water. Set-back requirements must also be considered. For example, if local zoning required that all homes be situated at least 40 feet back from the lake, this particular lot would perhaps be less desirable than one with its apex on the lake, since the area on which a house could be built would be seriously reduced. As such, the 65/35 rule would not apply.

Figure 12-5
65/35 Rule



The 65/35 rule is based on the premise that a right angle triangular lot with frontage at its base has 65% of the value of a rectangular lot, and that a right angle triangular lot with frontage at its apex has 35% of the value of a rectangular lot, as illustrated in example A. Parcel B would, therefore, have an effective frontage of 81 feet. Parcel C would have an effective frontage of 99 feet.

Lot 10 may be valued by considering it as two triangular lots. The procedure would then be similar to that used for Lot 9. The east half of lot 10 has 85 feet of frontage on the lake, and a depth of 124 feet. To value this lot the assessor would first multiply the 85-foot frontage by the front foot value of $3000 for a value of $255,000. The depth factor for a 125-foot lot is 102 percent, which is applied to the $255,000 figure for a value of $260,100. This figure is then adjusted to account for the triangular shape of the lot. Since the base of the lot is on the lake, the $260,100 figure is multiplied by 65 percent for an adjusted value of $169,065, which would be rounded to $169,100. Since the west half of Lot 10 has the same dimensions as the east half, its value would be the same, and the total estimated value of Lot 10 would be $338,200.

Lot 10 is unique in the area since it is on the point of a large peninsula. Usually such points have a considerable amount of frontage but limited or irregular depth. The limited depth (as opposed to a rectangular lot) may interfere with the placement of buildings or development of the rear of the lot. Such lots are sometimes considered to have excess frontage. On the other hand, points are desirable because of a wide angle view and somewhat greater privacy. There can be no arbitrary rule for the valuation of such lots, and after approaching the valuation problem from all reasonable alternatives the assessor must decide which is the most applicable and the most likely to be the best estimate of market value.

The value of **Lot 11** can be estimated in the same manner as Lot 9.

Lots 12, 13, and 14 lack the sand beach, and the market value of similar lots has been found to be $2000 per front foot. Using $2000 as the front foot value, the same procedure that was used in valuing Lots 6, 7, and 8 would be used to value these lots. Lots 15 through 18 have a swampy shoreline. Similar lots have been found to be selling for $1000 per front foot at a standard depth of 120 feet.

Lot 15 has only 25 feet of shoreline at $1000 per front foot, this being the most valuable portion of the lot. The rest of the lot does not touch the lake; similar properties have been selling for $400 per foot. The value of this lot would be calculated as follows: 25' x $1000 = $25,000; 75' x $400 = $30,000; $25,000 + $30,000 = $55,000. Since the lot is the standard depth, no depth adjustment is required; therefore, the indicated value of Lot 15 is $55,000.

Lots 16, 17, and 18 are similar with 100 feet of frontage and a standard depth of 120 feet. Each of these lots would be valued at $1000 per front foot for a total value estimate of $100,000 per lot. No adjustment is required for depth.

Lot 19 is similar to Lot 15, and would be valued in the same manner.

Lot 20 is a small peninsula with 225 feet of good frontage, 100 feet maximum depth due north and south, and 75 feet average width east and west. Since the most useful depth of a frontage lot is the depth measured at a right angle to the frontage, Lot 20 could be considered as the equivalent of two lots each having about 112 ½ feet of frontage and an average depth of 37 ½ feet (½ of 75'). Since sales indicate that this is $2000 frontage, the calculation would be as follows: 112 ½ x $2,000 = $225,000. The depth factor for a 37 ½ foot lot is 56 ½ percent, which when applied to the value estimate of $225,000 indicates an adjusted value of $127,125 for one half of Lot 20, or a total value of $254,250 which would be rounded to $254,300. However, two such lots placed back to back would appear to have more utility than is reflected by the sum of the parts and the assessor may wish to add an additional amount. The amount to be added will depend upon the total width of the peninsula and the increased freedom of locating buildings, etc., which the combined depth of 75 feet will allow. Other factors such as the unique location of the lot would also have to be taken into consideration.

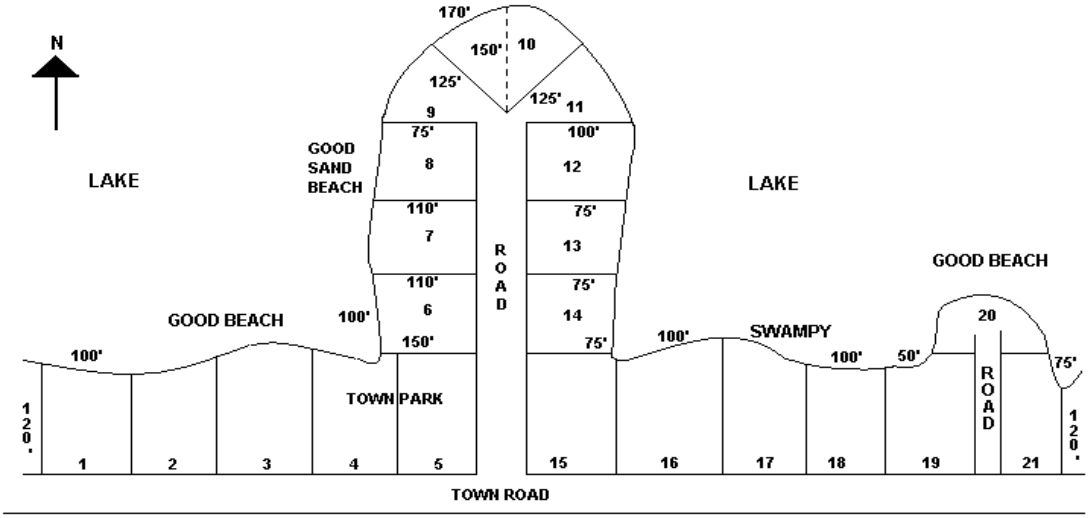
Lot 21 would be valued in the same manner as Lots 19 and 15.

The above computations are based mainly on front foot of lakeshore assuming the lots are comparable except for the type of lakeshore and depth or shape. If other factors are prevalent which are likely to affect the market value of the lots, the assessor will have to make further adjustments.

The values established are for lakeshore lots without land improvements. The assessor would add an additional amount for land improvements to the improvement value.

Figure 12-6

Plat of Lake Shore Lots



Common Area/Land, Excess or Surplus Land – Subdivisions

The Dictionary of Real Estate Appraisal defines common area as "The total area within a property that is not designed for sale or rental but is available for common use by all owners, tenants, or their invitees, e.g., parking, and its appurtenances, malls, sidewalks, landscaped area, recreation areas, public toilets, truck and service facilities."

Excess land is defined as "Land that is not needed to serve or support the existing improvement. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land may have the potential to be sold separately and is valued separately."

Surplus land is defined as "Land that is not currently needed to support the existing improvement but cannot be separated from the property and sold off. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel."

In subdivisions common area is also known as common land. Most often common land is used as a natural buffer or common area supporting the improved areas. Green space, retention ponds, parks or playgrounds are examples of common land in a subdivision.

The assessor must analyze the rights available, as specified in the subdivision development documents, to determine what uses are permitted or allowed. The assessor must determine if the common land has an economic or contributory value to the surrounding improved property in order for the common land to have a value.

Common Areas – Condominium

Another area that assessors may experience some difficulty is the common areas of condominiums. Generally speaking common areas of condominiums, hallways, stairways, elevators, sidewalks, etc. do not have a separate value on the roll. They may have a contributory value for each of the units, and as such the value is taken into consideration when determining the value of the individual units.

Common lands in condominiums share some of the same attributes and conditions of common, excess or surplus lands in a subdivision. The assessor must analyze the declarations of the condominium to determine how the common elements of a condominium are to be treated.

Every subdivision or condominium is unique. The assessor must read, analyze and understand the development documents or the declaration documents to understand each of them. They may have certain qualities in common, but each may have special circumstances addressed in the documents.

Outlots

The Dictionary of Real Estate Appraisal defines outlot as "A building site or pad that benefits from being part of a larger development." There is not one answer that will tell an assessor how to handle these. Assessors must review the area in which the outlots exist. If the outlot is in a subdivision of residential units, the most likely classification of the outlot would be residential. However, the value of the outlot may be different than the standard lots. The assessor should refer to the development or declaration documents to aid in their determination of how to handle the outlots. Some of the questions may be: Is the outlot able to be improved or not? Is the outlot dedicated green space? Is the outlot common area? Each outlot should be looked at on its own. There is no one solution for all outlots.

Part II. Valuing Improvements

The objective of improvement analysis is to determine the highest and best use of the improved property and to estimate that portion of the total property value which is attributable to the improvements. In performing improvement analysis, the assessor must create a supportable valuation for each property, noting relevant characteristics as they relate to physical condition, effective age, and functional utility. This is best done through the use of the Property Record Card (form PA-500) which is prescribed by the Department of Revenue (DOR) and available from the County Designee.

The PRC is a valuable tool for the assessor. Its main use is that of a listing document. It provides space to list in detail all of the pertinent characteristics of the subject property that contribute to value. It is essential that the assessor have a detailed description of each property in order to find market comparables, establish a basis for adjustments using the market approach, to accurately estimate replacement cost new and depreciation, and to better defend the final value estimate.

Data Collection – Field Viewing

Before beginning field work, it is important that the assessor become familiar with Volume 2 of the *Wisconsin Property Assessment Manual* (WPAM) and the PRC. This will ensure that sufficient data is obtained in the field and will help to minimize errors.

The state prescribed PRC is a four-sided folder card, which is used to list residential and agricultural properties. The front side is used to enter property identification data such as the parcel number, name and address of owner, legal description, etc. The area is large enough to incorporate pre-printed labels if so desired.

The second side provides an area for a detailed listing of building characteristics, an area to sketch the building, and a pricing ladder to compute the value of the building using the cost approach to value.

Other features and additional attachments are listed on the third side of the PRC. An area is provided to list other minor buildings and apartments, and a blank space is provided to attach a photograph and make notations.

The fourth side provides space for all land listing data and computations, including a sketch of the parcel, property identifiers such as parcel number and property location, sales data, building permit records, and Municipal Assessment Report information. It is important that proper consideration be given to the various factors affecting land value and that these factors be documented. Use, depth, influence factors, topography, utilities, type of street or road, dwelling setback, fronting traffic, and zoning should all be indicated on the card. By showing these factors, differences in land assessments can be readily explained.

The PRC should be studied to determine exactly what information is needed and how it will be recorded. It is important to develop a system of recording data, which will be uniformly applied throughout the district. Because the information contained on the PRC is the basis for the final value estimate, it is essential that it is field verified and accurate.

Certain assessment districts using computerized assessment software may use a system generated data collection form to gather this information.

The quality of construction will have a significant effect on the value of a dwelling; therefore, it is important that the assessor become familiar with the various grade classifications used in the WPAM and the specifications of each grade. The four principal quality grade classifications used in Volume 2 are as follows:

Grade A	Excellent Quality
Grade B	Good Quality
Grade C	Average Quality
Grade D	Fair Quality

To cover the entire range of construction quality, two additional quality grade classifications have been established: “AA” grade, which incorporates the very best quality of materials and workmanship, and “E” grade, which incorporates the least expensive and inferior quality of materials and workmanship.

These six grades cover the entire range of dwelling construction from the least expensive to the finest of quality. Since each of the various grades have design and construction features unique to that grade, the assessor should thoroughly examine and become familiar with the specifications of each grade as outlined in Volume 2 of the WPAM.

To aid the assessor in estimating depreciation, the WPAM provides a CDU (condition, desirability, and usefulness) Rating Guide. The guide establishes eight rating classifications:

CDU RATING GUIDE

CDU RATING OF DWELLING	DEFINITION
Excellent	Building is in perfect condition; very attractive and highly desirable.
Very good	Slight evidence of deterioration; still attractive and quite desirable.
Good	Minor deterioration visible; slightly less attractive and desirable, but useful.
Average	Normal wear and tear is apparent; average attractiveness and desirability.
Fair	Marked deterioration—but quite usable; rather unattractive and undesirable.
Poor	Definite deterioration is obvious; definitely undesirable, and barely usable.
Very poor	Condition approaches unsoundness; extremely undesirable and barely usable.
Unsound	Building is definitely unsound and practically unfit for use.

A residual table (Basic Percent Good Table), which is used in conjunction with the CDU Rating Guide, is also provided. This will indicate the appropriate residual for a structure, based upon its condition, desirability, and usefulness as observed by the assessor. To properly use the tables, the assessor should study the CDU rating system with its definitions, keeping in mind that the tables are only guides and the true measure of depreciation must be obtained from market studies. However, with valuation experience, the tables can be refined to give adequate residual, or percent good estimates. When listing a large volume of properties, the assessor will find these tables extremely useful for being consistent in depreciation considerations.

After providing any required notice (please see WPAM Chapter 5-10 and 9-21) and upon entering the field, the assessor should be concerned with the following points:

1. Proper identification of the parcel
2. Property owner interview
3. Measuring improvements and interior viewing
4. Proper classification and depreciation estimates
5. Land value factors

Proper identification of each parcel is essential. The assessor should verify each legal description to ensure that it accurately describes the parcel being assessed. Any incorrect legal descriptions should be researched as necessary and corrected. The record cards should also be labeled with the property owner's name and address, the parcel number, and the size of the parcel when available.

After providing any required notice (please see WPAM Chapter 5-10 and 9-21), the property owner interview is a means of receiving additional information on a property and establishes good public relations. For many property owners, this is the primary contact with the assessor's office. The assessor should have proper identification and state the purpose of the viewing. Any questions pertaining to the assessment process should be answered and data should be collected in the most efficient manner possible. The assessor can obtain construction costs, ages of buildings, and sales information from the property owner. At this time sales can also be verified, and a check made for any changes to the improvements since the date of purchase. If the occupant is a tenant, the amount of rent paid should also be obtained. Follow-up for any unanswered questions is also very important. An important question to ask but often overlooked is "Do you know of any factors that might affect the value of your property?" These factors range from special easements to unusual soil conditions. Many times peculiar situations are overlooked until the assessed value is disputed by the owner. Before leaving the assessor should advise the owner when information relevant to the current assessment will be available. Improvement viewing and measuring pertains to collecting and recording complete data regarding the physical characteristics of the improvements to be assessed. This includes properly completing the PRC to show the style, age, size, quality of construction, condition, and other relevant physical features. To be sure that nothing is overlooked during the viewing many assessors set up a routine. For instance, the interior viewing may begin with the basement and continue on to the last level needing viewing. The lister completes the PRC while viewing the house. Upon leaving the property, the card is checked to be sure that adequate information has been collected.

Since building area serves as a basis for making comparisons using the market approach and gross rent multiplier analysis, and is important in estimating replacement cost using the cost approach, special attention should be given to the measurement and sketching of improvements. Each item requiring an area should be measured to the nearest foot. The dimensions should be written on a preliminary sketch and later transferred to the record card. This sketch should contain dimensions, story heights, and labeling.

The final sketch drawn on the record card should be neat and to scale. Dimensions should be properly placed so that areas are correctly calculated and the labeling should be legible and complete. Detached garages and miscellaneous detached sheds need not be sketched since their dimensions are listed elsewhere on the PRC.

Once the assessor has collected sufficient information, it is possible to subjectively consider the improvements and determine the proper grade. Grading the house is based on the design, planning, materials, workmanship, and aesthetic features present. As each class has varying degrees of these characteristics, a tentative grade can be chosen. A quick comparison of the information recorded on the record card with the specifications in Volume 2 of the WPAM will show if a different grade is indicated. The assessor must exercise caution not to confuse the concepts of quality and condition when selecting the proper grade. This is especially applicable to older buildings where a deteriorated condition can have a noticeable effect on physical appearance. A building will always retain its initial grade of construction regardless of its existing deteriorated condition. The grade ultimately selected must reflect that original built-in quality, and the selection of that grade cannot be influenced in any way by the physical condition of the building.

Physical condition does; however, bear a direct relationship to the desirability, usefulness, and therefore, marketability of a structure and it is important that it be carefully evaluated when estimating depreciation. In evaluating the condition of a structure, the assessor must consider age, adequacy of equipment, types of repairs needed, and types of repairs already made. Consideration must also be given to whether or not it is functionally adequate. By using information obtained from market analysis and guides such as the CDU Rating Guide and Basic Percent Good Table found in Volume 2, depreciation estimates can be made quickly and accurately.

Sales Comparison Approach

The method of valuation, which most nearly conforms to the statutory requirement of market value, is the sales comparison or market approach. This approach is based on the principle of substitution which presumes that an informed purchaser will pay no more for a property than the cost of acquiring a substitute property currently on the market with the same utility as the subject property. The general procedure using this approach is the same as was previously discussed for the valuation of land using the comparable sales approach. That is, after collecting and analyzing data on each property sold, a comparison chart is set up with the sales listed horizontally and the comparison factors listed vertically. The sale prices are then adjusted to reflect the amount that each property would have brought on the market if it had the same characteristics as the subject. The following example illustrates this technique. (The lot is also included in this comparison.)

The subject to be assessed is a one-story, three bedroom, one-bath, single-family residence which is five years old. It has an attached double garage, an average wood burning fireplace, and central air conditioning. A study of the market indicates that there are five sales in the neighborhood which are similar to the subject in age, quality of construction, and amenities.

Sale 1 is a four-bedroom, one-story, two-bath residence with an attached double garage. It has a large fireplace, central air conditioning and sold for $150,000 one year ago.

Sale 2 is a three-bedroom, one-bath residence with no fireplace or air conditioning. It has an attached single car garage and sold for $148,000 recently.

Sale 3 is a three-bedroom, two-bath residence with an average fireplace, attached double garage, and central air conditioning. It sold recently for $162,500.

Sale 4 is a three-bedroom, two-bath residence with a single car garage. It has central air conditioning and a large fireplace. In addition, there is surplus land included in the sale with an estimated value of $16,000. It recently sold for a total of $178,000.

Sale 5 is a four-bedroom, two-bath residence with an attached double garage. It has central air conditioning and a large fireplace. The sale price included personal property worth $3,200. It sold for a total price of $173,500.

For purposes of this analysis, assume the following relationships as demonstrated by the market: the average wood burning fireplace has a value of $4,000; a large, better quality fireplace has a value of $5,600; a double garage will bring $5,000 more than a single one; a fourth bedroom will command an additional $4,000; and a second bath will bring an

additional $3,000; central air conditioning is worth an additional $2,500; and property values in this particular neighborhood are increasing at 10% per year.

Case Study

Under the column entitled "subject," the property characteristics or factors affecting the value of the subject property are listed for ready reference. Sale price, of course, is the unknown that is being sought; therefore, that section of the comparison chart has not been completed. Since the subject property has not recently sold, the date of sale section of the chart has also been left blank. The subject has a fireplace and central air conditioning and this has been noted in Figure 12-7. The other items have been listed on the market comparison chart in the same manner.

Sale 1 also has a large fireplace while the subject has only an average one. An adjustment must be made to correct for this difference in the two properties. The specifications listed the value of a large fireplace at $5,600 and an average wood burning fireplace at $4,000, or a difference of $1,600. In order to make the sale comparable to the subject, $1,600 must be subtracted from the sale price.

This sale has central air conditioning and an attached double garage. Since the subject also has these features, there is no dollar adjustment made for these items.

There are two baths in Sale 1 while the subject has only one. The value of the extra bath is indicated at $3,000; therefore, this amount must be subtracted from the sale price to make it comparable to the subject. Sale 1 has four bedrooms while the subject has three. The value of the extra bedroom is indicated at $4,000.

This amount is subtracted from the sale price to compensate for the fourth bedroom.

The lots of Sale 1 and the subject are both comparable and there was no personal property included in the sale; therefore, no dollar adjustment is required for these items.

When all of the adjustments to the selling price of Sale 1 are totaled, they amount to a plus adjustment of $6,400. This amount is added to the sale price of $150,000 to give an indicated market value of $156,400 for the subject property based on the adjusted sale price of comparable 1.

The same technique is used for the remaining comparable sales. Upon viewing the market comparison chart, it can be seen that Sale 3 is the most comparable to the subject property and required only one adjustment. Based upon this sale, the indicated value of the property is $159,500.

Appraisal is not an exact science. It is not possible to estimate market value with a precision that would yield a figure in exact dollars and cents; therefore, value estimates are generally rounded to the nearest hundred dollars. In this particular example, no rounding was necessary; however, had the value estimate been $159,485, for example, it would have been rounded to $159,500.

It is obviously not feasible to develop a market comparison chart for every property in a municipality. Therefore, it is important that some type of sale listing be prepared for use in defending value estimates whether they are derived directly from the market, or from using the cost or gross rent multiplier approaches. In preparing the listing, sales should be stratified by primary value factors such as neighborhood, quality or grade, size, or age. This will enable the assessor to quickly locate comparable sales for a specific property. Figure 12-8 illustrates a sales listing chart with some of the main value factors that should be included to make it as useful as possible.

Figure 12-7

Market Comparison Chart

Sale	**Subject**	**No. 1**	**No. 2**	**No. 3**	**No. 4**	**No. 5**
Sale Price	?	$150,000	$148,000	$162,500	$178,000	$173,500
Date of Sale	—	1 yr. +15,000	Recent	Recent	Recent	Recent
Fireplace	Average Wood burning	Large -1,600	None +4,000	Average Wood burning	Large -1600	Large -1600
Air Conditioning	Central	Central	None +2,500	Central	Central	Central
Garage	Attached Double	Attached Double	Attached Single +5,000	Attached Double	Attached Single +5,000	Attached Double —
Bath	One bath	Two bath -3,000	One bath —	Two bath -3,000	Two bath -3,000	Two bath -3,000
Bedrooms	Three	Four -4,000	Three —	Three —	Three —	Four -4,000
Lot	Average	Average —	Average —	Average —	Larger -16,000	Average —
Personal Property	None	None —	None —	None —	None —	Est. worth -3,200
Total Adjustment	—	+6,400	+11,500	-3,000	-15,600	-11,800
Indicated Market Value	$159,500	$156,400	$159,500	$159,500	$162,400	$161,700

NOTE: The above values and unit prices are for illustration purposes only and are not meant to be a standard or average value.

Figure 12-8

Sales Listing, Willow Brook Subdivision

Parcel Number	Address	Grade	Size	Year Built	Beds	Baths	Fire-place	Central A/C	Garage	Exterior Walls	Lot Size	Land-scape	Sale Price	Sale Date	Time Adj. Sale Price
75326682	201 Oak	C+	1580	1978	4	2	Yes	Yes	2 car	Frame	66x120	Good	$159,900	7/97	$162,900
75465437	452 Maple	C+	1600	1978	4	2	Yes	Yes	2 car	Alum.	66x120	Good	163,000	1/98	163,000
75465439	456 Maple	C+	1600	1976	3	2	Yes	Yes	2 car	Alum.	66x120	Good	157,000	6/97	159,900
75465248	911 Elm	C+	1640	1979	4	2	Yes	Yes	2 car	Frame	66x120	Good	161,000	10/97	162,000
75465298	546 Ash	C+	1760	1975	3	1	Yes	No	2 car	Brick	66x120	Ave.	154,000	4/97	157,600
75465764	995 Jackson	C+	1800	1977	4	2	Yes	Yes	2 car	Frame	80x120	Good	166,000	1/98	166,000

Cost Approach

If the highest and best use of a property is its present use and the improvement is relatively new, a valid indication of value may be derived using the cost approach. The cost approach is based on the principle of substitution, that is, that a well-informed buyer will pay no more for a property than the cost of purchasing an equally desirable substitute property with like utility. The basic steps in the cost approach are as follows:

1. Estimate the value of the site as if vacant and available to be put to its highest and best use.
2. Estimate replacement cost new of the structure.
3. Estimate accrued depreciation from all sources.
4. Subtract the accrued depreciation estimate from the estimate of cost new to arrive at a present value for the improvements.
5. Add the present value of the improvements to the estimated land value for a total property value.

At this point, it must be noted that cost is not the same as, nor does it necessarily create, value. The assessor must continually analyze sales that have occurred to determine the relationship between replacement cost and market value, and to develop sound judgment regarding observed condition, the market's reaction to the market place, and accrued depreciation.

Replacement Cost

Replacement cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between replacement cost, which refers to a substitute property of equal utility, as opposed to reproduction cost, which refers to a substitute replica property. In a particular situation the two concepts may be interchangeable, but they are not necessarily so. They both, however, have application in the cost approach to value, the difference being reconciled in the consideration of depreciation allowances.
In actual practice, developers and builders for obvious economic reasons generally replace

buildings, not reproduce them. It logically follows that if an appraiser's job is to measure the actions of knowledgeable persons in the marketplace, the use of proper replacement costs should provide an accurate point of beginning in the valuation of most improvements.

The replacement cost includes the total cost of construction incurred by the builder whether preliminary to, during the course of, or after completion of the construction of a particular building. Among these are material, labor, all subcontracts, builder's overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance, and the cost of interim financing.

There are various methods that may be employed to estimate replacement cost new. The methods widely used in the appraisal field are the unit-in-place or component part-in-place method, the model method and occasionally the quantity survey method.

The **Unit-In-Place Method** is employed by establishing in-place cost estimates (including material, labor, overhead, and profit) for various structural components. The prices established for the specified components are related to their most common units of measurement such as cost per yard of excavation, cost per linear foot of footings, and cost per square foot of floor covering.

The unit prices can then be multiplied by the respective quantities of each as they are found in the composition of the subject building to derive the whole dollar component cost, the sum of which is equal to the estimated cost of the entire building, providing of course, that due consideration is given to all other indirect costs which may be applicable. This method of using basic units can also be extended to establish prices for larger components in-place such as complete structural floors (including the finish flooring, sub-floor, joists, and framing) which are likely to re-occur repeatedly in a number of buildings.

The **Model Method** is still a further extension, in that unit-in-place costs are used to develop base unit square foot or cubic foot costs for total specified representative structures in place, which may then serve as "models" to derive the base unit cost of comparable structures to be appraised. The base unit cost of the model most representative of the subject building is applied to the subject building and appropriate tables of additions and deductions are used to adjust the base cost of the subject to account for any significant variations between it and the model.

The **Quantity-Survey** Method involves a detailed itemized estimate of the quantities of various materials used, labor and equipment requirements, architect and engineering fees, contractor's overhead and profit, and other related costs. This method is primarily used by contractors and cost estimators for bidding and budgetary purposes and is much too laborious and costly to be effective in everyday appraisal work, especially in the mass appraisal field. The method, however, does have its place, in that it is used to develop certain unit-in-place costs, which can be more readily applied to estimating for appraisal purposes.

Pricing schedules and related cost tables are included in Volume 2 of WPAM to assist the appraiser in arriving at an accurate estimate of replacement cost new. They have been developed by applying unit-in-place costs to the construction of specified hypothetical or model buildings. Application of the schedules involves the selection of the model in terms of components construction which most nearly resembles the subject building and adjusting its

price to compensate for all significant variations. The schedules and tables have been developed to be used primarily in assessment environments. As such, they have been designed to provide the assessor with an uncomplicated, fast and effective method of arriving at an accurate estimate of replacement costs. While the costs provide for replacement using modern materials, they do not account for functional obsolescence caused by design, style, layout, etc. Therefore, the assessor must still account for this in the depreciation estimate. In addition, the cost figures do not include secondary costs such as closing costs, interior decorating, final grading, landscaping, etc., which account for the difference between the new construction cost and a higher sale price.

While the cost tables, in conjunction with the local modifiers have been prepared in a manner which will reflect construction costs in the various parts of the state, actual known costs of construction should be compared with the costs as estimated by the tables whenever possible. Such comparisons will help to build the assessor's confidence in the validity of the cost tables, and provide the basis for warranted adjustments to the local modifier.

Applied properly, this cost information will assist the assessor in arriving at valid and accurate estimates of replacement cost new as of a given time. The difference between the replacement cost new and the present value of a structure is depreciation. The final step in completing the cost approach is to estimate the amount of accrued depreciation and deduct that amount from the replacement cost new.

Depreciation

Depreciation can be simply defined as "a loss in value from all causes." As applied to real estate, it represents the loss in value between market value and the sum of the replacement cost new of the improvements as of a given time. The causes for the loss in value may be divided into three broad classifications: Physical Deterioration, Functional and Economic Obsolescence.

Physical Deterioration pertains to the wearing out of the various building components, referring to both short-life and long-life items, through the action of the elements, age, and use. The condition may be considered either "curable" or "incurable," depending upon whether it may or may not be practical and economically feasible to cure the deficiency by repair and replacement.

Functional Obsolescence is a condition caused by either inadequacies or over-adequacies in design, style, composition, or arrangement inherent to the structure itself which tend to lessen its usefulness. Like physical deterioration, the condition may be considered either curable or incurable. Some of the more common examples of functional obsolescence are excessive wall and ceiling heights, excessive structural construction, surplus capacity, ineffective layouts, and inadequate building services.

Economic Obsolescence is a condition caused by factors extraneous to the property itself, such as changes in population characteristics and economic trends, encroachment of inharmonious land uses, and governmental restrictions. The condition is generally incurable in that the causes lie outside the property owner's realm of control.

Once depreciation from all causes has been estimated, that amount is deducted from the replacement cost new, yielding a final value estimate for the improvement. While it is true that a close relationship between cost of replacement and the ordinary market value concept can usually be found for the average or typical residence, the assessor must always be aware that cost less an average amount for depreciation is not necessarily equivalent to ordinary market value in every case. Each property is unique and must be given individual consideration regarding observed physical deterioration and the various types of obsolescence.

There are limitations to the use of the cost approach to valuation. Depreciation is a critical factor when using this approach. Since the value of a structure may vary substantially depending on the depreciation estimate, it is essential that the depreciation estimate be accurate. In general, when an improvement suffers a substantial loss in utility, it is more difficult to accurately estimate depreciation and, therefore, the cost approach becomes less reliable. Examples where the cost approach may not be entirely reliable are properties with very old or poorly maintained improvements and properties where the improvement does not represent the highest and best use of the site.

Gross Rent Multipliers

Residential property generally is not purchased for investment income; therefore, net income is not customarily used in estimating the value of residential property. However, residential property is often rented, and there is a method by which an indication of value can be obtained from rental information. This is through the use of the gross rent multiplier, which is a simple-to-use method of making comparisons between the subject property and comparable properties which have been sold where rents are available. The gross rent multiplier is used to express the relationship between gross rent and the value of a property and is derived by dividing the selling price of a property by the gross rental income at the time of the sale:

$$\frac{\text{Sale price}}{\text{Rental income}} = \text{Gross Rent Multiplier}$$

For example, the gross rent multiplier for a property with an annual rental income of $7,800 and a sale price of $82,000 would be computed as follows:

$$\frac{\$82{,}000}{7{,}800} = 10.5$$

It is also possible to compute a monthly gross rent multiplier by using the monthly rental, rather than annual rental income:

$$\frac{\text{Sale price}}{\text{Monthly rental income}} = \text{Monthly Gross Rent Multiplier}$$

Using the same example with monthly, rather than annual rental income, the monthly gross rent multiplier is calculated as follows:

$$\frac{\$82{,}000}{650} = 126.2$$

The gross rent multiplier, when applied to the market rental for the subject property, will

provide an estimate of value for the subject. Market rent is the amount of rental income that a property will bring on the open market. It is indicated by the rent that is currently being paid for properties comparable to the subject property. In estimating market rental for the subject, it is important that the rental properties used as comparables be in the same market as the subject and that the rents are current.

Once the market rental and the gross rent multiplier have been estimated, it is possible to estimate the value of the subject by multiplying the market rental by the gross rent multiplier (value = market rental x gross rent multiplier). For example, if the annual market rental of the subject is $7,900 and the gross rent multiplier is determined to be 10.5, the value of the subject would be estimated as follows:

$7,900 x 10.5 = $82,950

which would be rounded to $83,000. If the sales used for gross rent multiplier analysis are truly comparable to the subject, their multipliers should be grouped within a close range. Where there are a large number of sales, sample statistics can be used to estimate the gross rent multiplier. That is, the mean, median, and mode for the multipliers can be computed for use in selecting the appropriate gross rent multiplier. If there are too few sales to rely upon the use of sample statistics, the assessor must select the multiplier based upon judgment and analysis of the data available.

For example, the assessor may have only four sales of rental properties that are truly comparable to the subject. The monthly gross rent multipliers are shown in Figure 12-9.

Figure 12-9

Monthly Gross Rent Multipliers

	Sale Price	Monthly Rentals	Monthly GRM
Sale 1	$91,500	$750	122.0
Sale 2	$99,600	$800	124.5
Sale 3	$96,800	$770	125.7
Sale 4	$96,000	$760	126. 3

It is the assessor's judgment that the subject is better than Sale 2, but not quite as desirable as Sale 3. The gross rent multiplier for the subject would probably lie somewhere between 124.5 and 125.7. In this case, the assessor would probably use 125 as the gross rent multiplier.

While gross rent multipliers are simple to use in estimating value, to be effective they must be based on a sufficient number of truly comparable arm's-length sales on which verified, unfurnished rentals have been obtained. It is important that the sale properties be similar to the subject in area, number of rooms, functional utility, condition, quality of construction, value range, and neighborhood. Because gross rent multipliers will vary depending on these factors, it is not possible to establish a "standard" gross rent multiplier for use throughout a municipality; it must continually be recalculated from current sales and rental incomes for various types of properties.

Part III Special Residential Properties

High End Residences

Unique Custom Built

The recently constructed expensive home can cause some difficulty when making the assessment. Some smaller municipalities may have no comparable sales to serve as a basis for estimating the ordinary market value of this type of home. The fact that a home in a district has never sold for greater than a specified amount does not limit the value to be used for the assessment on this type of home. The homes that have sold are not comparable and, therefore, cannot be expected to control the value established on a recently constructed luxury type residence.

A home costing considerably more than the average home has a limited number of financially capable purchasers. When put up for sale, such a home will often require a longer period of time on the market before a sale occurs. Where no comparable homes have been sold to establish a market value, the assessor will necessarily have to resort to, and place considerable reliance on, the cost of construction less accrued depreciation as a guide to arrive at the ordinary market value of the property.

The fact is that the owner did purchase the materials used in construction as well as the services of laborers, contractors, and architects at the time the home was constructed, and the home was built in accordance with the owner's specifications. The assumption can be made that had an identical structure been available, the taxpayer would have been willing to pay the same amount or more, thus eliminating the trouble of overseeing its construction and the delay of occupancy. When viewing this class of residence, the assessor may find certain items that may have been of considerable importance to the original owner and excessively expensive to construct, but may not enhance the value of the property to a subsequent prospective buyer. If this is true, the assessor will have to rely on judgment to make the necessary functional obsolescence adjustments in a cost approach to arrive at the market value of the property.

Older Mansion-Type Residences

Most assessors will be faced with the problem of valuing homes constructed in an era when the materials used at the time were plentiful and labor was cheap. Usually these homes were custom built to the specifications of the owners or their architect, featuring many built-in luxuries that may have been desirable only to the property owner building the home. Even at the time the home was originally constructed it is doubtful that the luxuries considered important to the builder would have had the same appeal to another prospective purchaser.

To reproduce an early 1900's mansion to the original specifications could cost more than a home with similar utility using today's construction methods. These homes were often constructed of the best materials and usually well maintained so that even though maximum deterioration is accounted for, the reproduction cost less depreciation gives no indication of its current market value. If this is true, an obsolescence factor must be applied to obtain market value.

The original design may include factors such as high ceilings that may no longer be in demand and must be recognized as obsolescence by the assessor. The market value concept is controlling when assessing a property of this kind, the same as in all other properties. Some assessors may find a few sales in their municipality which can be used in making assessments on similar old, expensive properties; however, many assessors will not have sales to guide them in making such assessments. In these cases, they may be able to obtain some help by considering sales in nearby districts. The information obtained may serve as a guide in determining value for assessment purposes where the properties are similar and the location is comparable.

Where no sales are available, the assessor will find it helpful to give some thought to the potential use of the property as it relates to its neighborhood. It is possible in many cases, to make apartments of such properties if apartments are in demand and if zoning permits. Some of these properties are located near colleges and universities and have been converted to rooming houses and are producing a measurable income. If rent multipliers are available from the municipality or from other nearby districts, they may be used to estimate value.

Riparian Property

Riparian refers to the bank or shore of a river or lake. Riparian property is property along the bank or shore of a body of water such as a stream, river, or lake. This section will explain the special nature of riparian property, how it affects the ownership rights, and how the assessor should value this property.

In the early days of the state, the waterways provided the fastest and most efficient method of transporting goods and people. The waterways were also the principle method of moving timber from the forests to the sawmills. Land travel was slower and more difficult than travel by water. Therefore, the waterways became the “highways” of that time. If the shore owners were allowed to control the waterways, they could build barriers to travel, impose tolls, or otherwise disrupt travel upon the waterways.

To prevent the disruption of the use of the waterways the state was granted control of all navigable waters. The beginning of state control of navigable waters is expressed in Section I, Article IX of the Wisconsin Constitution which granted the state jurisdiction over the Mississippi River and all navigable waters leading to the Mississippi and St. Lawrence Rivers. The Constitution declared these waters to be “common highways and forever free to the inhabitants of the state and the citizens of the United States” and is often referred to as the Public Trust Doctrine. Based on the state constitution, this doctrine has been further defined by case law and statute. It declares that all navigable waters are "common highways and forever free", and held in trust by the Department of Natural Resources.

Sec. 30.10, Wis. Stats., and various court cases have extended the state control to all navigable lakes, streams, and rivers. This control of all navigable waters was also extended to guarantee the public's right to recreational uses such as hunting, fishing, boating, etc.

Navigable water was originally defined as any lake, stream, or river capable of floating logs to market. This definition was later expanded to include the floating of a canoe or boat as the determination of navigability. It is not necessary that the water be navigable year round. It

is sufficient if the water level is periodically high enough to permit navigation and remains so long enough to make the stream useful as a highway. The courts have been liberal in declaring waters navigable including water 2 feet deep, muddy lakes, and marshes.

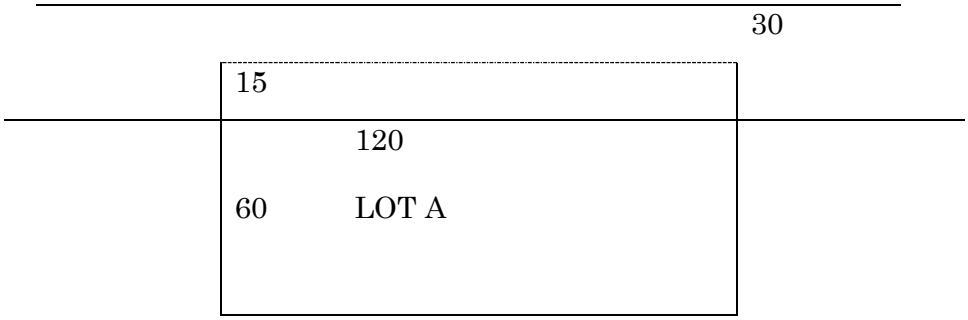
While the state has jurisdiction over all navigable waters, it does not necessarily have title to the bed, or land, underneath the water. The ownership of the bed is governed by statutes and court cases, and will vary depending on the type of body of water. The ownership is generally as follows:

1) **Natural Navigable Lakes -** The State owns all natural navigable lake beds to the ordinary high water mark (OHWM). The OHWM is not always at or near open water. Lake beds held in the public trust may not be navigable. Wetlands (including those shown on the Wisconsin Wetland Inventory) and floodplains can occur above and below the OHWM. Wetlands may share a boundary with the OHWM. However, wetlands should not be classified as lake bed unless documents such as deeds, legal description and maps provide evidence.

   Assessors should review changes by the DNR to an OHWM, including the legal description and deed to determine any impact to the taxable acres and value.

2) **Navigable Rivers and Streams -** The shoreline middle of the river. See Figure 12-10. In rare cases, the shoreline owner will sell the land up to the water's edge and retain ownership of the bed of the river. Although this situation is rare, the assessor must carefully examine the legal description to ensure that the owner is assessed for the exact amount of property owned. The boundaries of the lot that establish ownership of the shoreline extend to the "thread" or center of the stream and define the portion of the bed owned by the shoreline owner. In the following example Lot A is 60 feet by 120 feet and borders on a 30 foot wide river. The amount of the bed is determined by extending the boundaries of the lot to the center of the stream. In this case, the shoreline owner owns a portion of the bed that is 15 feet (to the center of the stream) by 120 feet or 1,800 square feet.

Figure 12-10



3) **Artificial or Man-Made Lakes and "Flooded Lands"** – An artificial or man-made lake is usually created by a developer or other landowner who erects a dam on a stream or river causing the stream to overflow the surrounding land to create a lake. The developer plans to subdivide the surrounding land into lakefront lots and sell them for more than the land would be worth in its previous condition. The creation of an artificial

lake is a complicated process. The Department of Natural Resources (DNR) must approve the creation of an artificial lake and local or county agency approval may be required. A lake cannot be created on the lands of others without their permission.

In *Haase v. Kingston,* 212 Wis. 585, 250 N.W. 444 (1933), the court held that title to the bed of an artificial lake remains with the owner of the land on which the lake is created. If the developer owns title to all of the land on which the lake is created, then the developer retains title to this land. The developer may convey the portion of the bed along with the lots, retain the title to the bed, or convey to a third party, possibly the state. The assessor must carefully examine the legal documents creating the lake and the deeds for the lots to determine who owns title to the bed. An artificial lake may also be created by the flooding of a gravel pit. This occurs when the operator of a pit hits a stream that fills up the pit. The title to the bed of this lake will remain with the owner of the pit until the owner conveys the title.

The creation of "flooded lands" is similar to the creation of artificial lakes. A power company or other concern constructs a dam on a river which causes the overflow or flooding of the banks of the river behind the dam. The owner of the shoreline property that is to be flooded retains title to the land after it is flooded. The primary purpose is the creation of the dam and the flooded lands are a result of that process. This differs from an artificial lake where the primary purpose is the creation of the artificial lake and the sale of the surrounding land.

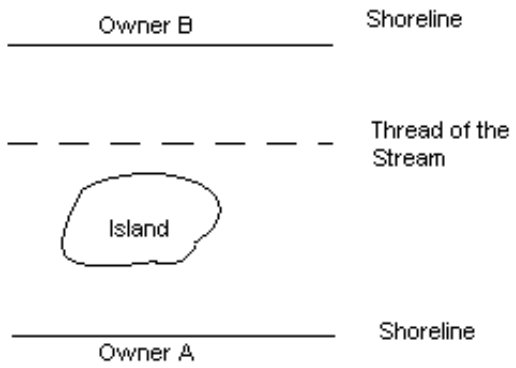
4) **Meandered Lake and Streams** – On township maps, lands bordering on streams and bodies of water will be designed as government lots. In these government lots, the water line of the stream or body of water has been meandered in the original government survey and the exact acreage of the lot to the water line set down. In the meandering process, the regular section lines are run to an intersection with the mean high-water mark of such a body of water, at which intersection corners called meander corners are established. The line that is run between meander corners, approximately following the margin of a permanent body of water is called a meander line. Meander lines are not ownership boundaries. They merely determine the sinusoidal line, or the approximate line, of the stream or body of water. Lakes and streams on which these lines have been established are called meandered lakes and streams.

   The boundary of riparian land on a meandered lake is the high water mark of the lake. The boundary of riparian land on a meandered stream is the thread or center of the stream.

5) **Islands** – The ownership of islands should not present a problem for the assessor. In most cases, the survey or deed will establish ownership of the island. However, there are cases where the island has not been surveyed or deeded or where the water has receded to such an extent as to expose an island. The island in these situations will be owned by the owner of the bed. In the case of a navigable lake, the ownership of the island will pass to the state since it owns the bed in trust. In the case of islands in the stream or river, the owner of the shoreline property owns the bed to the thread of the river and would own the island or portion of the island above the shoreline owner's portion of the bed.

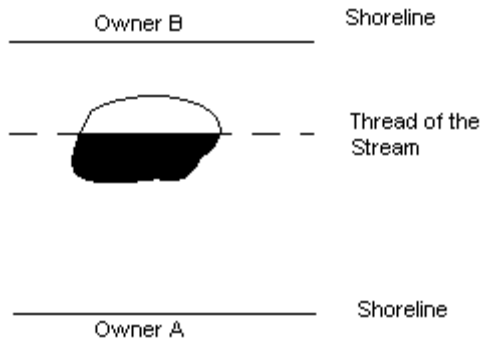
Figure 12-11 shows an island owned by Owner A.

Figure 12-11



In Figure 12-12, the thread of the stream splits the island. Owner A owns that portion of the island that lies on Owner A's side of the stream and Owner B owns the portion of the island that lies on Owner B's side of the stream (shaded portion of island).

Figure 12-12



6) **Accretion and Reliction -** Accretion is the gradual and imperceptible addition to the real property by the deposit of mud, sand, or sediment through the action of the water. Reliction is the recession of a body of water that leaves the land uncovered. When the water periodically rises over the land and then recedes, there is no reliction. For example, the rise in the water level as a result of spring rains and the subsequent lowering of the water level as a result of dry summer conditions that is part of an annual cycle is not reliction.

   The result of the accretion and reliction processes is to increase the amount of the riparian land. The owner of the riparian property also becomes the owner of any land created by accretion or reliction. The reasoning behind this is that the main value of riparian property lies in its access to the water. If the riparian owner did not gain ownership of this land, access to the water could eventually be cut off, decreasing the value of the original shore land. Since accretion and reliction produce only gradual and imperceptible additions to the real property, there should be little, if any effect on the value of the land over the short term. However, the assessor should continue to monitor these situations since, over a longer period of time, there might be a large enough change to affect the value of the land.

Riparian Valuation

The assessment of shoreline property is to be based on the market value of the property. The best evidence of market value is the recent arm's-length sale of the subject if, according to professionally acceptable appraisal practices, the sale conforms to recent arm's-length sales of reasonably comparable property. In the absence of a sale of the subject, or when that sale is not the best evidence of market value, the assessment should be based on recent arm's-length sales of reasonably comparable property.

In estimating the value of the land abutting the water, the assessor must consider the same items as would be evaluated for all other land. These include zoning, topography, soil condition, area, natural features, shape, frontage, and depth. In addition, there are several factors unique to shoreline property that the assessor must consider. Among these are water frontage, water access, and water view which can exist in isolation or in various combinations.

1) **Frontage**. Quality of shoreline can significantly affect the value of a property. The assessor should first determine whether the lot has primary (direct) frontage on a lake or river or whether the lot has secondary (inferior) frontage on a creek, canal, channel or small lagoon. The value of secondary frontage can vary depending on accessibility to larger bodies of water such as rivers and lakes and can be influenced by factors such as reeds and water depth. In addition, the quality of frontage should be evaluated. For example, a shoreline lot with swampy frontage is probably worth less than a lot with a clean, sandy beach.
2) **Private Access**. Some properties have water frontage but no access. Examples are lots on steep terrain and rock or lots with a road right-of-way between the residence and the water. Alternately, some lots have no water view or frontage but have deed restricted private access to a lake. The existence and ease of water access normally has an effect on value which the appraiser must consider in developing an opinion of value and which should be evaluated separately from the characteristics of frontage and view.
3) **View**. Properties with a water view generally have a higher market than similar properties without a water view. A property may have water frontage but no view of the water because of terrain or other physical factors while a property with no frontage may have a highly desirable view of the water. The view should be valued separately from access and frontage inasmuch as it affects market value.
4) **Location (public access)**. Lots that are adjacent to a public beach or public boat launch will usually be less valuable than a lot that is not near a public beach. Public access areas will usually be more crowded and noisy than areas that are more secluded and private.
5) **Flooding**. Lots that are subject to regular and/or extensive flooding are generally less valuable than lots that experience few problems with flooding
6) **Erosion**. A lot that is continually losing shore land due to erosion may not be worth as much as a lot that experiences little or no erosion. This problem is most severe along Lake Michigan where the rise in the water level has caused a great deal of damage to the shoreline. When dealing with land susceptible to severe erosion, the assessor may find that rocky shore land has more value than sandy shore land because the rocky shore land is less susceptible to erosion.

Because the influence of water can have a significant effect on value, the assessor is required to identify any water characteristics of the site in the eRETR/PAD system. The categories for

eRETR are:

- Lake Frontage–Primary. Parcel has direct frontage on a lake
- Lake Frontage–Secondary. Parcel has frontage providing access to a lake which is not direct or is very undesirable. Indirect frontage may include frontage to a channel, canal, or creek providing access to a lake. Very undesirable access may include frontage which provides minimal access due to poor shore (reeds, minimal water depth, etc.).
- Lake View. Parcel has no lake frontage or access but benefits from a view of the lake
- Lake Access. Parcel has no direct frontage on the water but has deeded access to a boat dock/slip that is over and above typical public access points.
- River Frontage-Primary. Parcel has direct frontage on a river.
- River Frontage-Secondary. Parcel has frontage providing access to a river which is not direct or is very undesirable. Indirect frontage may include frontage to a channel, canal, or creek providing access to a river. Very undesirable access may include frontage which provides minimal access due to poor shore (reeds, minimal water depth, etc.). This also includes smaller rivers or creeks which are not typically developed for recreational purposes (though may have canoeing, etc.)
- River View. Parcel has no river frontage nor access but benefits from a view
- River Access. Parcel has no direct frontage on the water but has deeded access to a boat dock/slip over and above typical public access points.
- Other. Parcel has a water feature which does not fit the above definitions. This may include ponds or lagoons with no access to larger rivers or lakes.

There are several methods that the assessor may use to estimate the value of lakeshore property. One of these methods is to develop a sales comparison grid and make adjustments for the differences between the subject and the comparable sales. NOTE: For further information on developing elements of comparison and the adjustment processes please refer to the Improvement Valuation section of WPAM Chapter 9.

Example: The subject property has 60 feet of shoreline and is 120 feet deep, has a good sandy beach, is subject to only rare flooding, is not near a public beach or boat launch, is zoned residential, is a level lot, and the soil condition is typical of most lots in the area.

There are 5 sales along the same shoreline:

- **Sale Number 1**: This lot sold for $57,500 two months ago. The lot has 75 feet of frontage and is 130 feet deep. The lot is swampy, is zoned residential, and is not level.
- **Sale Number 2**: This lot sold for $66,800 six months ago. The lot has 120 feet of frontage and is 125 feet deep, is zoned residential, is adjacent to a public beach, is subject to frequent flooding, is level, and has a rocky beach.
- **Sale Number 3**: This lot sold for $61,500 one year ago. The lot has 55 feet of shoreline and is 120 feet deep, has a good sandy beach, is zoned residential, is not near a public access, is not subject to flooding, is level, and the soil condition is typical of most lots in the area.
- **Sale Number 4**: This lot sold for $58,800 six months ago the lot has 60 feet of shoreline and is 125 feet deep, is zoned residential, is not near a public access, is subject to occasional flooding, and has a good sandy beach. The lot slopes slightly from the shoreline back, and the soil condition is typical of most lots in the area.
- **Sale Number 5**: This lot sold for $63,700 two weeks ago. The lot has 65 feet of shore line and is 120 feet deep, is zoned residential, is not near a public access, is subject to

occasional flooding, and has a slightly rocky beach. The lot slopes slightly toward the shoreline, and the soil condition is slightly swampy.

Through an analysis of the market the assessor has determined the following adjustments:

- **Time**: Sales prices are increasing approximately 5 percent per year.
- **Flooding**: Occasional flooding requires a 10 percent adjustment. Frequent flooding makes the sales not comparable.
- **Beach**: A slightly rocky beach requires a 5 percent adjustment. A swampy beach makes the sales not comparable.
- **Topography**: A slight slope requires a 5 percent adjustment. A severe slope requires a 15 percent adjustment.
- **Soil Condition**: A slightly swampy soil requires a 5 percent adjustment. A very swampy soil makes the sales not comparable.

From the above conditions, the assessor can readily see that Sales Number 1 and 2 are not comparable to the subject and should not be considered in the valuation process. The assessor can then establish the following grid for the subject and the remaining 3 sales.

	Subject	**Sale #3**	**Sale #4**	**Sale #5**
Sale price	-	$61,500	$58,800	$63,700
Time adjustment	-	+5%	+2 1/2%	-
Time adj. sales price	-	$64,600	$60,300	$63,700
Flooding	Rare	Rare	Occasional +10%	Occasional +10%
Beach	Sandy	Sandy	Sandy	Slightly rocky +5%
Topography	Level	Level	Slight Slope +5%	Slight slope +5%
Soil condition	Typical	Typical	Typical	Slightly swampy +5%
Depth	120 feet	120 feet	125 feet	120 feet
Zoning	Residential	Residential	Residential	Residential
Public access	None	None	None	None
Adj. sales price		$64,600	$69,300	$79,600
Frontage	60 feet	55 feet	60 feet	65 feet
Adj. sales price per front foot		$1,175	$1,155	$1,225

The assessor could reason that the adjusted sales price of the three comparable sales produces a narrow range of value estimates and that because Sale Number 3 has the fewest adjustments; it provides the best estimate of market value. Therefore, the estimated market value of the subject property is: 60 feet x $1,175/foot = $70,500

Another method that the assessor may use to estimate the land value is the base lot method. Using the base lot method, the assessor selects a typical, centrally located lot and adjusts all of the sales to reflect the characteristics of the base lot. The assessor uses the value of the base lot to estimate the values of all the other lots. This method is more fully explained in the section on Developing Standard Unit Values.

If there are no sales or only a limited number of sales of vacant land, the assessor can use the abstraction method to value the land. The abstraction method uses sales of improved properties to estimate the vacant land values. The assessor estimates the depreciated cost of the improvements and deducts it from the total sales price to arrive at a value estimate for the land. Because of the difficulty of accurately estimating the depreciation of older buildings, this method works best with newer buildings that have experienced little or no depreciation.

Assume that the assessor has analyzed the sales of improved properties, calculated the depreciated cost of the improvements, and constructed the following chart:

Total Sales Price	(-)	Depreciated Improvement Cost	(=)	Land Value	(÷)	Front Feet	(=)	Land Value Per Front Foot
$291,800	-	$182,000	=	$109,800	÷	90	=	$1,220
$309,000	-	$195,000	=	$114,000	÷	100	=	$1,140
$266,400	-	$164,000	=	$102,400	÷	80	=	$1,280
$289,100	-	$177,000	=	$112,200	÷	95	=	$1,180
$308,900	-	$189,000	=	$119,900	÷	110	=	$1,090
$269,900	-	$173,000	=	$ 96,900	÷	85	=	$1,140

The assessor has now established a range of values from $1,090 to $1,280 per front foot and can proceed to use these land values in the same manner as the vacant land sales to estimate the land values for all shoreline property. The assessor can also use the abstraction method when there are only a few vacant land sales to strengthen the reliability of the value estimates.

The above methods should enable the assessor to value most shoreline property. These methods apply equally to property located on navigable lakes, streams or rivers, or man-made lakes. However, there may be some rare situations where the bed of the water may present some special problems for the assessor.

1) **Natural Navigable lakes**. Since the state owns title to the bed of all natural navigable lakes, there is no need for the assessor to value the bed of the lake. The assessor may use the methods illustrated above to determine the value of shoreline property.
2) **Streams or rivers**. The shoreline owner owns the bed of the stream to the center of the stream. Therefore, this must be included in the assessment. This should not present a significant problem for the assessor since the vacant land sales of shoreline property that are used to establish the assessments will include the value of the bed.

The only problem that the assessor may encounter is when the shoreline property does not include the bed. The assessor can detect this rare occurrence through an analysis of the legal description. As long as the shoreline property owner has access to the river, the value of the shoreline property should not differ from comparable shoreline property that includes the bed. In this case, the value of the bed would be minimal and unless there is some special value to the bed, the assessor may use a nominal or zero value to value the bed.

In those cases where the shoreline property owner is prevented by the deed from access to the river, the value of the shoreline property is established by the sale of comparable property not located on the shoreline. The value of the bed is the value of comparable shoreline

property with access minus the estimated value of the shoreline property without access. The value of the bed is then the value of access to the river.

3) **Artificial or man-made lakes**. The bed of an artificial or man-made lake can be subject to three ownership conditions:
   a) The ownership of the bed will run with the ownership of the shoreline property.
   b) The ownership of the bed will be conveyed to the state to be held in trust for the public.
   c) The ownership of the bed will be retained by the developer.

In situation (a), the value of the bed will be included in the sales price of the shoreline property. The assessor should value these properties based on the sales of comparable properties.

Situation (b) is the same as a navigable lake. The state owns title to the bed and the shoreline owner has access to the lake. The value of the shoreline property should be based on the sales of comparable properties,

Situation (c) can have two alternatives. In one, the developer retains title to the bed but the shoreline property owners have access to the lake. The value of the shoreline property will be established by the sales of comparable properties. In the other alternative, the shoreline property owners do not have access to the lake. The value of the shoreline property will be based on the sales of comparable properties that do not have access to the lake.

Summary of Riparian Property

This section has explained the special nature of riparian property, how it affects ownership rights, and how the assessor should value this property. This section has also discussed navigable waters and the ownership to the bed of navigable waters, including the ownership of islands and the effect of accretion and reliction on riparian property.
The valuation section emphasizes the sales comparison approach and includes examples of how to apply this approach to riparian property. This section also discusses the special factors that affect the value of riparian property, including the quality of frontage, view, and access, and the susceptibility of the property to flooding and erosion.

Contaminated Property

Identifying the Contamination

Contaminated properties present a unique valuation problem for assessors because of the difficulty in identifying contamination. The assessor can identify physical and functional factors that affect value, such as a deteriorated roof or old-fashioned plumbing fixtures, through a viewing of the property. Section 299.01(4), Wis. Stats., defines "environmental pollution" as "the contaminating or rendering unclean or impure the air, land or waters of the state, or making the same injurious to public health, harmful for commercial or recreational use, or deleterious to fish, bird, animal or plant life." Brownfield properties represent a category of industrial or commercial sites where expansion or redevelopment is adversely impacted by known environmental contamination. Contamination factors, however, such as contaminated water system or a leaking underground storage tank, are not readily apparent.

State law and appraisal principles require the assessor to consider the effect of contamination on the value of real estate. One example where contamination is specifically referenced is sec. 70.32(1m), Wis. Stats., states "In addition to the factors set out in sub.(1), the assessor shall consider the environmental impairment of the value of the property because of the presence of a solid or hazardous waste disposal facility." Section 70.327, Wis. Stats., states "In determining the market value of real property with a contaminated well or water system, the assessor shall take into consideration the time and expense necessary to repair or replace the well or private water system in calculating the diminution of the market value of real property attributable to the contamination."

The most common types of contaminants are physical substances which when introduced to the property create an environment deemed unsafe or potentially hazardous. Examples include substances such as nitrates, radon, pesticides, asbestos, and fertilizers, which adversely affect air, water, or soil quality.

Contaminants may be introduced directly onto the property, such as through the action of the property owner or the leaking of an underground storage tank. Contaminants may also be introduced indirectly through the contamination of adjacent or nearby property which in turn affects the subject. For example, a chemical on a property may seep into the water table that affects the water system or other properties. A substance must be declared a contaminant by an environmental regulatory agency, such as the Federal Environmental Protection Agency (EPA) or the Wisconsin DNR.

The assessor should monitor the activities of government pollution control agencies in the municipality to be aware of any contamination. If a property owner believes the property is contaminated, evidence should be given to the assessor. Because of the special knowledge required to identify the type and extent of contamination and associated clean-up costs, the assessor should obtain copies of reports by government agencies and environmental engineers before estimating value.

Estimating the Value

1. The best evidence of value is the sale of the property if, according to professionally acceptable appraisal practices, the sale conforms to recent arm's-length sales of reasonable comparable property. An arm's-length sale assumes both the buyer and seller are knowledgeable about the condition and future use of the property, thus, any effect of contamination on the property's value will be reflected in the arm's-length sales price. There may be some properties so severely contaminated that the government agency will not allow the property to be used until the contamination has been removed. There may be a weak market for these properties and the assessor may be justified in placing a minimal value, such as $100, on the property.

2. If the sale of the subject does not conform to recent arm's-length sales of reasonably comparable property, or if there is no recent sale of the subject, arm's-length sales of comparable property should be considered as the basis for the assessment. These should be properties of similar size, location, and use that suffer from the same contamination as the subject property. The assessor can develop a sales comparison grid and make adjustments for differences between the subject and comparable sales. If the comparables

are exposed to similar contamination, there is no need to adjust for contamination. Determining the adjustment for contamination, however, is the subject of this section.

Determining the Adjustment for the Presence of Contamination

Example 1: To estimate the effect of contamination on property values, the assessor should compare sales of similar properties with and without the contamination. The difference between the sales prices of the properties can be attributed to the presence of contamination.

Assume the assessor has gathered the following sales information on properties that are similar except that some have a contaminated water system and some do not.

Sale 1 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot that *is not* subject to contamination. It sold for $155,000.

Sale 2 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot that *is* subject to contamination. It sold for $146,000.

Sale 3 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot that *is* subject to contamination. It sold for $145,500.

Sale 4 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot that *is not* subject to contamination. It sold for $155,000.

This data can be analyzed as follows:

Sales of Property Subject to Contamination

	# Beds	# Baths	Lot Size	Sales Price
2	3	1 ½	1 acre	$146,000
3	3	1 ½	1 acre	$145,500

Sales of Property Not Subject to Contamination

	# Beds	# Baths	Lot Size	Sales Price
1	3	1 ½	1 acre	$155,500
4	3	1 ½	1 acre	$155,000

This data shows that properties subject to contamination sell for approximately $10,000 less than properties not subject to contamination, and the assessor can then use this adjustment in the Sales Comparison Approach.

Example 2: The subject is a 3 bedroom, 1 ½ bath ranch home on a 1 acre lot with a fireplace and a 2 car garage and *is* subject to contamination.

Sale 1 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot with a fireplace and a 1-car garage and *is not* subject to contamination. It sold last year for $149,900.

Sale 2 is a 3 bedroom, 1 ½ bath ranch home on a 1-acre lot with a 2-car garage but without a fireplace and *is* subject to contamination. It sold 6 months ago for $140,000.

Sale 3 is a 3 bedroom, 2-bath ranch home on a 1-acre lot with a fireplace and a 1-car garage and *is not* subject to contamination. It sold last month for $159,000.

The market indicates that sales prices increased 5 percent in the last year; 2 bathrooms are worth $2,500 more than 1 ½ baths; fireplaces are worth $5,500; 2 car garages are worth $3,500 more than 1 car garages; and the presence of contamination has a negative effect on value of $10,000. The sales comparison grid follows:

	Subject	**Sale 1**	**Sale 2**	**Sale 3**
Sales price		$149,900	$140,000	$159,100
Time adjustment		+5%	+2.5%	-
Time adj. sales price		$157,400	$143,500	$159,100
No. of bathrooms	1 ½	1 ½	1 ½	2
Bathroom adjustment		-	-	-$2,500
Fireplace	Yes	Yes	No	Yes
Fireplace adjustment		-	+$5,500	-
Garage	2 car	1 car	2 car	1 car
Garage adjustment		+$3,500	-	+$3,500
Contamination	Yes	No	Yes	No
Contamination adjustment		-$10,000	-	-$10,000
Adjusted sales price		$150,900	$149,000	$150,100

Since the comparable sales all fall into a narrow range around $150,000, the selected estimate of the market value of the property is $150,000.

3. If there is no arm's-length sale of the subject property, and there are no sales of reasonably comparable property, consider all other factors that affect market value according to professionally acceptable appraisal practices. In estimating the value of contaminated property, the primary consideration is how much will it cost to cure the contamination. Estimate what the property would sell for without the contamination and subtract the cost to cure the contamination. This is the procedure for estimating curable physical and functional depreciation when using the cost approach.

Example: A property has a contaminated well, and it will cost $8,000 to drill a new well. The assessor has analyzed sales of comparable properties with good wells and estimates that the subject property would sell for $164,000 without the contamination. In this example, the assessment should be reduced by $8,000 to reflect the cost to cure. The adjustment may be higher or lower depending on the market's perception of the extent of the contamination and the effectiveness of the cleanup.

There may be some situations where the property is so severely contaminated that it may take several years to clean up the contamination. In these situations, the assessor should consider using a Discounted Cash Flow Analysis to estimate value. Using this methodology, the assessor deducts the present worth of the cost to cure the contamination from an estimate of the current uncontaminated market value of the property.

For example, a residence has a current uncontaminated market value of $100,000. However, environmental engineers have discovered a contaminated water system that will take two years to cure at a cost of $20,000 per year. Assuming the 16% capitalization rate used in the previous example, the assessor can determine the present worth of the cost to cure as follows:

Year 1	$20,000	x	.862068	=	$ 17,241
Year 2	$20,000	x	.743163	=	14,863
Present Worth of the Cost to Cure				=	$ 32,104

Current market value w/o contamination	$ 100,000
Less present worth of cost to cure	$ 32,104
Current market value	$ 67,896
Rounded	$ 67,900

Stigma

Even after removal of the contamination there may be a stigma attached to the property that makes it less desirable than comparable properties. The effect of stigma on market value can vary greatly depending on the type of contamination, the cost to cure, and the results of the cleanup.

The effect of stigma can best be measured by the actions of the marketplace. If sales prices, asking prices, and offers are less than comparable property that is not contaminated, this indicates the market has attached a stigma to the property and should be reflected in the assessment.

Severe Contamination

The previous guidelines and examples present more common situations where the extent of contamination and its effect on value are readily identified and measured. However, there may be some situations where the extent of contamination is unknown and thus the effect on value is difficult to measure. While it is not possible to develop specific procedures for dealing with this uncertainty, the guidelines in this section provide a framework the assessor can use to gather information to help estimate the effect of contamination on value. For example, although there may not be sales of truly comparable contaminated property, there may be sales of other contaminated property indicating a range of values or, possibly, a percentage adjustment the assessor can use to reflect the contamination. Similarly, although an environmental engineer may not be able to estimate a specific cost to cure the contamination, the engineer may be able to estimate a range of costs and what are the probabilities that the cost to cure lies on the high or low end of the range. Properties with a great deal of uncertainty should be closely monitored and reviewed each year as more information becomes available to reduce the degree of uncertainty.

Historic Property

Historic properties are important because of their associations with historically significant people or events, or because they represent significant architectural styles or are important archaeological sites.

This has led to a growing preservation movement that has resulted in various levels of historic designation, as well as property restrictions, enforced through landmark ordinances, zoning ordinances, easements, and restrictive covenants designed to identify and preserve these properties.

In valuing an historic property, assessors should first analyze the type and level of historic designation and any restrictions that may affect the use of the property. The most common types of historic designation are the following:

National Register of Historic Places and State Register of Historic Places

The National Register is a listing of historic properties which imposes no land use restrictions on property owners. Owners are free to demolish or alter their properties, unless federal or state funds or license are involved in a project, in which case the State Historical Society may have the ability to intercede. Owners are not required to open their properties to the public and may use their properties as they see fit. In limited cases, owners of National or State Register properties may claim federal income tax credits or, in rare cases, federal grants for rehabilitation of their properties. (For more information about the National Register program and its effects and restrictions, contact the Division of Historic Preservation of the State Historical Society at 608-264-6500).

Local Landmark Designation and Historic Zoning Ordinances

The effects of local landmark designation or historic zoning vary from community to community, depending on the nature of the local landmark ordinance. In some cases, local designation is purely honorific; landmarked buildings are provided with markers, but the designation does not carry any land use restrictions. In other cases, landmark designation requires that owners receive local approval before making physical changes to their properties. (For more information about the effects of any local landmark ordinance or historic zoning, contact the appropriate Wisconsin city, village, town or unit of county government).

Easements and Restrictive Covenants

Under some circumstances, owners of National Register properties may attach restrictive covenants or easements to the deeds of their properties, usually in exchange for federal funds, federal or state income tax credits, or state property tax credits that they will receive. The effects of these easements or covenants will vary, as will the length of time that they remain in effect. The most common easements or covenants for historic buildings will require owners to keep their properties in good repair and obtain State Historical Society approval for proposed alterations. The most common covenants or easements for archaeological sites require owners to leave the land undeveloped and sometimes withhold it from active

agricultural use. The terms of these easements vary from a few years to "in perpetuity." The County Register of Deeds should be contacted for the exact terms of any easements or covenant on any subject property.

In the case of National Register or State Register designation, there will be no restrictions on the use of the property, and there will be no effect on the highest and best use. Local landmark ordinances, historic zoning, easements, and restrictive covenants may impose significant restrictions that may affect a property's highest and best use. These may include the following:

- Inability to subdivide the property
- Inability to change physical features such as building height, size, interior floor plan, and interior and exterior finishes and decorative details
- Inability to expand or demolish the property
- Inability to change the use of the property in response to economic or market changes or the personal desires of the owner (in limited cases)

Highest and Best Use and Land Valuation

Prior to valuing the property, the assessor must determine its highest and best use. Restrictions may have a significant impact on the highest and best use of historic property. For example, an historic covenant may require that a building be limited to the existing two stories in an area of five or six story buildings. In this case, the highest and best use of the property is not the same as surrounding property and should be reflected when estimating the property's value.

The major impact of the highest and best use will be on the land value of the property. The assessor should ensure that any comparable sales reflect the highest and best use of the subject property. In some situations, entire neighborhoods are subject to historic district regulations, and the assessor should try to locate comparable sales within the neighborhood for estimating land values. If most of the sales are of improved property, the assessor may have to use the abstraction and land residual techniques described previously in this chapter and in Chapter 13 of WPAM. If the assessor uses sales from other neighborhoods for comparables, those neighborhoods should have similar restrictions and be in a similar state of development to be comparable. For example, assume a municipality has several older residential neighborhoods that are in varying stages of rehabilitation. If the properties within the neighborhood are physically similar and in approximately the same stage of development, they may serve as comparables for the other historic neighborhoods. Caution should be used when the properties are not physically similar or the neighborhoods are in different stages of rehabilitation, unless the assessor can develop an adjustment to reflect these differences. An example of how to calculate this adjustment is shown in the Sales Comparison Approach in this section.

Improvement Valuation

The best evidence of the market value of a property that is subject to historic designation or zoning, easements, or covenants is the sale of the property if, according to professionally acceptable appraisal practices, the sale conforms to recent arm's-length sales of reasonably comparable property. An arm's-length sale presumes both the buyer and seller are

knowledgeable about the use of the property, and the sales price will reflect the above mentioned conditions. For example, if the property is subject to a restrictive covenant requiring the structure to be maintained in its current use, a knowledgeable buyer will pay only what the property is worth subject to the restriction.

Sales Comparison Approach

If the sale of the subject does not conform to recent arm's-length sales of reasonable comparable property, or if there is not recent sale of the subject, arm's-length sales or comparable property should be considered as the basis for the assessment. The conditions mentioned earlier in discussing the use of comparable sales in valuing land also apply to using comparable sales in valuing improvements. Assessors who have few sales of historic property should contact assessors in other municipalities who have sales of historic properties for use as comparables.

The assessor should also consider comparing sales of historic properties with sales of comparable non-historic property to determine if there is some consistent relationship between these properties. This could be either a lump-sum or a percentage adjustment. Assume the assessor has gathered the following sales information on properties that are similar except that some are not subject to historic designation or zoning and some are not.

- **Sale #1** is a five bedroom, three bath, 2 ½ story home with 2,500 square feet subject to historic designation or zoning. It sold for $170,000.
- **Sale #2** is a five bedroom, three bath, 2 ½ story home with 2,400 square feet not subject to historic designation or zoning. It sold for $210,000.
- **Sale #3** is a six bedroom, four bath, three-story home with 3,000 square feet subject to historic designation or zoning. It sold for $250,000.
- **Sale #4** is a six bedroom, four bath, three story home with 3,000 square feet not subject to historic designation or zoning. It sold for $315,000.
- **Sale #5** is a four bedroom, three bath, 2 story home with 2,700 square feet subject to historic designation or zoning. It sold for $220,000.
- **Sale #6** is a four bedroom, three bath, 2-story home with 2,800 square feet not subject to historic designation or zoning. It sold for $275,000.

The assessor notes that all six sales are similar and comparing the sales prices gives the following percent adjustment.

Sale #2	$210,000	Sale #4	$315,000	Sale #6	$275,000
Sale #1	$170,000	Sale #3	$250,000	Sale #5	$220,000
Difference	$ 40,000		$ 65,000		$ 55,000
Percent of non-historic sale	19%		21%		20%

In reviewing the sales, the assessor notes that property subject to historic designation or zoning sells for approximately 20% less than property not subject to this zoning. If there are not sales of comparable historic designated or zoned property, the assessor may be justified in using comparable non-historic designated or zoned properties and adjusting them by 20% to reflect the effect of historic designation or zoning. It is possible, depending on market conditions, that historic designated or zoned properties sell for more than non-historic

designated or zoned properties, in which case the assessor would make a positive adjustment for the historic designation or zoning.

Assessors may also consider using sales price per square foot, per bedroom, or some other unit of comparison for historic residential property. Sales price per square foot is a common unit of comparison for commercial and industrial property, but is not often used for residential property. Because of the unique characteristics and features of individual historically significant residential properties, the assessor may find sales price per square foot to be a useful unit of comparison.

Cost Approach

If there are no arm's-length sales of the subject or of comparable property, the assessor must consider all other factors that, according to professionally accept-able appraisal practices, affect market value. This primarily involves the use of the cost and income approaches to value. The cost approach, however, may pose unique problems in the value of historic property if the easement, covenant, or restriction requires exact maintenance or replacement or historic materials. (Assessors should check property restrictions carefully to determine whether such a requirement exists. While many easements and covenants require a replication of materials, most historic designations do not).

Reproduction cost means the cost of producing an exact replica of the structure using the same, or nearly similar, materials, design, and quality of workmanship. While reproduction cost will give a more accurate representation of an historic property, it is difficult to estimate costs for materials and, in some cases, techniques that are no longer used. In addition, reproduction cost may contain substantial functional obsolescence because of obsolete materials and design, which can be very difficult to measure.

Replacement cost is the cost of a structure having the same utility but using current materials, designs, and methods. This eliminates much of the functional obsolescence of reproduction cost, but may also eliminate many of the features that make historic properties unique and add to their value.

This does not mean the assessor should ignore the cost approach. Although it has problems, it does provide a starting point in the valuation process and may be the only information available to the assessor. The assessor should use this approach with care, and, if there are sales available, use them to justify the use of reproduction or replacement cost.

For example, assume the assessor has sales of improved historic property and valid estimates of land value. The assessor can subtract the land value from the sales to yield improvement values. Comparing these improvement values with estimates produced by using the replacement and reproduction costs may show that one technique produces more accurate and consistent values.

Another issue with the cost approach is remodeling and rehabilitation. Frequently, historic properties are purchased in a deteriorated condition and need substantial remodeling or rehabilitation to restore them. While remodeling usually increases the value of the property, it does not necessarily increase the value by the cost of the remodeling. Reasons for this are the following: (a) there may be substantial demolition costs, and (b) the high costs of acquiring

historically accurate construction materials may make the total cost of remodeling higher than the corresponding increase in value. This may be especially true for residential property where the desire to restore an historic property to its former condition may become more important than economic considerations. In addition, the remodeling may take several years and the full value of the remodeling may not be realized until it is complete.

Income Approach

The income approach, as described in Chapter 13 of WPAM, can be used to value historic property. There are, however, a number of items unique to historic properties, which affect the income stream, the expenses, the gross rent multiplier (GRM), and the capitalization rate.

The assessor should try to use similar historic properties subject to the same restrictions when estimating market rent. For example, there may be restrictions that limit the possible uses or the ability to alter the property to meet current market demands such as adding new bathrooms or remodeling to allow more efficient uses. This may reduce the desirability, and, thus, the market rent of the property.

Restrictions on historic properties may result in higher expenses than for non-historic properties. Maintenance costs may be higher because of the need to perform maintenance more frequently, use more costly repair materials, and the prohibition on using certain cleaning methods because of their effects on the historic materials. Insurance costs may be higher because the materials used to repair this structure as an historic building may be more costly.

Assessors should consider using Gross Rent Multipliers (GRM), as discussed elsewhere in the WPAM, to value historic residential properties. GRMs may be affected by the restrictions placed on historic properties. Investors may require a lower GRM because of the higher expenses and the greater perceived risk due to the inability to convert the property to alternative uses to reflect market changes. The assessor should analyze sales of similarly restricted historic properties and talk to investors, brokers, and appraisers to ensure that the GRM is typical for this type of property.

If these properties are large, owners may divide them into apartments to provide income to help pay for the rehabilitation and maintenance for these properties. Assuming the Gross Rent Multipliers fall within a relatively narrow range, the assessor may be justified in using them to help value other historic residential properties that are rented but have not sold.

Summary

In summary, the growing interest in historically significant properties has resulted in historic designation or property restrictions designated to preserve them. In assessing historic property, assessors should not assume that any property restrictions have resulted from historic designation until they have examined the appropriate landmark ordinances, zoning ordinances, easements, or covenants. Most historic designations carry few or no property restrictions.

Earth Sheltered Housing

Interest in new forms of housing has expanded over the years. One of the alternative types of housing that became popular for a time was is the earth sheltered or underground house. The past popularity of earth shelter housing can in large part be related to the greater awareness of energy conservation.

This type of home offers potential savings in energy consumption and costs. This is due to the ability of the earth to act as a moderator of temperature. This effect can be illustrated by the climate in northern Wisconsin, where the above ground temperature can range from -30°F to +100°F, while at a depth of 10 feet the ground temperature only ranges between +47°F and +51°F. In addition to this moderating of temperature, there is a delayed reaction when the soil heats up or cools off. The soil temperature at a depth of 10 feet is three months behind the surface temperature. When the surface soil is experiencing winter temperatures, the soil at a depth of 10 feet is experiencing fall temperatures and so on. Consequently, there may be a considerable reduction in energy consumption. Earth sheltered housing also provides greater durability and protection from the elements than conventional housing.

Since earth sheltered homes are relatively new concepts in housing, there are some barriers to their construction and acceptance that have to be considered. The major barrier is one of financing. Lending institutions are somewhat reluctant to make construction loans for alternative housing types because there have not been enough sales of these alternative homes to establish a market. In addition to financing, local zoning ordinances and building codes tend to restrict the construction of this type of alternate housing.

In the appraisal and assessment of earth sheltered homes, the assessor encounters problems not present with conventional homes. This housing form may not have adequate sales, resulting in a lack of sales data for use in the sales comparison approach to value. These types of structures are generally built for owner occupancy; therefore, the income approach is of little use in their valuation. This leaves the cost approach as the main appraisal method available to the assessor.

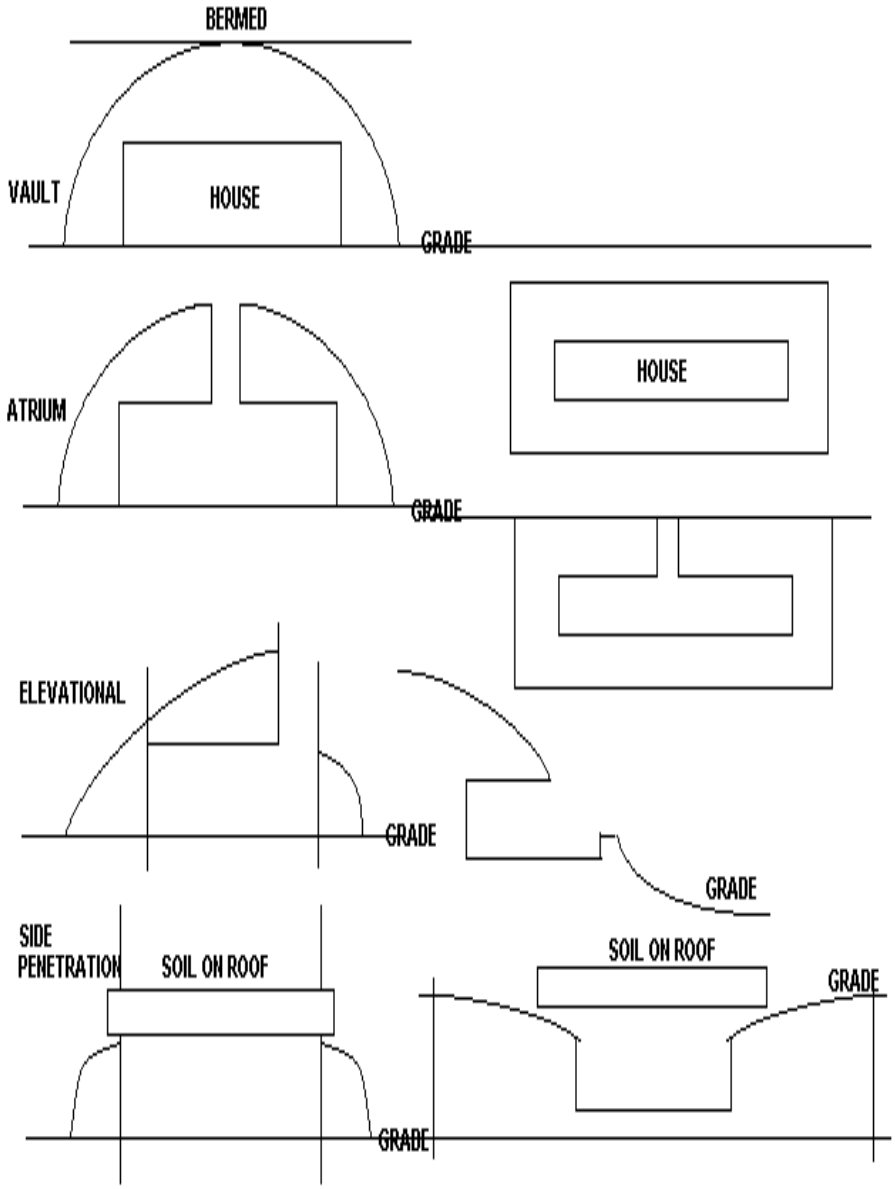
The costs can vary greatly from one earth sheltered home to another, depending on the type of construction, individual site preparation, and the cost of concrete, which is the major building component of earth shelter homes.

There are two basic types of earth sheltered home construction: 1) bermed - where the structure is built on grade and then covered with earth; and 2) chambered - where the site is excavated and the structure is built below grade. These two types of construction are built in four basic designs (See figure 12-13):

1) Vault - entire structure is under the surface
2) Atrium - sunken patio open to sky provides light, air, access
3) Elevational - uses southern exposure for windows, door, view, passive solar collection
4) Side penetration - provides light, air, access, and expansion potential

If a solar system is integrated in the building, the system may be eligible for a property tax exemption.

Figure 12-13


BERMED
VAULT
HOUSE
GRADE
ATRIUM
HOUSE
GRADE
ELEVATIONAL
GRADE
GRADE
SIDE
PENETRATION
SOIL ON ROOF
SOIL ON ROOF
GRADE
GRADE

Renewable Energy System Incentives

Property Tax Exemption for Solar and Wind Energy Systems

With the passage of Chapter 349, Laws of 1979, a property tax exemption was established for any solar or wind energy system that meets the requirements of sec. 70.111(18), Wis. Stats. The Department of Industry, Labor, and Human Relations (DILHR) was originally responsible for determining if the system met the requirements necessary for exemption. However, with the passage of 1983 Wisconsin Act 27, the assessor became responsible for making the determination.

For purposes of this exemption, "solar energy system" means equipment that directly converts and then transfers or stores solar energy into useable forms of thermal or electrical energy. Solar energy systems include equipment which converts and then transfers or stores solar energy into useable forms of energy for:

1. Space heating or cooling
2. Crop drying
3. Electricity generation (photovoltaic)
4. Hot water heating

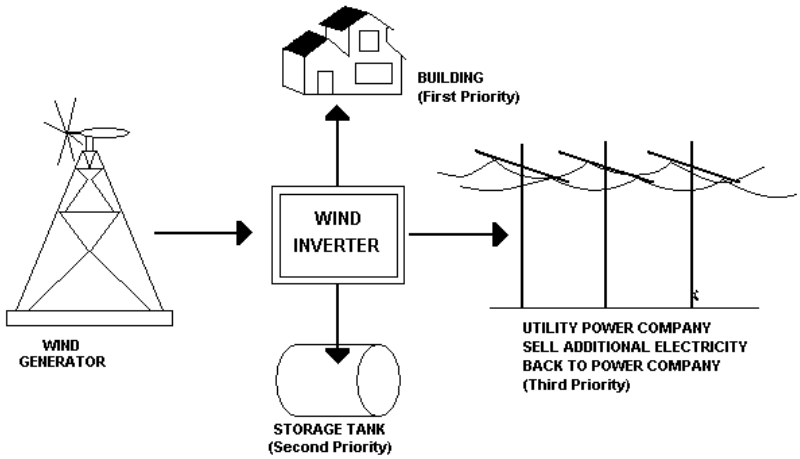
"Wind energy system" means equipment which converts and then transfers or stores energy from the wind into useable forms of energy (See Figure 12-14).

The exemption applies whether the solar or wind energy system is deemed personal property or is so affixed to the realty as to be classified as real estate. This exemption does not apply to any equipment or components in a solar or wind system that would be present as part of a conventional energy system. Also, the exemption does not apply to a system that operates without mechanical means (e.g. passive systems).

In order to receive exemption for a renewable energy system, the owner of the system must obtain a Request for Exemption of Renewable Energy Systems from the assessor and return the completed form to the assessor by March 1 following the January 1 assessment date for which the exemption is claimed. A copy of the exemption form for renewable energy systems is included in WPAM Forms Chapter. The assessor should examine both the request and the system to ensure that the requirements of sec. 70.111(18), Wis. Stats. are met before granting the exemption.

Figure 12-14

Wind Power Conversion



Solar energy systems

With the dramatic increase in oil and natural gas energy prices in the 1970's, renewable energy systems started to become economically viable alternatives. One of these renewable energy systems is the use of solar energy to generate heat and hot water. There are two types of solar energy systems: active or passive. Active systems make use of mechanical hardware to collect, store, and transfer the energy. Passive systems do not involve the use of mechanical hardware; but instead, rely on the natural use of the sun's energy. A simple example of a passive solar system would be a home with a large, south-facing window that allows the low winter sun to help heat the interior of the house, but has enough of an overhang to prevent the higher summer sun from overheating the home.

Regardless of the type of system, one of two mediums is used for the transfer of energy. Either liquid or air is used. The use of liquid has the potential for freezing during the winter. Usually an anti-freeze is added to the liquid to prevent freezing of the liquid. Each system also requires an auxiliary or back-up conventional system which is capable of providing 100% of the heating load during cloudy overcast days when the sun is unavailable. All of the components of the conventional heating system are assessable.

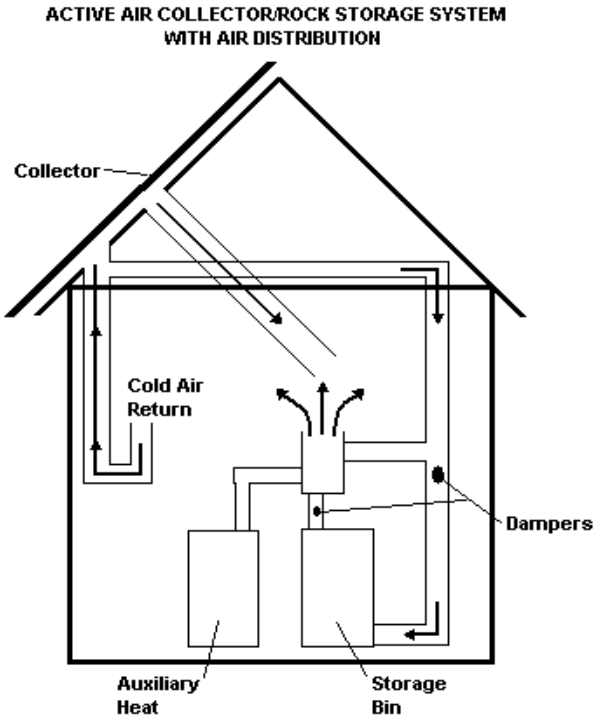
The assessor should note that while this section provides an explanation of several of the more common solar energy systems and distinguishes between active (exempt) and passive (taxable) systems, there may be situations where these distinctions are not clear-cut. This may be due to the great variety of systems in existence, to new innovation in the field of solar energy or to individual adaptations that blend features of both systems. Therefore, the assessor should investigate each solar application to determine if the system operates with mechanical means and is thus exempt.

Active Air Collector/Rock Storage System With Air Distribution

(See Figure 12-15)

This system begins with the sun heating the air flowing through the collector. If the temperature in the home is below that set at the thermostat, the warm air flows right into the heating ducts. If the temperature in the living area is adequate, the heat flows into the storage bin and heats the 1 ½ - 2-inch rocks. As the temperature cools in the evening, the heat stored in the rocks flows into the heating system. Cold air is returned to the collector to be reheated. An auxiliary furnace exists to provide heat on cloudy days and when there is no heat in the storage bin. The collector, duct work and dampers to and from the collector, and the storage bin are exempt. The auxiliary heating system and all duct work associated with a normal heating system is taxable

Figure 12-15

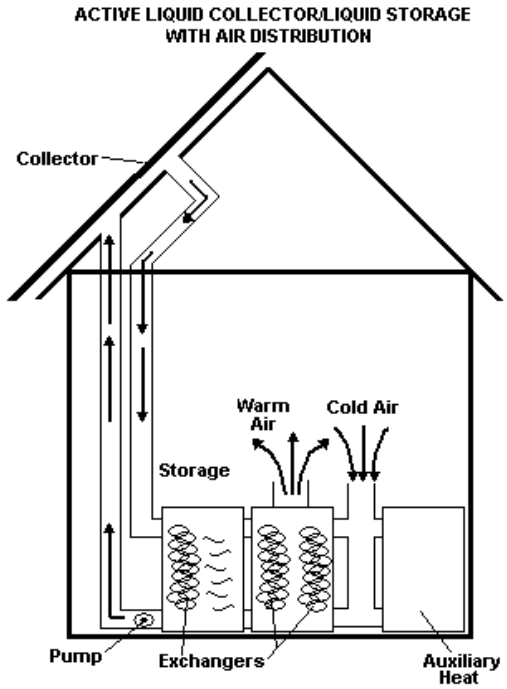


Active Liquid Collector/Liquid Storage With Air Distribution
(See Figure 12-16)

This type of active system begins in the collector with a liquid (usually water with anti-freeze and anti-corrosion additives). This liquid is pumped through the collector where it absorbs heat from the sun, is then pumped through a heat exchanger coil to heat the liquid in the storage tank and back to the collector. Liquid in the storage tank is pumped through a second heat exchanger to heat the air that flows into the living area. Again an auxiliary heating system is provided for those days when there is inadequate solar energy to heat the

home. The collector, any piping to and from the collector, the storage tank, and heat exchangers are exempt. The auxiliary heating system, any usual ductwork, and any typical controls are taxable.

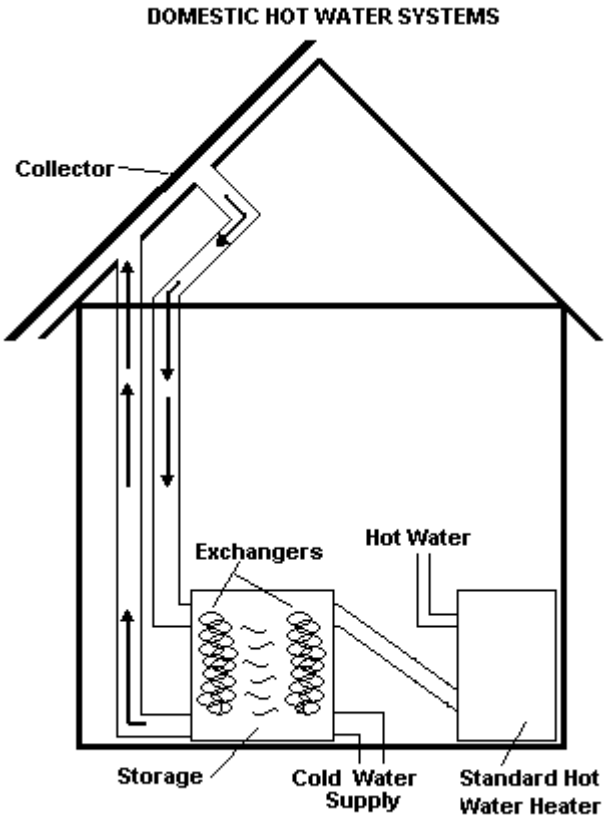
Figure 12-16



Domestic Hot Water System (See Figure 12-17)

A third application of active solar energy is for domestic hot water. The vast majority of hot water systems use liquid although it is possible to use air. The sun heats the liquid in the collector. The liquid then flows through the exchanger where it heats the liquid in the storage tank. It then flows back to the collector where it is reheated. The cold water supply passes through an exchanger in the storage tank where it is heated. This hot water flows into the hot water heater where it is stored and dispensed as needed. The collector, any pipes to and from the collector, the heat exchangers, and the storage bin are exempt. The cold water supply pipes, the standard hot water heater, and any normal water pipes used within the home are taxable.

Figure 12-17



Passive Solar Homes

Instead of using the flat plate solar collectors that are used in the active solar homes, passive solar homes use various design features to gather, store, and distribute solar energy. One is to maximize the heat gain by using south-facing windows while minimizing heat loss by the extensive use of insulation. The second feature is the use of "thermal mass." "Thermal mass" is any building material that retains heat and cools off slowly. This would include stone, concrete, masonry, etc. Usually, rooms with large window areas experience a great deal of heat loss at night. By using a thermal mass material that slowly gives off heat during the night, the room will not experience a dramatic temperature loss. This thermal mass can be incorporated into the walls, floors, or ceilings. The third design feature is the use of the roof overhang or other shading devised to reduce summer heat. One other feature often found in solar homes is the use of special thermal drapes to prevent heat loss through the windows.

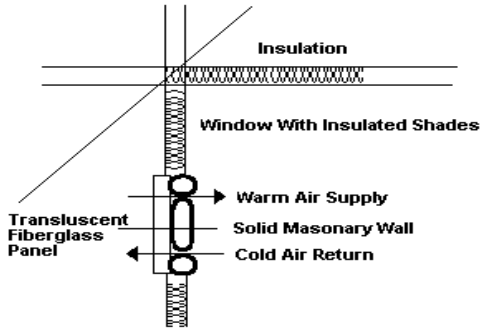
Trombe Wall System (See Figure 12-18)

The main design features of this home are large south-facing windows and a masonry wall painted a dark color to increase heat absorption. Translucent fiberglass panels are placed in front of the masonry wall to create an air space. The sun heats up the air in the air space as well as the masonry wall. The heated air may be transferred by use of ducts and fans to other areas of the house with the cold air returning to the air space. During the night, the masonry

wall radiates the stored heat into the home to maintain the temperature. Insulated shades are used on the windows at night to reduce the heat loss through the windows. The fiberglass panels can be opened during the summertime to provide air circulation. A longer overhang prevents the sun from overheating the home in the summer. As this system is a passive system and operates without mechanical means, none of it is exempt.

Figure 12-18

Trombe Wall System



Solar Envelope Home (See Figure 12-19)

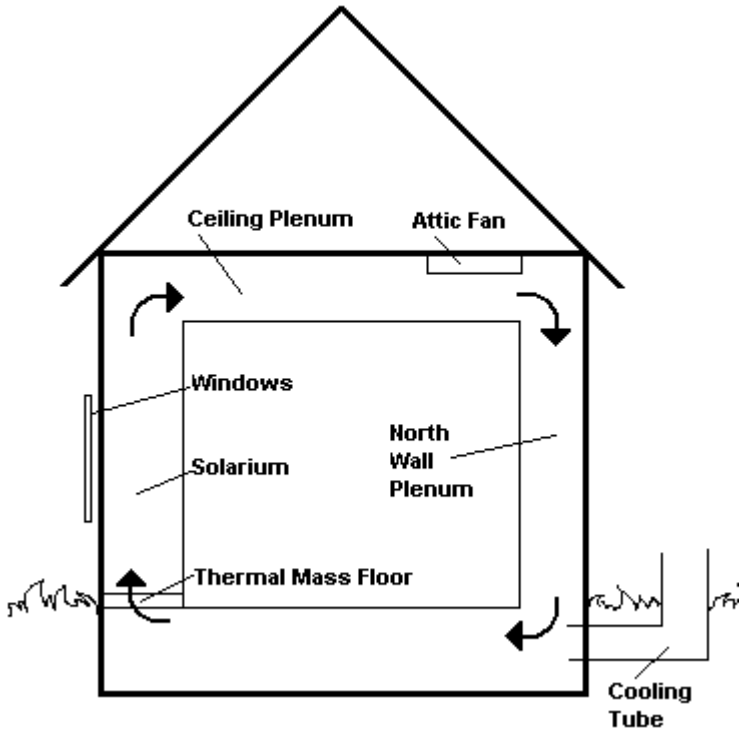
The purpose of the envelope home is to create a layer or blanket of warm air on four of the six sides of the home. This creates an envelope around the interior of the home, which insulates it from the exterior weather conditions.

Large south-facing windows allow the sun to heat the air and partial thermal mass and partial wood deck floor in the solarium. A principle of physics is that warm air rises. As the air in the solarium is heated, it rises into the ceiling plenum or chamber and passes into the north wall plenum. As the air passes through the north wall plenum, it begins to cool and drops into the basement. This is aided by the continued flow of warm air from the solarium that pushes the cooler air into the basement. This continual flow of warm air from the solarium creates an insulating blanket or envelope around the living area to protect it from the cooler exterior air.

When the sun is unavailable, the thermal mass part of the floor radiates its stored heat into the envelope. The system also uses geothermal energy to warm the home. The temperature of the earth and hence the basement is 45-55 degrees. As the air in the upper part of the envelope cools, the air in the basement will become the warmest in the system. This warmer air will rise from the basement into the solarium and the plenums or chambers to keep a warm envelope surrounding the home.

Figure 12-19

Solar Envelope Home



During the summertime, the envelope home uses the longer roof overhang to prevent the sun from overheating the air in the solarium. In addition, air enters the cooling tube and is cooled by the earth to its temperature of 45-55 degrees before entering the basement. This cooler air is drawn through the envelope by the use of an attic-ceiling fan. This fan also pulls the warm air out of the envelope and into the attic where it exits through attic vents. The solarium windows can be opened to provide additional ventilation and to push cool air rising from the basement into the living area. As this is a passive system and operates without mechanical means, none of the equipment is exempt.

Solar Energy – Appraisal Impact

When dealing with the valuation of solar energy systems, the assessor will encounter three different situations:

1. A property with a renewable energy system that was assessed in the previous assessment year but qualifies for exempt status for the current assessment year. In this case, the assessor must determine the contributory value of the active solar or wind energy system and deduct that amount from the total value of the property.
2. A property built after January 1, of the previous assessment year which includes an exempted renewable energy system, or an existing property with an exempted renewable energy system added (retrofit) after January 1 of the previous assessment year, where the taxpayer has properly applied for a property tax exemption. The property must be valued as if it were a conventional home without a solar or wind energy system.

3. A property built after January 1, of the previous assessment year which includes a renewable energy system that is not exempt, or an existing property with a nonexempt renewable energy system added (retrofit) after January 1, of the previous assessment year.

These systems would not qualify for a property tax exemption. The assessor must estimate the contributory value of the renewable energy system and include that amount in the current assessment.

When valuing properties with renewable energy systems, the three approaches used to arrive at market value are the same ones used when valuing properties with conventional energy systems. There are, however, some unique factors and elements, which must be considered when valuing a solar property.

Market Approach

The major limiting factor here is the lack of solar energy property sales. Solar lot values can be estimated by checking on the sales of properties in solar subdivisions or of lots that have attached solar covenants and easements. There are solar subdivisions where solar covenants are written into agreements and where the lots are specifically laid out for solar use.

Where there are sales of properties with solar energy systems, the following procedure can be used to determine the contributory value of the energy system:

1. Obtain sale of property(ies) with a solar energy system. The sale must include standard financing agreements and must be found to be an arm's-length transaction.
2. Locate a sufficient number of comparable properties that have sold but do not have a solar energy system. The sale terms must be investigated and an analysis of the sale must be made to determine if the sale is an arm's-length transaction.
3 Make the necessary adjustments to the comparable sales. All adjustments must be justified, based upon market information.
4. Determine the adjusted indicated market value for each of the comparable sales. This will establish an indicated market value range for the subject property.
5. Choose the comparable sale most similar to the subject property. This decision is based upon the adjustments made to each comparable (the number and type).
6. Compare the adjusted market value of the comparable to the subject's sale price. The difference should indicate the contributory value of the solar energy system to the subject property.

Comparisons should also be made of the contributory value of the solar energy system as determined from the market to the installation cost new of that type of system. This would provide an indication of the energy system's contributory value as a percentage of cost new.

Cost Approach

It is estimated that the average solar energy system has a twenty-year life. The assessor must determine the solar energy system's total depreciation. This would include physical, functional, and economic depreciation. Becoming familiar with current solar techniques will allow the assessor to evaluate a solar energy system. It is important to determine if the system is properly sized and designed. Over or under improvement would be just cause for applying functional obsolescence to a system. The assessor, in most circumstances, will not have the necessary technical knowledge to evaluate a system's design and performance. The assessor should contact a local solar engineer or the Department of Commerce, Safety and Buildings Division.

The assessor must also consider the property's access to the sun and the lot's relationship to true south. These considerations of sun access and relationship are the major differences in site analysis for a solar property versus a non-solar property. Southern exposure is required for solar energy use, and either large lot size, solar easements, or solar covenants may be required to ensure access to sunlight. The assessor must also consider the location of buildings, improvements, and trees on adjoining properties that may eventually interfere with solar access.

Income Approach

Since few solar residential properties are rented, this approach applies mainly to apartments, duplexes, and commercial buildings. The income approach on solar properties has not been used extensively since there are not many commercial solar buildings in the United States. Because this approach rewards lower operating expenses, it would tend to result in higher values for solar equipped buildings than it would for comparable non-solar buildings. The energy savings potential of solar buildings may also make them more attractive to lenders. As energy savers, the properties offer significant protection against rising fuel costs and this may result in lower capitalization rates. This, in turn, would result in higher values for solar buildings.

Regardless of the valuation approach used, the assessor must estimate the contributory value of both the solar energy unit and the conventional heating system.

Condominiums

A type of housing which has become increasingly popular is the condominium. Condominiums offer the advantages of home ownership with minimum burden of property care for the individual.

The purchaser of a condominium buys an individual unit in a condominium project together with an undivided interest in the common elements. Each unit is located within a specified air lot, and all areas in and outside of the building which are not part of the individual units are jointly owned as common elements. Common elements may include the roof, halls, lobby, stairs, basement, pool, tennis courts, recreation hall, driveways, sidewalks and the land on which the building is located. All property owners in a condominium project have mutual rights of support, access, use and enjoyment of the common elements. The owner of a

condominium receives a deed as though the unit were detached, and the title to each unit is recorded separately. A unit in a condominium may be mortgaged, leased, or sold, the same as any other property.

Condominium Declaration and Plat

Chapter 703 of the Wisconsin Statutes, which is known as the Condominium Ownership Act, regulates condominiums in Wisconsin. It provides procedures for the establishment and organization of condominiums.

A condominium may be created by recording a condominium declaration and plat with the Register of Deeds of the county in which the property is located. A condominium declaration includes such items as the name and address of the condominium, a description of the land on which the condominium is located; a description of each unit, including its perimeters, location and other data; a general description of the common elements with a designation of those portions of the common elements that are limited and the unit to which the use of each is restricted; and the allocation of percentage interests in common areas to each unit.

At the time the condominium declaration is recorded, a condominium plat must also be filed for record. The condominium plat contains the name of the condominium; a survey of the property described in the declaration showing the location of the building(s); and floor plans of all buildings on the property with the dimensions, floor area, location of each unit and all common elements shown. Every unit in the project is designated on the plat by the unit number or other appropriate designation.

Assessment Roll Listing

Each unit in a condominium must be listed in the real estate assessment roll with a legal description and separate assessment for land and improvements. Since a specific piece of land is generally not bought and sold with each condominium unit, it is generally not possible to have a legal description that describes a specific piece of land for each unit. Section 703.12, Wis. Stats., provides that individual units in a condominium be described by the letter or number or other appropriate designation of the unit as shown on the condominium plat together with reference to the condominium instruments. This is similar to the listing of lots in a recorded subdivision, where each lot is described by referencing the name of the plat, and the lot and block within that plat.

Condominiums should be entered in the assessment roll in alphabetical order by condominium plat name, and in regular order within each condominium. In general, the description will also show the percentage interest in common areas allocated to each individual unit. For example, the legal descriptions for units within the Forest Hills Condominium project would be listed in the assessment roll as follows:

> Forest Hills Condominium Unit 101 and a 0.45% interest in the common areas as recorded in the Forest Hills Condominium Homes Plat, Vol. 736, P. 159.
>
> Forest Hills Condominium Unit 102 and a 0.45% interest in the common areas as recorded in the Forest Hills Condominium Homes Plat, Vol. 736, P. 159.

In this example, Forest Hills Condominium refers to the name of the condominium plat, and it is followed by the unit number, percentage interest in the common areas, and volume and page of the recorded plat in the Register of Deeds office.

To be certain that all property in the taxation district is accounted for, it is also a good idea to list the legal description of the land on which the condominium project is located, along with the total acreage. The legal description is found in the condominium declaration. This entry would contain no assessment since the land value is prorated among the various units. A notation to that effect should be made in the assessment roll next to the legal description.

Valuation

A condominium unit, together with its undivided interest in the common elements, constitutes real property. Each unit, with its percentage interest in the common elements, is subject to separate assessment and taxation. When performing the assessments, the assessor must determine the market value of each individual unit in the condominium project, including its share of the common elements.

The assessor should look at the condominium declaration first as it will usually detail what are common elements and how these elements are allocated to each individual unit.

Complete data collection is necessary to properly assess a condominium. When collecting data, the condominium declaration and plat (available from the Register of Deeds Office) can be helpful since they contain a floor plan of the building and show all of the common elements; however, a physical viewing will still be necessary to collect additional data on items such as the quality of construction and condition of the individual units.

Some of the essential factors to be considered in the valuation of condominiums include:

1. Location: The assessor must consider not only the location of the condominium project, but also the location of each individual unit within the project. Just as certain areas in a municipality are more desirable than others, certain locations in a building may be more desirable than others. For example a corner unit may sell for more because it has a view and natural ventilation on two sides, or a unit on the fifth floor may be worth more than a unit on the second floor due to the added view. Analysis of the market should indicate whether certain locations within the building are more desirable than others.
2. Design and Size: Consideration must be given to the layout and size of the units. Is there adequate insulation from noise from other units? Is the design such that any sun decks or patios can offer privacy? Does the layout of the rooms make best use of the view? How many bedrooms and baths are there per unit? Is there adequate storage space? These are all factors that must be evaluated.
3. Density: It is important to have enough surrounding land to allow each unit access to light, air and a view. While condominiums make maximum use of land area, the desirability of a condominium is enhanced by "green" or open areas.
4. Physical Condition and Maintenance/Service Fees: When purchasing a condominium, buyers consider not only the condition of the individual unit, but also the condition and appearance of the common areas such as hallways, lobbies, exterior walls and clubhouses. The maintenance and repair of common areas and facilities are carried out as provided in the by-laws of the condominium, with unit owners jointly responsible for maintenance

costs. Funds for the common expenses are obtained by "assessments" against the unit owners. These are generally paid in the form of a monthly service fee. It is important to know the amount of the monthly fee and what services are included in it and the basis for making future increases in the fee. If the service fee is excessive, it can reduce the value of the units.

5. Association: Another factor to be considered in the valuation of condominiums is the owners' association. The owners' association is comprised of all unit owners and is responsible for establishing rules and policies for the operation of the condominium. The strength of the association, the rules and policies adopted and how strictly they are enforced can affect the value of the units.
6. Amenities: Condominiums may offer amenities that the typical purchaser could not otherwise afford. These often include a view of a lake or river, a swimming pool, tennis courts, a golf course, bike paths, playgrounds, a clubhouse, etc. Since condominiums generally do not have yards that are large enough to be used for recreational activities, these types of facilities are a consideration of purchasers.
7. Parking: The assessor must be aware of the availability of parking facilities. Parking can range from private garages for each unit to an open parking lot. The amount of parking available and the location of that parking are both important. It is desirable to have adequate parking near each unit, yet relatively out of sight.

It is necessary to have all of this information to make comparisons between individual units and between condominium projects.

Sales Comparison Approach

Of the three approaches to value, the sales comparison approach is the most reliable for the valuation of condominium units. When using this approach, it is desirable for the sales to be from the same building as the subject. This minimizes the number of adjustments required since the subject would have the same declaration, monthly service fee, parking, recreational facilities, and neighborhood as the sales. It is also desirable to use sales that have the same floor plan as the subject. By doing this, the only adjustments required are for the time of the sale, condition, and possibly the location within the building. If there are no sales with the same floor plan, the assessor should use sales with similar floor plans and make additional adjustments for differences in the number of rooms, size, etc. When there are no sales in the same building as the subject property, sales from comparable condominium projects should be used. When using such sales, the assessor must be aware of not only physical differences, but also differences in the condominium declaration, management, and maintenance fees that could have an effect on market value. When valuing condominiums using the sales comparison approach, the assessor should use similar types of condominiums. Apartment style condominiums may have a different market than the townhouse or standalone condominiums. The assessor should set up a market grid, as shown in following example, to compare the subject with the sales.

The assessor wishes to determine the value of the following condominium: a three-bedroom unit with one and one-half baths, indoor parking for two cars, a fireplace, and a balcony. The condominium is 5 years old.

Sale No. 1 is a four-bedroom unit with two and one-half baths, indoor parking for two cars, a balcony, but no fireplace. The condominium is 6 years old. This condominium sold for $187,500 2 years ago.

Sale No. 2 is a three-bedroom unit with one bath, indoor parking for one car, a fireplace, and a patio. The condominium is 4 years old. This condominium sold for $185,000 one year ago.

Sale No. 3 is a four-bedroom unit with one and one-half baths, indoor parking for two cars, a fireplace, but no balcony. The condominium is 5 years old. This property sold for $193,000 within the last month.

The assessor must also be aware of what is included in the sales price. If items such as appliances, draperies, and other household furnishings that are exempt are included in the sale, the assessor must deduct them from the sales price to arrive at the market value of the real property.

The assessor has analyzed the condominium market to obtain the following information: An extra bedroom is worth $4,000, a full bath is worth $3000, a half bath is $2000, parking for two cars is worth $2000 more than one car parking, a fireplace is worth $4000, a balcony or patio is worth $3000, and the assessor estimates that sales prices have increased 2 percent over each of the last two years. The location and recreational facilities of all condominium developments are equal. From this information, the assessor can generate a grid (figure 12-20).

Figure 12-20

Sale	Subject	No. 1	No. 2	No. 3
Sale price	--	187,500	185,000	193,000
Date of sale	--	2 Years +7500	1 Year +3700	Current --\
Fireplace	Yes	No +4000	Yes --	Yes --
Balcony/Patio	Yes	Yes --	Yes --	No +3000
Parking	Double --	Double --	Single +2000	Double --
Bath	1-1/2 --	2-1/2 -3000	1 +2000	1-1/2 --
Bedroom	3 --	4 -4000	3 --	4 -4000
Total Adjustment	--	+4500	+7700	-1000
Indicated Market Value of Subject	$192,000	$192,000	$192,700	$192,000

NOTE: The above values and unit prices are for illustration purposes only and are not meant to be standards or averages.

The assessor could make the following analysis. All three sales are reasonably comparable to the subject. The adjusted sales prices of the three sales fall within a narrow range. Sale No. 3, since it is the most recent sale and has the lowest total adjustment, it could be judged the best comparable, making the estimated market value of the subject $192,000.

Cost Approach

The cost approach for valuing condominiums presents several problems for the assessor that does not occur when valuing other types of property. One, the assessor must allocate the cost of common elements such as roofs, hallways, stairs, swimming pools, tennis courts, and land among the individual units. Two, the cost of the physical items tend to be lower than the value of the condominium units due to the additional costs to the developer for attorney fees, surveys, and administrative costs associated with establishing the individual ownership of the condominium units.

The assessor should calculate the replacement cost new of the physical items including the buildings, tennis courts, swimming pools, clubhouses, and yard and outside improvements. Next the assessor should calculate and deduct the appropriate depreciation from these physical items. The depreciation may vary depending on the age, condition, and type of improvements. For example, if the buildings were built over a long period of time, the depreciation may be different for each building. Also, some items such as tennis courts will have a faster depreciation than the buildings. Next, the assessor should determine an appropriate amount for attorney fees, surveys, and other administrative expenses necessary to create individual ownership. Then the assessor can allocate these costs to the individual condominium unit.

Assume that there is a condominium complex with five buildings, two swimming pools, five tennis courts, a clubhouse, and various landscaping and yard improvements. Each of the buildings contains 4-one bedroom units of 850 square feet and 6-two bedroom units of 950 square feet. The estimated replacement cost new for all buildings is $2,500,000. The estimated replacement cost new of the recreational and other improvements is $600,000. The assessor has estimated that the buildings have depreciated 10 percent and that the other improvements have depreciated 15 percent. This yields a cost less depreciation of $2,250,000 for the buildings and $510,000 for the other improvements. The assessor has estimated the land value to be $200,000. The assessor, after discussion with the developer, has estimated that attorney fees and other costs of establishing separate ownership is $300,000.

The assessor should first allocate the physical costs of the land and building to the individual units. If all of the buildings were built at the same time, the assessor can allocate the costs of all of the buildings at one time. However, if the buildings were built over a longer period of time or if there are substantial differences between buildings, the assessor should allocate the costs separately for each building. The costs should be allocated on a square foot basis.

In the example, all of the buildings were built at the same time. Thus, the assessor can allocate the costs of the entire complex at one time. The square footage calculation:

20-one bedroom units	x	850 square feet	=	17,000 S.F.
30-two bedroom units	x	950 square feet	=	28,500 S.F.
				45,500 S.F.

The cost of the land and buildings per square foot is: $2,450,000 ÷ 45,500 square feet = $53.85.
The cost of the land and buildings for the various units is:

One bedroom unit	850 square ft.	x	$53.85	=	$45,773
Two bedroom unit	950 square ft.	x	$53.85	=	$51,158

The cost of the recreational facilities and the cost of establishing separate ownership should be divided equally between the 50 units, as stated in the condominium declaration and any addendums. For example, if each unit has an equal allocation under the declaration, each unit has an equal opportunity to use the recreation facilities and the cost of establishing separate ownership is the same for each unit. Therefore, the cost for these items is:

Recreational Elements	$510,000
Establishing Separate Ownership	300,000
	$810,000

$810,000 ÷ 50 units = $16,200 per unit.

The values using the cost approach for the different units is:

One Bedroom Condominium		
Land and Building cost	$45,773	
Common Elements and Separate Ownership	$16,200	
	$61,973	say $62,000
Two Bedroom Condominium		
Land and Building Cost	$51,158	
Common Elements and Separate Ownership	$16,200	
	$67,358	say $67,400

This method can be used for all condominium developments. The assessor will have to make more calculations if there is a wider variety in types and quality of the condominiums. For example, if a condominium development occurs over a period of ten years, the assessor would have to calculate each building separately because of the difference in age and possibly quality.

The cost approach has one additional limitation in valuing condominiums. Some condominiums may have a higher value due to other than physical factors. For example, a condominium development built on a lake will have some units facing the lake. These units will usually sell for more than the other units. However, it is virtually impossible to determine the difference through the cost approach. The difference can usually be determined through an analysis of sales.

Income Approach

The capitalization of rental income is generally not applicable to the valuation of condominiums since individual units are not bought and sold on the basis of their ability to produce income. Condominium units are usually rented when the owner is either trying to sell the unit or has temporarily moved to another location. In either case, the owner's motive is to have some money coming in to help pay the mortgage, taxes, and utilities rather than have the unit vacant with the owner having to pay these expenses.

The assessor may be able to use Gross Rent Multipliers (G.R.M.'s) to measure the relationship between the rent paid on condominiums and their selling price. A Gross Rent Multiplier is the sales price divided by either the monthly or annual gross rent. For example, the assessor has analyzed several condominium sales and has discovered the following G.R.M.'s:

Sales price	÷	Gross monthly rent	=	G. R. M.
98,000	÷	525	=	187
110,000	÷	600	=	183
85,000	÷	450	=	189
90,000	÷	475	=	189
103,000	÷	550	=	187

The assessor would then feel justified in applying a G.R.M. of between 183 – 189 to the gross monthly rent of the subject condominium to obtain an estimate of the unit's market value. The use of Gross Rent Multipliers is limited to those condominiums that are rented. In addition, there must be an adequate number of comparable condominiums that have been rented and sold for the assessor to develop a reliable Gross Rent Multiplier estimate.

Land Valuation

Once the market value of a unit is known, it is necessary to allocate that amount between land and improvements. The land assessment should include an amount for each unit's percentage interest in the land and also any plus or minus adjustments for the location of the unit. For example, a unit with a view of a lake would probably sell for more than a unit in the same building without a view of the lake. This amount could be reflected in either the land assessment or the improvement assessment.

To arrive at a land assessment, it will be necessary to determine the percentage interest in the land held by each unit. There are basically three different methods used to prorate the percentage ownership of common areas among the various condominium units. Ownership may be prorated, based upon the value of each unit in relation to the total value of all the units, on the ratio of the area of each unit to the total area of all units, or it may be prorated equally among all units. To find the percentage interest allocated to each unit, refer to the condominium declaration recorded in the Register of Deeds Office.

The next step is to analyze sales of vacant land. Where a sale of the subject is not available, the next best evidence of value would be the sales of other land purchased for multi-unit dwellings, such as other condominium projects or apartment buildings. Because condominiums make maximum use of land area, the value of the land in relation to the total cost of the building is much lower than that of a single family dwelling. The ratio of land to building value for a condominium may only be around 1:10 compared to a ratio of 1:4 or 1:5 for single family dwellings.

Once the total land value has been estimated, that amount is prorated among the various units in the condominium, based upon each unit's location within the building and its ownership interest in the land. For example, assume that the total land value is $1,000,000 and that the interest in the common elements is as follows:

	Interest in Common Elements		**Number of Units**		
3-bedroom units	1.1%	x	20	=	22%
2-bedroom units	1.0%	x	60	=	60%
1-bedroom units	.9%	x	20	=	18%
					100%

Further assume that 35 units (10 of the 3-bedroom units, 20 of the 2-bedroom units and 5 of the 1-bedroom units) have a view of the lake. The market has shown that units with a view of the lake are selling for $1,000 more than units without a view.

To determine the amount of land value attributable to each unit, proceed as follows:

1. Determine the amount of the total land value that must be allocated among the 35 units for their view of the lake: 35 x $1,000 = $35,000
2. Deduct that amount from the total land value: $1,000,000 - $35,000 = $965,000. The remaining amount is the land value to be allocated among all of the units based upon their percentage interest in the common elements.
3. Multiply the remaining land value by each unit's percent interest in the common elements.

3-bedroom	=	1.1%	x	$965,000	=	$ 10,615
2-bedroom	=	1.0%	x	$965,000	=	$ 9,650
1-bedroom	=	9%	x	$965,000	=	$ 8,685

   These amounts represent the land value for individual units without a view of the lake.
4. Add $1,000 to arrive at a land value for each of the units with a view of the lake.

3-bedroom	=	$ 10,615	+	$1,000	=	$ 11,615
2-bedroom	=	$ 9,650	+	$1,000	=	$ 10,650
1-bedroom	=	$ 8,685	+	$1,000	=	$ 9,685

These results can be checked to verify that they add up to the total land value of $1,000,000.

3-bedroom units with a view	10 units	x	$11,615	=	$ 116,150
2-bedroom units with a view	20 units	x	$10,650	=	$ 213,000
1-bedroom units with a view	5 units	x	$ 9,685	=	$ 48,425
3-bedroom units without a view	10 units	x	$10,615	=	$ 106,150
2-bedroom units without a view	40 units	x	$ 9,650	=	$ 386,000
1-bedroom units without a view	15 units	x	$ 8,685	=	$ 130,275
Total land value					$1,000,000

After determining the amount of the total land value to be allocated to each unit, that amount is deducted from the value of each unit as estimated through the market approach. The remaining value is the amount of the improvement assessment.

Timeshares

Timesharing is an extension of the condominium concept. While a building may be divided into individual condominium units, each condominium unit may be further divided into timeshare units (weeks). The purchaser of a timeshare in a resort condominium buys the right to use a unit for a specified time period each year. Generally, units are available for occupancy 50 weeks out of the year, with two weeks set aside for extensive cleaning, repairs, and remodeling as necessary. Prices for a timeshare unit vary according to the season and the quality and size of the unit. For example, a unit at a timeshare resort in the high tourist season of July and August will sell for more than a week during the low tourist season such as April. The price will also vary depending on the amenities included with the timeshare development. A week at a resort that includes use of a golf course, tennis courts, swimming pool, lake access, clubhouse, restaurant, etc. will sell for more than a week at a resort which only has two or three of these features. Beyond the initial purchase price, the only extra costs involved are for property taxes (if the timeshares are purchased on a fee basis) and for annual maintenance fees which cover the expenses for such items as utilities, insurance, cleaning, and on-site management.

Ownership Interests

Ownership of a timeshare may be on a fee simple basis or on a right to use basis.

Fee simple ownership gives the purchaser a fractional interest in the real estate. That interest can be sold, exchanged, or rented, and since the duration is perpetual, it can also be passed on to the purchaser's heirs. When purchased on a fee simple basis, the various owners are responsible for the operation of the property that is handled by the timeshare owners' association. Section 70.095, Wis. Stats., makes the owners' association responsible for allocating real property taxes among its members. The assessor need make only one entry in the assessment roll for each building unit within the condominium. That entry shall include the cumulative real property value of all timeshare weeks for each building unit. The condominium association may be considered the agent of the individual timeshare owners and may file one objection and make one appearance before the Board of Review concerning all objections relating to a particular real property improvement and the land associated with it. An individual timeshare owner may file an objection before the Board of Review concerning the assessment of the building unit in which he or she owns a week.

Right To Use Ownership**.** When purchased on a right to use, or non-fee basis, the timeshare includes only the right to use the property for a specific week for a specified time period that generally ranges from 15 to 50 years. At the end of the time period, this right reverts back to the owner of the development. No ownership interest is included with purchase on a right to use basis. If the developer retains title to the property, as the owner, the developer will be responsible for the taxes for the entire development. If the development is on one parcel, only one entry for the entire development need be made in the assessment roll. If the development is on two or more parcels, the assessor may make two or more entries in the assessment roll with each entry including the building and land values for each parcel.

Valuation

The valuation of timeshare property presents a unique valuation problem for the assessor. Section 70.03, Wis. Stats., in defining real property states "... except that for the purpose of time-sharing property as defined in sec. 707.02(32), Wis. Stats., real property does not include recurrent exclusive use and occupancy on a periodic basis or other rights, including, but not limited to, membership rights, vacation services, and club memberships". In effect, what this says is that those attributes that differentiate a timeshare condominium from other condominiums should be disregarded in valuing the timeshare property. The value of a timeshare unit and a very comparable condominium should be the same. Thus, the assessor should value the timeshare property in the same manner as other condominiums.

Timeshare units are sold with all furnishings and accessories such as appliances, furniture, bedding, towels, kitchen utensils, and dishes. The assessor should analyze these items to determine whether they are real property under the law of fixtures or personal property. Items that are determined to be fixtures, such as carpeting or built-in appliances, should be assessed with the real property. When the items are personal property and the timeshare units are sold on the right to use basis, because the developer retains title, the personal property should be assessed to the developer. When the timeshare units are purchased on a fee basis, the personal property is exempt under sec. 70.111(1), Wis. Stats. In any case, the value of the personal property should not be included in the real property value of the timeshare unit.

Sales Comparison Approach

The courts have stated that the sales comparison approach is the best method of determining market value. The arm's-length sale of the subject property is the preferred indicator of market value, provided it is in line with sales of reasonably comparable property. The simplest way to value a timeshare unit would be to total the sales prices of the individual weeks. However, it is not that simple. As previously mentioned, the assessor must not include "recurrent exclusive use and occupancy" items such as club membership and exchange privileges, and personal property in the valuation of the timeshare unit. All of these items are included in the sales price of the unit and their value must be deducted to arrive at the residual value of the real property interest as defined in sec. 70.03, Wis. Stats.

The assessor can use sales of comparable condominium units to indicate the value of the timeshare real property interest per unit. The condominium units are very similar in concept to the timeshare units and because they do not include the non-assessable rights and

privileges the assessor need make no adjustments for them. The assessor will still have to make any adjustments for differences between the condominium and the timeshare unit such as number of bedrooms and bathrooms, size, age, and date of sale. The fewer the number and size of adjustments the more reliable the comparable. The assessor should refer to the condominium section of this chapter for an example of the adjustment process. The assessor must also make sure that the condominium and timeshare developments are comparable. Both developments should have the same amenities such as swimming pools, tennis courts, and location. The assessor may be able to make adjustments for minor differences, but may not be able to make adjustments for major differences. For example, if the timeshare development is two stories and the condominium development is six stories, the assessor may not be able to determine an adjustment for this difference.

The assessor can also use the sale of comparable condominiums to develop a total value for the non-assessable assets. The assessor can deduct the value of the adjusted comparable sale from the total sales prices of the timeshare weeks to estimate the value of the non-assessable assets. The assessor can then divide this figure by the total sales price of the timeshare weeks. If the assessor discovers that the results of these calculations yield a fairly consistent result, then the assessor can apply this percentage to the total sales price of a timeshare unit for which there are no comparable sales to obtain an indication of the value of that unit.

Case Study

An assessor has analyzed the sale of twelve timeshare units and comparable condominiums and obtained the following results:

Total sales price of timeshare unit		Adjusted sales price of comparable condo		Value of non-assessable assets	% of total sales price of timeshare
125,000	-	97,500	=	27,500	22%
115,000	-	85,100	=	29,900	26%
120,000	-	90,000	=	30,000	25%
140,000	-	103,600	=	36,400	26%
135,000	-	101,300	=	33,700	25%
150,000	-	109,500	=	40,500	27%
138,000	-	106,300	=	31,700	23%
123,000	-	91,000	=	32,000	26%
127,000	-	96,500	=	30,500	24%
145,000	-	110,200	=	34,800	24%
135,000	-	104,000	=	31,000	23%
142,000	-	110,800	=	31,200	22%

The assessor would be justified in applying a percentage in the range of 22% to 27% to sales of timeshare units for which there are no comparable condominium sales.

Cost Approach

The cost approach to valuing timeshare units presents the same problems as it does for condominiums. One, the assessor has to allocate the cost for common elements such as roofs, walls, hallways, swimming pools, and tennis courts between the various timeshare units. Two, the cost of the physical items tend to come up lower than the value of the timeshare units because there is additional cost to the developer for attorney fees, surveys, and

preparing the legal documents needed for individual ownership of the units.

The assessor should calculate the cost of the physical items which includes the buildings, tennis courts, swimming pool, clubhouse, and other physical features, and deduct any applicable depreciation. The assessor should then estimate the attorney fees, surveys, and other administrative expenses necessary to create the individual ownership. The developer is the best source for the cost of these services. The assessor then allocates these costs to the individual units. An example of this procedure is included in the Condominium Valuation section of this chapter.

Income Approach

The income approach to valuing timeshare property has only limited applicability. The few timeshare units that are rented are usually rented for only several weeks. The motivation in renting the timeshare weeks is rarely to generate investment income. Most often, it is someone who has purchased a week but cannot use that week and would rather rent it to someone than have the unit vacant.

The assessor could use the income approach as applied to condominiums to obtain an indication of value. The advantage of using condominiums is that they do not include the non-assessable assets previously mentioned. The disadvantage is that condominiums are rarely purchased and rented as investments. Condominiums like timeshare units are usually rented to obtain some income rather than having the units stand empty.

The assessor could also use the cost of development method as demonstrated under the income approach in the condominium section of this chapter. This approach is based on the income that the developer will receive over a period of time from the sales of the individual weeks of timeshare units. This method presents several problems. The assessor has to allocate the present worth of the project to each of the units and the assessor then has to subtract the value of the non-assessable assets from the sales prices of the individual units. The difficulty in making these two estimates makes this method questionable at best.

Summary

Timeshare property is an extension of the condominium concept. While a building may be divided into separate condominium units, each condominium unit can be divided into individual weeks or timeshares. There are two types of timeshare property. One is fee simple ownership of an individual week or weeks. The other is ownership of the right to use a specific unit for a specific week for a period of years with the developer retaining title to the property.

Timeshare property presents a unique valuation problem because sec. 70.03, Wis. Stats., excludes "recurrent exclusive use and occupancy on a periodic basis or other rights, including, but not limited to, membership rights, vacation services, and club membership." These non-assessable assets are included in the sales price of the timeshare. The assessor cannot simply add up the sales prices of the individual weeks to arrive at the value of the timeshare unit. The assessor can use sales of comparable condominium units to provide an indication of value. The assessor can use the cost approach when there are no comparable sales, however,

the assessor may encounter problems in allocating costs for common areas such as roofs, hallways, and amenities between the various units. The assessor would also have to add the costs of attorney fees, surveys, and the preparation of legal documents to the base cost of the buildings. As timeshare properties start to age, proper calculation and allocation of depreciation will present additional problems. The income approach is probably the least reliable of the three approaches since timeshare property is not purchased for investment purposes.

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