JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

VII. INDUSTRY EDUCATIONAL COURSES - LONG TERM

G. Australian Lecture Series

4. "Contemporary Appraisal - Market Comparison Approach", Second Module

Index

SECOND MODULE

CONTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

Presented by

Professor James A. Graaskamp, Ph.D, CRE, SREA
University of Wisconsin, School of Business

FIRST HOUR

I. Basic Concepts of Contemporary Appraisal

The basic premises of the contemporary approach stem from the fundamental belief that pricing is a behavioral science, that analysis should be inductive rather than deductive wherever possible, and that appraised values are intended to serve as a benchmark for some decision process.

A. A price is a social transaction and the behavior of the parties and configuration of the transaction reflects a consensus at some point in time between external market forces sufficiently strong to impose on the outcome, and internal forces on the supply side, sufficiently strong to pursue their own self-perceived interests.

1. Notice that the above does not presume the conditions of fair market value. (See Exhibit 1.)

    a. Both demand and supply forces to have alternatives of equal indifference
    b. Negotiation abilities of equal force, or
    c. Cash maximization as their sole criteria - all of which characterize the traditional approach.

2. Contemporary appraisal does presume that price must always be conditioned by the property rights, financing terms and conditions of sale required by the issue for which appraisal is sought as a benchmark.

3. Contemporary appraisal may therefore apply different definitions of value depending on the problem including fair market value, cost to replace, investment value or most probable price at which it will sell.

B. Value is a conditional price described as the most probable price at which a property will sell if exposed to the market for a reasonable period of time and sold subject to financing and transaction terms considered typical at that point in time and place. (See Exhibit 2.)

EXHIBIT 1

FAIR MARKET VALUE - The highest price in terms of money (*The Most Probable Price, Eighth Edition 1983, AIREA) which a property will bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated
2. both parties are well informed or well advised, and each acting in what he considers his own best interest
3. a reasonable time is allowed for exposure in the open market
4. payment is made in cash or its equivalent
5. financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale
6. the price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction

Source: P. 137, <u>Real Estate Appraisal Terminology</u>, Editor Byrl Boyce

*Not to be confused with most probable price in contemporary appraisal, which does not reflect an assumption of a competitive market with alternative, does not require ignoring of public bargaining position of the party, and which does not require cash to the seller if the market cannot have a transaction without seller financing.

EXHIBIT 2

The most probable price is that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type.

Source: P. 8, <u>The Appraisal of 25 N. Pinckney</u>, by James A. Graaskamp

C. The contemporary view sees appraisal as a limited and fictional case of feasibility analysis which, in turn, is a limited case in problem solving which, in turn, is part of a larger planning framework.

D. Appraisal as a fictional feasibility study is a model of a decision process and, therefore, like all models is constrained by the following elements:

1. What is the nature of the question?
2. What quantity and quality of data may be available?
3. What theory or hypothesis may edit and focus the available data as a tentative answer to the question?
4. What techniques and data management can be used reliably by the analysts?
5. What techniques and data management have credibility with the ultimate decision maker hiring the analyst?
6. What techniques and data management are cost effective in terms of the dollar consequences of the decision?

E. In that light, the sequence of steps required of the contemporary appraisal process, referred to by Wisconsin students as RATGRAM, is as follows:

1. What is the issue for which the appraisal is sought as a benchmark? (Exhibit 3)
2. What are the attributes of the property in terms of alternative courses of action for their productive use? (Exhibit 4)
3. Given the alternatives, what is the most probable use?
4. Given the most probable use, who is the most probable buyer in terms of class, motivation profile, or market position?
5. Given the most probable use and most probable buyer assumptions, there are <u>three approaches</u> to predicting most probable price:

   a. Inference from past transactions involving properties of similar potential and buyers of similar motivation.
   b. Failing adequate transaction data, it is then acceptable to simulate the pricing methods prototypes.
   c. Failing to find either similar properties or articulate buyers, the appraiser is then permitted to use normative methods which indicate what might happen if buyer and seller were as smart as the appraiser.

EXHIBIT 3

PROBLEM SITUATIONS AND VALUE REQUIREMENTS

Transaction Type	Decision Parameters	Environment of Analysis	Value Needs
1. Sale	How much can I sell it for? -asking price V_o -V_s to seller -V_t as the final acceptance price -marketing time (velocity) -finance terms	Concern with what will happen under real conditions, not idealized conditions -analyze market -rate of turnover -price trends -comparable sales -measure of central tendency by way of average sales -change in conditions will change most probable selling price	Most probable selling price (V_p) -the most likely, not the highest nor lowest, but in statistical terms the central tendency under a given set of conditions
2. Purchase	What should I reasonably pay? What will it sell for? -offer not too high/low -highest price willing to pay (buyer's V_s) -if income is known and gives a desired rate of return, can a value be simulated?	Same conditions as a sale transaction	-Average or range of comparables -Replacement cost new -Compares existing property under current market conditions -Present worth, future income -Market capitalization rates: a) market update b) agent's subjective rate -Most probable selling price (V_p) a) current conditions b) future pattern

EXHIBIT 3 (continued)

Transaction Type	Decision Parameters	Environment of Analysis	Value Needs
3. Trade	Value of both or all properties in trade are analyzed on same basis	Short-term cycle can necessitate adjustment due to submarkets	V_p, but more emphasis on V_s of parties involved than market conditions
4. Extension of credit	Can it carry the debt burden given the objectives of investor	Subject to money markets and general social and policy constraints	-Loan to value ratio: debt to collateral value -Future selling price (V_p) -V_p considers pattern of future debt, based on mortgage contract
5. Eminent domain	What is the legal definition of value to be used? -not just present value of market recognized benefits, but all future benefits--i.e., commodity vs. resource	To achieve value definition must eliminate market value if inherent worth measured by a perfect transaction between all wise persons -actual sales used as guide to hypothetical value points -imperfect market vs. legal definition of value	Fair market value (V_e) required by law; however, law tends to favor reliance on direct sales which V_p best illustrates; ethical portion subject to appraiser's judgment
6. Insurance	What is legal definition? What is real loss of hazard? -replacement cost vs. reproduction cost -actual cash value (ACV) vs. replacement cost	-Contractual agreements -Standard of indemnity -Changing concepts: real estate vs. property -Legal definition vs. needs of parties involved	-Actual cash value (ACV) -Reproduction cost less depreciation--amount to indemnify -Replacement cost new -All the above are applied to total property and portion lost

EXHIBIT 3 (continued)

Transaction Type	Decision Parameters	Environment of Analysis	Value Needs
7. Property tax assessment	What is a fair tax basis per site? What is the land and building contribution? -equal treatment on a mass basis -legally/politically determined ratio of assessed to market value	-Mass appraisal -Legal/political influence -Only need challenge on basis of equal treatment of sites	Fair market value (V_e) basis; V_p altered by mass appraisal format -assessed value ratio applied to V_e -equity only on spatial relation and property type basis; equity not based on ability to pay
8. Depreciation base	What is value at beginning? What is value at end? What is the duration of productive life?	Dynamic institutional constraints fluctuate with tax reform and rulings -arbitrary methods due to tax administration -tax allowance on deductions -recapture of wasting asset via income stream -productive life (arbitrary)?	-Cost new on new buildings (book value or most probable cost, V_c) -Need consider marginal productivity of improvements -Land vs. improvement dichotomy for existing properties -V_p if value by légal requirements for inheritance or estate tax -Cost of reproduction less arbitrary depreciation (arbitrary on part of IRS) -Capital gains and ordinary income tax, allocation of depreciation -PV of entire property income over holding period and land value at end of economic life of present building (property residual) -V_{p1} and V_{pn} necessary?

EXHIBIT 3 (continued)

Transaction Type	Decision Parameters	Environment of Analysis	Value Needs
9. Inheritance tax	V_c, V_p, or V_e--which is best for depreciation basis? -goal: to tax wealth received based on ability to pay -basis for capital gains	-Disposition of estate and taxing authorities' standards -V_e or V_p, the basis changes with real estate cycle: boom, then V_e lower than V_p	V_e or V_p--V_p short run, V_e long run -V_e preferred as base for capital gains during a slump -V_p better for inheritance during slump -both figures useful if need decision to keep or sell -if assessment lower than V_p, sell, then reinvest in like property and keep depreciation basis for future--capital gain determination
10. Utilization	What is preferred use? What is price as it relates to productivity? What are taxes? What is appreciation and capital gains potential? -price given use -tax level -cost of improvements -amount of financing -income and expense forecast	-Static attributes -Legal/political constraints -Financial constraints -Economic Constraints -Environmental constraints -Not just single value estimate, but address problem in range	-V_p -Investment value V_{si} -Most probable use (MPU) -Most fitting use (MFU) -Capitalization rate--based on market or investor-owner objectives

EXHIBIT 4

Critical Issues Which Define Appraisal Process

Function of the Appraisal	Property Rights	Relevant Definition of Value	Allocation of Productivity	Buyer Motivation Presumed
Tax assessment	Fee simple private rights unencumbered	Fair market value	Income attributable to land & structures only	Purchase of economic productivity
Mortgage loan (non-participating)	Encumbered fee simple private rights plus additional rights pledged	Regulations - fair market value Underwriting - solvency price or liquidating value	Fixed income pledged from all sources less costs of creative management	Share of economic productivity contributed by capital
Mortgage loan (participatory)	Encumbered title plus non-vested interest in selected future revenues	Present value of all future cash flows	Variable income pledged plus share of reversionary interest	Share of economic productivity contributed by capital plus share in selected management returns plus positioning against devaluation due to changing conditions
Sale of an investment	Encumbered title plus vested entitlements plus going concern profit center opportunities	Most probable price above minimum acceptable alternative opportunity	Return from land, structures, personalty, and selected entitlements	Increase in spendable cash Increase in liquidity value of estate Positioning to maximize probability of survival of benefits despite changing conditions
Purchase of investments	Encumbered title plus positioning for access to entitlements	Most probable price within perceived peril point limit	Land, structure, personalty, and intangible assets less profit centers for management	Increase in spendable cash Increase in liquidity value of estate Positioning to maximize probability of survival of benefits despite changing conditions
Going concern purchase of a business	Encumbered title plus positioning for access to entitlements plus reduction in risk for business start-up plus monopolistic market controls	Most probable price within perceived costs of alternatives	Land, structure, personalty, and intangible assets and good will plus profit centers for management	Increase in spendable cash Increase in liquidity value of estate Positioning to maximize probability of survival of benefits despite changing conditions

6. With an initial estimate of value, it may then be modified for external conditions unique to the parties, the place or the time.

7. The adjusted value must then be tested to demonstrate that results at that price would be consistent with the minimum goals of all major parties to the transaction.

8. Since the appraiser is predicting price under conditions of uncertainty and many different market terms, the appraisal conclusion must be expressed as a central tendency within a transaction zone which is qualified by financial terms and/or critical assumptions about unknowable facts.

   a. Although the American Institute of Real Estate Appraisers uses fair market value and most probable price interchangeably, that is a travesty on the work of modern theorists and a deliberate attempt to confuse or negate the implied criticism of traditional ways by contemporary analysts.
   b. Contemporary theory recognizes explicitly the errors in forecasting, the role of financial terms, and the reality of bargaining position.

CONTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

Presented by

Professor James A. Graaskamp, Ph.D, CRE, SREA
University of Wisconsin, School of Business

SECOND HOUR

I. Concept of Most Probable Buyer Type/Most Probable Price

Ratcliff Theory would place as much emphasis on behavior of prospective buyers or investors as on the operating behavior and characteristics of a property. Appraisal is trying to predict how people, buyer and seller, will behave in the future, converting a decision to a mutually acceptable price.

A. Each party is operating under certain assumptions and constraints:

1. Buyers assume they will have to pay no less than some specific price, that others are bidding for the property, that they cannot afford to pay more than a certain amount of income for shelter or business location, or that a desired use requires a specific set of attributes.
2. Sellers assume buyers see the property in the same way they do, that the property has some inherent value and utility, and that it's just a matter of time before some buyer can be found to pay the asking price.

B. A transaction matches motivation of buyer and seller imperfectly and mismatches increase as the appraiser selects additional comparable sales.

1. Developer seeks financial efficiency in the building while insurance company seeks financial efficiency in terms of operations including visibility.
2. Seller of an old house is irritated with its deficiencies while a young couple buys with excitement about remodeling opportunities.
3. Seller sells to improve liquidity with leaseback while buyer purchases to avoid devaluation of liquid resources.
4. One man's floor is another man's ceiling.

5. Therefore, the eventual sales price at which two parties will agree is arranged within a zone of expectations and requirements reflecting the assumptions of each party. Indeed, some transactions are designed so that the final price is determined late based upon whose assumptions prove to be more correct in a speculative situation.

C. Ratcliff identified the significant set of alternative values or perspectives of value, including:

1. Vs - value to the owner or user.
2. Vc - cost of constructing a substitute property.
3. Vp - a probabilistic prediction of what the property will sell for
4. Vo - price at which the property is offered for sale.
5. Vb - bid price by a prospective purchaser
6. Vt - the price at which the property is actually sold, as a historic fact.

D. Both buyer and seller enter negotiations with a subjective value expectation (Vs) which is a constraint in bargaining for the property.

1. "The actual selling price will usually represent a compromise between what the buyer would have paid if necessary and what the seller would have taken as a last resort." p. 13, Ratcliff, Valuation for Real Estate Decisions.
2. Therefore, the appraisal must take more than just the buyer viewpoint of the transaction or the appraisal will not be of a value that reaches the minimum the seller can or would accept.

E. This leads then to the concept of a transaction zone around a point which is the central tendency of bargaining, a point we call most probable price. Notice the assumptions of most probable price may be somewhat more acceptable in terms of pragmatic realism than those of fair market value.

1. Subjective value (Vs) is a figure with which buyers and sellers enter the market as a constraint in the bargaining. The actual selling price will represent a compromise between what the buyer would have paid if necessary and what the seller would have taken as a last resort.
2. In residential work, where there are many sales, the transaction zone may be defined statistically as the standard deviation of the estimate.

3. The possible variance or error in the estimate of probable sales price may be intuitive by the appraiser.
4. The zone may be defined by the logic of bargaining positions. The seller wants to cover his debt and broker fees; the buyer assumes a certain value in a new use less remodeling costs, less a cushion for unexpected costs and profit.
5. In the cast of investment properties, sensitivity analysis may define the range of alternative outcomes.
6. There may be certain conditions which cannot be known by the appraiser but which would change his estimate as to what the buyer or seller would accept; the appraiser may define the transaction zone as the range between optimistic and pessimistic impacts of external events.

F. The important function of the transaction zone is to alert the reader of the report:

1. To the fact that an appraisal value is not a certainty but a prediction of a future hypothetical business event.
2. Present value is the purchase of a set of assumptions about the future and therefore value depends on which set of assumptions the buyer and seller "buy."
3. The reliability of a prediction is important in using probable price as a benchmark for a decision; reliability is less important in assessment than in investment, conservatism more important in lending than in equity investment, etc.

G. The Ratcliff viewpoint is just plain common sense. On page 14 of his text he states his premise:

"The fundamental concepts of value and price which are central to appraisal are at the heart of the social science of economics. Economic goods are valuable because of their utility (productivity) and scarcity. Thus in analyzing the value of a parcel of real estate, the starting point is with its inherent utility - the characteristics and qualities which can make it productive and desirable, and for which people are willing to pay.

"But price is set in the market place. To serve his client's needs, the appraiser seeks to predict the price at which the subject property will probably sell. Viewing the property as a package of potentially productive qualities, the appraiser must predict the outcome of the interaction of the market forces of demand and supply to which the property might be exposed and which could trigger a transaction from which market price will emerge.

"Economics is a behavioral science, descriptive of the economic behavior of people under various conditions. It is the appraiser's task to predict how people, both buyers and sellers, will behave with respect to the subject property when it is exposed for sale. People make values and determine prices."

H. Most probable selling price is a derivative of the theoretical work of Prof. Richard U. Ratcliff, William Kinnard, Paul Wendt, and others.

1. The quotable definition: "The most probable price is that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type."

2. This approach makes the point conclusion explicitly a statement of the central tendency (mode, mean, or median) around which a transaction price is likely to fail. Thus it generally supplies a valuation as a range of prices within which a transaction would most likely occur, similar to but not necessarily a concept of statistical standard error. This range will be called a transaction zone.

I. General format of RATGRAM Appraisal follows common sense logic:

1. Define the issue for which the appraisal is sought in order to select the appropriate definition of value.

2. Analyze alternative uses of property to select most probable use as of date of appraisal.

3. Infer from probable use the most probable buyer-type, financial motivations, and negotiation position.

4. Define comparability and test applicability of three alternative approaches.

   a. Preferred method is to infer buyer behavior from completed market transactions.
   b. In the absence of sales, simulate buyer estimation methods and constraints.
   c. Knowing nothing of buyers' methods, fall back to normative approaches.

J. In the contemporary approach, note:

1. Any method is judged on the reliability with which it predicts transaction price - not on intellectual elegance-robustness.

2. Buyer-type is generally a class, but it could be a single buyer. The statistical marketplace assumption does not control.

3. There is no need that buyers be fully informed as the market may provide evidence that prices are being set by ignorance; there is no need that buyers have reasonable choices if the seller is enjoying a monopoly position.

4. Finally, it should be noted that the logical development from productivity analysis to selection of the appraisal report structures the form of the report.

K. Since appraisal starts from what is known about a specific piece of property (Productivity Analysis, Chapter 2 in Ratcliff),it is similar to a feasibility report until one has determined the probable use and the probable buyer. (See Exhibit 5.)

1. The traditional appraisal report always moves from the general to the specific, subject to a series of limiting conditions. Many of these special conditions are professional courtesy to avoid competition with other professions at the same time that one avoids paying the other professions and continues as a lone wolf in appraisal, controlling the customer, a psychological hang-up of real estate brokerage.

Thus the appraiser avoids:

a. Engineering factors
b. Finance and taxation matters
c. Title issues, surveys, etc.
d. Legal character of leases, permits, and other contracts

2. At the same time the element of uncertainty, left implicit by a single number conclusion, is hedged by additional limiting conditions including the appraisal practice of ignoring politics, land use administration, and personalities.

   a. The practice of using limiting conditions has moved to the point where the appraiser supports consistency based on faulty premises rather than honesty as the reliability of a prediction.
   b. Nevertheless, all an investor buys is a set of assumptions about the future.
   c. Since risk is the variance between assumptions and realizations, how can the appraiser evaluate the probable productivity of the property without evaluating all the assumptions which can be made explicit.
   d. Thus the transaction zone of range of estimates together with other report writing techniques are intended to provide better methods of recognizing the need for tolerance in the decision process for the conditions of uncertainty which surround the appraisal estimate.

EXHIBIT 5

CONTEMPORARY REAL ESTATE APPRAISAL REPORT OUTLINE

Letter of Transmittal

1. Brief statement of appraisal issue
2. Definition of value aplied
3. Value conclusion (qualified by financing, terms of sale, and range of probable transaction zone as appropriate)
4. Sensitivity of conclusion to critical assumptions
5. Property observations or recommendations
6. Incorporation by reference of limiting assumptions and conditions

Table of Contents

List of Exhibits

Digest of Facts, Assumptions, and Conclusions

1. Property type
2. Property location
3. Property ownership
4. Determinant physical attributes
5. Controlling legal-political attributes
6. Pivotal linkage attributes
7. Marketable dynamic attributes
8. Most probable use conclusion
9. Most probable buyer profile assumed
10. Initial probable price prediction and central tendency
11. Adjustment of preliminary value estimate for external factors or market position of parties
12. Testing of corrected probable price for consistency with most probable buyer objectives
13. Final value conclusion and range of error estimate as appropriate

I. Appraisal Problem Assignment

   A. Statement of issue or circumstances for which appraisal is intended to serve as a decision benchmark and date of valuation

   B. Special problems implicit in property type or issue that affect appraisal methodology and definition of value

EXHIBIT 5 (continued)

C. Special assumptions or instructions that are provided by others

D. Definition of value, which is the objective of appraisal analysis and disciplines appraisal process

1. Selected definition and source
2. Implicit conditions of the definition
3. Assumptions required by relevant legal rulings

E. Definition of legal interests to be appraised

1. Legal description and source
2. Permits, political approvals, and other public use entitlements
3. Fixtures or personalty to be included with sale
4. Specific assets or liabilities excluded as inconsistent with issue or premise of appraisal

II. Property Analysis to Determine Alternative Uses

A. Site Analysis

1. Physical (static) site attributes (size, shape, geology, slope, soil hydrology, etc.)
2. Special site improvements (wells, bulkheads, irrigation systems, parking surfaces with unique salvage or re-use characteristics, etc.)
3. Legal-political attributes (applicable federal, state and local zoning, convenants, easements, special assessments, or other land use codes and ordinances, etc.)
4. Linkages of site (key relationships to networks, populations, or activity centers that might generate need for subject property)
5. Dynamic attributes of site (perceptual responses of people to site in terms of anxiety, visibility, prestige, aesthetics, etc.)
6. Environmental attributes of site as related to off-site systems or impact areas.

B. Improvement Analysis

1. Physical (static) attributes of improvements, cataloged by type, construction, layout, condition, structural flaws, etc.
2. Mechanical attributes (brief sttement of heating, ventilating, air conditioning, electrical, plumbing, and fire or safety systems in terms of limitations on use or efficiency)

EXHIBIT 5 (continued)

3. In short, it is useful to subdivide improvements into subsystems:

   a. Foundation system
   b. Structural system
   c. Vertical circulation
   d. Horizontal circulation
   e. Floor system
   f. Ceiling system
   g. Roof system
   h. Internal wall system
   i. External wall system
   j. HVAC system
   k. Communications system
   l. Traffic separation system
   m. Security system
   n. Life safety system
   o. Waste removal system

4. Special structural linkages to off-site elements (tunnels, bridges, adjoining structures, etc.)
5. Legal-political constraints on use of existing improvements (federal, state and local building codes, fire codes, conditional use procedures, neighborhood associations, and inspection liens of record for violations).
6. Dynamic attributes of existing improvements (impressions created by type, bulk, texture, previous uses, past history, or functional efficiency)
7. Current uses and tenancies of improvements, if any
8. Environmental impact attributes of improvements on environs

C. Identification of Alternative Use Scenarios for Subject Property

1. Marketing existing uses of property as is
2. Renovation of existing property and marketing improved space
3. Redirection of existing property to alternaitve tenancies and uses
4. Replacement of existing improvements or program with new uses

EXHIBIT 5 (continued)

III. Selection of Most Probable Use

A. Comparative Analysis of Alternative Uses

1. Testing and ranking alternative use strategies for legal-political compatibility
2. Testing alternative use scenarios for fit to physical property attributes within reasonable cost to cure
3. Selection of scenarios that justsify market research

B. Analysis of Effective Demand for Selected Uses

1. Search for rents and income potentials of scenario space-time products
2. Screen and rank market targets
3. Apply income-justified residual investment approach to rank economic power of alternative market scenarios
4. Evaluate marginal revenue, marginal investment risk trade-offs

C. Summary Matrix for Selection of Most Probable Use Scenario

1. Physical fit
2. Legal-political risk
3. Strength of market demand
4. Adequacy of available financing
5. Revenue and cost assumptions risk

IV. Prediction of Price for Subject Property

A. Specification of Most Probable Buyer Type Implied by Most Probable Use

1. Criteria motivations of alternative buyer types
2. Selection of most probable buyer type as basis for prediction
3. Specification of essential site, improvement, financial, or key decision criteria of principal alternative buyer types

B. Explanation of Appraisal Methodology for Prediction of Probable Purchase Price

1. Preferred method: to infer buyer behavior from actual market transaction and market data available from sales by comparable buyers of acceptable alternative properties

EXHIBIT 5 (continued)

2. In the absence of adequate market sales data, the alternative method selected for simulation of probable buyer decision process
3. If market influence of simulation is impossible, select normative model such as investment value, or cost to replace

C. Search for Comparable Market Sales Transactions

1. Unit of comparison
2. Method of comparison
4. Investigation of sale transaction circumstances
5. Evaluation for comparability
6. Definition of predominant terms of sale
7. Source of comparative adjustments

D. Determination of Suitability of Existing Market Data for Inference of Value for Subject Property

1. Where data is adequate, selection of market comparison method to estimate value
2. Where data is lacking or misleading, selection of method leads to simulation in E or normative methods in F

COMTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

Presented by

Professor James A. Graaskamp, Ph.D, CRE, SREA
University of Wisconsin, School of Business

THIRD HOUR

I. Basic Concepts and Definitions to Define Most Probable Use

A. Real estate is a tangible product - defined as artificially delineated space with a fourth dimension of time referenced to a fixed point on the face of the earth.

1. Real estate is a space-time unit, room per night, apartment per month, square foot per year, tennis court hours, or a condominium for two weeks in January at a ski slope.
2. To the space-time abstraction can be added special attributes to house some form of activity.
3. Improvements from survey market to city layouts to structures define space.
4. Legal contracts and precedents define time.
5. Rights of use are defined by public value, court opinions.
6. Private rights to use are those which remain after the public has exercised its rights to control, to tax, or to condemn.

B. A real estate project is a cash-cycle business enterprise which combines a space-time product with certain types of management services to meet the needs of a specific user. It is the process of converting space-time needs to money-time dimensions in a cash economy.

1. A real estate business is any business which provides expertise necessary to relate space-time need to money-time requirements and includes architects, brokers, city planners, mortgage bankers, and all other special skills.
2. The true profit centers in real estate are in the delivery of services and cash capital.
3. Equity ownership is the degree to which one enterprise controls or diverts cash from another real estate enterprise.
4. Public has direct ownership to the degree real estate taxes take a percentage of tenant income in excess of service cost.

5. Consumer must view space as a total consumption system involving direct cost, surface cost, transportation cost and negative income of risk.
6. The best real estate project is the one which has the lowest net present value of cost as the sum of cost to the consumer production sector and public sector.

C. The real estate process is the dynamic interaction of three groups, space users (consumers), space producers, and the various public agencies (infrastructures) which provide services and capital to support the consumer needs. (See Exhibit 6.)

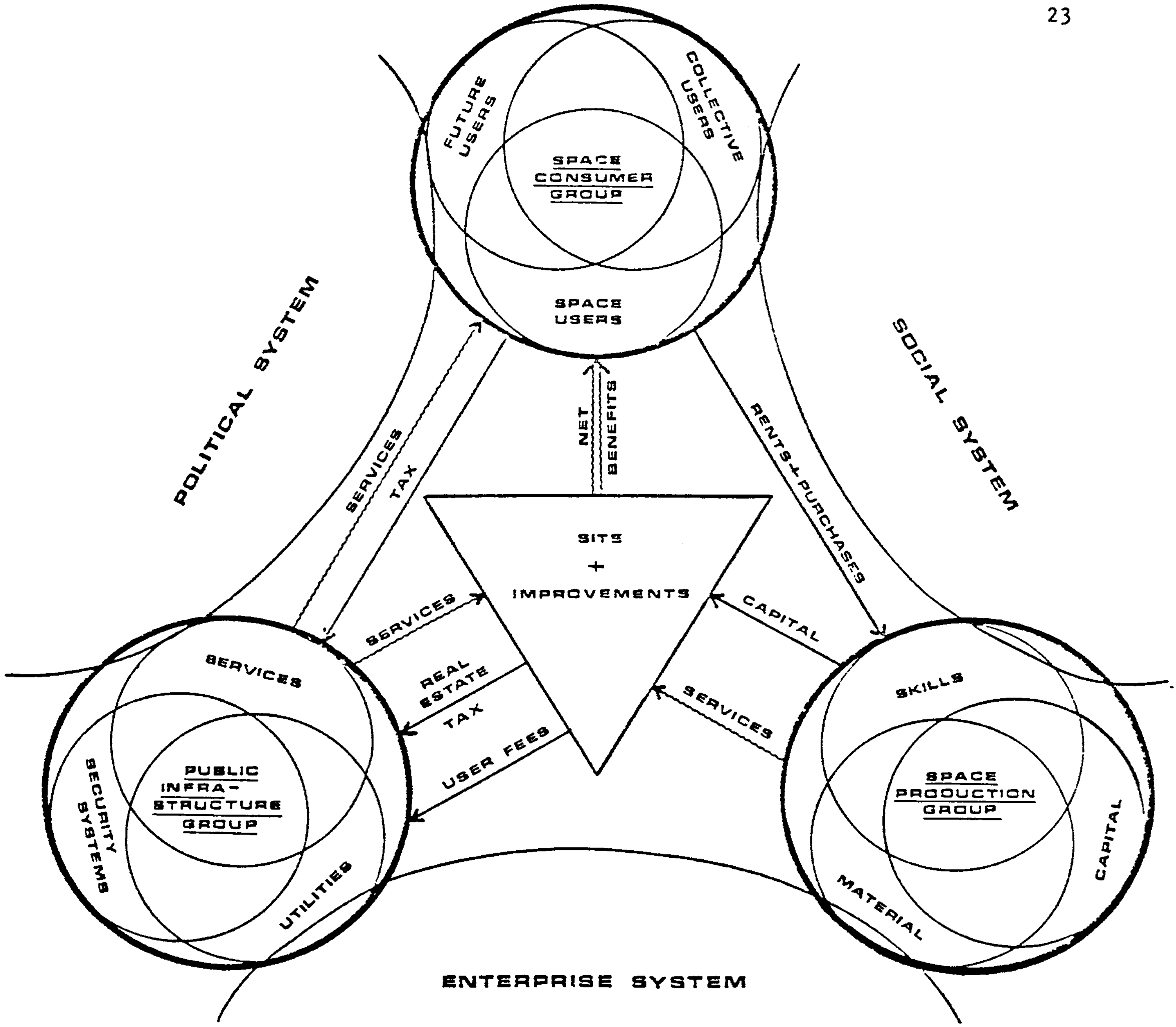
1. Each of these three decision groups represent an enterprise, an organized undertaking. All are cash cycle enterprises constrained by a need for cash solvency, both short and long term.
2. A desirable real estate solution occurs when the process permits maximum satisfaction to the consumer at a price that he can afford within the environmental limits of land while permitting the consumer, producer, and the government cash cycle to achieve solvency - cash breakeven at a minimum, after full payment for services rendered.
3. Solvency of the total process, not value, is the critical issue.
4. Land is an environmental constraint and not a profit center.
5. Land provides access to a real estate business opportunity and is not the opportunity itself. Real estate business wants to control land to create a captive market for services.

D. Land is the point where demand and supply forces find cash solvency. Location is a manufactured attribute. Site attributes are exploited to create location by analyzing:

1. Static attributes
2. Legal-political attributes
3. Linkage attributes
4. Dynamic attributes

E. Recognition of the fact that profit maximization must be limited by concerns for physical environment and community priorites for land use has resulted in redefinition of the most basic concept in appraisal; i.e., highest and best use, in the authorized terminology handbook sponsored by the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers. Compare the 1971 definition with that for 1975:

EXHIBIT 6



THE REAL ESTATE PROCESS

Highest and best use concept - "A valuation concept that can be applied to either the land or improvements. It normally is used to mean that use of a parcel of land (without regard to any improvements upon it) that will maximize the owner's wealth by being the most profitable use of the land. The concept of highest and best use can also be applied to a property which has some improvements upon it that have a remaining economic life. In this context, highest and best use can refer to that use of the existing improvements which is most profitable to the owner. It is possible to have two different highest and best uses for the same property: one for the land ignoring the improvements; and another that recognizes the presence of the improvements."
P. 57, Real Estate Appraisal Principles and Terminology, Second Edition, Society of Real Estate Appraisers 1971.

"Highest and Best Use: That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value. The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use. Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another

appropriate term to reflect highest and best use would be most probable use. In the context of investment value an alternative term would be most profitable use."
Real Estate Appraisal Terminology, Edited by Byrl Boyce, Ph.D, SRPA, Ballinger Publishing Co., Cambridge, Mass. 1975. (Emphasis added.)

F. The purchase of a piece of real estate today involves the acceptance of a great many assumptions about the future. Those who take care to validate these assumptions in a period of transition as to public land use control tend to have the most successful investment.

1. Business decisions today make explicit recognition of their assumptions and the need to act under conditions of uncertainty.
2. Business risk is the difference between assumptions about the future and realizations, the proforma budget and the end of the year income statement.
3. Risk management is the control of variance between key assumptions and realizations.
4. An appraisal is a set of assumptions about the future productivity of a property under conditions of uncertainty.

G. The concept of highest and best use of land was a commodity concept which did not consider externalities adequately. It is being replaced by concept of most fitting use and the concept of most probable use.

1. The most fitting use is that use which is the optimal reconciliation of effective consumer demand, the cost of production, and the fiscal and environmental impact on third parties.
2. Reconciliation involves financial impact analysis on "who pays" and "who benefits" - thus the rash of debate on how to do impact studies.
3. The most probable use will be something less than the most fitting use depending on topical constraints imposed by current political factors, the state of real estate technology, and short term solvency pressures on consumer, producer, or public agency.
4. Most probable use means that an appraisal is first a feasibility study of alternative uses for a site in search of a user, an investor, and public consent.

H. In seeking the most fitting and most probable use, the inner city planner and private property appraiser must interact to determine how community objectives and consumer production sector solvency can be achieved simultaneously.

1. A real estate decision has only two basic forms. Either a site is in search of a use and consumer with the ability to pay, or a consumer, need or use with a defined ability to pay is seeking some combination of space-time attributes he can afford.
2. The individual consumer with needs and a budget is the drive wheel.
3. The public sector represents the community owned consumer service delivery system, seeking to minimize marginal cost to the consumer and average cost to the community at large.
4. The production sector responds to a derivative demand for engineering and management expertise.

I. Critiquing the form and adequacy of a real estate solution is analogous to the artistic concept of judging the success of an art object by relating form of the solution to the context to which it was created.

1. Context includes those elements which are fixed, given, or objective and to which any solution must adapt.
2. Form giving elements are those variables within the artists control, i.e., options or alternatives at a particular time.
3. A solution is judged for its correctness or success in terms of the degree of fit of the form proposed to the context.
4. Feasibility analysis is concerned with the degree of fit or the extent of misfit between a proposed course of action and the context within which it must operate or fit.
5. Success therefore depends on how appropriately the problem is defined; testing feasibility depends primarily upon accurate and comprehensive definition of the context.

J. An enterprise is any organized undertaking, and a real estate problem or project always begins from the viewpoint of some enterprise relative to its environment.

1. The systems engineer sees the eventual form of an enterprise, in terms of both its configuration and behavior, as representing a negotiated consensus between two general sources of power--the power of the environment to dictate form and behavior of the organization on the one hand and the power of the organization to decide for itself what its characteristics and behavior will be on the other.
2. The systems engineer uses "power of the environment" as a dynamic alternative to the static implications of context and adds dynamic element of behavior to the elective responses of the form giver.

CONTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

Presented by

Professor James A. Graaskamp, Ph.D, CRE, SREA
University of Wisconsin, School of Business

FOURTH HOUR

I. Inference From Weighted Point System Comparisons

Application from Market Comparison Approach requires correct definition of a common denominator to be used as a unit of comparison to establish degree of sameness before adjusting for less significant differences.

A. Selection of a comparable unit as the basis for comparison; should reflect user or investor viewpoint as to source of productivity.

1. Conventional physical units should be tested or compared to see which one explains the greatest percentage of variance.
2. Adjusted prices should be tested to see if variance is greater or less on the average per unit after adjustments.

B. <u>25 N. Pinckney</u> sales demonstrated that shop keepers purchased per unit of first floor space while real estate developers purchased per unit of gross floor area.

C. The computer makes it possible to test a single linear regression comparing adjusted sales price to a number of alternative independent variables to select the one unit which reduces the variance between sales the most. (See Exhibit 7.)

D. Linear regression has more everyday application to appraisal than multiple regression. In the U.S. regression is used for intermediate analysis rather than for setting price as the dependent variable. It has limited use for pricing because:

EXHIBIT 7

COMPARABLE VACANT LARGE LOT LAND SALES

SALE NUMBER	LOCATION	AVAILABILITY OF SEWER AND WATER	ZONING	SALE DATE	GRANTOR	GRANTEE	PRICE	ACRES	PRICE PER ACRE
4	Highway 50	No	Ag	12/76	Rudy Industrial Park, Inc.	Wis. Electric Power Company	$700,475	155.66	$ 4,500
5	Highway 158	No	Ag	6/79	Pitts	City of Kenosha	$696,920	133.00	$ 5,240
19	Highway G	No	Ag	11/77		Thomas Campbell	$188,373	53.87	$ 3,500
32	Highway 158	Yes	Comm	1980		Shopko	$415,800	75.60	$ 5,500

EXHIBIT 7 (Continued)

WEIGHTED SCORE MATRIX FOR COMPARABLE LARGE SITE LAND SALES BASED UPON PRICE SENSITIVE ATTRIBUTES

ATTRIBUTE	WEIGHT	#4 WEPCO (HWY 50)	#5 KENOSHA INDUSTRIAL PARK	#19 CAMPBELL (HWY G)	#32 SHOPKO	SUBJECT (COMMERCIAL/ RETAIL)
Physical Attributes		[1]				
Size of Site	20%	1/ .20	1/ .20	5/1.00	3/ .60	1/ .20
Site Topography	10%	3/ .30	3/ .30	3/ .30	1/ .10	5/ .50
Linkages						
Highway Frontage	30%	5/1.50	5/1.50	1/ .30	5/1.50	5/1.50
Availability of Rail	10%	5/ .50	5/ .50	1/ .10	1/ .10	1/ .10
Availability of Utilities	20%	1/ .20	5/1.00	1/ .20	5/1.00	1/ .20
Use	10%	1/ .10	1/ .10	5/ .50	3/ .30	3/ .30
TOTAL POINT SCORE	100%	2.80	3.60	2.40	3.60	2.80
Sale Price		$700,475	$696,920	$188,375	$415,800	----
Date of Sale		12/76	6/79	11/77	6/76	----
Time Adjustment [2]		+ 2%	- 2%	0%	+ 4%	----
Adjusted Sale Price		$609,413 [3]	$648,136 [4]	$188,373	$432,432	1,655,280
Acres		155.66	133	53.87	75.6	127
Adjusted Price per Acre		$3,915	$4,873	$3,500	$5,720	----
Total Point Score		2.80	3.60	2.40	3.60	2.80
Price per Acre Point Score		$1,398	$1,354	$1,458	$1,589	----

EXHIBIT 7 (Continued)

POINT SCORE ADJUSTMENT PROCESS -
LARGE SITE LAND SALES

MOST PROBABLE PRICE COMPUTATION USING MEAN PRICE PER POINT EQUATION METHOD

Number of sales = 4
Subject Size = 154.5

FACTORS	WEIGHTS	SUBJECT	COMPARABLE SALES -- POINT SCORES 4	5	19	32
$ PRICE/ACRE --->			3915.00	4873.00	3500.00	5720.00
1 UTILITIES	.2	1	1	5	1	5
2 FRONTAGE	.3	5	5	5	1	5
3 SIZE	.2	1	1	1	5	3
4 RAIL	.1	1	5	5	1	1
5 TOPOG	.1	5	3	3	3	1
6 USE	.1	3	1	1	5	3
7						
8						
9						
10						
	1					

FACTORS x WEIGHTS	SUBJECT	COMPARABLE SALES 4	5	19	32
1 UTILITIES	.2	.2	1	.2	1
2 FRONTAGE	1.5	1.5	1.5	.3	1.5
3 SIZE	.2	.2	.2	1	.6
4 RAIL	.1	.5	.5	.1	.1
5 TOPOG	.5	.3	.3	.3	.1
6 USE	.3	.1	.1	.5	.3
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
TOTAL SCORE	2.8	2.8	3.6	2.4	3.6

EXHIBIT 7 (Continued)

CALCULATION OF MOST PROBABLE PRICE
USING MEAN PRICE PER POINT EQUATION METHOD

COMPARABLE SALE NUMBER	ADJUSTED SELLING PRICE PER ACRE	WEIGHTED POINT SCORE	PRICE PER ACRE PER WEIGHTED POINT SCORE
1	3915	2.8	1398.21
2	4873	3.6	1353.61
3	3500	2.4	1458.33
4	5720	3.6	1588.89
5	0	.00001	.00
6	0	.00001	.00
7	0	.00001	.00
8	0	.00001	.00
9	0	.00001	.00
10	0	.00001	.00
			5799.05

Central Tendency (Mean):

The mean price per acre per point (x) = $\frac{5799.048}{4}$ = 1449.762

Where:

x	$\bar{x}$	$(x-\bar{x})$	$(x-\bar{x})^2$	n	n-1
1398.214	1449.762	-51.5476	2657.157	4	3
1353.611	1449.762	-96.1508	9244.975		
1458.333	1449.762	8.571429	73.46939		
1588.889	1449.762	139.1270	19356.32		
0	1449.762	0	0		
0	1449.762	0	0		
0	1449.762	0	0		
0	1449.762	0	0		
0	1449.762	0	0		
0	1449.762	0	0		
			31331.92		

Dispersion about the mean = the square root of $\frac{(x - \bar{x})^2}{n - 1}$ = 102.1958

Therefore,

The Value Range is :		1449.762	+/-	102.1958
	or	1347.566	to	1551.958

Since the subject's point score is: 2.8

Score	x	Value	=	$/ACRE
2.8		1347.566		3773.19
2.8		1449.762		4059.33
2.8		1551.958		4345.48

Since the acreage of the subject is: 154.5

It follows that:

	$/ACRE	x	ACRES	=	Estimated Value		
Low Estimate	3773.19	x	154.5	=	582957.9	or	583000
Central Tendency	4059.33	x	154.5	=	627166.5	or	627000
High Estimate	4345.48	x	154.5	=	671376.7	or	671000

EXHIBIT 7 (Continued)

Computation of Least Squares Fit of Sales Price and Property Score

[STEP 1]

Sale	Y	X	Y^2	X^2	XY
1	3915	2.8	15327225	7.840000	10962
2	4873	3.6	23746129	12.96000	17542.8
3	3500	2.4	12250000	5.760000	8400
4	5720	3.6	32718400	12.96000	20592
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
	18008	12.4	84041754	39.52000	57496.8

[STEP 2]

$$\bar{Y} = \frac{\text{The sum of Y's}}{n} = 4502$$

$$\bar{X} = \frac{\text{The sum of X's}}{n} = 3.1$$

[STEP 3]

$$\text{The sum of } y^2\text{'s} = (\text{The sum of } Y^2\text{'s}) - n(\bar{Y})^2$$
$$= 2969738.$$

$$\text{The sum of } x^2\text{'s} = (\text{The sum of } X^2\text{'s}) - n(\bar{X})^2$$
$$= 1.080000$$

$$\text{The sum of } xy = (\text{The sum of } XY) - n(\overline{XY})$$
$$= 1672$$

EXHIBIT 7 (Continued)

[STEP 4]

b = slope of price point relationship

$$= \frac{\text{The sum of } xy}{\text{The sum of } x^2} = 1548.148$$

[STEP 5]

a = intercept

$$= \bar{Y} - b\bar{X} = -297.259$$

[STEP 6]

$$Syx = \text{The square root of } \frac{(\text{The sum of } y^2\text{'s}) - b(\text{The sum of } xy)}{n - 2}$$

$$= 1524.011$$

[STEP 7]

$$r = \frac{\text{The sum of } xy}{\text{The square root of } (\text{The sum of } x^2\text{'s}) \times (\text{The sum of } y^2\text{'s})}$$

$$= .9336096$$

$$r^2 = .8716270$$

EXHIBIT 7 (Continued)

[STEP 8]

Subject
Value = 3988.67 Estimated by Regression Equation: y = a + bX

COMPARABLE NUMBER	WEIGHTED POINT SCORE	ESTIMATED PRICE PER ACRE	ACTUAL PRICE PER ACRE	RESIDUAL ERROR
4	2.8	3988.67	3915	73.67
5	3.6	5064.22	4873	191.22
19	2.4	3450.89	3500	-49.11
32	3.6	5064.22	5280	-215.78
	0	.00	0	.00
	0	.00	0	.00
	0	.00	0	.00
	0	.00	0	.00
	0	.00	0	.00
	0	.00	0	.00
		NET ERROR		.00

1. Theory:

   a. Violation of data requirements of independence, normally distributed error, degrees of freedom, etc.
   b. Comparison of subject to mean of set
   c. Where market comparison is sameness or set set theory, not statistical variance within a heterogeneous group
   d. Responsibility of appraiser to select comps and make specific adjustments

2. Practice:

   a. Lack of adequate comparables
   b. Failure of appraiser to view all properties and set adjustments
   c. Inability to communicate with credibility to property owner or jury

E. Basic steps for market comparison approach using price per point per unit

1. Define the unit of comparison
2. Set up an ordinal scale for property variables of importance to the buyer
3. Convert ordinal scale for each variable to a cardinal scale, using common denominator of 100% to determine weighted point score for property.
4. Establish weighted price per point per unit for each comparable and the subject
5. Divide dollars per unit by point score
6. Determine mean price per point per unit using linear and straight averaging techniques

F. Some case examples:

1. Burned-out hotel (See Exhibit 8.)
2. Industrial site (See Exhibit 9.)
3. Dilmore method to reduce implied weight of points (See Exhibit 10)

FEASIBILITY OF ALTERNATIVE USES

EXHIBIT 8

Feasibility Factor	Scenario 1 Return to Former Use	Scenario 2 Purchase by Welfare Agency	Scenario 3 Conversion to Class B/C Office	Scenario 4 Conversion to Apartments with Office on 1st Floor	Scenario 5 Conversion to Apartments with Existing Bar	Scenario 6 Demolition and Sale of Site
Market Demand Risks	Demand very elastic relative to price unless room rates subsidized by welfare agencies	Welfare agencies lack capital resources to purchase and remodel facilities, given the absence of government funding	Office market becoming more price sensitive; would not accept neighborhood and lack of parking unless rents were lower than necessary to support remodeling	Strong demand for spacious two bedroom units in CBD area	Though there is a strong demand for affordable downtown housing, consumer survey shows tenant reluctance to live above noisy/potentially malodorous bar-restaurant	Soft market for vacant sites which cannot be assembled into larger plottage; parking revenues from 20 spaces inadequate to carry clearance costs
Legal/Political Acceptability	Inconsistent with long term City goals for Olin Place	Mixed acceptability as interim use as housing for transient males by some groups; favored by welfare advocates and disfavored by local residents	Neighborhood resistance to increased demand for street parking	Preferred use, given need for downtown housing and political statements by alderpersons for reduction of bar business in residential neighborhoods	Preferred use for housing is compromised by existing bar management agreement	Inconsistent with constituency favoring landmark designation
Technical Construction Problems and Capital Cost Risks	Failure to repair within one year may have jeopardized grandfathered nonconforming building conditions. Otherwise this use has lowest construction risks of Scenarios 1 through 5	Capital costs of renovation to state standards excessive for short term use	Variance needed for parking requirement of 1 stall per 300 SF to 1 stall per 2,500 SF of office space	Spacious apartments with views provide favorable rent/cost per SF ratio—housing code creates more remodeling risk than commercial code	Apartment mix cheapened by retaining existing bar operation—smaller units require more plumbing and bring less favorable rent/cost per SF ratio	None
Relative Investment Power Based Upon Revenue Generation Potential	$192,765	$120,380	$80,331	$103,220	($10,513)	$13,778
Special Income Tax Advantages or Public Subsidies Available	None	None	Rehabilitation tax credit of 20% for older commercial building conversion plus possible industrial bond financing	Possible historic landmark status for 25% rehabilitation tax credit plus tax incremental financing (TIF) assistance	Possible historic landmark status for 25% rehabilitation tax credit. TIF less likely because increase in tax is smaller	None
Real Estate Tax Consequences to City	Modest increase in assessed value	Loss of $194,300 tax base with tax-exempt agency as owner	Real estate tax base would be multiplied approximately 3 times the present assessment	Real estate tax base would be multiplied approximately 3 1/2 times the present assessment	Real estate tax base would be multiplied approximately 2 1/2 times the present assessment	Loss of approximately $140,000 of tax base

EXHIBIT 8 (Continued)

SCALE FOR SCORING COMPARABLE SALE ATTRIBUTES

Location 15%	5 = Corner lot with high visibility on major traffic artery 3 = Inside lot with low visibility on major traffic artery 1 = Inside lot with low visibility on secondary street
Investor Perception of Neighborhood Image 15%	5 = Strong identification with Square (within 1 block) or established commercial or residential area 3 = Neutral investor attitude 1 = General identification with deteriorated neighborhood
Structural Condition of Improvements 25%	5 = Fire-resistant construction, well maintained, operational, marketable 3 = Ordinary mill construction (brick bearing walls-wood beams), poorly maintained, needs mechanical work 1 = Boarded up and/or partially damaged or vandalized
Reuse Potential 30%	5 = Dominant commercial/retail reuse potential with anticipation of Landmark designation with 1981 tax laws applied 4 = Dominant commercial/retail reuse potential with anticipation of Landmark designation prior to 1981 tax law 3 = Residential reuse potential with 1981 tax laws applied 2 = Residential reuse potential prior to 1981 tax law 1 = Warehouse 0 = Improvements demolished leaving land only

EXHIBIT 8 (Continued)

Bargaining Position of Seller 15%	5 = Income adequate to carry property or seller with strong asset position 3 = Little or no steady income but seller not known to be under financial pressures 1 = Building owner known to have financial pressures or multiple liens on property

WEIGHTED MATRIX FOR COMPARABLE PROPERTIES

		Rating/Weighted Rating							
FEATURE	WEIGHT	#1 Frautschi 215-219 King	#2 Sutherland Elec. 323 E. Wilson	#3 Fess Hotel 123 E. Doty	#4 Miller Horne 714 Williamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 N. Pinckney	#7 Old Sorority 10 Langdon	Cardinal Hotel SUBJECT
Location	15%	3/ .45	5/ .75	5/ .75	3/ .45	3/ .45	1/ .15	3/ .45	5/ .75
Investor Perception of Neighborhood Image	15%	3/ .45	3/ .45	5/ .75	1/ .15	1/ .15	5/ .75	5/ .75	1/ .15
Structural Condition of Improvements at Time of Sale	25%	3/ .75	5/1.25	1/ .25	5/1.25	5/1.25	3/ .75	1/ .25	1/ .25
Reuse Potential	30%	4/1.2	1/ .30	4/1.2	2/ .60	4/1.2	4/1.2	4/1.2	5/1.5
Bargaining Position of Seller	15%	5/ .75	3/ .45	1/ .15	3/ .45	1/ .15	1/ .15	1/ .15	3/ .45
Total Point Score		3.6	3.2	3.1	2.9	3.2	3.0	2.8	3.1

EXHIBIT 8 (Continued)

EXHIBIT 8 (Continued)

	#1 Frautschi 215-219 King	#2 Sutherland Elec. 323 E. Wilson	#3 Fess Hotel 123 E. Doty	#4 Miller Horne 714 Williamson	#5 Miller Horne 722 Williamson	#6 Atrium 25 N. Pinckney	#7 Old Sorority 10 Langdon
Nominal Sale Price	$320,000	$165,000	$120,000	$148,000	$300,000	$150,000	$91,000
Date of Sale	November 1978	July 1979	January 1975	January 1979	November 1981	April 1977	July 1981
Terms of Sale	Land contract $50,000 - down 270,000 - 2 yrs 10% Year 1 6% Year 2	Cash to seller	Land contract	Land contract $23,000 down 125,000 @ 9 3/4% - 5 years	Land contract	$100,000 cash 50,000 seller 2nd subordinated to construction loan	Cash to seller
Adjustment for:							
Terms of Sale	Discount 10%	No adjustment	5% Finder's fee for $320,000 construction loan	Reduce to $140,000	Discount 20% for creative financing	Discount 2nd-20%	None
Time of Sale (5%/year from 1/1/79 on)	Appreciate 17.5%	Appreciate 15%	Appreciate 17.5%	Appreciate 17.5%	Appreciate 2.5%	Appreciate 17.5%	Appreciate 5%
Adjusted Price for Terms and Time	$338,400	$189,750	$121,500	$164,500	$246,000	$164,500	$95,550
Land Area	21,728 SF	8,221 SF	8,712 SF	8,712 SF	17,424 SF	8,712 SF	6,720 SF
Adjustment for Land Area Differences @ $5.00/SF	($108,640)	($41,105)	($43,560)	($43,560)	($87,120)	($43,560)	($33,600)
Adjusted Price less Allowance for Land Value	$229,760	$148,645	$77,940	$120,940	$158,880	$120,940	$61,950
Gross Building Area (GBA) (Square Feet)	21,000 SF	17,790 SF	9,330 SF	28,000 SF	30,000 SF	16,060 SF	10,500 SF
Adjusted Price per Square Foot of GBA	$10.94/SF of GBA	$8.36/SF of GBA	$8.35/SF of GBA	$4.32/SF of GBA	$5.30/SF of GBA	$7.53/SF of GBA	$5.90/SF of GBA
Total Point Score	3.6	3.2	3.1	2.9	3.2	3.0	2.8
Price per Square Foot/Point Score	$3.04	$2.61	$2.69	$1.49	$1.66	$2.51	$2.11

EXHIBIT 8 (Continued)

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

Comparable Property	Adjusted Selling Price per SF of GBA	Weighted Point Score	$\frac{\text{Price per SF}}{\text{Weighted Point Score}}$ (x)
1	$10.94	3.6	$3.04
2	8.36	3.2	2.61
3	8.35	3.1	2.69
4	4.32	2.9	1.49
5	5.30	3.2	1.66
6	7.53	3.0	2.51
7	5.90	2.8	2.11
		TOTAL	$16.11

$$\text{Central Tendency} = \frac{\Sigma x}{n} = \frac{16.11}{7} = 2.30$$

$$\text{Dispersion} = \sqrt{\frac{\Sigma(x-\bar{x})^2}{(n-1)}} = \sqrt{\frac{1.9417}{6}} = .569$$

where:

x		$\bar{x}$		$/(x-\bar{x})/$	$(x-\bar{x})^2$	n	$n-1$
3.04	-	2.30	=	.74	.5476	7	6
2.61	-	2.30	=	.31	.0961		
2.69	-	2.30	=	.39	.1521		
1.49	-	2.30	=	.81	.6561		
1.66	-	2.30	=	.64	.4096		
2.51	-	2.30	=	.21	.0441		
2.11	-	2.30	=	.19	.0361		
		$\Sigma(x-x)^2$	=		1.9417		

EXHIBIT 8 (Continued)

Value range: x ± dispersion = 2.30 ± .57

Gross Building Area		Weighted Point Score		(Central Tendency ± Dispersion)	
17,900 SF	x	3.1	x	(2.30 ± .57)	=

High Estimate of $159,256 or $160,000

Central Tendency of $127,627 or $130,000

Low Estimate of $95,998 or $100,000

All value estimates are rounded

approximately seven miles from the subject site and 1/4 mile from Highway 51.

Comparable Sale 6, located on the corner of Pflaum Road and Advance Road, has been used for an office/warehouse for the Harvest Day Wholesalers. Similar one story steel buildings have been built on the other three corners of the intersection. All of the platted sites have the full complement of utilities available with curb and gutter installed. These improved properties in the East Addition of Glendale Industrial Park have been well maintained. This site is approximately 9 miles from the subject and 1/4 mile from Highway 51.

C. Adjustments for Differences to Relate the Comparables to the Subject Property

To estimate the fair market value of the subject property, based upon the sale prices of the comparables, adjustments are made to account for the differences in the price sensitive attributes of the comparables and the subject property. The comparable properties and the subject property are scored according to the scale detailed in Exhibit 9.

The subject site, which contains 2.5 acres, receives a score of 3 because it is an average sized lot. Since it does not command a more highly visible corner location, a score of 1 is given.

EXHIBIT 9 (Continued)

SCALE FOR SCORING COMPARABLE SALES
BASED UPON PRICE SENSITIVE ATTRIBUTES

PHYSICAL ATTRIBUTES = 35%

Size 20%	5 = Less than 1 acre 3 = 1 to 4 acres 1 = Greater than 4 acres
Corner Location 15%	5 = Yes 3 = Next to corner on a major road 1 = No

LINKAGES = 50%

Proximity to Major Retail Area 20%	5 = Near a shopping center 3 = Near strip retail area 1 = No retail uses in sight
Access to Major Highways 15%	5 = On a major boulevard or highway 3 = On a traffic collector 1 = On a side street
Availability of Madison Metro 5%	5 = On a bus line 3 = Within 2-3 blocks of bus line 1 = None
Availability of Utilities 10%	5 = Water, sewer, gas, curb, and gutter 3 = Water, sewer, gas 1 = None

EXHIBIT 9 (Continued)

DYNAMIC ATTRIBUTES = 15%

Positive Public Recognition of Street/Location 5%	5 = High visibility or recognition of location 3 = Average 1 = Relatively unknown
Perceived Adverse Influences 5%	5 = None 3 = Noise/Odor/Visual Problems 1 = Physically threatening
Immediate View from Property Frontage 5%	5 = Well-landscaped office, shops, and residential 3 = Office/warehouses well-screened and partially landscaped 1 = Assortment of office/warehouse uses with inadequate screening and/or poorly maintained or vacant

EXHIBIT 9 (Continued)

Linkages are extremely sensitive to price. Sites located in major retail areas command higher prices than do warehouses and light manufacturing sites. No retail uses are in sight of the subject so a score of 1 is given. International Lane, a traffic collector, feeds into Packers Avenue, a major arterial, so the subject receives a score of 3. A bus line on Packers Avenue is within two to three blocks of the subject to yield a score of 3. Electricity, telephone, and natural gas lines are available in the general area, but there are no curbs, gutters, or sidewalks. A score of 3 is given the subject for the availability of utilities.

Dynamic attributes, (the public's perceptions of the property's attributes) contribute to value. Since International Lane is a well-known location with positive public recognition, the subject is given a score of 5. Since the noise from planes landing and taking off could be disruptive, the subject receives a 3. The view from the subject is marred by old barracks converted to offices and warehouse buildings that would no longer meet the more stringent architectural controls now in existence in Truax Air Park West, so the subject receives a score of 1.

EXHIBIT 9 (Continued)

Each comparable is scored in a similar manner; the weighted point score matrix which details the calculation of a total point score for both the comparable and the subject is found in Exhibit 10.

The price per square foot for each comparable is divided by its point score and the results are also found in Exhibit 10.

The mean point score per square foot is applied to the point score of the subject to indicate a central tendency value of $111,000, or $1.01 per square foot. These calculations are detailed in Exhibit 11.

The range of estimates yields a high of $123,500, or $1.13 per square foot and a low of $98,000, or $0.90 per square foot.

As a check on the appropriateness of the appraiser's selection and weighing of price sensitive factors, the point scores calculated for each comparable is multiplied by the mean price per square foot per point score to predict or estimate the actual selling price of each comparable. The results are as follows:

COMPARABLE NUMBER	WEIGHTED POINT SCORE	ESTIMATED PRICE/SF	ACTUAL PRICE/SF	RESIDUAL ERROR
1	3.30	1.45	1.50	-.05
2	2.20	0.96	1.03	-.07
3	3.80	1.67	1.55 (adj.)	+.12
4	3.40	1.50	1.55	-.05
5	2.10	0.92	0.96	-.04
6	3.20	1.41	1.32	+.09
7	2.50	1.10	0.91	+.19
8	2.50	1.10	1.28	-.18
9	2.10	0.92	1.00	+.08
			NET RESIDUAL ERRORS	+.09

EXHIBIT 9 (Continued)

WEIGHTED POINT SCORE MATRIX FOR COMPARABLE SALES
BASED UPON PRICE SENSITIVE ATTRIBUTES

ATTRIBUTE	WEIGHT	#1 1905 ABERG AVENUE	#2 1801 COMMERCIAL AVENUE
Physical Attributes		[1]	
Size of Site	20%	3/ .60	1/ .20
Corner Location	15%	1/ .15	1/ .15
Linkages			
Proximity to Retail	20%	3/ .60	1/ .20
Access to Major Roads	15%	5/ .75	3/ .45
Availability of City Bus	5%	3/ .25	5/ .25
Availability of Utilities	10%	5/ .50	5/ .50
Dynamic Attributes			
Public Recognition	5%	5/ .25	3/ .15
Perceived Adverse Factors	5%	3/ .15	5/ .25
View from Site	5%	1/ .05	1/ .05
	100%		
TOTAL POINT SCORE		3.30	2.20
Sale Price		$80,000	$181,150
Date of Sale		8/82	10/80
Land Area (SF)		53,426 (1.23 A)	175,547 (4.03 A)
Price per Square Foot		$1.50	$1.03
Total Point Score		3.30	2.20
Price per SF/Point Score		$0.45	$0.47

[1] Explanation of weighted score: point score/score x weight

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#3 3520 PACKERS AVENUE	#4 814 ATLAS AVENUE (Backs on to Cottage Grove Rd.)	#5 LOT 1, BLK. 7, MADISON INDUSTRIAL SUB., #1	#6 2447 ADVANCE (a.k.a. 4701 Pflaum Road)	#7 LOT 6, BLK. 3, MADISON INDUSTRIAL SUB., #1
Physical Attributes		[1]				
Size of Site	20%	5/1.00	3/ .60	3/ .60	3/ .60	5/1.00
Corner Location	15%	5/ .75	1/ .15	1/ .15	5/ .75	1/ .15
Linkages						
Proximity to Retail	20%	3/ .60	3/ .60	1/ .20	1/ .20	1/ .20
Access to Major Roads	15%	3/ .45	5/ .75	1/ .15	3/ .45	1/ .15
Availability of City Bus	5%	5/ .25	5/ .25	1/ .05	1/ .05	1/ .05
Availability of Utilities	10%	5/ .50	5/ .50	5/ .50	5/ .50	5/ .50
Dynamic Attributes						
Public Recognition	5%	1/ .05	3/ .15	1/ .05	5/ .25	1/ .05
Perceived Adverse Factors	5%	3/ .15	5/ .25	5/ .25	5/ .25	5/ .25
View from Site	5%	1/ .05	3/ .15	3/ .15	3/ .15	3/ .15
	100%					
TOTAL POINT SCORE		3.80	3.40	2.10	3.20	2.50
Sale Price		$30,000	$125,000	$70,000	$60,000	$20,900
Date of Sale		2/79	6/83	9/82	9/82	9/82
Land Area (SF)		21,747 (0.50)	80,613 (1.85 A)	73,109 (1.68 A)	45,472 (1.04 A)	22,997 (0.53 A)
Price per Square Foot		$1.55 [2]	$1.55	$0.96	$1.32	$0.91
Total Point Score		3.80	3.40	2.10	3.20	2.50
Price per SF/Point Score		$0.41	$0.46	$0.46	$0.41	$0.36

[1] Explanation of weighted score: point score/score x weight
[2] This older sale is adjusted upward 12 percent for time. (1.12 x $1.38 = $1.55)

EXHIBIT 9 (Continued)

ATTRIBUTE	WEIGHT	#8 LOT 2, BLK. 6. MADISON INDUSTRIAL SUB., #1	#9 4484 ROBERTSON ROAD MADISON IND. SUB., #1	SUBJECT LOT 2, CSM 928
Physical Attributes		[1]		
Size of Site	20%	5/1.00	3/ .60	3/ .60
Corner Location	15%	1/ .15	1/ .15	1/ .15
Linkages				
Proximity to Retail	20%	1/ .20	1/ .20	1/ .20
Access to Major Roads	15%	1/ .15	1/ .15	3/ .45
Availability of City Bus	5%	1/ .05	1/ .05	3/ .15
Availability of Utilities	10%	5/ .50	5/ .50	3/ .30
Dynamic Attributes				
Public Recognition	5%	1/ .05	1/ .05	5/ .25
Perceived Adverse Factors	5%	5/ .25	5/ .25	3/ .15
View from Site	5%	3/ .15	3/ .15	1/ .05
	100%			
TOTAL POINT SCORE		2.50	2.10	2.30
Sale Price		$32,000	$98,600	N/A
Date of Sale		2/82	1/82	N/A
Land Area (SF)		24,975 (0.57)	98,600 (2.26 A)	109,493 (2.51 A)
Price per Square Foot		$1.28	$1.00	N/A
Total Point Score		2.50	2.10	2.30
Price per SF/Point Score		$0.51	$0.48	N/A

[1] Explanation of weighted score: point score/score x weight

EXHIBIT 9 (Continued)

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD

Comparable Property	Adjusted Selling Price per SF	Weighted Point Score	Price per SF / Weighted Point Score
1	$1.50	3.30	$0.45
2	1.03	2.20	0.47
3	1.55	3.80	0.41
4	1.55	3.40	0.46
5	0.96	2.10	0.46
6	1.32	3.20	0.41
7	0.91	2.50	0.36
8	1.28	2.50	0.51
9	1.00	2.10	0.48
		TOTAL	$4.01

Central Tendency [1] $= \frac{\Sigma x}{n} = \frac{4.01}{9} = .44$

Dispersion $= \sqrt{\frac{\Sigma (x-\bar{x})^2}{(n-1)}} = \sqrt{\frac{.0168}{8}} = .05$

[1] x = Sum of $\frac{\text{Price per SF}}{\text{Weighted Point Score}}$

n = Number of Observations

$\bar{x}$ = Average $\frac{\text{Price per SF}}{\text{Weighted Point Score}}$

EXHIBIT 9 (Continued)

where:

x	$\bar{x}$	$\lvert(x-\bar{x})\rvert$	$(x-\bar{x})^2$	n	$n-1$
.42	.44	.02	.0004	9	8
.47	.44	.03	.0009		
.41	.44	.03	.0009		
.46	.44	.02	.0004		
.46	.44	.02	.0004		
.41	.44	.03	.0009		
.36	.44	.08	.0064		
.51	.44	.07	.0049		
.48	.44	.04	.0016		

$$\Sigma(x - \bar{x})^2 = .0168$$

Value range for subject property:

$\bar{x} \pm$ dispersion $= \$0.44 \pm .05$

Square Footage of Subject x Weighted Point Score x (Central Tendency ± Dispersion) =

109,493 x 2.30 x ($0.44 ± .05) =

High Estimate of $123,500 or $1.13 per square foot

Central Tendency of $111,000 or $1.01 per square foot

Low Estimate of $98,000 or $0.90 per square foot

EXHIBIT 9 (Continued)

There appears to be a tight fit between the estimated and the actual price; so it can be concluded that the selection and weighing of the price sensitive factors successfully reflected buyer behavior.

The market comparable approach is sensitive to the appraiser's ability to predict buyer perceptions in a changing market. The weighted point scores are an attempt to capture these perceptions. Consequently, this calculated value is only the initial step in determining the final price estimate. This initial transaction zone must be adjusted in light of certain external factors such as the buyer's alternative option to lease surrounding land from Dane County instead of buying in fee which, in turn, will be affected by the current cost of financing land purchases, the income tax consequences of buy vs. lease decision, and the effect of the Consumer Price Index (CPI) escalator upon rental rates for leased land. Other external factors include the effect of the Truax Air Park covenants upon the quality of future development in the area, and the future expansion of the Dane County Regional Airport.

D. The Effect of Dane County Leased Lands Upon the Fair Market Value of the Subject

Dane County purchased the Truax Airport and surrounding lands from the City of Madison in 1974. A map of the area is shown previously in Exhibit 7. Dane County has platted 160

CONTEMPORARY APPRAISAL - MARKET COMPARISON APPROACH

Presented by

Professor James A. Graaskamp, Ph.D., CRE, SREA
University of Wisconsin, School of Business

FIFTH HOUR

I. Automated Market Comparison Using Euclidian Distance

University of Wisconsin Real Estate program with H. Robert Knitter, Director of School of Business Computer Center has developed a semi-automatic market comparison system for appraisal of class properties which simulates the traditional market comparison approach.

A. The system is called MKT COMP and it combines a data base on comparable sales with euclidian distance in order to match comparables to subject property ex-anti, adjust for differences, and discard outliers ex-post before estimating probable price as the mean or weighted mean of the adjusted comparables.

B. Common requirements of any market comparison system are:

1. Sales comparables available for analysis
2. Variables to inventory
3. Variables on which to adjust because of correlation with price
4. Rates of adjustment for differences in useful variables
5. Selection of comparable sales most like subject property

C. Concept of most like is critical in choosing best subset of comparables. Euclidian distance measures sameness of observations within a set in order to rank degree of sameness in order to bracket subject property with comparables. Advantages include:

1. Explainable ordinal ranking
2. Comparison to subject property for purposes of ranking
3. High tolerance for error in selection of adjustment factors
4. Adjustment factors can be in dollars per unit, dollars per unit of difference or dollars per special transformation unit to permit curvelinear relationships

FEASIBILITY STUDIES
INVESTMENT COUNSELING

EXHIBIT 10

MARKET ANALYSES
APPRAISALS

REALTY RESEARCHERS
REALTY RESEARCHERS BUILDING
586 SHADES CREST ROAD
BIRMINGHAM, ALABAMA 35226
(205) 823-5479

GENE DILMORE, SREA-MAI-ASA
GARY DILMORE, SRA

APPRAISAL REPORT

THE PROPERTY

Two lots containing a total of 31,301 square feet, improved with a 1-story medical office building containing 8,870 sq. ft. gross building area and approximately 7,185 sq. ft. net rentable area.

LEGAL DESCRIPTION

Property identified as Tax Assessor's Parcel No. 23-1-1-6-6 and Parcel No. 23-1-2-1-12, legally described as all of Lots 3 and 8 and Lot 4 except SE 15 ft., survey of J. N. Easterwood First Addition, as recorded in Map Book 22 Page 49, Probate Office of Jefferson County, Alabama.

PURPOSE OF APPRAISAL

To estimate the market value of the unencumbered fee simple interest in the above-described property, as of March 11, 1983. Market value is defined as: the most probable selling price of the property, if properly exposed to the market for a reasonable period of time, with both seller and purchaser being reasonably well-informed, and neither acting under compulsion.

LOCATION

The property is located in the Roebuck-Center Point area of Birmingham, in a commercially- developed neighborhood. It is accessible to a densely populated residential area. The trend of the area is toward continued enhancing values, and continued desirability of location.

ZONING & BEST USE

The property is zoned for commercial use. Its present use,as a medical office with parking area, is in conformity with the zoning, and is considered to be the highest and bet use for the site.

STREETS & UTILITIES

Subject is on a paved street, with all utilities available.

LOT

Lots 3 contains 9,350 square feet, Lot 4 11,651 square feet, and Lot 8 (the parking area) contains approximately 10,300 square feet, with a total area of 31,301 square feet. Lot 8 is accessible via a drive adjoining Lot 4, and is separated by Lot 7. The land is level.

IMPROVEMENTS

A one-story medical office building, containing 8,870 square feet gross building area, and approximately 7,185 sq. ft. net rentable area, built 1963 with remodeling in 1965, in average condition.

Exterior is 70% brick over block, 30% block, with concrete slab floor structure, built-up roof, g. i. gutters and downspouts. Floor cover is approximately 95% vinyl asbestos and 5% carpeted. Interior finish is sheetrock, panel, and vinyl paper. Ceilings are suspended acoustical tile, with part fluorescent and part incandescent lighting.

Heating and cooling is by electric heat pumps. The dialysis area has additional plumbing, and some walls have leaded X-ray areas. There is a covered walkway around most of the structure. Site improvements include approximately 7,000 sq. ft. of asphalt paving.

VALUATION

Market Data--Land

The first step in the valuation consists of estimation of the land value. On the following two pages will be found computer printouts of 6 commercial lot sales in the area. Following the sales, is the printout of a program which applies the Dilmore Size Adjustment curves to the sales, after they are adjusted for items other than size. This program tests the data for fit to seven curves, and selects the best fit, indicating the proper adjustment to be applied for differentials in size between the sold properties and subject.

RECORD 5

STREET	HW 11
ADDRESS	NW COR BROOKHURST DR
DATE	80.1031
SIZE	20818
PRICE/SF	3.84
ID#	0
SELLER	ROEBUCK CREST BLDG LTD
PURCHASER	BEN L CHENAULT ET EL
DB	1516/465
PRICE	80000
DESCR	B/ROEBUCK CRST ADD TO BROOKHURST
REM	OFF BLT

RECORD 2

STREET	1 AV N
ADDRESS	8324
DATE	78.1226
SIZE	10000
PRICE/SF	3.80
ID#	0
SELLER	JESSIE MAE STEGER
PURCHASER	EAST LAKE AUTO PARTS INC
DB	1704/603
PRICE	38000
DESCR	50 X 200 IN 12/15A RUGBY 2ND
REM	OLD HSE-USED FOR OFF

RECORD 6

STREET	HW 11
ADDRESS	NE COR BROOKHURST DR
DATE	80.0321
SIZE	453024
PRICE/SF	.99
ID#	23-1-1-1-2-9
SELLER	BROOKHURST PARTNERSHIP
PURCHASER	E M CORP
DB	1894/307
PRICE	450000
DESCR	PT NE/NE 1-17-2W
REM	10.4 AC @ 3269 JUST E OF BRUNO SHP CTR

RECORD 9

STREET	1 AV N
ADDRESS	8320
DATE	81.0825
SIZE	8675
PRICE/SF	4.44
ID#	23-11-2-12-16
SELLER	MAURINE B NELSON
PURCHASER	EAST LAKE AUTO PTS INC
DB	2098/970
PRICE	38500
DESCR	10/15-A RUGBY LD & IMP CO 2ND. ADD
REM	ADJ EL AUTO PTS EXIST SITE

RECORD 8

STREET	CP RD
ADDRESS	E/S 1500 BLK
DATE	81.0528
SIZE	16660
PRICE/SF	3.96
ID#	12-4-19-3-1-4
SELLER	LANNY VINES ET AL
PURCHASER	SOUTHEASTERN MEATS INC
DB	2064/720
PRICE	66000
DESCR	110.31/111.14 X 150/150.79 LEV DTCH ACRS SOU PT
REM	IN NE/SW 19-16-1W

RECORD 12

STREET	ORCHARD RD
ADDRESS	S/S 124' E OF PKWY
DATE	80.0124
SIZE	54308
PRICE/SF	2.95
ID#	13-1-36-4-15-5
SELLER	ROEBUCK PROF BLDG LTD
PURCHASER	STEAK & ALE OF AL INC
DB	1872/539
PRICE	160000
DESCR	189.2/262.9 X 206.7/273.8
REM	STEAK & ALE

ADJ FACTORS FOR	75%	77.5%	80%	82.5%	85%	87.5%	90%
# 1	Ø.84	Ø.86	Ø.88	Ø.89	Ø.91	Ø.92	Ø.94
# 2	Ø.62	Ø.66	Ø.69	Ø.73	Ø.76	Ø.8Ø	Ø.84
# 3	3.Ø3	2.67	2.36	2.1Ø	1.87	1.67	1.5Ø
# 4	Ø.59	Ø.62	Ø.66	Ø.7Ø	Ø.74	Ø.78	Ø.82
# 5	Ø.77	Ø.79	Ø.82	Ø.84	Ø.86	Ø.89	Ø.91
# 6	1.26	1.22	1.19	1.17	1.14	1.11	1.Ø9

MEAN OF PRICES= 4.455
STANDARD DEVIATION OF PRICES = 1.684Ø8
COEFFICIENT OF VARIATION = .378Ø19

MEAN OF PRICES ADJ'D W/ 75% CURVE = 3.99556
STD DEV = .523886
COEFF OF VAR = .131117

MEAN OF PRICES ADJ'D W/ 77.5% CURVE = 3.99545
STD DEV = .449433
COEFF OF VAR = .112486

MEAN OF PRICES ADJ'D W/ 8Ø% CURVE = 4.ØØ967
STD DEV = .499363
COEFF OF VAR = .12454

MEAN OF PRICES ADJ'D W/ 82.5% CURVE = 4.Ø3624
STD DEV = .622586
COEFF OF VAR = .154249

MEAN OF PRICES ADJ'D W/ 85% CURVE = 4.Ø7281
STD DEV = .77Ø282
COEFF OF VAR = .189128

MEAN OF PRICES ADJ'D W/ 87.5% CURVE = 4.11963
STD DEV = .928646
COEFF OF VAR = .22542

MEAN OF PRICES ADJ'D W/ 9Ø% CURVE = 4.17396
STD DEV = 1.Ø8489
COEFF OF VAR = .259918

RECAP OF SIZES & PRICES

SALE#	SIZE	PRICE
1	2Ø,818	$5.ØØ
2	1Ø,ØØØ	$5.94
3	453,Ø54	$1.35
4	8,675	$5.67
5	16,66Ø	$4.91
6	54,3Ø8	$3.86
SUB	31,3Ø1	

The land valuation may be summarized as follows:

Land Sales Adjustment Chart

Sale #	Price	Time	Location	=	Size	Adjusted Ind.
1	$3.84	1.24	1.05	$5.00	.86	$4.30
2	$3.80	1.42	1.10	$5.94	.66	$3.92
3	$0.99	1.30	1.05	$1.35	2.67	$3.60
4	$4.44	1.16	1.10	$5.67	.62	$3.52
5	$3.96	1.18	1.05	$4.91	.79	$3.88
6	$2.95	1.31	1.00	$3.86	1.22	$4.71

Land Value Indication for Subject:

31,301 sq. ft. @ $4.00 sq. ft., or: (R) $125,000

COST APPROACH TO VALUE

In applying the cost approach for a preliminary value indication, we have used the Marshall & Swift cost service. We have tested their costs against numerous known local contract costs, and found them to be quite reliable.

The building was classified as Class C construction, medical office, low cost to average quality. On the following page will be found the printout from the Marshall and Swift computerized cost service.

Preliminary value indication from the Cost Approach to value is: (R) $377,500

COST ESTIMATE FOR: CARRAWAY MEDICAL CENTER
PROPERTY OWNER: DR'S COLLINS & BURNETT
ADDRESS: 9228 PARKWAY EAST, BIRMINGHAM, ALABAMA
SURVEYED BY: GD
DATE OF SURVEY: 3/11/83

DESCRIPTION:

OCCUPANCY: MEDICAL OFFICE
FLOOR AREA: 8,870 Square Feet
CLASS: C Masonry
COST RANK: 1.5 Low/Average
NUMBER OF STORIES: 1.0

AVERAGE STORY HEIGHT: 12.0 Feet
EFFECTIVE AGE: 20 Years
CONDITION: 3.0 Average
COST AS OF: 03/83

EXTERIOR WALL:
Brick,Block Back-Up........... 100%
HEATING AND COOLING:
Heat Pump...................... 100%

	UNITS	COST	TOTAL
BASIC STRUCTURE COST:	8,870	39.81	353,155
EXTRAS:			
Site Improvements...............			1,500
Paving,Asphalt.................	7,000	0.87	6,090
REPLACEMENT COST NEW...........			360,745
LESS DEPRECIATION:			
Physical and Functional.......	<30.0%>		<108,224>
DEPRECIATED COST...............			252,521
Estimated Land Value..........			125,000
INDICATED VALUE BY COST APPROACH:			377,521

Cost Data by MARSHALL and SWIFT

SALE COMPARISON APPROACH TO VALUE

Among sales of small office buildings which were investigated and analyzed in estimating value of subject were the following:

(1) Crenshaw Bldg, 1016 S 18th St. Sold 7/17/82, Deed Book 2217 Page 128, for $800,000. 2 sty, blt 1965, 29,400 sq.ft. lot, 17,117 sq.ft. bldg. At estimated $7.50 rt, indicated gross annual multiplier is 6.23. Assigning 5% vacancy and $3 expenses gives an indicated overall rate of return of 9.21%.

(2) 3700 S. 4th Ave. Sold 6/30/82, DB 2210 P 794, for $250,000. 21,179 sq.ft. lot, 7,000 sq.ft. NRA. Blt 1972. At estimated rent of $6.50, gross income multiplier is 5.49. Assigning 5% vacancy & $2.75 exp, indicates overall rate of 9.59%.

(3) 1732 Oxmoor Road. Sold 4/15/82, MLS, for $105,000. 10,000 sq.ft. lot, 1996 sq.ft. bldg, 25 yrs old.

(4) 1210 S. 20th. St. Sold 8/24/81, DB 2099 P 692, for $680,000. 31,066 sq.ft. lot, 11,960 sq.ft. bldg., built 1956. Rt. 9.83. GAM was 5.79. Assigning 5% vac and $3.50 expenses indicates an overall rate of 10.27%.

(5) 1703-B Center Point Hwy. Sold 8/21/79, DB 1803 P 811, for $100,000. 8,883 sq.ft. lot, 2,496 sq.ft. bldg GBA, est NRA of 2,250 sq.ft. Blt 1977, Texcote and asbestos exterior.

(6) 1905 Oxmoor Road. Sold 10/8/79, DB 1833 P 98, for $190,000. 8,950 sq.ft. lot, 3,502 sq.ft. bldg, blt 78. Gross annual multiplier was 5.78, indicated overall rate 11.85%.

(7) 3100 Independence Ave. Sold 1/4/82, DB 2149 P 315, for $360,000. A 15,000 sq.ft. lot, 4,730 sq.ft. bldg. Indicated GAM was 8.46; indicated overall rate 7%.

(8) 2717 S. 19th Pl. Sold 6/1/82, DB 2201 P 481, for $101,750. A 7,000 sq.ft. lot, approx. 2,500 sq.ft. NRA in bldg. Blt 1972.

(9) 11 Office Park Circle. Sold 7/1/81, DB 2078 P 345, for $265,000. A 49,068 sq.ft. lot, bldg approx 3,600 sq.ft. NRA. Built 1965. Indicated GAM was 8.41; indicated overall rate 7.22%.

The sales were analyzed, using a procedure proposed by Dr. Richard U. Ratcliff, elaborated and implemented by Dr. James A. Graaskamp, with modifications by Gene Dilmore.

The comparison procedure is basically as follows: First, land value is calculated as of the sale date for each comparable property. The indicated land value is then deducted from the sale price, eliminating this major element from the price differentials. Then the remainder price, for improvements only, is reduced to price per square foot of net rentable area.

Next, the properties are assigned comparative quality points for the major property attributes. Points are in accordance with qualitative ratings, as follows:

Rating	Points
Excellent	26
Good	20
Average	15
Fair	13
Poor	10

The major categories of property attributes considered, and the relative weights assigned to each were as follows:

Effective Age	30%
Space Quality (Construction, Design, Finish)	50%
Marketability (Accessibility, linkages to clients & customers, amenities)	20%
	100%

Each assignment of quality points is given its appropriate weight, and the weighted quality points totaled. For example, a rating of Fair in regard to Age (13 points, x 30% weight); a rating of Average in regard to space quality (15 points, x 50% weight); and a rating of Good in regard to Marketability Factors (20 points, x 20% weight) gives, for Sale #1, a total of 15.40 quality points.

Next, we divide the "Price Per Square Foot for Improvements" by the number of quality points, in order to reduce the comparisons to a common denominator. In the case of Sale #1, the price of improvements of $27.87 per square foot, divided by 15.40 quality points, yields an indicator of a price of $1.81 per square foot/per quality point. Note that these comparative ratings are thus independent of subject property, which is then assigned quality ratings in the same manner.

Finally, we examine the central tendency of these nine indicators, for a value indication for subject improvements, and add subject land value for a total market value indication.

The analysis is summarized in the following matrix:

Comparable Sales Analysis Matrix

Sale #	Ident.	Price	Land	Improvements	Imps Sq Ft
1	Crnshw	800,000	323,000	477,500	$27.87
2	3700 4 Av	250,000	74,000	176,000	$25.14
3	1732 Ox	105,000	40,000	65,000	$32.57
4	1210 S 20	680,000	310,000	370,000	$30.94
5	1703-B	100,000	33,000	67,000	$29.78
6	1905 Oxm	190,000	36,000	154,000	$43.97
7	3100 Ind	360,000	75,000	285,000	$60.25
8	2717 19 Pl	101,750	28,000	73,750	$29.50
9	11 Off Pk	265,000	147,000	118,000	$32.78

Comparable Sales Analysis Matrix--Cont'd

Sale #	Age Rating	Sp Qual Rating	Mktblty Rating	Quality Points	Price Per Point/SF
1	13/.3	15/.5	20/.2	15.40	$1.81
2	13/.3	13/.5	15/.2	13.40	$1.88
3	10/.3	15/.5	20/.2	14.50	$2.25
4	10/.3	20/.5	20/.2	17.00	$1.82
5	20/.3	13/.5	13/.2	15.10	$1.97
6	26/.3	20/.5	20/.2	21.80	$2.02
7	20/.3	23/.5	23/.2	22.10	$2.73
8	15/.3	13/.5	15/.2	14.00	$2.11
9	13/.3	20/.5	20/.2	17.90	$1.83
			Mean		$2.05
			Standard Deviation		$0.30
Subject	13/.3	20/.5	15/.2	16.90	

Value for subject from this approach is indicated as follows:

16.90 quality points for subject x $2.05 per point per square foot = $34.65 per square foot. 7,185 sq. ft. @ $34.65 = indicated value for improvements (R) $249,000

Adding back the land:	Land	125,000
Preliminary Value Indication		$374,000

Applying the standard deviation gives a confidence interval of plus or minus one standard deviation, of: $340,000 to $408,000, with most probable figure of $374,000.

(Standard deviation of $0.30 x 15.60 points = $4.77 x 7,185 sq. ft. = a standard deviation, in dollars, of plus or minus (R) $34,000.)

Preliminary Value Indication from Sale Comparison Approach:

$374,000

INCOME APPROACH TO VALUE

The building is currently leased, as follows:
Offices 1 & 2: Community Dialysis Center, 2,400 sq. ft., rent $1,100 per month; 5 year lease through 5/85. Office 2: Douglas Collins, M.D., 1,100 sq. ft., rent $475 per month. Office 4: J. Ippolito, M.D., 1,050, rent $600 per month; month-to-month lease. Office 5: James Burnett, M.D., 2,635 sq. ft., rent $1,300 per month.

Since only a portion of the building is leased to unrelated parties, and the lease on Offices 1 and 2 expires in 2 years, market rental was projected by comparison with other office rentals in the general area. Among rent comparables considered were the following:

(1) Brookhurst Office Bldg, 266 Gadsden Hwy. Built 1978, 2 sty, 7,300 sq. ft. Rent $8.00.

(2) Corporate East Bldg, 213 Gadsden Hwy. Built 1977, 2 sty, 28,808 sq. ft. Rent $9.50.

(3) Plaza Courtyard, 9229 Todd Drive. Built 1980, 2 sty, 9,400 sq. ft. Rent $8.00.

(4) Social Security Bldg East, 9217 Todd Drive. Built 1975, 2 sty, 13,000. Rent $9.00.

Comparison with these and other rent comparables indicated for subject a market rental value of approximately: $8.50 per sq. ft.

A vacancy allowance of 5% was assigned. Operating expenses were deducted in accordance with expense data on numerous office buildings in our files.

In the preceding comparable sale data, it will be noted that a number of the sales have indicated overall net rates of return calculated. From these sales, we derived an overall capitalization rate for subject of 10%. The income approach to value may be summarized as follows:

Income Approach Summary

Gross Potential Rental		
7,185 sq.ft. NRA @ $8.50		$61,072
Less Vacancy Allowance 5%		3,054
Effective Gross Rental		$58,018
Less Operating Expenses:		
Taxes (.60)	$4,335	
Insurance (.13)	935	
Utilities (1.50)	10,775	
Janitorial (.45)	3,200	
Repairs & Maint. (.25)	1,800	
Pest Control, Waste Disp	500	
Management (5%)	2,901	
Misc	250	24,696 (3.44)
Net Rental		$33,322
Capitalized @ 10% =		
Preliminary Value Indication		$333,000

VALUE CONCLUSION

A preliminary value indication was derived from the cost approach at $377,500, from the income approach at $333,000, and from the sale comparison approach at $374,000. The concept of "most probable purchaser" is quite relevant for this type of small office: although there is some investor-market, the market for this type of property is made up more of purchasers for owner-occupancy. For this reason, the sale comparison approach is more heavily weighted than it would be for a primarily investment property.

The preliminary value indications may be weighted for a correlated value conclusion, as follows:

Cost Approach $377,500 x 15% = $56,625

Income Approach $333,000 x 25% = $83,250

Sale Comparison $374,000 x 60% = $224,400

100% = $364,275 (R) $364,000

FINAL ESTIMATE OF MARKET VALUE OF SUBJECT PROPERTY AS OF MARCH 11, 1983:

$364,000

Respectfully submitted,

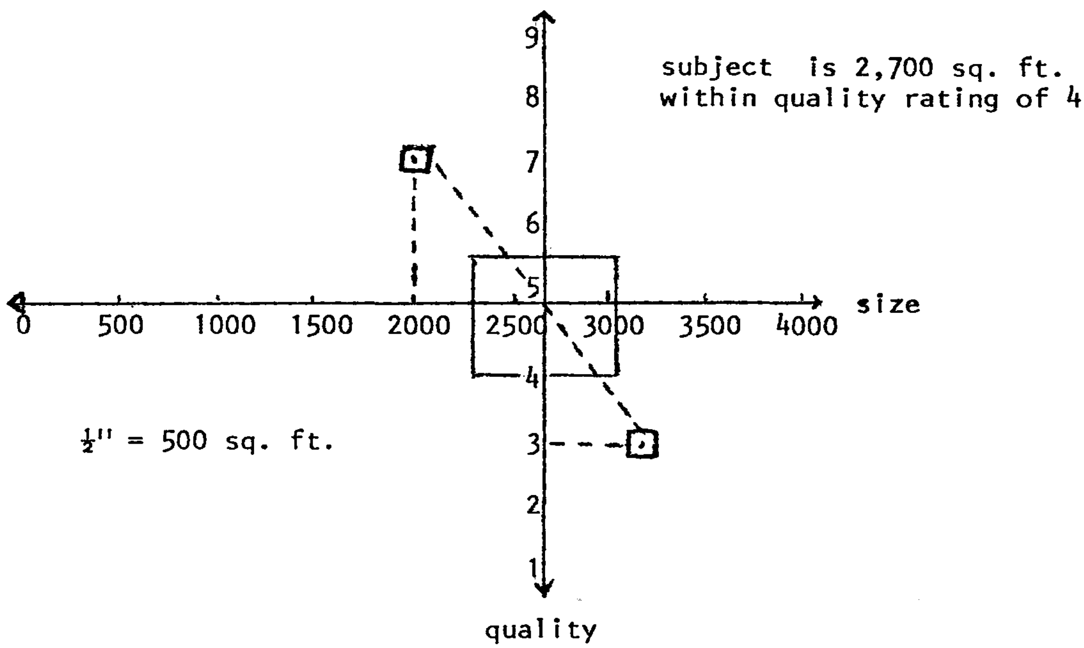
Gene Dilmore

Gary Dilmore

EXHIBIT 11

Demonstration of Euclidian Distance
For Selection of Best Comparable

Comparable 1 = 2,000 sq. ft. and quality 7 sold for $80,000
Comparable 2 = 3,000 sq. ft. and quality 3 sold for $110,000
Adjustment for difference in size is $20 per sq. ft.
Adjustment for difference in quality is 2% of sales price



Comp. 1 Euclidian distance dollars = $[(2,700-2,000)\$20]^2 + [(5-7).02 \times 80,000]^2$
$= 14,000^2 + 3200^2$ or $196,000 + 1,024,000 = 1,220,000$

Comp. 2 Euclidian distance in dollars = $[(2,700-3,000)\$20]^2 + [(5-3).02 \times 110,000]^2$

$= 300 \times 20$ or $6000^2 + 4400^2$
$= 360,000 + 193,600 = 553,600$

Therefore, Comparable 2 is most comparable to the subject property, because hypotenuse $\sqrt{553,600}$ is shorter than hypotenuse $\sqrt{1,220,000}$.

D. Consider that the market comparison method typically involves comparison of selected comparables with a subject property in terms of certain differences with a dollar adjustment made to actual sales price for the extent of the differences. The process might be represented as:

$$Vk = A1\ (Xs - Xk)_1 + A2 \times (Xs2 - Xk2)$$
$$Vp = \text{average of } Vk$$

Refer to diagram of Euclidian Distance (See Exhibit 11.)

II. One application of the system is for residential assessment in the upper income community of Maple Bluff, Wisconsin. There is a wide variance in size of residential units (900 sq. ft. to 9,000 sq. ft.), lot size (5,000 sq. ft. to 5 acres), and locational factors including lake views, a country club, and a railroad. All the details of the system are provided in Exhibit 12.

AUTOMATED MKT COMP ASSESSMENT SYSTEM

For Maple Bluff
Dane County, Wisconsin

Implemented By

Jean B. Davis

EXHIBIT 12

Date of Inspection______________

Name of Inspector______________

VILLAGE OF MAPLE BLUFF
DANE COUNTY
WISCONSIN

SINGLE FAMILY RESIDENTIAL INFORMATION FORM

1. ____________________________ Tax Parcel Number

2. ____________________________ Property Owner

3. ________________ Street Number

4. ________________ Street Name

LAND DATA

5. ________________ Previous Lot Sale Price

6. ________________ Previous Lot Sale Date

7. ________________ X Geocode

8. ________________ Y Geocode

9. ________________ Neighborhood Number (01-18)

10. ________________ Lot Square Feet (rounded to nearest 500 ft.)

11. ________________ Lot Front Feet (rounded to nearest foot)

12. ________________ Lot Depth (rounded to nearest foot)

13. ________________ Lot Subdividable
(smaller of A, B,
A & B apply only to unplatted-uncertified lots)

0 = No

A = Unplatted Gross Lots = $\dfrac{\text{Lot area - 40,000 sq.ft.}}{\text{25,000 sq.ft.}}$
(round down to next integer value)

B = Net Additional Lots = $\dfrac{\text{Lake frontage}}{\text{100 ft.}} - 1$
(round down to next integer value)

CONDITIONS WHICH MUST BE MET:

1. All lots must have no less than 40' of street frontage or a single driveway (apron) easement.
2. Platted vacant lots (within a parcel) will be treated as buildable if, separately or in combination, the total area is $\leq$ 14,000 SF, and conforms to condition #1.

14. ________________ Lot Oversized (but not subdividable)
0 = under 65,000 sq.ft.;
1 = oversize lot

15. ________________ Lake Access Easement
0 = No; 1 = Yes

16. ________________ Shore Quality
3 = inaccessible bluff/Dengel Bay
2 = shallow
1 = mud; 0 = no dominant problem

17. ________________ Water Quality
3 = odor; 2 = flotsam; 1 = weeds;
0 = no dominant problem

18. ________________ Lake Front Feet
(rounded to nearest foot)

19. ________________ Lot on Corner
0 = No; 1 = Yes

20. ________________ Lot on Cul-de-sac
    0 = No; 1 = Yes

21. ________________ Inside Lot
    0 = No; 1 = Yes

22. ________________ Lot Wooded
    0 = Below average (0 to 3 major trees)
    1 = Average wooded lot (4 to 7 major trees)
    2 = Above average lot (more than 7 major trees)

23. ________________ Lot View
    0 = Commercial lot or railroad lot
    1 = Average view
    2 = Golf course or park view
    3 = Water average (non-State Capitol view)
    4 = Water superior (State Capitol view)

24. ________________ Lot Topography
    0 = Severe, non-usable slope
    1 = Wet pockets
    2 = Downsloping lot
    3 = Level contour
    4 = Upward sloping lot

25. ________________ Adverse Influence
    0 = None
    1 = Contiguous lake easement
    2 = Joint driveway
    3 = Other (high lines, etc.)
    4 = Commercial property
    5 = Public property or exposure
    6 = Railroad
    7 = High traffic
    9 = Combination

    If lot suffers from two adverse influences, enter the higher value.

SITE IMPROVEMENT DATA

26. ________________ Tennis Court

27. ________________ Outdoor Pool

28. ________________ Patio

29. ________________ Storage Shed

30. ________________ Boathouse

EXHIBIT 12 (Continued)

31. ________________ Seawall

32. ________________ Indoor Pool

33. ________________ Elevator

34. ________________ Other Structure Name

35. ________________ Other Structure Value

36. ________________ Other Structure Name

37. ________________ Other Structure Value

38. ________________ Special Structures Total
(Sum of columns 26 - 37)

39. ________________ Driveway
(score = style, material)

<u>STYLE</u>

1 = Linear into garage-back into street
2 = Linear with turn-around space
3 = Circular
4 = Large with parking space and turnaround space
5 = Circular with parking space

<u>MATERIAL</u>

1 = Dirt
2 = Gravel
3 = Asphalt
4 = Concrete/Brick

40. ________________ Neighborhood Foliage
1 = New and raw
2 = Some mature trees
3 = Shady

41. ________________ Landscaping
1 = Little or none
2 = Average
3 = Above average

42. ________________ Screening of Back
0 = Little or none
1 = Yes

43. ________________ Screening of Front
0 = Little or none
1 = Yes

44. ________________ Curb and Gutter
0 = No; 1 = Yes

45. ________________ Sidewalk
0 = No; 1 = Yes

IMPROVEMENT DATA

46. ________________ Previous Sale Price

47. ________________ Previous Sale Date

48. ________________ Year Built

49. ________________ Era
0 = Pre-1910
1 = 1910-1929
2 = 1930-1949
3 = 1950-1969
4 = 1970 to present

50. ________________ Square Feet Living Space

51. ________________ Number of Stories
0 = Vacant Lot
1 = 1 Story
1.3 = 1-1/2 Stories
1.6 = Miltilevel
2 = 2 Stories
2.3 = 2-1/2 Stories

52. ________________ Roof
(score = style, material)

STYLE	MATERIAL
1 = Gable	1 = Gravel
2 = Hip	2 = Asphalt shingles
3 = Mansard	3 = Wood shake/shingle
4 = Gambrel	4 = Slate shingles
5 = Flat	5 = Tile
6 = Single pitch	6 = Metal

53. ________________ Exterior

0 = Concrete block
1 = Wood siding/frame
2 = Stucco
3 = Stained boards/shingles
4 = Aluminum siding
5 = Part masonry/frame
6 = Part masonry/stained boards
7 = Part masonry/aluminum
8 = Predominantly brick veneer
9 = Predominantly stone

54. ________________ Garage Type

0 = None
1 = Carport
2 = 1 car detached
3 = 1 car basement
4 = 1 car attached
5 = 2-3 car detached
6 = 2-3 car basement
7 = 2 car attached, small
8 = 2 car attached, large
9 = 3 car attached

55. ________________ Building Style

1 = Cottage
2 = Pre-1940
3 = Standard builder's suburban (Owner custom obsolescence)
4 = Architectural modern
5 = Pre-1940 remodeled
6 = Good builder's suburban/mansion
7 = Architectural contemporary
8 = Architectural traditional
9 = Architectural colonial

56. ________________ Basement Type

0 = Slab
1 = Crawl
2 = Partial
3 = Full
4 = Partially exposed (opening on grade at least one side)
5 = Exposed (raised ranch/bilevel- English basement- window sill at grade)

57. ________________ Basement Condition

0 = No problem
2 = Mild problem due to seepage/aging
5 = Poor condition or no basement

58. ________________ Appearance to Neighbors

1 = Less attractive
2 = Equally attractive
3 = More attractive

59. ________________ Quality

0 = Uninhabitable
1 = Major mechanical or structural problems
2 = Interior damage
3 = Exterior maintenance required
4 = Average condition
5 = Well-maintained
6 = Maintained like new
7 = New--standard
8 = New--custom
9 = New--deluxe

EXHIBIT 12 (Continued)

60. ________________ Enclosed Porch

0 = None	5 = Average glass
1 = Small screen	6 = Large glass
2 = Average screen	7 = Small glass, heated
3 = Large screen	8 = Average glass, heated
4 = Small glass	9 = Large glass, heated

61. ________________ Total Number of Rooms

62. ________________ Total Number of Bedrooms

63. ________________ Total Number of Bathrooms
(sum of bathroom scores)

64. ________________ Half
(Score = .5 for each)

65. ________________ Three-quarter
(Score = .75 for each)

66. ________________ Full
(Score = 1 for each)

67. ________________ Bathroom on First Floor
0 = No
1 = Yes

68. ________________ Total Number of Fireplaces

69. ________________ Living Room
(score = size, layout)

SIZE	LAYOUT
1 = Small	1 = Poor
2 = Moderate	2 = Indifferent
3 = Large	3 = Good

70. ________________ Dining Room
0 = None
STYLE
1 = At end of living room
2 = Dining L
3 = Full dining area
4 = Separate room

EXHIBIT 12 (Continued)

71. ________________ Den/Library/Study
0 = None 2 = Average
1 = Small 3 = Large

72. ________________ Kitchen Score
Score = (Size * Type * Work area) + Eating space

73. ________________ Kitchen Size
1 = Small
2 = Average
3 = Large

74. ________________ Kitchen Type
1 = Single wall 4 = U-shaped
2 = Pullman 5 = L- or U-shaped with island
3 = L-shaped

75. ________________ Kitchen Work Area
To calculate kitchen score use:
0 = Obsolete (.5)
1 = Dated (.75)
2 = Modern (1.00)

76. ________________ Kitchen Eating Space
To calculate kitchen score use:
0 = None 0
1 = Counter/Stools .2
2 = Space for table/chairs .4
3 = Breakfast nook .6

77. ________________ Family Room
(Score = location, size)
0 = None

LOCATION	SIZE
1 = Poor	1 = Small
2 = Adjoining kitchen	2 = Average
3 = Fully separate and well located	3 = Large

78. ________________ Recreation Room
0 = None
1 = Yes (Must have fully finished floor, ceiling, and walls)

79. ________________ Laundry Area Score
(Score = location * type)

EXHIBIT 12 (Continued)

80. ________________ Laundry Area Location

LOCATION
1 = Basement
2 = At grade
3 = Second floor

81. ________________ Laundry Area Type
0 = None
TYPE
1 = Exposed
2 = Enclosed closet
3 = Separate room

82. ________________ Heating System Score
(Score = Fuel * Type)

83. ________________ Heating Fuel
FUEL
1 = Electricity
2 = Oil
3 = Gas

84. ________________ Heating Type
TYPE
1 = Old hot water - radiators
2 = Old low pressure steam - radiators
3 = Old hot water integrated with water heater
4 = Gravity hot air grills on floor
5 = Hot water-baseboards
6 = Forced hot air
7 = Forced hot air-zoned
8 = Multiple forced hot air units

85. ________________ Electrical Service
AMPERAGE
1 = 30 amp.
2 = 60 amp.
3 = 100 amp.
4 = 125 amp.
5 = 150 amp.
6 = > 150 amp.

EXHIBIT 12 (Continued)

86. ________________ Water Heater

Score = (Capacity, Fuel)

0 = With hot water heat system

CAPACITY OF UNIT		FUEL
1 = 20 gal.	5 = 75 gal.	1 = Electric
2 = 30 gal.	6 = 100 gal.	2 = Solar
3 = 40 gal.	7 = 100+ gal.	3 = Oil
4 = 50 gal.		4 = Gas

87. ________________ Interior Circulation (Traffic pattern)

0 = Poor
1 = Moderately good
2 = Good
3 = Excellent

88. ________________ Total Special Features Score

(Sum of all special features points)

EXHIBIT 12 (Continued)

SPECIAL FEATURES

1. ________________ Front Exterior Entry
(Score = Sum of style and function)

STYLE	FUNCTION
0 = Single door	-1 = Unprotected
1 = Double door	2 = Protected

2. ________________ Front Interior Entry
(Score = Sum of points)
-3 = Entrance direct to living room
0 = Vestibule (hall entry)
1 = Foyer (enclosed entry)
2 = Spacious vestibule
3 = Spacious foyer

3. ________________ Master Bedroom Suite
(Score = Sum of points)
1 = Extra closet space
2 = Dressing area
3 = Sitting area

4. ________________ Living Room Extras
(Score = Sum of points)
-3 = Classical cathedral ceiling
0 = None
1 = Contemporary sloped ceiling, built-in cabinets
2 = Sunken multi-level, special natural illumination, deluxe woodwork

5. ________________ Dining Room Extras
(Score = Sum of points)
0 = None
1 = Built-in china cabinet, break front/buffet
2 = Wet bar
3 = Deluxe built-ins

6. ________________ Den/Library/Study Extras
(Score = Sum of points)
0 = None
1 = Built-in cabinets
2 = Deluxe woodwork

EXHIBIT 12 (Continued)

SPECIAL FEATURES (Continued)

7. ________________ Kitchen Extras
(Score = Sum of Points)
0 = None
1 = Each built-in appliance, serving pantry/bar, direct access to outside, grill/BBQ, more than one sink area
-3 = No window
-2 = Below average window area
0 = Average window area
1 = Above average window area

8. ________________ Family Room Extras
(Score = Sum of points)
0 = None
1 = Built-in cabinets, deluxe flooring, deluxe paneling, sloped ceiling
2 = Wet bar
5 = Kitchen facilities

9. ________________ Number of Special Spaces
(Score = Sum of points)
0 = None
1 = Special woodwork/craft area
2 = Dark room
3 = Sewing, sitting, office areas, partially finished recreation room

10. ________________ Recreation Room Extras
(Score = Sum of ponits)
0 = None
1 = Built-in cabinets
2 = Wet bar
5 = Kitchen facilities

11. ________________ Household Extras
(Score = Sum of points)
0 = None
1 = Greenhouse - attached at window, special indirect lighting
2 = Security system
3 = Greenhouse - attached and walk-in, sauna
5 = Central air conditioning, grand spiral staircase

EXHIBIT 12 (Continued)

VILLAGE OF MAPLE BLUFF, DANE COUNTY
SINGLE-FAMILY RESIDENTIAL TAX INFORMATION FORM
AS OF JANUARY 1, 1980

1	Tax Parcel Number		
2	Property Owner		
3	Street Number		
4	Street Name		
5	Previous Lot Sale Price	PLSPRICE	
6	Previous Lot Sale Date	PLSDATE	
7	Geocode X	GEO X	
8	Geocode Y	GEO Y	
9	Neighborhood Number	NBRHD	
10	Lot Square Feet	LTSQFT	
11	Lot Front Feet	LTFFT	
12	Lot Depth	LTDPTH	
13	Lot Subdividable	LOTSDIV	
14	Lot Oversized	LOTOVSZD	
15	Lake Access Easement	LKACC	
16	Shore Quality	SHORE	
17	Water Quality	WATER	
18	Lake Front Feet	LKFFT	
19	Lot on Corner	LTCNR	
20	Lot on Cul de Sac	LTCUL	
21	Inside Lot	LTINS	
22	Lot Wooded	LTWOOD	
23	Lot View	LTVIEW	
24	Lot Topo	LTTOPO	
25	Adverse Influence	ADINF	
26	Tennis Court	TENCT	
27	Outdoor Pool	OUTPOOL	
28	Patio	PATIO	
29	Storage Shed	STSHD	
30	Boathouse	BTHSE	
31	Seawall	SEAWLL	
32	Indoor Pool	INPOOL	
33	Elevator	ELEV	
34	Other Structure Name	STCT1	
35	Other Structure Value	VALUE1	
36	Other Structure Name	STCT2	
37	Other Structure Value	VALUE2	
38	Special Structures Total	SPCTOT	
39	Driveway	DRVWY	
40	Neighborhood Foliage	NBRFOL	
41	Landscaping	LNDSCP	
42	Screening of Back	CRBK	
43	Screening of Front	SCRFT	
44	Curb Gutter	CRBGTR	
45	Sidewalk	SIDWLK	
46	Previous Sale Price	PSPR	
47	Previous Sale Date	PSDATE	
48	Year Built	YRBLT	

49	Era	ERA	
50	Sq. Ft. Living Space	SQFTLS	
51	Number of Stories	STORIES	
52	Roof	ROOF	
53	Exterior	EXTER	
54	Garage Type	GARAGE	
55	Building Style	STYLE	
56	Basement Type	BSMTYP	
57	Basement Condition	BSMTCND	
58	Appearance to Neighbors	APPEARS	
59	Quality	QUALTY	
60	Enclosed Porch	PORCH	
61	Total Number Rooms	ROOMS	
62	Total Number Bedrooms	BDRMS	
63	Total Number Bathrooms	BATHS	
64	Half	HFBTH	
65	Three Quarters	THQBTH	
66	Full	FULLBTH	
67	On First Floor	BTH1ST	
68	Total Number Fireplaces	FPLAC	
69	Living Room	LIVRM	
70	Dining Room	DINRM	
71	Den/Library/Study	DEN	
72	Kitchen Score	KTCHSCR	
73	Kitchen Size	KTCHSZ	
74	Kitchen Type	KTCHTYPE	
75	Kitchen Work Area	KTCHWRK	
76	Kitchen Eating Space	KTCHEAT	
77	Family Room	FMLYRM	
78	Recreation Room	RECRM	
79	Laundry Area Score	LAUNSCR	
80	Laundry Area Location	LAUNLOC	
81	Laundry Area Type	LAUNTYP	
82	Heating System Score	HTGSCR	
83	Heating Fuel	HTGFUEL	
84	Heating Type	HTGTYP	
85	Electrical Service	ELECTSRV	
86	Water Heater	WTRHTR	
87	Interior Circulation	INTCIR	
88	Special Features Score	SPFTSCR	

EXHIBIT 12 (Continued)

VILLAGE OF MAPLE BLUFF, DANE COUNTY
PROPERTY TAX ASSESSMENT
CHANGE IN ASSESSMENT DATA

Tax Parcel Number ______________________ Date ____________

Name of Property Owner ______________________________

Address of Property Owner ______________________________

Description of Changes:

Data Base Changes:

Data Item	Column Number	Previous Entry	Updated Entry

Signature of Reviewer ______________________

Date Entered in Data Base ______________________ Initials __________

Blue Copy: Assessor Green Copy: Property File

EXHIBIT 12 (Continued)

MARKET COMP OUTPUT

FACTOR FILE

```
SET WIDTH 132

Ready

RUN [150,54]MKTMS
ENTER FACTOR FILENAME
*LAKE20.FAC

ENTER COMPARABLE FILENAME
*LAKEXX.COM

ENTER SUBJECT FILENAME
*LAKE.SUB

  0     0     0     0          0.00000
  1     4           0.00000
  2     2          83.00000
  3   100           2.00000
  4     4           0.00000
  5     1           0.00000
  0     0           0.00000
```

Adjustment Factor — Type — Selection Factor

```
   1  PSPR      0.  0.        1.00000  0.  0.        1.00000
   2  PSDATE    2.  0.        0.00000  2.  0.        0.05000
   3  NBRHD     1.  0.     1500.00000  1.  0.     5000.00000
   4  LTSQFT    1.  0.        0.44000  1.  0.        0.44000
   5  LOTSDIV   1.  0.    15500.00000  1.  0.    15500.00000
   6  SHORE     2.  0.       -0.02000  2.  0.       -0.02000
   7  WATER     2.  0.       -0.02000  2.  0.       -0.02000
   8  LKFFT     1.  0.        0.00000  1.  0.        0.00000
   9  EFFLKFT   1.  0.      350.00000  1.  0.     3000.00000
  10  LTCNR     1.  0.     -750.00000  1.  0.     -750.00000
  11  LTCUL     1.  0.      500.00000  1.  0.      500.00000
  12  LTWOOD    2.  0.        0.02000  2.  0.        0.02000
  13  LTVIEW    2.  0.        0.02000  2.  0.        0.02000
  14  LTTOPO    2.  0.        0.03000  2.  0.        0.03000
  15  ADINF     2.  0.       -0.01500  2.  0.       -0.01500
  16  SPCTOT    1.  0.        1.00000  1.  0.        1.00000
  17  YRBLT     1.  0.        0.00000  1.  0.        0.00000
  18  EFFAGE    3.  0.        0.50000  3.  0.        2.00000
  19  SQFTLS    1.  0.        0.00000  1.  0.        0.00000
  20  EFFSQFT   1.  0.       20.00000  1.  0.       90.00000
  21  STORIES   2.  0.        0.00000  2.  0.        0.00000
  22  EXTER     2.  0.        0.00600  2.  0.        0.00600
  23  GARAGE    2.  0.        0.01000  2.  0.        0.01000
  24  STYLE     2.  0.        0.01000  2.  0.        0.01000
  25  BSMTYP    2.  0.        0.01500  2.  0.        0.01500
  26  BSMTCND   1.  0.     -750.00000  1.  0.     -750.00000
  27  QUALTY    2.  0.        0.02000  2.  0.        0.02000
  28  PORCH     1.  0.      600.00000  1.  0.      600.00000
  29  BDRMS     1.  0.     1500.00000  1.  0.     5000.00000
  30  BATHS     1.  0.     4000.00000  1.  0.     4000.00000
  31  FPLAC     1.  0.      750.00000  1.  0.      750.00000
  32  DINRM     2.  0.        0.02000  2.  0.        0.02000
  33  DEN       1.  0.     1000.00000  1.  0.     1000.00000
  34  KTCHSCR   1.  0.      850.00000  1.  0.      850.00000
  35  FAMRM     1.  0.      100.00000  1.  0.      100.00000
  36  RECRM     1.  0.     2000.00000  1.  0.     2000.00000
  37  LAUNSCR   1.  0.      300.00000  1.  0.      300.00000
  38  HTGSCR    1.  0.      200.00000  1.  0.      200.00000
  39  INTCIR    2.  0.        0.01000  2.  0.        0.01000
  40  SPFTSCR   1.  0.      350.00000  1.  0.      350.00000
ENTER SUMMARY FILENAME
*JEAN.BAS
```

MARKET COMPARISON ADJUSTMENT GRID
LAKE FRONT RESIDENTIAL PROPERTY

PROPERTY REPORT 8 [illegible]

9 4601108 45 CAMBRIDGE RD ADJUSTMENT **

FACTOR	TYP	RATE	AVE.	S-DEV.
PSPR	0.	1.00	207275.	18096.
PSDATE	2.	0.00	0.	0.
NBRHD	1.	1500.00	3000.	3464.
LTSQFT	1.	0.44	-3135.	2358.
LOTSDIV	1.	15500.00	0.	0.
SHORE	2.	-0.02	1800.	3600.
WATER	2.	-0.02	-2154.	4308.
LKFFT	1.	0.00	0.	0.
EFFLKFT	1.	350.00	1138.	827.
LTCNR	1.	-750.00	0.	0.
LTCUL	1.	500.00	0.	0.
LTWOOD	2.	0.02	-1077.	2154.
LTVIEW	2.	0.02	1977.	2301.
LTTOPO	2.	0.03	2966.	3452.
ADINF	2.	-0.01	0.	0.
SPCTOT	1.	1.00	350.	839.
YRBLT	1.	0.00	0.	0.
EFFAGE	3.	0.50	-3589.	6878.
SQFTLS	1.	0.00	0.	0.
EFFSQFT	1.	20.00	4530.	4490.
STORIES	2.	0.00	0.	0.
EXTER	2.	0.01	-969.	1939.
GARAGE	2.	0.01	1077.	2154.
STYLE	2.	0.01	4150.	3086.
BSMTYP	2.	0.01	-808.	1616.
BSMTCND	1.	-750.00	0.	0.
QUALTY	2.	0.02	4142.	362.
PORCH	1.	600.00	900.	1039.
BDRMS	1.	1500.00	0.	1225.
BATHS	1.	4000.00	-1250.	1893.
FPLAC	1.	750.00	-187.	375.
DINRM	2.	0.02	-367.	5442.
DEN	1.	1000.00	1250.	957.
KTCHSCR	1.	850.00	11199.	2400.
FAMRM	1.	100.00	0.	0.
RECRM	1.	2000.00	-1000.	1155.
LAUNSCR	1.	300.00	-150.	300.
HTGSCR	1.	200.00	-600.	1337.
INTCIR	2.	0.01	1533.	1037.
SPFTSCR	1.	350.00	-525.	1841.

AVE ADJUSTED AMT 231274. 8070.
WEIGHTED AVE. 233580.

2:9 4601108 45 CAMBRIDGE RD
3:12 4601113 33 CAMBRIDGE RD
12:516 4601462 1177 FARWELL DR
11:511 4601457 1311 FARWELL DR

FACTOR	SUBJECT	2-AMT	ADJ	3-AMT	ADJ	12-AMT	ADJ	11-AMT	ADJ
PSPR	215000.00	215000.00	215000.	217900.00	217900.	215400.00	215400.	180000.00	180000.
PSDATE	82.08	82.08	0.	80.33	0.	82.50	0.	82.17	0.
NBRHD	17.00	17.00	0.	17.00	0.	13.00	6000.	13.00	6000.
LTSQFT	18000.00	18000.00	0.	29500.00	-5060.	29000.00	-4840.	24000.00	-2640.
LOTSDIV	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
SHORE	8.00	0.00	0.	0.00	0.	0.00	0.	2.00	7200.
WATER	2.00	2.00	0.	2.00	0.	0.00	-8616.	2.00	0.
LKFFT	80.00	80.00	0.	77.00	0.	60.00	0.	70.00	0.
EFFLKFT	80.00	80.00	0.	77.00	1050.	75.00	1750.	75.00	1750.
LTCNR	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LTCUL	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LTWOOD	1.00	1.00	0.	1.00	0.	2.00	-4308.	1.00	0.
LTVIEW	4.00	4.00	0.	4.00	0.	3.00	4308.	3.00	3600.
LTTOPO	3.00	3.00	0.	3.00	0.	2.00	6462.	2.00	5400.
ADINF	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
SPCTOT	0.00	0.00	0.	200.00	-200.	0.00	0.	-1600.00	1600.
YRBLT	1930.00	1930.00	0.	1925.00	0.	1939.00	0.	1947.00	0.
EFFAGE	64.77	64.77	0.	62.46	4029.	69.39	-7171.	73.99	-11215.
SQFTLS	3060.00	3000.00	0.	3000.00	0.	2460.00	0.	2500.00	0.
EFFSQFT	2750.00	2714.00	720.	2714.00	720.	2278.00	9440.	2388.00	7240.
STORIES	2.00	2.00	0.	2.00	0.	2.00	0.	2.00	0.
EXTER	5.00	5.00	0.	5.00	0.	8.00	-3877.	5.00	0.
GARAGE	7.00	7.00	0.	7.00	0.	5.00	4308.	7.00	0.
STYLE	8.00	8.00	0.	5.00	6537.	5.00	6462.	6.00	3600.
BSMTYP	3.00	3.00	0.	3.00	0.	4.00	-3231.	3.00	0.
BSMTCND	2.00	2.00	0.	2.00	0.	2.00	0.	2.00	0.
QUALTY	6.00	5.00	4300.	5.00	4358.	5.00	4308.	5.00	3600.
PORCH	8.00	8.00	0.	8.00	0.	5.00	1800.	5.00	1800.
BDRMS	4.00	4.00	0.	5.00	-1500.	4.00	0.	3.00	1500.
BATHS	2.25	2.25	0.	2.50	-1000.	3.25	-4000.	2.25	0.
FPLAC	2.00	2.00	0.	2.00	0.	2.00	0.	3.00	-750.
DINRM	3.00	3.00	0.	4.00	-4358.	4.00	-4308.	1.00	7200.
DEN	2.00	2.00	0.	0.00	2000.	0.00	2000.	1.00	1000.
KTCHSCR	15.40	0.50	12665.	0.50	12665.	1.50	11815.	6.40	7650.
FAMRM	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
RECRM	0.00	0.00	0.	0.00	0.	1.00	-2000.	1.00	-2000.
LAUNSCR	1.00	1.00	0.	1.00	0.	1.00	0.	3.00	-600.
HTGSCR	3.00	3.00	0.	2.00	200.	16.00	-2600.	3.00	0.
INTCIR	2.00	2.00	0.	1.00	2179.	1.00	2154.	1.00	1800.
SPFTSCR	7.00	4.00	1050.	4.00	1050.	12.00	-1750.	14.00	-2450.
ADJUSTED AMOUNT			233735.		240570.		229506.		221285.
SELECTION INDEX			16959.		38705.		61335.		63548.

PROPERTY CARD
LAKE FRONT RESIDENTIAL PROPERTY

1983 PROPERTY CARD - PARCEL- 4601108

[redacted]
45 CAMBRIDGE RD
MADISON, WI 53704

LAND DATA

PREVIOUS LOT SALE PRICE	0
PREVIOUS LOT SALE DATE	0
GEOCODE	77.
NEIGHBORHOOD NUMBER	17
LOT SQ. FT.*	18000
LOT FRONT FT.*	80
LOT DEPTH*	223
LOT SUBDIVIDABLE	No
LOT OVERSIZED	No
LAKE ACCESS EASEMENT	No
SHORE QUALITY	No dominant problem
WATER QUALITY	Flotsam
LAKE FRONT FT.	80
LOT ON CORNER	No
LOT ON CUL DE SAC	No
INSIDE LOT	No
LOT WOODED	4 to 7 major trees
LOT VIEW	Water,Capitol
LOT TOPOGRAPHY	Level contour
ADVERSE INFLUENCE	None

SPECIAL STRUCTURES AND SITE IMPROVEMENTS

TENNIS COURT	0
OUTDOOR POOL	0
PATIO	0
STORAGE SHED	0
BOATHOUSE	0
SEAWALL	0
INDOOR POOL	0
ELEVATOR	0
0.	0
0.	0
SPECIAL STRUCTURES TOTAL	0
DRIVEWAY	Linear, gravel
NEIGHBORHOOD FOLIAGE	Shady
LANDSCAPING	Average
SCREENING OF BACK	Little or none
SCREENING OF FRONT	Yes
CURB AND GUTTER	No
SIDEWALK	No

*APPROX. USING VILLAGE MAP

IMPROVEMENT DATA

PREVIOUS SALE PRICE	215000
PREVIOUS SALE DATE	0202
YEAR BUILT	1930
ERA	1930-1949
SQ. FT. LIVING SPACE	3060
NUMBER OF STORIES	2 Stories
BUILDING STYLE	Architectural Traditional
ROOF	Gable,asphalt shingles
EXTERIOR	Part masonry/frame
GARAGE	2 Car attached, small
BASEMENT TYPE	Full
BASEMENT CONDITION	Mild seepage/aging
QUALITY	Maintained like new
APPEARANCE TO NEIGHBORS	Equally attractive
ENCLOSED PORCH	Average glass, heated
NUMBER OF ROOMS	11
NUMBER OF BEDROOMS	4
NUMBER OF BATHROOMS	2.25
HALF BATHS	1
THREE QUARTER BATHS	1
FULL BATHS	1
BATH ON FIRST FLOOR	Yes
NUMBER OF FIREPLACES	2
LIVING ROOM	Moderate size, average layout
DINING ROOM	Full dining area
DEN/LIBRARY/STUDY	Average size
FAMILY ROOM	None
KITCHEN SCORE	15.40
SIZE	Large
TYPE	L or U with island
WORK AREA	Modern
EATING SPACE	Space for table/chairs
RECREATION ROOM	None
LAUNDRY AREA SCORE	1
LOCATION	Basement
TYPE	Exposed
HEATING SYSTEM SCORE	3
FUEL	Gas
TYPE	Old hot water-radiators
ELECTRICAL SERVICE	60 amp.
WATER HEATER	40 gal., electric
TRAFFIC PATTERN	Good
SPECIAL FEATURES SCORE	7
LAND	64,000
IMPROVEMENTS	148,500
1982 ASSESSMENT	212,500
LAND	64,000
IMPROVEMENTS	169,500
1983 ASSESSMENT	233,500

EXHIBIT 12 (Continued)

MARKET COMPARISON ADJUSTMENT GRID
NON-LAKE RESIDENTIAL PROPERTY

P R O P E R T Y   R E P O R T   1

2 460110 37 OLD SHORE RD   ADJUSTMENT **

FACTOR	TYP	RATE	AVE.	S-DEV.
PSPR	0.	1.00	118500.	12662.
PSDATE	2.	0.00	0.	0.
NBRHD	1.	1500.00	-750.	1500.
LTSQFT	1.	0.44	-2255.	1570.
LOTSDIV	1.	15500.00	0.	0.
SHORE	2.	-0.02	0.	0.
WATER	2.	-0.02	0.	0.
LKFFT	1.	0.00	0.	0.
EFFLKFT	1.	350.00	0.	0.
LTCNR	1.	-750.00	-562.	375.
LTCUL	1.	500.00	0.	0.
LTWOOD	2.	0.02	1745.	1187.
LTVIEW	2.	0.02	0.	0.
LTTOPO	2.	0.03	0.	0.
ADINF	2.	-0.01	-7695.	3094.
SPCTUT	1.	1.00	4100.	115.
YRBLT	1.	0.00	0.	0.
EFFAGE	3.	0.50	-3327.	6617.
SQFTLS	1.	0.00	0.	0.
EFFSQFT	1.	20.00	3895.	3245.
STORIES	2.	0.00	0.	0.
EXTER	2.	0.01	3203.	922.
GARAGE	2.	0.01	2028.	1792.
STYLE	2.	0.01	2425.	2824.
BSMTYP	2.	0.01	1661.	2253.
BSMTCND	1.	-750.00	-2438.	1772.
QUALTY	2.	0.02	320.	4680.
PURCH	1.	600.00	1200.	693.
BDRMS	1.	1500.00	1125.	750.
BATHS	1.	4000.00	0.	2944.
FPLAC	1.	750.00	-375.	433.
DINRM	2.	0.02	2410.	2191.
DEN	1.	1000.00	-750.	957.
KTCHSCR	1.	850.00	-510.	1533.
FAMRM	1.	100.00	-500.	935.
RECRM	1.	2000.00	0.	0.
LAUNSCR	1.	300.00	-300.	424.
HTGSCR	1.	200.00	-1350.	1237.
INTCIR	2.	0.01	275.	550.
SPFTSCR	1.	350.00	-700.	1137.

AVE ADJUSTED AMT 117174. 5795.
WEIGHTED AVE. 117500.

5:43 4601146 74 CAMBRIDGE RD
17:147 4601220 200 LAKEWOOD BLV
15:139 4601212 236 LAKEWOOD BLV
3:32 4601132 159 LAKEWOOD BLVD

FACTOR	SUBJECT	5-AMT	ADJ	17-AMT	ADJ	15-AMT	ADJ	3-AMT	ADJ
PSPR	89000.00	110000.00	110000.	106000.00	106000.	125000.00	125000.	133000.00	133000.
PSDATE	78.42	82.67	0.	82.33	0.	80.58	0.	81.67	0.
NBRHD	5.00	7.00	-3000.	5.00	0.	5.00	0.	5.00	0.
LTSQFT	13500.00	23500.00	-4400.	15000.00	-660.	17500.00	-1760.	18500.00	-2200.
LOTSDIV	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
SHORE	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
WATER	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LKFFT	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
EFFLKFT	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LTCNR	1.00	0.00	-750.	1.00	0.	0.00	-750.	0.00	-750.
LTCUL	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LTWOOD	1.00	0.00	2200.	0.00	2120.	1.00	0.	0.00	2660.
LTVIEW	1.00	1.00	0.	1.00	0.	1.00	0.	1.00	0.
LTTOPO	3.00	3.00	0.	3.00	0.	3.00	0.	3.00	0.
ADINF	5.00	0.00	-8250.	3.00	-3180.	0.00	-9375.	0.00	-9975.
SPCTUT	0.00	0.00	0.	200.00	-200.	200.00	-200.	0.00	0.
YRBLT	1928.00	1917.00	0.	1949.00	0.	1928.00	0.	1948.00	0.
EFFAGE	63.82	59.16	4332.	75.22	-8032.	63.82	0.	74.60	-9610.
SQFTLS	3080.00	2660.00	0.	2860.00	0.	2500.00	0.	3080.00	0.
EFFSQFT	2763.00	2496.00	5340.	2626.00	2740.	2388.00	7500.	2763.00	0.
STORIES	2.00	2.30	0.	1.00	0.	2.00	0.	2.00	0.
EXTER	8.00	2.00	3960.	5.00	1908.	3.00	3750.	4.00	3192.
GARAGE	8.00	5.00	3300.	7.00	1060.	5.00	3750.	8.00	0.
STYLE	9.00	5.00	4400.	4.00	5300.	9.00	0.	9.00	0.
BSMTYP	3.00	3.00	0.	0.00	4770.	2.00	1875.	3.00	0.
BSMTCND	5.00	0.00	-3750.	5.00	0.	2.00	-2250.	0.00	-3750.
QUALTY	5.00	2.00	6600.	5.00	0.	5.00	0.	7.00	-5320.
PURCH	3.00	2.00	600.	0.00	1800.	2.00	600.	0.00	1800.
BDRMS	5.00	4.00	1500.	4.00	1500.	5.00	0.	4.00	1500.
BATHS	2.50	3.50	-4000.	1.75	3000.	2.50	0.	2.25	1000.
FPLAC	1.00	1.00	0.	2.00	-750.	1.00	0.	2.00	-750.
DINRM	4.00	3.00	2200.	3.00	2120.	4.00	0.	2.00	5320.
DEN	0.00	0.00	0.	1.00	-1000.	0.00	0.	2.00	-2000.
KTCHSCR	5.10	6.60	-1275.	6.60	-1275.	6.60	-1275.	3.00	1785.
FAMRM	22.00	32.00	-1000.	31.00	-900.	32.00	-1000.	13.00	900.
RECRM	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LAUNSCR	1.00	1.00	0.	4.00	-900.	2.00	-300.	1.00	0.
HTGSCR	4.00	3.00	200.	12.00	-1600.	10.00	-1200.	18.00	-2800.
INTCIR	2.00	1.00	1100.	2.00	0.	2.00	0.	2.00	0.
SPFTSCR	7.00	11.00	-1400.	8.00	-350.	5.00	700.	12.00	-1750.
ADJUSTED AMOUNT			117907.		113471.		125065.		112252.
SELECTION INDEX			35065.		36287.		38736.		42399.

EXHIBIT 12 (Continued)

PROPERTY CARD
NON-LAKE RESIDENTIAL PROPERTY

1983 PROPERTY CARD - PARCEL 460110

[redacted]
37 OLD SHORE RD
MADISON, WI 53704

LAND DATA

PREVIOUS LOT SALE PRICE	0
PREVIOUS LOT SALE DATE	0
GEOCODE	93.
NEIGHBORHOOD NUMBER	5
LOT SQ. FT.*	13500
LOT FRONT FT.*	107
LOT DEPTH*	160
LOT SUBDIVIDABLE	No
LOT OVERSIZED	No
LAKE ACCESS EASEMENT	No
LAKE FRONT FT.	.0
LOT ON CORNER	Yes
LOT ON CUL DE SAC	No
INSIDE LOT	No
LOT WOODED	4 to 7 major trees
LOT VIEW	Average view
LOT TOPOGRAPHY	Level contour
ADVERSE INFLUENCE	Public property or exposure

SPECIAL STRUCTURES AND SITE IMPROVEMENTS

TENNIS COURT	0
OUTDOOR POOL	0
PATIO	0
STORAGE SHED	0
BOATHOUSE	0
SEAWALL	0
INDOOR POOL	0
ELEVATOR	0
O.	0
O.	0
SPECIAL STRUCTURES TOTAL	0
DRIVEWAY	Linear with turn space, concrete
NEIGHBORHOOD FOLIAGE	Shady
LANDSCAPING	Above average
SCREENING OF BACK	Little or none
SCREENING OF FRONT	Little or none
CURB AND GUTTER	No
SIDEWALK	No

*APPROX. USING VILLAGE MAP

IMPROVEMENT DATA

PREVIOUS SALE PRICE	89000
PREVIOUS SALE DATE	7806
YEAR BUILT	1928
ERA	1910-1929
SQ. FT. LIVING SPACE	3080
NUMBER OF STORIES	2 Stories
BUILDING STYLE	Architectural Colonial
ROOF	Gable,asphalt shingles
EXTERIOR	Predom. brick veneer
GARAGE	2 Car attached, large
BASEMENT TYPE	Full
BASEMENT CONDITION	Poor condition or no basement
QUALITY	Well-maintained
APPEARANCE TO NEIGHBORS	Equally attractive
ENCLOSED PORCH	Large screen
NUMBER OF ROOMS	11
NUMBER OF BEDROOMS	5
NUMBER OF BATHROOMS	2.50
HALF BATHS	1
THREE QUARTER BATHS	0
FULL BATHS	2
BATH ON FIRST FLOOR	Yes
NUMBER OF FIREPLACES	1
LIVING ROOM	Moderate size, average layout
DINING ROOM	Separate room
DEN/LIBRARY/STUDY	None
FAMILY ROOM	Adjoining kitchen, av. size
KITCHEN SCORE	5.10
SIZE	Large
TYPE	Pullman
WORK AREA	Dated
EATING SPACE	Breakfast nook
RECREATION ROOM	None
LAUNDRY AREA SCORE	1
LOCATION	Basement
TYPE	Exposed
HEATING SYSTEM SCORE	4
FUEL	Oil
TYPE	Old low pressure steam
ELECTRICAL SERVICE	125 amp.
WATER HEATER	40 gal., gas
TRAFFIC PATTERN	Good
SPECIAL FEATURES SCORE	7
LAND	30,100
IMPROVEMENTS	89,400
1982 ASSESSMENT	119,500
LAND	30,100
IMPROVEMENTS	89,400
1983 ASSESSMENT	119,500

EXHIBIT 12 (Continued)

October 27, 1983

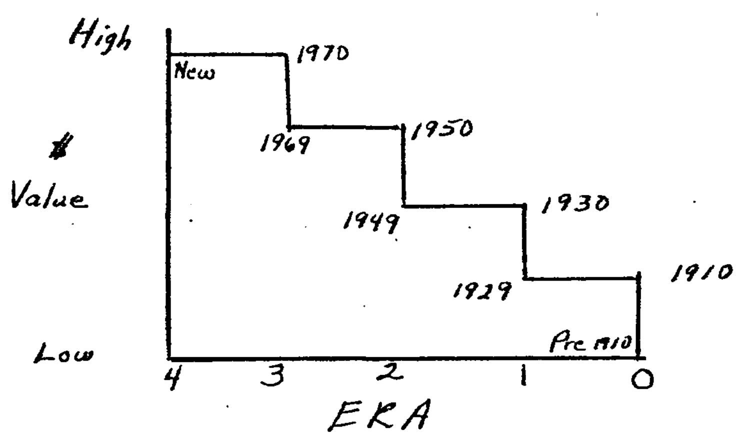
Addendum - Market Comp Lecture - Maple Bluff Valuation

Transformation of the Variable for Age

A. Discovery of Need to Transform Variable for Age of House

1. Had used variable #49 ERA (See Maple Bluff Single Family Residential Information Form) which grouped 20 years of age into a single variable.

   Graph of the relationship of value and age variable:



2. Adjustments were based upon the difference in variable value for the subject and the comparable, multiplied by .02 of the comparable sale price.

3. Example:

	Year Built	ERA	Age/Years	Selling Price
Subject	1910	1	73	?
Comp. A	1949	2	34	$100,000
Comp. B	1930	2	53	$ 95,000

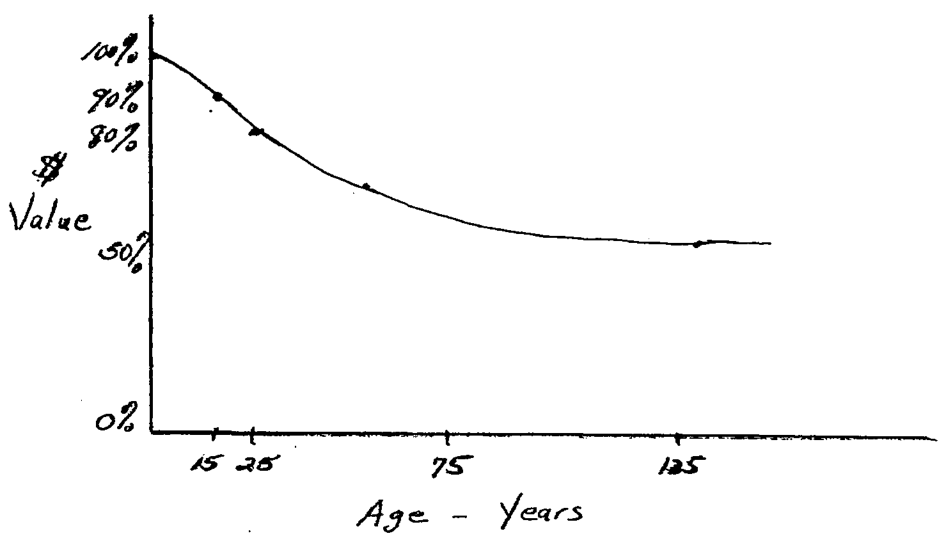
Using ERA variable, the adjustments would be as follows:

	ERA	
SUBJECT	1	Adjustment Calculation A_1 x $(X_{S_1} - X_{C_1})$
COMP. A	2	[(.02 x \$100,000) x (1-2)] = \$2,000
COMP. B	2	[(.02 x \$95,000) x (1-2)] = \$1,900

Thus, the \$ adjustments differ by only \$100 even though the two comps vary in age by 19 years and both are much newer than the subject.

B. Transformation of Age Variable to Better Reflect Relationship Between Value and Age of House

1. Graph of Relationship Desired



2. Use regression to determine points on the curve which represent value of the age variable called effective age. The larger the variable, the newer the house. The resulting equation solves for the effective age of any house.

3. Because of the nature of this variable, a type 3 adjustment is used to translate the variable into a dollar adjustment. In MKTCOMP a type 1 adjustment uses a dollar amount, and a type 2 adjustment is a

percentage of the selling price. A type 3 adjustment allows for the use of a separate calculation to solve for the percent of sale price to be used. In this case the equation is:

[(Vs/Vc - 1) x .50] x Selling Price = $ adjustment

where Vs = effective age of subject
Vc = effective age of comparable

4. Example:

	Year Built	Age/Years	Effective Age Variable	Selling Price
Subject	1910	73	56.65	?
Comp A.	1949	34	75.22	$100,000
Comp B.	1930	53	64.77	$ 95,000

Using the Effective Age variable, the $ adjustments would be as follows:

	ERA	Effective Age	
SUBJECT	1	56.65	Adjustment Calculation [(Vs/Vc - 1) x .50] x Selling Price = Adjustment
COMP. A	2	75.22	[(56.65/75.22 - 1) x .50] x $100,000 = $12,300
COMP. B	2	64.77	[(56.65/64.77 - 1) x .50] x $95,000 = $6,000

Thus, the $ adjustments are more realistic with the spread and magnitude of dollar adjustments more representative of the differences in ages among the houses.

EXHIBIT 12 (Continued)

A Composite Variable - Kitchen Score

MKTCOMP - Maple Bluff

To capture the several price-sensitive factors in a kitchen, a composite variable is created. (See Variables 72 to 76 on Maple Bluff Residential Form). Upon inspection, the several attributes described in Variables 73 to 76 are scored and the equation shown in the description of Variable 72 is used to calculate the Kitchen score.

Example:

The least desirable kitchen would be scored as follows:

Attribute	Description	Score
Size	Small	1.0
Type	Single wall	1.0
Work Area	Obsolete	.5
Eating Space	None	0

Kitchen Score = (1 x 1 x .5) + 0 = .50

The most desirable kitchen would be scored as follows:

Attribute	Description	Score
Size	Large	3.0
Type	L-shaped with island	5.0
Work Area	Modern	1.0
Eating Space	Breakfast nook	.6

Kitchen Score = (3 x 5 x 1.00) + .6 = 15.6

The difference in kitchen scores between the subject and its comparables are adjusted at $850 per point score. The maximum adjustment is $12,835, or 15.1 x $850.