JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

A. Appraisal Organizations

18. Dates and/or Groups Unknown

f. "Contemporary Appraisal of Large Income Properties", jointly sponsored by Appraisal Institute of Canada and Halifax Chapter, AIC

Index

CONTEMPORARY APPRAISAL OF LARGE INCOME PROPERTIES

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BY

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JOINTLY SPONSORED BY

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HALIFAX CHAPTER, AIC

SECTION I

PRINCIPLES OF CONTEMPORARY REAL ESTATE APPRAISAL: ORIGINS, THEORY, AND APPLIED EXAMPLES

SEMINAR INSTRUCTOR

DR. JAMES A. GRAASKAMP, Ph.D., SREA, CRE is one of the most popular and dynamic real estate instructors in the U.S. today. His presentations reflect the rare combination of real world experience and academic achievement that has characterized him as one of the industry's "Original Thinkers".

He has served as Chairman of the Department of Real Estate and Urban Land Economics at the University of Wisconsin for over ten years. He is currently teaching advanced appraisal techniques and advanced feasibility studies.

In addition to his academic work, Dr. Graaskamp is President and founder of Landmark Research, Inc., a real estate research and appraisal firm. He is also co-founder of a general contracting firm, a land development company and a real estate investment corporation. His work includes court testimony as an expert witness, substantial and varied consulting and valuation assignments which include investment counseling to insurance companies and banks and other lenders, plus feasibility and financial analysis of nationally known real estate development projects for a wide variety of clients.

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CONTEMPORARY APPRAISAL SEMINAR

A Two Day Seminar For
APPRAISAL INSTITUTE OF CANADA

Presented by

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

I. Basic Concepts and Definitions

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 values, 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 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 1)

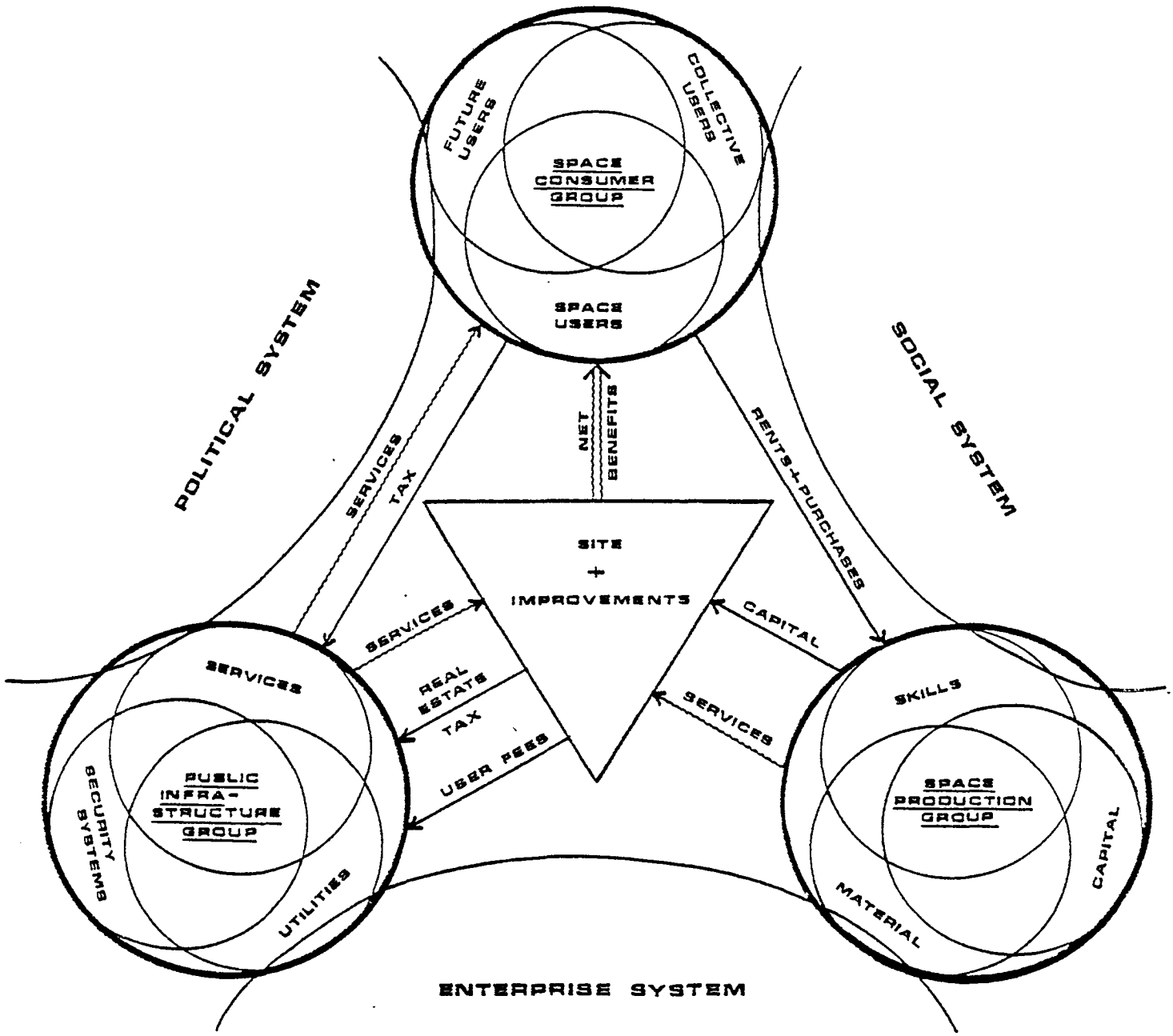
1. Each of these three decision groups represent an enterprise, an organized undertaking. All are cash cycle enterprises constrained by a need for cash solvency, both short and long term.
2. A desirable real estate solution occurs when the process permits maximum satisfaction to the consumer at a price that he can afford within the environmental limits of land while permitting the consumer, producer, and the government cash cycle to achieve solvency - cash break even 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 priorities 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:

> 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.



THE REAL ESTATE PROCESS

"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 appraisers judgement and analytical skill, i.e., that the 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 N. Boyce, Ph.D. SRPA, Ballinger Publishing Co., Cambridge, Mass. 1975

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 be concepts 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 in need of 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 objectives 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.

II. A Real Estate Appraisal - A Business Forecast

A. Prof. Richard U. Ratcliff was the first of several urban land economists to critique traditional appraisal in light of current business forecasting methods and techniques. In effect Ratcliff describes an appraisal as a prediction about the price of a future transaction under conditions of uncertainty. Uncertainty is introduced because knowledge of the facts is less than perfect and future conditions unknown.

One approach to forecasting or reaching a decision is by modeling to structure facts and relationships in a manner appropriate to the decision process. Three types of models are common in real estate analysis:

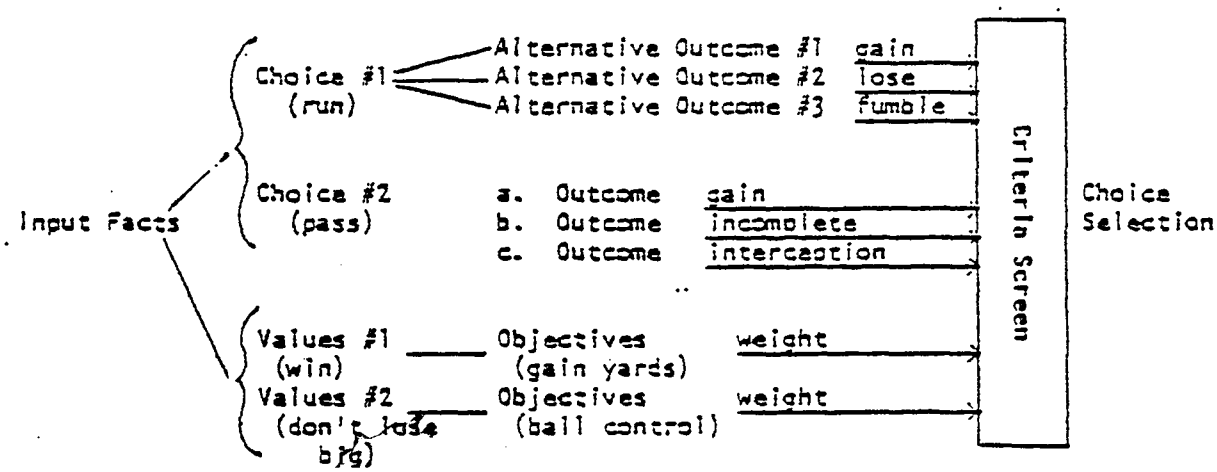
1. Physical models = sand tables to understand site, building mass, and shape.
2. Communication models = flow charts of industrial process or traffic patterns.
3. Abstract or symbolic models = items with mathematical or logic concepts, I/C = V is a symbolic model of the relationship between income productivity.

C. In constructing any decision model there are six basic elements to be considered:

1. The decision to be made or the question to be answered.
2. The data available with which a decision must be made.
3. The theoretical relationships or logical structure which focuses the data on the problem.
4. The interface between the analyst and the requirements of the model.
5. The interface between the results of the model and the decision maker or client and their ability to comprehend and believe (credit ability is always more important than credit in real estate).
6. The relationship between the economic significance of the answer and the cost to acquire the answer by using the model.

D. In general, a decision requires that information be systematically organized to identify choices of action and the alternative outcomes from each choice. (See Diagram #1). At the same time facts help shape general values which in turn lead to explicit objectives, and then specific selection criteria.

Diagram #1



E. The three approaches to value are models of how economic man might price a property to maximize his return and minimize his cost. It represents an historical compromise between three powerful groups in the early 1930's who really had different needs or questions about price.

1. Insurance company lenders wanted to lend less than cost to build - thus they emphasize the cost approach.
2. Real estate brokers wanted to know what they could sell it for today, and therefore emphasize the market comparison approach.
3. The FHA appraisal section was headed by a Michigan professor, Fred Babcock, who believed all property should be valued as a capital budgeting decision, i.e. as the present value of future net returns.
4. To compromise they seized on Marshallian economics which said in the short run the market is out of balance and reveals market price. During the intermediate term, it reflects income value which cannot be forecast for the long run. In the long run, prices have tendency to equal cost of production.

F. Since that time, writers have shown buyers are interested in many things besides maximum profit including minimum risk, compatibility with community, portfolio effects from taxes and diversification as well as subjective, qualitative satisfactions. Therefore, an appraisal model may seem to have the same question - What is the value of property - but in fact it represents multiple questions:

1. What is the nature of the decision to be served by the appraisal benchmark?
2. What is the specific asset for which value is sought?
3. What is the date for which value is relevant?
4. What is the definition of value - theoretical structure - which focuses the data on the problem?

G. Ratcliff points out a variety of value estimates or viewpoints which have significance in the appraisal of any specific property:

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 an historic fact.

H. 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."

I. An appraisal as a benchmark for decision requires the appraisal report to reflect the client's purposes for which an appraisal is sought. It is common sense that the more questions that an appraisal can serve, the more business potential there is; fair market value serves only a limited number of issues.

1. For the mortgage lender, the issue is the liquidating value or probability of future cash returns being adequate to repay the loan, interest, and cost, and the distribution of profit centers over time to maintain repayment incentive to the borrower.
2. For the courts *eminent domain* or assessment appeal, the statement of function leads to the definition of value as the jurisdictional market value.
3. A report for a would-be buyer or seller might lead to the definition of value as investment market value.
4. For most cases the appraiser would seek to determine the most probable selling price.

J. Investment market value is a term coined by Mack Hodges for the present value of future income receipts, considering a specific set of assumptions about the after tax cash flow of property and

requires some general description of the investment standards and tax status of buyers interested in a specific type of property, specifically income investment property. Investment value, which requires some detail about motivations of a probable or specific buyer, is a special case of the broader concept of "most probable sales price." (Vp)

K. Most probable selling price is 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 fall. 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.

L. 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, fallback to normative approaches.

M. 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 market place 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.

III. 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.

A. Refer to Exhibit 2. Not very legible, but included - Traditional Appraisal = Set of Feasibility Assumptions Fictional

B. 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:

1. Engineering factors
2. Finance and taxation matters
3. Title issues, surveys, etc.
4. Legal character of leases, permits, and other contracts

C. 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.

1. 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
2. Nevertheless, all an investor buys is a set of assumptions about future.
3. 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.
4. Thus the transaction zone or 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.

IV. Ratcliff has been most comprehensive in statement of basic appraisal theory, many writers are contributing to the rethinking of the appraisal process and appraisal techniques. A number of selected readings by these other professional and academic critics have been included in the appendix of your workbook.

Exhibit 2

TRADITIONAL APPRAISAL AS A FICTIONAL SET OF FEASIBILITY ASSUMPTIONS

Feasibility Analysis	Appraisal Analysis
Will the project really work for a specific investor?	What would the project sell for if it did work for a typical investor?
1. Objectives - decision standards provided by client decision process a. Maximize spendable cash of total enterprise b. Subjective gratification of specific individual c. Adaptation to enterprise management specialties and weaknesses	1. Objectives - decision standards provided by theoretical framework a. Maximize economic surplus of individual parcel b. Prudent behavior of economic man c. Average management to isolate return to land & capital
2. Aggregate market potential opportunity identification	2. Aggregate market potential business climate
3. Merchandising analysis (Defining competitive edge) and specific user profile	3. Merchandising comparison (Defining standard competitive substitute)
4. Legal-political context a. All legal constraints on site, seller, buyer and user are considered b. What is legal is qualified by what is political	4. Legal-political context a. Legality assumed b. Limited to site use rather than regulations on probable user as alternative buyers are assumed
5. Physical-technical constraints are examined in terms of what might be	5. Physical-technical constraints are studied as is or in terms of conventional uses
6. Impact on environment and community specifically forecast	6. Impact on environment and community assumed acceptable within existing permitted uses
7. Financing from buyer viewpoint considering all profit centers	7. Financing from lender viewpoint considering only net income line and below
8. Income tax advantages or disadvantages affecting spendable cash	8. Income tax not considered except implicitly recognized in market comparison
9. Actual cash revenues and expenses forecasted for each period of time horizon	9. Revenues and expenses generally normalized and projected on linear trend for standard period
10. Limiting assumptions of solution a. Identification of potential variance and sensitivity of objectives to alternative futures b. Responsibility allocated among sources of expertise c. Budget & purpose of study edits information scope d. Format of analysis determined by structuring of data to lead to desired conclusion or recommendation	10. Limiting assumptions of solution a. Average outcome without qualification as to alternative futures b. Responsibility denied for other areas of expertise c. Date of appraisal edits information scope d. Format of analysis defined by model of fair market value appraisal report

A. Much commentary on appraisal can be divided between those who would just as soon scrap the historical textbooks and language of appraisal (a la Ratcliff and Graaskamp), and those who would simply like to refine present dogma and techniques of appraisal report content (Wendt and Smith).

B. While the rebels attack theory head-on with the romantic notion of toppling the temple of principles built in Chicago, the more pragmatic politicians are realistically chipping away at the stone tablets from within traditional institutions.

C. A few argue that the change in appraisal method represents a shift from deductive logic based on principles to inductive forecasting tools capitalizing on observed behavior. A parody of scientific method versus theory and reason.

D. Some of the other issues in debate relate to the following topics:

1. What is function of appraisal?
   a. Benchmark of value
   b. Predict transaction price under conditions of uncertainty
   c. To answer a question of a client
2. What is the standard of professionalism?
   a. Format (profession vs. institution)
   b. Tools and techniques
   c. Standards of business conduct
   d. Reliability of results
3. What is the frame of reference of real estate productivity?
   a. The parcel
   b. The individual investment interest
   c. The community
   d. The collective interest of society

COFFEE BREAK

CONTEMPORARY REAL ESTATE APPRAISAL REPORT

Letter of Transmittal

1. Brief statement of appraisal issue
2. Definition of value applied
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

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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

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 statement of heating, ventilating, air conditioning, electrical, plumbing, and fire or safety systems in terms of limitations on use or efficiency)
3. Special structural linkages to off-site elements (tunnels, bridges, adjoining structures, etc.)
4. 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).
5. Dynamic attributes of existing improvements (impressions created by type, bulk, texture, previous uses, past history, or functional efficiency)
6. Current uses and tenancies of improvements, if any
7. Environmental impact attributes of improvements on environs

E. 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 alternative tenancies and uses
4. Replacement of existing improvements or program with new uses

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 justify 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 of a sales transaction with logic for ranking of alternatives
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
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
3. Explanation of search parameters
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 alternative valuation method and reasoning
3. Conclusion leads to E or F

E. Simulation of Probable Buyer Decision Process If Market Comparison Approach is Inconclusive or Impossible

1. Source and explanation of simulation model
2. Schedules of simulation assumptions
3. Range of alternative simulation value predictions (sensitivity analysis)

(OR) F. Selection of Normative Model of Buyer Behavior

1. Investment model
2. Cost-to-replace model
3. Nonquantitative decision models

G. Computation of Most Probable Price and Standard Error of Prediction

H. Correction of Preliminary Value Estimate for External Factors

1. Identification of conditions relative to date of appraisal not present in market comparison assumptions
2. Specification of political contingencies that might upset normal appraisal assumptions of substitution
3. Identification of any violation of conditions in the definition of value by the appraisal methodology
4. Indication of adjustment necessary to preliminary probable price estimate or
5. Explicit statement that no adjustment is necessary

I. Test of Most Probable Price or Value Conclusion by Means of:

1. Comparison to values derived from selected alternative appraisal methodology
2. Demonstration of achievement of objectives of most probable buyer minimum selection criteria
3. Measurement of fit of financial cash requirements to market rents, lender ratios, or other relevant constraints
4. Comparison to decision criteria appropriate to issue (financial ratios required by mortgage lender, comparative assessments of similar property for the tax appeal board, rates of return in alternative investments, construction prices for similar property, or whatever demonstrates consistency with statement of the issue)

V. Appraisal Conclusion and Limiting Conditions

A. Definition of Value and Value Conclusion of the Report

B. Certification of Independent Appraisal Judgment

C. Statement of Limiting Conditions That Establish:

1. Contributions of other professionals on which report relies
2. Facts and forecasting under conditions of uncertainty
3. Critical assumptions provided by the appraiser
4. Assumptions provided by the client
5. Controls on use of appraisal imposed by the appraiser

Appendices

Maps, data sets, only if referred to in the text. These data collections would slow down the reader if included as an exhibit and are secondary to the argument in the body of the report.

Concept of Most Probable Buyer Type/Most Probable Price

V. 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 its just a matter of time before some fish can be found to pay the asking price.

B. The definition of value selected by the appraiser also assumes certain motivations for buyer and seller which typically are a matter of convenience for the appraiser but often a significant source of error in the prediction of price. While the wording on fair market value differs slightly, the following conditions are always assumed to prevail:

1. Competitive market conditions.
2. An informed buyer and seller.
3. No undue pressure on either party.
4. "Rational" or prudent economic behavior by both buyer and seller.
5. A reasonable turnover period.
6. Payment consistent with the standards of behavior of the market.
7. Market Value looks at the transaction from the point of view of the buyer.

C. However, a buyer is integrating and comparing a property more to a personal set of needs than to a property alternative which is only roughly similar to another in function and potential.

1. For example, a commercial office building developer seeks a site with a minimum number of construction problems, an optimum shape, and maximum rental value. On the other hand, the committee buying a home office site for an insurance company or bank will emphasize visibility and location at the expense of almost any development cost and despite any reduction in rental value for re-use.
2. A young couple may buy an old house because it is run down and in need of renovation in order that the initial cost is low and the opportunity for creating equity is greatest, while the seller is selling because of irritation with the fit of the structure to his lifestyle or because he has reached the end of his lifecycle in that location.

3. One man's floor is another man's ceiling.
4. 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 later based on whose assumptions prove to be more correct in a speculative situation.

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.
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.

VI. Three Basic Methods of Appraisal

As you know, Ratcliff concludes that most appraisals are concerned with prediction of a future event, a transaction price. Since an appraisal method is a forecasting tool, forecasting is best done with some past experience. Failing that, the best method is simulation of the real estate market process.

A. Given reliable information on past market behavior, the preferred method of appraisal is to process the data, statistically if possible, to derive a prediction of future price behavior under given conditions and with means for estimating the reliability of the prediction.

   1. Statistical prediction if possible.
   2. Statistical rules for definition of a data set at the least.

B. Should market data be unavailable or inconclusive, the appraiser is forced to resort to the second method of appraisal, namely the construction of a real estate market model of factors which reflect his understanding of how buyers and sellers might behave.

   1. The income approach and the cost approach are submodels of how an investor is supposed to behave.
   2. After tax investment models are another submodel of market behavior, but while these may measure demand from the buyer's viewpoint, it may not measure the minimum price expected by the seller who also has a tax model to consider. In using the second approach, the appraiser must be very careful to indicate price on the supply side representing minimum expectations (Vs) of the seller.

C. Should there be no sales and no way to verify how buyers would review the specific property (utility case-rate base or kilowatt production?), then the appraiser falls back to normative methods.

   1. Normative means what the buyer would do if he were as smart as the appraiser and motivated only by a desire to maximize wealth.

   2. The traditional income approach on the cost approach are normative models unless it can be proven buyers behave accordingly.

   3. After tax cash flow models are normative models until it can be shown how these models value property.

VII. Inferring Future Price From Sales Data

A. For residential properties there are often many sales of similar properties so that powerful statistical tools can be brought into play, such as multiple regression, factor analysis, etc. However, the simple average can also lend itself to statistical inference.

B. Dispersion is the variation or scatter of a set of values. Measures of dispersion are needed for the following basic purposes:

1. To gauge the descriptive reliability of averages.
2. To serve as a basis for control of the variability itself (such as rejecting a comparable that lies outside a certain range).
3. To summarize facts, both an average and a measure of dispersion should be presented.

C. When dispersion is small, then the selected average is a typical value in that it closely represents the individual values in the set and it is reliable in that it is a good estimate describing the typical case in the population. It is a useful generalization. Conversely, an average with very great dispersion is not very descriptive of the data set and may be a misleading generalization.

D. Measures of dispersion include:

1. A range
2. The quartile deviation
3. The mean deviation
4. The standard deviation

E. Consider the data on some apartment site land sales in Madison provided in Exhibits 1, 2, and 3. The range is the difference between the largest and smallest values of the variable:

1. $5.60 - $6.50 per square foot of land or 90¢
2. $1970 - $2208 per dwelling unit built or $238
3. $3.72 - $4.23 per square foot of gross building area or 51¢
4. $1226 - $1327 per total number of rooms built or $101

F. Exhibit #3 shows the mean and the standard deviation of the mean.

G. Quartile deviation must be applied to group data which are ranked from high to low. First the data is divided at the median and then each half of the data is split in half once again. Consider the net rentals of older supermarkets under existing leases provided in Exhibit #4.

Exhibit #4

CUMULATIVE FREQUENCY DISTRIBUTIONS
Supermarket Net Rents for 214 Stores in Chain X

(1) New Rent per Square Foot	(2) Number in Class with Lower Limit Shown	(3) Number Earning Less	(4) Number Earning as Much or More
$2.25	2	0	214
2.35	23	2	212
2.45	49	25	189
2.55	63	74	140
2.65	45	137	77
2.75	25	182	32
2.85	3	207	7
2.95	4	210	4
3.05	0	214	0
Total	214	1051	875

H. In the full array of data, the value of Q_1 and Q_3 are found to be $2.50 and $2.70, meaning 1/4 of the properties generate less than $2.50 a square foot and 1/4 exceed $2.70 per square foot while the middle half fall between these values. The quartile deviation is then (2.70 - 2.50)/2 or 10¢, or stated another way the range of the second and third quartile is about 10¢ per square foot.

VIII. When comparable sales have only one dimension, such as net leaseable area or number of rooms, a direct mean and some of the squares dispersion test is possible. However, usually it is necessary to consider a variety of factors and discover how price changes relative to the net differences of each property. Linear regression is one such method.

A. Ratcliff in Chapters 6 and 7 demonstrates a point system which ranks properties and is then weighted by buyers priorities. The weighted points are then compared to unit price. This system may be too elaborate for houses but can be demonstrated on a variety of commercial properties.

B. Consider the evaluation of vacant industrial land in Exhibits 5, 6, and 7.

1. Point system should be kept simple. 1-3-5 indicates below average, average, and above average.
2. If the appraiser is capable of making more careful distinctions between comparable properties, he can use a ten point scale such as 0, 4, 6, 8, 10 for each item, being careful not to change scales.
3. Many small judgments are better than large rough adjustments because of the theory of off-setting errors. Too big a range in scoring implies drastic differences between the worst and the best.

4. Note that Exhibit 7 provides an objective scale for most factors so that the reader can understand the score. The weights in this case were corroborated in the narrative of the report from a 1968 study by Real Estate Research Corporation.

C. All calculations for establishing the "a" and "b" factors for linear regression appear in Exhibit #8 and are charted in Exhibit #9.

D. An example using restaurant sites in Madison is provided in Exhibits 10, 11, and 12.

E. An example of a single family appraisal is provided in Exhibits 13, 14, 15, and 16.

F. A fourth example comparing old store buildings in downtown Madison will be provided in a demonstration appraisal.

EXHIBIT #2

Vacant Land Market Comparison
Residential Use Land Price: Mean

Comparable Sales

Factors	420 W. Wilson No. 1	219 N. Frances No. 2	102 N. Franklin N. 3	434 W. Mifflin N. 4	427-31 W.Main No. 5	Mean (X) 1-5
Sales Price	$84950	$48000	$86900	$160000	$53000	$432850
Date of Sale	'73	'72	'72	'72	'72	
Land Area (sq.ft.)	13068	7920	15246	26400	8712	71346
No. of Dwelling Units Built	43	24	43	73	24	207
Total Gross Bldg.	20070	12670	24364	43040	10900	111044
Total # Rms Blt.	65.5	38	65.5	130.5	40	339.5
Mean Land Price - $/per:						
1. Square Ft. of Land	$6.50	$6.06	$5.60	$6.06	$6.08	$6.06
2. Dwelling Unit Blt.	$1976	$2000	$2020	$2192	$2208	$2079
3. Total Gross Bldg. Floor Area	$4.23	$3.79	$3.79	$3.72	$4.86	$4.08
4. Total # Rms Blt.	1297	1263	1327	1226	1325	1288

EXHIBIT #1

Basic Information of residential Multi-Family Land Sales Comparables

Factors	420 W. Wilson No. 1	219 N. Frances No. 2	102 N. Franklin No. 3	434 W. Mifflin No. 4	427 W. Main No. 5
Sales Price	$ 84,950	$48,000	$86,900	$160,000	$53,000
Sales Date	'73	'72	'72	'72	'72
Type of Deed	WD	WD	WD	WD	WD
Volume and Page	403/510	346/561	334/ 23	337/215	342/113
Grantor	R.A. Paape Co.Inc.	Work of God, Inc.	Brown, Emily	Voss, Rob't	Miller + wife
Grantee	Hillmark,Dev. Corp.	Hillmark Corp.	Courtyard Assoc.	American United Investment	Hillmark Corp.
Land Area	13,068	7,920	15,246	26,400	8,712
Zoning	R-6	R-6	R-6	R-6	R-6

All have city services, sidewalk and street improvements
No adjustment for time required as residential economics would not permit inflation of land prices.

EXHIBIT #5

Industrial Land Sales Selected as Comparables
to MG & E Subject Parcel

		Date of Sale	Price	Public Record	Square Feet	(Acres)	$/Sq. Ft.
1.	MATC	6/8/67	$108,750	Confirmed by MATC Finance Director	152,460	(3.5)	.71
2.	MATC	1/23/67	75,000	Vol.828,p.280	81,828	(1.88)	.92
3.	Gorman	12/20/65	17,500	Vol.436,p.463	21,060	(.48)	.83
4.	Holfman	6/5/64	15,000	Vol.779,p.558	17,050	(.39)	.88
5.	Garrett	5/31/63	12,000	Vol.758,p.226	13,932	(.32)	.86
6.	Madison Transit	1/4/68	55,000	Vol.4,p.358	211,701	(4.86)	.26
7.	Madison Trust	12/28/66	45,000	Vol.828,p.204	67,900	(1.56)	.66
8.	NW Mutual	9/9/66	117,500	Vol.824,p.144	138,521	(3.18)	.85

Exhibit 3

Vacant Land Market Comparison
Multi-Family Residential Use Land Price
Mean & Standard Deviation

	Comparable	Land Price/ Comparable Unit	$\bar{X}-X$	$(\bar{X}-X)^2$	Mean Deviation $MD=\frac{\leq\bar{X}-X}{n-1}$	Standard Deviation $S=\sqrt{\frac{\leq(\bar{X}-X)}{n-1}}$
Land Price Per:						
Sq. Ft. of Land	1	$6.50	.44	.19		
(Row #1, Ex. #6)	2	6.06	0	0	$\frac{.92}{4}$	$\sqrt{\frac{.44}{4}}$
	3	5.60	.46	..21		
	4	6.06	0	0		
	5	6.08	.02	.04	$.23	$.33
Total		$30.30	.92	.44		
Mean (sum $\frac{xi's}{n}$)		$ 6.06				
No. of DU Built	1	1976	53	2809		
(Row #2, Ex. #6)	2	2000	29	841	$\frac{433}{4}$	$\sqrt{\frac{62341}{4}}$
	3	2020	9	81		
	4	2192	163	26569		
	5	2208	179	32041	$108	$249
Total		$10396	433	62341		
Mean		$ 2079				
Total Gross Bldg.						
Area Built	1	4.23	.15	.02		
	2	3.79	.29	.08	$\frac{1.87}{4}$	$\sqrt{\frac{.92}{4}}$
	3	3.79	.29	.08		
	4	3.72	.36	.13		
	5	4.86	.78	.61	$.465	$.4[illegible]
Total		$20.39	1.87	.92		
Mean		$ 4.08				
Total No. Rooms Built	1	1297	9	81		
(Row #3, Ex. #6)	2	1263	25	625	$\frac{172}{4}$	$\sqrt{\frac{7440}{4}}$
	3	1327	39	1521		
	4	1226	62	3844		
	5	1325	37	1369	$43	$43.1[illegible]
Total		$6438	172	7440		
Mean		$1288				

Landmark Research, Inc.

EXHIBIT #7

Quality Scores & Weight Per Category

		Weight
1.	Size (Marketability Factor) 0 - 1 acre = 5 over 1 - 3 = 4 over 3.5 -10 = 3 over 10 - 20 acre = 2 over 20 acre = 1	20
2.	Accessibility to all areas (in terms of distance and time) 1-5 where 5 = premium + 3 = average	20
3.	Visibility from major artery 1-5	15
4.	Availability of sewer/water at site 1-5	15
5.	Availability of rail 1-5	10
6.	Soils and topography	20
		100%

Exhibit 16

Table of Scores for Comparable Properties

	1	2	3	4	5	6	7	8	Subject
Size	3	4	5	5	5	3	4	4	1
Access	4	4	4	4	4	2	3	3	4
Visibility	5	5	5	5	4	1	1	2	5
Sewer/water	5	5	5	5	5	2	5	5	5
Rail	1	1	1	1	3	1	2	2	4
Soils	2	3	2	2	2	4	5	5	1

Feature	Weight	Weighted Ratings								
		1	2	3	4	5	6	7	8	Subj
Size	20	60	80	100	100	100	60	80	80	20
Access	20	80	80	80	80	80	40	60	60	80
Visibility	15	75	75	75	75	60	15	15	30	75
Sewer/water	15	75	75	75	75	75	30	75	75	75
Rail	10	10	10	10	10	30	10	20	100	40
Soils	20	40	60	40	40	40	80	100	100	20
Total		340	380	380	380	385	235	350	365	310
Price/Sq. Ft.		.71	.92	.83	.88	.86	.26	.66	.85	

EXHIBIT #8

Least Squares Regression

Model $Y = a - b X$

where Y = estimated land value per square foot

X = weighted quality ratings

Comparables	Y	X	Y^2	X^2	XY
1	.71	340	.504	115600	241.400
2	.92	380	.846	114400	349.600
3	.83	380	.689	114400	315.400
4	.88	380	.774	114400	334.400
5	.86	385	.740	148225	331.100
6	.26	235	.068	55225	61.100
7	.66	350	.436	122500	231.000
8	.85	365	.723	133225	310.250
	Σ=5.97	Σ=2815	Σ=4.779	Σ=1007975	Σ=2174.25

Step 2: Compute mean of Y and mean of X

$$\overline{Y} = \frac{\Sigma Y}{n} = \frac{5.97}{8} = .746$$

$$\overline{X} = \frac{2815}{8} = 351.875$$

Step 3: Compute Σy^2, Σx^2 and Σxy

$$\Sigma y^2 = \Sigma Y^2 - n(\overline{Y})^2$$
$$= 4.779 - 8(.746)^2$$
$$= 4.770 - 8(.557)$$
$$= 4.779 - 4.452$$
$$= .327$$

$$\Sigma x^2 = \Sigma X^2 - n(\overline{X})^2$$
$$= 1007975 - 8(351.875)^2$$
$$= 17446.873$$

$$\Sigma xy = \Sigma XY - n\,\overline{XY}$$
$$= 2174.25 - 8(.746)\ (351.875)$$
$$= 2184.25 - 2099.99$$
$$= 74.26$$

Step 4: $b = \frac{\Sigma xy}{x^2} = \frac{74.26}{17446.873} = .04256$

Step 5: $a = \overline{Y} - b\overline{X}$

$= .746 - .004256\ (351.875)$
$= -.7517$

Hence $Y = -.7517 + .004256\ (X)$
$Y_n = -.7517 + .004256\ (310)$

$= .56765$ say .57

Step 6: Compute standard error

$$S_{y.x} = \sqrt{\frac{\Sigma y^2 - b\Sigma xy}{n-2}}$$

$$= \sqrt{\frac{1327 - .004256\ (74.26)}{8-2}}$$

$$= \sqrt{\frac{.10949}{6}}$$

$$= \sqrt{.001825}$$

$= .042719$ say $.04

Step 7: Compute r^2

$$r^2 = \left[\frac{\Sigma xy}{\Sigma x^2 \Sigma y^2}\right]$$

$$= \left[\frac{74.26}{(17446.873)(.327)}\right]$$

$= .9665$

EXHIBIT #10

Basic Information on Restaurant-Commercial Land Sale Comparables

	Barnaby's East	Barnaby's West	Bud's West	Pigs Ear East	Marc's Big Boy South	Marc's Big Boy East
Sales Price	$92,000*	$89,000	$75,700	$91,000	$87,500	$85,000
Sales Date	10-6-70	6-30-70	6-29-71	5-20-72	9-3-69	3-15-68
Type of Deed	Lease with Option	WD	WD	WD	WD	WD
Volume & Page	209-455	184-75	264-173	344-385	130-463	15-108
Grantee	Barnaby's Inc.	Barnaby's Inc.	Clyde Chamberlain	Poole, Inc.	B & G Realty	B & G Realty
Area	38,211	32,900	45,236	141,570	38,327	30,237
Zoning	C-2	C-3-L	C-3-L	M-1	C-2	C-2
Principal Business Frontage	E. Washington Ave.	Mineral Point & Grand Canyon Roads	Odana Rd.	Cottage Grove Road & Atlas Avenue	S. Park Street	E. Washington Ave.
Position on Block	Inside lot	Corner lot	Inside lot	Corner lot	Corner lot	Inside lot

All have city services, Pigs Ear did not have curb and gutter
No adjustment of time required as restaurant economics would not permit inflation of land prices.

EXHIBIT #12

Determination of Linear Regression
Weighted Mean Value of Land/sf
Commercial-Restaurant

Comparable	1 Land $/sf Yi	2 Total Wgtd. Pts. Xi	3 (Land $/sf)^2 Yi^2	4 (Wgtd.Pts)^2 Xi^2	5 (3 x 4) XiYi
1	$2.40	1490	5.76	2220100	3575
2	2.73	1700	7.45	2890000	4641
3	1.67	1620	2.79	2624000	2705
4	.64	1090	.41	1881000	698
5	2.28	1520	5.20	2310400	3466
6	2.81	1780	7.90	3168400	5002
TOTAL	$12.53	9200	29.51	15093000	20087
Mean	(Y)=$2.09	(X)=1533			

Calculations of Mean, Standard Deviation

$$\text{Sum } y^2 = Y^2 - n(Y)^2$$

$$= (29.51)^2 - 6(2.09)^2$$

$$= 845$$

$$\text{Sum } x^2 = X^2 - n(X)^2$$

$$= 1509900 - 6(1533)^2$$

$$= 993366$$

$$\text{Sum } xy = XY - n(x)(Y)$$

$$= 20087 - 6(1533)(2.09)$$

$$= 863$$

$$Y' = a + bX_{subject}$$

$$b = \frac{\text{Sum } xy}{\text{Sum } x^2} = \frac{863}{993366} = .00087$$

$$a = (Y) - b(X) = \$2.09 - .00087(1533)$$

SALES PRICE/SUBJECT SITE

$$Y' = a + bX_{subject}$$

$$= -\$.76 = .00087(1190) = \underline{\$1.80}$$

STANDARD DEVIATION

$$S_{xy} = \frac{\text{Sum } y^2 - b(\text{Sum } xy)}{n-2}$$

$$= \$ \underline{.15}$$

EXHIBIT #11

Attribute Point and Weight Comparison
Of Restaurant-Commercial Land Sales and Subject Property

	(See Exhibit #8)	Barnaby's East		Barnaby's West		Bud's West		Pigs Ear East		Marc's Big Boy South		Marc's Big Boy East		Subject	
30	*Site	Points	Wgt'd Pts												
	Shape	5		1		5		3		5		3		5	
	% Usable	3		3		5		5		5		5		1	
	Site Preparation	3		1		5		5		5		5		5	
	Visibility	3		5		5		3		5		3		3	
	Access														
	Left & Right Turn	5		5		5		3		3		3		1	
	Frontage Road	3		5		5		1		5		5		5	
	Total	18		20		25		20		28		24		20	
	Weight		540		600		750		600		840		720		600
50															
	Linkages														
	Traffic Volume	5		5		3		3		5		5		3	
	Supportive Retail/Serv.	5		5		3		1		1		3		1	
	Proximity to Multi-Family Residential	1		5		5		1		3		3		3	
	Proximity to Employm.	3		3		3		1		1		5		3	
	**Interstate-Beltline	2		1		1		3		2		2		1	
	Total	15		18		15		9		12		18		11	
	Weight														
20	Image														
	Development Activity	5		5		3		1		1		3		1	
	Prestige of Street Address	5		5		3		1		3		5		1	
100	Total	10	200	10	200	6	120	2	40	4	80	8	160	2	40
	*Scale 1,3,5 Except **		1490		1700		1620		1090		1520		1780		1190

EXHIBIT #14

Features	Weight	821 Minakwa St.	3120 Gregory	645 Sheldon St.	636 Crandell St.	628 Crandell St.	640 Knickerbocker	657 Knickerbocker	SUBJECT
		Rating / Weighted Ratings							
Location & Neighborhood	25	2/50	6/150	4/100	2/50	2/50	4/100	4/100	2/50
Lot	5	2/10	4/20	4/20	6/30	4/20	4/20	4/20	4/20
Financial Burden	15	4/60	2/30	4/60	6/90	4/60	4/60	4/60	6/90
Exterior Architecture	15	4/60	4/60	4/60	6/90	6/90	6/90	6/90	4/60
Mechanical	10	2/20	2/20	4/40	6/60	6/60	4/40	4/40	6/60
Physical Condition	10	2/20	4/40	4/40	4/40	4/40	4/40	4/40	4/40
Interior Attractiveness	20	2/40	2/40	4/80	4/80	6/120	6/120	6/120	4/80
TOTAL	100	260	360	400	440	440	470	470	400
PRICE		$26,300	$24,500	$23,800	$22,900	$22,900	$21,900	$21,900	???

EXHIBIT #13

Buyer Characteristics in Dudgeon School Area

1. 636 Crandall Street
Married couple, 27 years old - one year old child - college degrees - salary $10,000 per year
Valued protected play area for child, convenient location on bus line, remodeled kitchen, house with character within price range and possibility to build equity. They are having home rewired and doing minor maintenance required themselves. Financed with a conventional mortgage and second mortgage from state VA
Relative importance of buyer factors reported by interviewer:

Physical condition	10
Interior space	25
Mechanical equipment	10
Location & neighborhood	25
Financial operating burden	25
lot	5
	100

2. 821 Minakwa
26 year old couple, no children - project manager - college degree $10,000 salary.
Primary motivations were: house had more character and value than a new house for the same price, location for bringing up children, mechanicals in good condition and fireplace. Lot was considered a drawback.

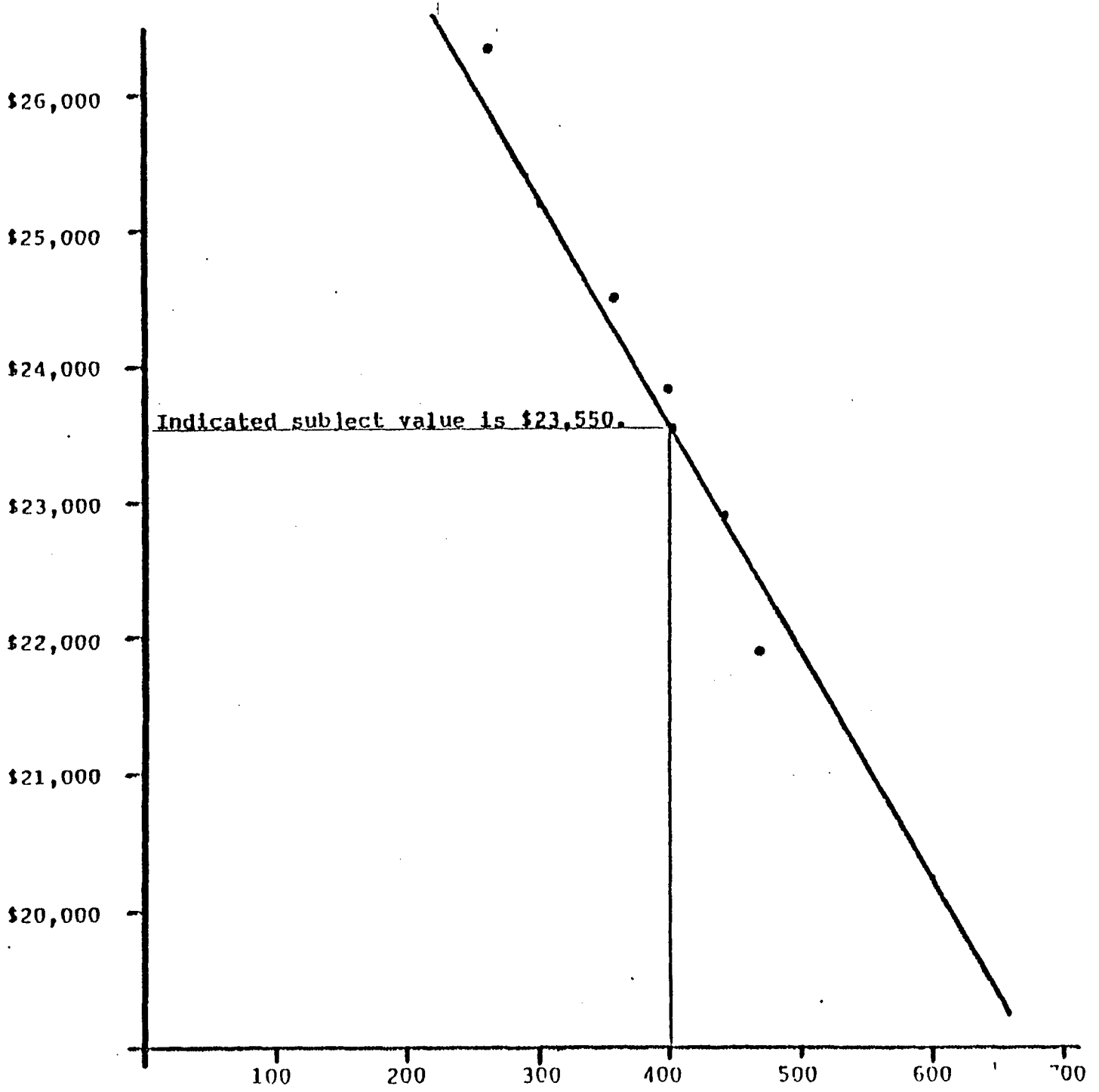
3. 3120 Gregory
Man and wife in mid -forties, no children - needed three bedrooms with full dining room and 2-stories high, wanted a two car garage but settled for one, Preferred west side for convenience and more value appreciation.
Purchased house expecting to repaint entire building.
Buyer reported purchase price of $24,000

4. 2455 Mohawk Dr.
Married couple, 27 years old, no children, both work with college educations.
Husband gave major weight to structural soundness, neighborhood appeal, and location near bus line and beltline.
Wife gave preference to wooded neighborhood and outdoor yard, and space utilization inside. Mechanical and storage were given only medium emphasis.

5. 645 Sheldon St.
28 year old married couple, no children, college educated.
They preferred home with garage, fireplace, close to bus line, and on west side between campus, square and Hilldale. Wanted garden.
Physical condition was rated highly, exterior appearance was not important.
Lot size was more important with mechanical and interior condition less important.

6. 1510 Whenona Drive
Married couple (approximately 30) - 2 children, ages 3 and 5 - college degrees - father, $10,000; wife works as a nurse.
Couple emphasized structural soundness as they expected to remain in house more than 10 years and possibly add a room at the rear. They wanted good sized rooms and visual appeal or character of an older home in a stable neighborhood. Valued location for convenience and stability of value and knew other young couples were moving in with plans to fix up their homes, too. They did not expect mechanical equipment to be modern in an old home and expected to update the kitchen eventually.
Off-site factors were taken for granted except for bus which wife used every day for work.

EXHIBIT #16


$26,000
$25,000
$24,000
$23,000
$22,000
$21,000
$20,000
Indicated subject value is $23,550.
100
200
300
400
500
600
700

Ratcliff Linear Regression

EXHIBIT #15

$$Y = a + bx$$

$$b = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{n(\Sigma x^2) - \Sigma(x)^2}$$

$$a = \frac{Y - b(\Sigma x)}{n}$$

$n = 7$	The number of comparables.
$\Sigma Y = 164,200$	The sum of the seven actual prices paid for the comparables. ($26,300) + ($24,500) + ($23,800)...
$(\Sigma y) = 164,200$	
$(\Sigma x) = 2840$	The sum of the total weighs for comparables. (260) + (360) + (400) + (440) + ...
$(\Sigma xy) = 65,916,000$	(260)(26,300) + (360)(24,500) + ...
$(\Sigma x)(\Sigma y) = 465,328,000$	(2840)(164,200)
$\Sigma(x)^2 = 8,065,600$	$(2840)^2$
$(\Sigma x^2) = 1,186,200$	$(260)^2 + (360)^2 + (400)^2 + (440)^2 +$

$$b = \frac{7(65,916,000) - (465,328,000)}{7(1,186,200) - (8,085,600)} = -16.467619 \simeq -16.5$$

$$a = \frac{164,200 - (-16.5)(2840)}{7} = 30,151.428 \simeq \$30,151.$$

$$Y = a + bx$$

$$Y = 30,151 + (-16.5)(x)$$

'x' for the subject property was 400

$$Y = 30,151 + (-16.5)(400)$$

$$Y = \$23,550$$

VILLAGE OF MAPLE BLUFF, DANE COUNTY

SINGLE-FAMILY RESIDENTIAL [redacted] INFORMATION [redacted] FORM

TAX PARCEL NUMBER ______________________________

PROPERTY OWNER ______________________________

PROPERTY ADDRESS ______________________ BLOCK NO. ____________ LOT NO. ____________

LAND DATA

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 3-20 Tax Parcel Number

_ _ _ _ _ 21-25 Street Number

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 26-40 Street Name

_ _ _ _ _ 41-45 Lot Sale Price

_ _ _ _ 46-49 Lot Date of Sale (mo/yr)

_ _ 50-51 Lot Neighborhood Number (coded 01-18)

_ _ _ _ _ _ 52-57 Geocode - XY Coordinates for Neighborhood

_ _ _ _ _ 58-62 Lot Area (rounded to nearest 500 sq. ft.)

_ _ _ 63-65 Lot Frontage (round to nearest foot)

_ _ _ 66-68 Lot Depth (round to nearest foot)

_ 69 Subdividable Lot (smaller of A or B)

0 = no

A = Gross lots = (Lot area − [illegible] sq. ft.) / ([illegible] sq. ft.) (round down to next integer value)

B = Max additional lots = (Frontage or lake frontage) / ([illegible] ft.) − 1 (round down to next integer value)

_ 70 Oversize Lot (0 = under 75,000 sq. ft.; 1 = oversize lot)

_ 71 Lake Access Easement (0 = no; 1 = yes)

_ 72 Shore Quality (3 = inaccessible bluff; 2 = shallow; 1 = mud; 0 = no dominant problem)

_ 73 Water Quality (3 = odor; 2 = flotsam; 1 = weeds; 0 = no dominant problem)

_ _ _ 74-76 Number of Lake Front Feet (round to nearest foot)

_ 77 Corner Lot (0 = no; 1 = yes)

_ 78 Cul-de-sac (0 = non cul-de-sac; 1 = cul-de-sac)

_ 79 Inside Lot (0 = non-inside lot; 1 = inside lot)

_ 80 Wooded Lot

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

_ 81 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)

_ 82 Topography or Contour

0 = Severe, [illegible] slope
1 = Wet [illegible]
2 = Downsloping lot
3 = Level contour
4 = Upward sloping lot

_ 83 Adjacent Adverse Influence

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

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

SITE IMPROVEMENT DATA

3-20 TAX PARCEL NUMBER

21 TENNIS COURT
0 = No
1 = Yes

22 OUTDOOR POOL
0 = No
1 = Yes

23 PATIO
0 = No
1 = Yes

24 STORAGE SHED
0 = No
1 = Yes

25 BOATHOUSE
0 = No
1 = Yes

26 BOATDOCK
0 = No
1 = Yes

27 SEAWALL
0 = No
1 = Yes

OTHER

28-29 DRIVEWAY (score=style,material)

Style
1 = Linear into garage, back [illegible] street to exit
2 = Linear with turnaround space
3 = Circular
4 = Large with parking space and turnaround space
5 = Circular with parking space

Material
1 = Dirt
2 = Gravel
3 = Asphalt
4 = Concrete

30 NEIGHBORHOOD FOLIAGE
1 = New and few
2 = Some mature trees
3 = Shady

31-33 LANDSCAPING (score=plantings,screening-back,screening-front)

Plantings
1 = Little or none
2 = Average
3 = Above average

Screening of back
0 = Little or none
1 = Yes

Screening of front
0 = Little or none
1 = Yes

34 CURB AND GUTTER
0 = No
1 = Yes

35 SIDEWALK
0 = No
1 = Yes

IMPROVEMENT DATA

3-20 TAX PARCEL NUMBER

21-24 YEAR BUILT

25 ERA
0 = Pre-1910
1 = 1910-1929
2 = 1930-1949
3 = 1950-1969
4 = 1970 to present

26-29 SQUARE FEET LIVING SPACE

30-32 NUMBER OF STORIES
0 = Vacant lot
1 = 1 story
2 = 1½ story
3 = 2 story
4 = 2½ story
5 = Multi-level
[illegible] = [illegible]
6 = Commercial
[illegible] = [illegible]

33-34 ROOF

Style
1 = Gable
2 = Hip
3 = Mansard
4 = Gambrel
5 = Flat
6 = Single pitch

Material
1 = Gravel
2 = Asphalt shingle
3 = Wood shake/shingle
4 = Slate shingles
5 = Tile
6 = Metal

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

36-37 FRONT EXTERIOR ENTRY (score=style,function)

Style
1 = Single door
2 = Double doors

Function
1 = Unprotected
2 = Protected

38 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 [illegible]
8 = [illegible] car attached, [illegible]
9 = 3 car attached

____ Sq. ft. ____ Common wall-lineal ft.

39 BUILDING STYLE
1 = Cottage
2 = [illegible]
3 = Standard builder's suburban
Owner custom [illegible]
4 = [illegible] remodeled
5 = Architectural modern
6 = Good builder's suburban [illegible]
7 = Architectural contemporary
8 = Architectural traditional
9 = Architectural colonial

40 BASEMENT TYPE
0 = Slab
1 = Crawl
2 = Partial
3 = Full
4 = Partially [illegible]
5 = [illegible]

41 SUBJECT PROPERTY APPEARANCE TO NEIGHBORS
[illegible] = Less attractive
2 = Equally attractive
3 = More attractive

Basement Cond[illegible]
0 = No problem
[illegible] Mild seepage/[illegible]
5 · Poor condition

__ 97 **OVERALL 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 = [illegible]
8 = [illegible]
9 = [illegible]

__ __ 99-100 **TOTAL NUMBER OF ROOMS IN LIVING SPACE**

__ __ 103-104 **TOTAL NUMBER OF FIREPLACES**

___ Standard/prefab
___ Energy efficient

__ __ 101-102 **TOTAL NUMBER OF BEDROOMS**

___ Master
___ Regular

__ 65 **PORCHES**

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

DIAGRAM OF HOUSE

__ 21 **FRONT INTERIOR ENTRY**

1 = Entrance direct to living area
2 = Vestibule without closet
3 = Vestibule with closet
4 = Foyer without closet
5 = Foyer with closet
6 = Spacious vestibule with closet
7 = Spacious foyer with closet

__ __ 22-23 **LIVING ROOM** (score=size, layout)

Size	Layout
1 = Small	1 = Poor
2 = Average	2 = Indifferent
3 = Large	3 = Good

__ __ __ __ 24-27 **LIVING ROOM EXTRAS**
(score=sum of values for extras)

0 = None
1 = Classical cathedral ceiling
1 = Built-ins
1 = Fireplace—standard/prefab
2 = Fireplace—energy efficient
2 = Sunken multi-level
1 = Contemporary sloped ceiling
2 = Formal detailing in woodwork (doors, railings, skirtings, moldings)
2 = Natural illumination (window glass area & solar orientation)

__ 28 **DINING ROOM**

0 = None

Style

1 = At end of living room
2 = Dining L
3 = Full dining area
4 = Separate room

__ __ __ __ 29-32 **DINING ROOM EXTRAS**
(score= sum of values for extras)

0 = None
1 = Built-in china cabinet
1 = Wet bar
1 = Built-in breakfront/buffet
2 = Deluxe built-ins or serving pantry

IMPROVEMENT DATA - INTERIOR (Con't)

__ 47 DEN/LIBRARY/STUDY

0 = None

Size
1 = Small
2 = Average
3 = Large

__ __ __ __ 48-51 DEN/LIBRARY/STUDY EXTRAS
(score=sum of values for extras)

0 = None
1 = Built-in cabinets
1 = Fireplace=standard/prefab
2 = Fireplace=masonry efficient
2 = Deluxe woodwork (beams, railings, shelvings, moldings), wainscoting
Other _____

__ __ __ __ __ 33-36 KITCHEN (score=(size*type*work/storage area)+eating space)

Size
1 = Small
2 = Average
3 = Large

Type
1 = Single wall
2 = Pullman
3 = L shaped
4 = U shaped
5 = L or U with island

Work & Storage Areas
.5 = Inadequate
.75 = Below average (pre=1950)
1.00 = Adequate

Eating Space
0 = None
.2 = Counter/stools
.6 = Space table/chairs
.8 = Breakfast nook

Code Change For Use in CB File (Computer)
Work & Storage
0 = Obsolete
1 = Dated
2 = Modern

Eating Space
0 = None
1 = Counter/stools
2 = Space table/chairs
3 = Breakfast nook

__ __ __ __ __ 37-40 KITCHEN EXTRAS (score=sum of values for extras)

0 = None
= Disposal
= Dishwasher
= Counter top range
= Built-in oven
= Built-in microwave
= Exhaust system
= Compactor
= Built-in refrigerator
= Built-in freezer
= Serving/bar pantry
= Direct access to outside
= Grill/wok
= More than one sink area
= Window area
Ornate
Custom average
Inadequate
Inadequate average
Other _____

__ __ __ 41-42 FAMILY ROOM
(score=location, size)

0 = None

Location
1 = Attached
2 = Adjoining kitchen
3 = Fully separated

Size
1 = Small
2 = Average
3 = Large

__ __ __ __ __ 43-46 FAMILY ROOM EXTRAS
(score=sum of values for extras)

0 = None
1 = Deluxe floor
1 = Panelled
1 = Built-ins
1 = Wet bar
1 = Sloped ceiling
Other _____
1 = Fireplace=standard/prefab
2 = Fireplace=masonry efficient
2 = Kitchen /addition with sink & stove (220 or gas cook)

__ __ 70 RECREATION ROOM

0 = None

Degree of Finish
1 = Unfinished, no ceiling
1 = Unit work assumed
2 = Unfinished separate area
3 = Finished walls & ceiling separate floor
4 = Finished floor, walls, & ceiling

__ __ __ __ __ 71-74 RECREATION ROOM EXTRAS
(score=sum of values of extras)

0 = None
1 = Built-in cabinets
1 = Fireplace=standard/prefab
2 = Fireplace=masonry efficient
1 = Wet bar
2 = Kitchen /addition with sink & stove (220 or gas cook)
Other _____

__ __ 64 UTILITY AREA (score=0 or location, type)
(washer/dryer/sink)

0 = None

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

Type
1 = Standard
2 = Enclosed closet
3 = Separate room

BATHROOMS

__ __ 52 0 = No bathroom on first floor
1 = Bathroom on first floor or at rear entrance

__ __ 53 Number of 1/2 baths

__ __ 54 Number of 3/4 baths

__ __ 55 Number of standard full baths

__ __ 56 Number of deluxe master baths

__ __ __ __ __ 57-60 MASTER BEDROOM SUITE
(score=) or sum of values of extras)

0 = None
1 = Access separate from guest area
1 = Extra closet space
1 = Dressing area
1 = Fireplace=standard/prefab
2 = Fireplace=masonry efficient
1 = Sitting area
1 = Private
Other _____

IMPROVEMENT DATA - INTERIOR (con'd)

__/ 62 **NUMBER OF SPECIAL SPACES**
(score=sum of number of spaces)
0 = None
1 = Sitting area
1 = Sewing area
1 = Dark room
1 = Woodworking/craft area
Other ______

______ 66-69 **BASEMENT IMPROVEMENTS** (score=sum of finishes * condition)

0 = None

Finishes	Condition
1 = Finished ceilings	.5 = Evidence of water seepage
1 = Insulated ducts & pipes	__ On site evidence
1 = Enclosed HVAC room	__ Village pumped water last 2 years
	.75 = Poor
	1.00 = Good

NOTE:
____ Sump pump
____ Total sq. ft.
____ Sq. ft finished (all four walls, ceiling & floors)

See page 2

___ 75-76 **HEATING SYSTEM**
(score=fuel, type)

Fuel	Type
1 = Electricity	1 = Old hot water
2 = Oil	2 = Old low pressure steam
3 = Gas	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

_____ 77-80 **HEATING-SUPPLEMENTARY**
(score=sum of values of supplementary units)
0 = None
= Electric ceiling
= Electric baseboard
= Electric wall unit
= Energy/savers
= Solar hot water
Other ______

___ 81-82 **ELECTRICAL SERVICE**

Amperage	Voltage
1 = 30 amp.	0 = 120 volts
2 = 60 amp.	1 = 240 volts
3 = 100 amp.	
4 = 125 amp.	
5 = 150 amp.	
6 = > 150 amp.	

____ 85-87 **WATER HEATER CAPACITY** (total for house)

Number of Units
1 2 3 ...

Capacity of Units

1 = 20 gal.	5 = 75 gal.
2 = 30 gal.	6 = 100 gal.
3 = 40 gal.	7 = 100+ gal.
4 = 50 gal.	

__ 88 **WATER HEATER FUEL**
1 = Electric
2 = Solar
3 = Oil
4 = Gas

______ 89-92 **BUILT-IN HOUSEHOLD EQUIPMENT** (score=sum of values for extras)
0 = None
= Central vacuum system
= Electronic air cleaner
= Humidifier
= Security system
= Intercom system
= Garbage compactor
Other ______

__ 98 **INTERIOR CIRCULATION PATTERNS**
0 = Poor
1 = Moderately good
2 = Good
3 = Excellent

______ 93-96 **EXTRAS** 0 = None
(score=sum of values of extras or $ amount for each)
= Green house
__ Attached
__ Attached
= Indoor swimming pool
__ Gross sq. footage pool room
= Special natural illumination
__ Atrium
__ Skylight
__ Clere story
__ Ceiling to floor bay window
= Special indirect lighting
= Spiral staircase
= Elevator
= Sauna
= Greenhouse connects garage to house
= Central air conditioning
= *Security system*

__ 105 **DESIGNATED HISTORICAL LANDMARK**
0 = No
1 = Yes

SUPPLEMENTARY DATA

_____ TOTAL NUMBER OF HOUSEHOLD MEMBERS

___ ___ TOTAL NUMBER OF FEMALE DOGS

___ [illegible]

_____ TOTAL NUMBER OF MALE/SPAYED DOGS

___ [illegible]

ASSESSMENT DATA

_____ 3-8 Most Recent Sale Price

_____ 9-12 Date of Sale (mo./yr.)

_____ 13-18 Current Land Assessment

_____ 19-24 Current Building Assessment

_____ 25-30 Current Total Assessment

SPECIAL FEATURE SCORES

FRONT EXTERIOR ENTRY

Style	Function
0 = Single	-1 = Unprotected
2 = Double	2 = Protected

FRONT INTERIOR ENTRY

-3 = Entrance direct to living rm.
0 = Vestibule with/without closet (hall entry)
1 = Foyer with/without closet (2 separate doors)
2 = Spacious vestibule with/without closet
3 = Spacious foyer with/without closet

LIVING ROOM EXTRAS

-3 = Classical cathedral ceiling
0 = None
1 = Contemporary sloped ceiling
1 = Built-ins (cabinets, shelves)
2 = Sunken multi-level
2 = Natural illumination

DINING ROOM EXTRAS

0 = None
1 = Built-in china cabinet
1 = Built-in break front/buffet
2 = Wet bar
3 = Deluxe built-ins

DEN/LIBRARY/STUDY EXTRAS

0 = None
1 = Built-in cabinets
2 = Deluxe woodwork

KITCHEN EXTRAS

0 = None
1 = Each built-in appliance e.g. disposal, dishwasher, counter top range, oven, microwave oven, exhaust, trash compactor, ref.-freezer, servingpantry/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

FAMILY-ROOM-EXTRAS

0 = None
1 = Deluxe flôor
1 = Panelled
1 = Built-ins
2 = Sloped ceiling
2 = Wet bar
5 = Kitchen facilities

RECREATION ROOM

0 = Unfinished, low ceiling e
0 = Unfinished separate room
3 = Finished walls or floors and ceiling

RECREATION ROOM EXTRAS

0 = None
1 = Built-in cabinets
2 = Wet bar
5 = Kitchen facilities

MASTER BEDROOM SUITE

0 = None
2 = Extra closet space
2 = Dressing area
2 = Sitting area

NUMBER OF SPECIAL SPACES

0 = None
1 = Woodwork/craft area (speci
2 = Dark room
3 = Sewing area
3 = Sitting area
3 = Other e.g. office
3 = Partially finished recreation r

HOUSEHOLD EXTRAS

0 = None
1 = Green house - attached win
~~1 = Special natural illuminati~~
1 = Special indirect lighting
2 = Security system
3 = Green house - attached-wal
3 = Sauna
5 = Central air conditioning
5 = Spiral grand staircase

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		49	Era	ERA	
6	Previous Lot Sale Date	PLSDATE		50	Sq. Ft. Living Space	SQFTLS	
7	Geocode X	GEO X		51	Number of Stories	STORIES	
8	Geocode Y	GEO Y		52	Roof	ROOF	
9	Neighborhood Number	NBRHD		53	Exterior	EXTER	
10	Lot Square Feet	LTSQFT		54	Garage Type	GARAGE	
11	Lot Front Feet	LTFFT		55	Building Style	STYLE	
12	Lot Depth	LTDPTH		56	Basement Type	BSMTYP	
13	Lot Subdividable	LOTSDIV		57	Basement Condition	BSMTCND	
14	Lot Oversized	LOTOVSZD		58	Appearance to Neighbors	APPEARS	
15	Lake Access Easement	LKACC		59	Quality	QUALTY	
16	Shore Quality	SHORE		60	Enclosed Porch	PORCH	
17	Water Quality	WATER		61	Total Number Rooms	ROOMS	
18	Lake Front Feet	LKFFT		62	Total Number Bedrooms	BDRMS	
19	Lot on Corner	LTCNR		63	Total Number Bathrooms	BATHS	
20	Lot on Cul de Sac	LTCUL		64	Half	HFBTH	
21	Inside Lot	LTINS		65	Three Quarters	THQBTH	
22	Lot Wooded	LTWOOD		66	Full	FULLBTH	
23	Lot View	LTVIEW		67	On First Floor	BTH1ST	
24	Lot Topo	LTTOPO		68	Total Number Fireplaces	FPLAC	
25	Adverse Influence	ADINF		69	Living Room	LIVRM	
26	Tennis Court	TENCT		70	Dining Room	DINRM	
27	Outdoor Pool	OUTPOOL		71	Den/Library/Study	DEN	
28	Patio	PATIO		72	Kitchen Score	KTCHSCR	
29	Storage Shed	STSHD		73	Kitchen Size	KTCHSZ	
30	Boathouse	BTHSE		74	Kitchen Type	KTCHTYPE	
31	Seawall	SEAWLL		75	Kitchen Work Area	KTCHWRK	
32	Indoor Pool	INPOOL		76	Kitchen Eating Space	KTCHEAT	
33	Elevator	ELEV		77	Family Room	FMLYRM	
34	Other Structure Name	STCT1		78	Recreation Room	RECRM	
35	Other Structure Value	VALUE1		79	Laundry Area Score	LAUNSCR	
36	Other Structure Name	STCT2		80	Laundry Area Location	LAUNLOC	
37	Other Structure Value	VALUE2		81	Laundry Area Type	LAUNTYP	
38	Special Structures Total	SPCTOT		82	Heating System Score	HTGSCR	
39	Driveway	DRVWY		83	Heating Fuel	HTGFUEL	
40	Neighborhood Foliage	NBRFOL		84	Heating Type	HTGTYP	
41	Landscaping	LNDSCP		85	Electrical Service	ELECTSRV	
42	Screening of Back	SCRBK		86	Water Heater	WTRHTR	
43	Screening of Front	SCRFT		87	Interior Circulation	INTCIR	
44	Curb Gutter	CRBGTR					
45	Sidewalk	SIDWLK					
46	Previous Sale Price	PSPR		88	Special Features Score	SPFTSCR	
47	Previous Sale Date	PSDATE					
48	Year Built	YRBLT					

MARKET COMP THEORY COMPARED TO REGRESSION

I. Common Requirements to be Determined

A. Variables to survey
B. Sales comparables available for analysis
C. Variables which relate to value
D. Rates of adjustment for difference in variable factors
E. Comparable sales which are best related to subject property

II. Prediction of Price Through Regression Analysis

$$V_p = b + X_s\ (A) + \ldots X_{n,s}\ (A_n)$$

$$V_s = b_o + \Sigma_f\ A_f\ X_{f,s}$$

$$V_k = b_o + \Sigma_f\ A_f\ X_{f,k}$$

$$V'_k = P_k + V_s - V_k$$

$$= P_k + A_1\ X_{1s} - A_1\ X_{1k} + A_2\ X_{2s} - A_2\ X_{2k}$$

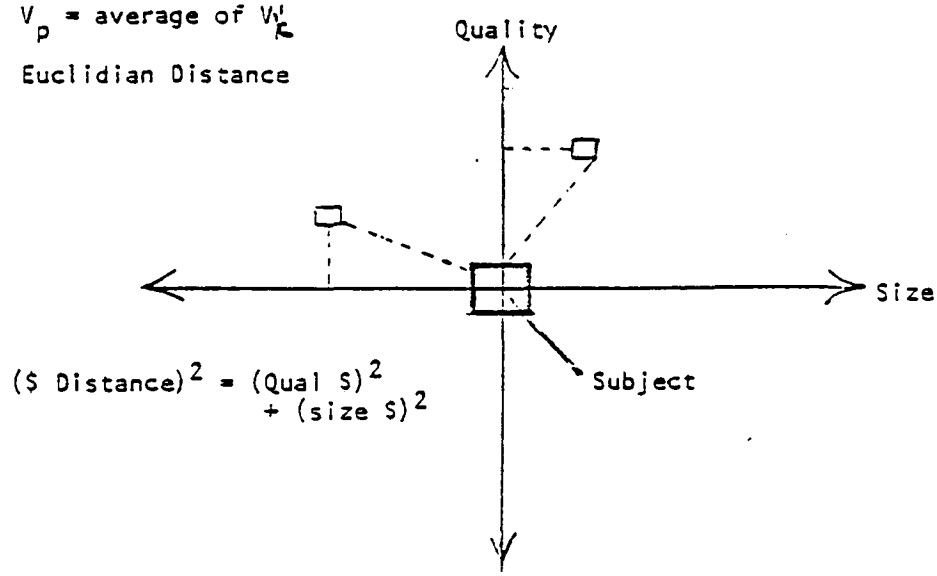
$$= P_k + A_1\ (X_{1s} - X_{1k}) + A_2\ (X_{2s} - X_{2k})$$

III. Market Comparison

$$V_k = A_1 \times (X_s - X_k) + A_2 \times (X_{s2} - X_{k2})$$

V_p = average of V'_k

IV. Euclidian Distance



($ Distance)^2 = (Qual $)^2 + (size $)^2

Scale requires conversion of factors to $'s per unit
Market comp permits conversion with:
$/unit
$/as % of sale price/unit
$'s/ transformation unit

1980 PROPERTY CARD - PARCEL 160111

LAND DATA

PREVIOUS LOT SALE PRICE	0
PREVIOUS SALE DATE	0
GEOCODE	0
NEIGHBORHOOD NUMBER	5
LOT SQ. FT.*	22500
LOT FRONT FT.*	202
LOT DEPTH*	142
LOT SUBDIVIDABLE	No
LOT OVERSIZED	No
LAKE ACCESS EASEMENT	No
LAKE FRONT FT.	0
LOT ON CORNER	Yes
LOT ON COL 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

SPECIAL STRUCTURES AND SITE IMPROVEMENTS

TENNIS COURT	0
OUTDOOR POOL	0
PATIO	200
STORAGE SHED	0
BOATHOUSE	0
SEAWALL	0
INDOOR POOL	0
ELEVATOR	0
0	0
0	0
SPECIAL STRUCTURES TOTAL	200
DRIVEWAY	Linear, concrete
NEIGHBORHOOD FOLIAGE	Shady
LANDSCAPING	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	0
PREVIOUS SALE DATE	0
YEAR BUILT	1927
ERA	1910-1929
SQ. FT. LIVING SPACE	2100
NUMBER OF STORIES	2 Story
BUILDING STYLE	Architectural Traditional
ROOF	Gable,slate shingles
EXTERIOR	Stucco
GARAGE	2 Car attached,small
BASEMENT TYPE	Full
BASEMENT CONDITION	Poor condition
QUALITY	Exterior maintenance required
APPEARANCE TO NEIGHBORS	Less attractive
ENCLOSED PORCH	None
NUMBER OF ROOMS	9
NUMBER OF BEDROOMS	4
NUMBER OF BATHROOMS	1.75
HALF BATHS	0
THREE QUARTER BATHS	1
FULL BATHS	1
BATH ON FIRST FLOOR	Yes
NUMBER OF FIREPLACES	1
LIVING ROOM	Moderate size, good layout
DINING ROOM	Separate room
DEN/LIBRARY/STUDY	Small size
FAMILY ROOM	None
KITCHEN SCORE	1.15
SIZE	Small
TYPE	Single wall
WORK AREA	Dated
EATING SPACE	Space for table/chairs
RECREATION ROOM	No
LAUNDRY AREA SCORE	1
LOCATION	Basement
TYPE	Exposed
HEATING SYSTEM SCORE	6
FUEL	
TYPE	Old low pressure steam
ELECTRICAL SERVICE	60 amp.
WATER HEATER	50 gal., gas
INTERIOR CIRCULATION	Moderately good
SPECIAL FEATURES SCORE	4
LAND	24,500
IMPROVEMENTS	56,500
1979 ASSESSMENT	81,000
LAND	24,500
IMPROVEMENTS	56,500

AT OLD SHORE RD

FACTOR	TYP	RATE	AVE.	S-DEV.
PSFR	0.	1.00	89213.	22432.
PSDATE	2.	0.05	1347.	1707.
NBKND	1.	1500.00	750.	1500.
LTSQFT	1.	0.22	2173.	873.
LOTSDIV	1.	15500.00	0.	0.
LOTOVSZD	2.	-0.05	0.	0.
LKACC	1.	100.00	0.	0.
SHORE	2.	-0.02	0.	0.
WATER	2.	-0.02	0.	0.
LKFFT	1.	350.00	0.	0.
LICNR	1.	-750.00	-750.	0.
LICUL	1.	500.00	0.	0.
LTWOOD	2.	0.05	1873.	2145.
LTVIEW	2.	0.02	0.	0.
LTTOPO	2.	0.03	0.	0.
ADINF	2.	-0.02	-6794.	5048.
SPCTOT	1.	1.00	0.	183.
ERA	2.	0.02	-749.	866.
SQFTLS	1.	15.00	150.	4983.
STORIES	2.	0.02	0.	0.
EXTER	2.	0.01	944.	1592.
GARAGE	1.	1000.00	1000.	1824.
STYLE	2.	0.01	596.	1971.
BSMTYP	2.	0.01	669.	779.
BSMTCND	2.	-0.02	-4926.	3444.
APPEARS	2.	0.03	-2676.	673.
QUALTY	2.	0.02	-1949.	2309.
PORCH	1.	600.00	-900.	600.
BDRMS	1.	1500.00	0.	1225.
BATHS	1.	4000.00	0.	2000.
FPLAC	1.	750.00	-187.	375.
DINRM	2.	0.02	749.	866.
DEN	1.	1000.00	750.	500.
KITCHSCR	1.	350.00	-814.	955.
FAMRM	1.	100.00	-2150.	1509.
RECRM	1.	2000.00	0.	0.
LAUNSCR	1.	300.00	-450.	714.
MISCR	1.	200.00	-1400.	1200.
INITR	2.	0.01	-305.	610.
SPFTSCR	1.	200.00	-250.	1310.

AVE ADJUSTED AMT	77930.	6747.
WEIGHTED AVE.	76000.	
INDICATED VALUE	76000.	

4:46 4601115.30 OLD SHORE RD
51:246 4601325.24 372 WOODLAND
23:139 4601212 236 LAKEWOOD BLV
29:159 4601237 122 LAKEWOOD BLV

FACTOR	SUBJECT	4-AMT	ADJ	51-AMT	ADJ	23-AMT	ADJ	29-AMT	ADJ
PSPR	0.00	85000.00	85000.	72850.00	72850.	122000.00	122000.	77000.00	77000.
PSDATE	80.00	78.92	4604.	79.42	2125.	79.75	1525.	78.67	5133.
NBRHD	5.00	5.00	0.	3.00	3000.	5.00	0.	5.00	0.
LISQFT	22500.00	14000.00	1870.	10500.00	2440.	17500.00	1100.	8500.00	3000.
LOTSDIV	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LOTDVSZD	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LKACC	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.
LKFRT	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LICNR	1.00	0.00	-750.	0.00	-750.	0.00	-750.	0.00	-750.
LICUL	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LIWOOD	1.00	1.00	0.	0.00	3843.	1.00	0.	0.00	3850.
LIVIEW	1.00	1.00	0.	1.00	0.	1.00	0.	1.00	0.
LIIOFO	3.00	3.00	0.	3.00	0.	3.00	0.	3.00	0.
ADINF	5.00	5.00	0.	0.00	-7285.	0.00	-12200.	0.00	-7700.
SPCIOT	200.00	200.00	0.	400.00	-200.	200.00	0.	0.00	200.
ERA	1.00	1.00	0.	2.00	-1457.	1.00	0.	2.00	-1540.
SQFTLS	2180.00	2400.00	-3300.	1960.00	3300.	2500.00	-4800.	1820.00	5400.
STORIES	3.00	3.00	0.	3.00	0.	3.00	0.	3.00	0.
EXTER	4.00	4.00	0.	1.00	2186.	2.00	2440.	5.00	-770.
GARAGE	7.00	8.00	-1000.	4.00	3000.	5.00	2000.	7.00	0.
STYLE	8.00	9.00	-850.	4.00	2914.	9.00	-1220.	4.00	1540.
BSMTYP	3.00	3.00	0.	1.00	1457.	2.00	1220.	3.00	0.
BSMTCND	5.00	2.00	-5100.	0.00	-7285.	2.00	-7320.	5.00	0.
APPEARS	1.00	2.00	-2550.	2.00	-2186.	2.00	-3660.	2.00	-2310.
QUALITY	3.00	3.00	0.	5.00	-2914.	5.00	-4880.	3.00	0.
PORCH	0.00	2.00	-1200.	0.00	0.	2.00	-1200.	2.00	-1200.
BDRMS	4.00	4.00	0.	3.00	1500.	5.00	-1500.	4.00	0.
BATHS	1.75	1.50	1000.	1.50	1000.	2.50	-3000.	1.50	1000.
FPLAC	1.00	1.00	0.	1.00	0.	1.00	0.	2.00	-750.
DINRM	4.00	4.00	0.	3.00	1457.	4.00	0.	3.00	1540.
DEN	1.00	0.00	1000.	1.00	0.	0.00	1000.	0.00	1000.
KTCHSCR	1.15	1.50	-123.	4.90	-1313.	4.40	-1907.	0.90	87.
FAMRM	0.00	32.00	-3200.	22.00	-2200.	32.00	-3200.	0.00	0.
RECRM	0.00	0.00	0.	0.00	0.	0.00	0.	0.00	0.
LAUNSCR	1.00	1.00	0.	4.00	-1500.	2.00	-300.	1.00	0.
HTGSCR	4.00	4.00	0.	10.00	-2400.	10.00	-800.	10.00	-2400.
INTCIR	1.00	1.00	0.	1.00	0.	2.00	-1220.	1.00	0.
OFFSCR	4.00	4.00	-400.	13.00	-1800.	5.00	-200.	-3.00	1400.
ADJUSTED AMOUNT			75002.		69782.		83128.		83811.
SELECTION INDEX			14442.		21172.		21227.		22003.

Property card for vacant site

```
RUN PROPCB
3.3. Filename? NBLOTS
Output Filename? XB:
Enter <start col>, <num col>, <strt ln>, <end ln>
? 1, 132, 1, 60
Format Code Filename? PROPTY.CRD
18 VITSA::K865  PROPCB+BASIC    RN       16(16)K+15X     47.6(+18.1)
18 VITSA::K845  PROPCB+BASIC    38(11X) 16(16)K+15X     48.6(+1.0)
```

1980 PROPERTY CARD - PARCEL 4401126

LAND DATA

PREVIOUS LOT SALE PRICE	0
PREVIOUS SALE DATE	0
GEOCODE	0
NEIGHBORHOOD NUMBER	7
LOT SQ. FT.*	8400
LOT FRONT FT.*	81
LOT DEPTH*	104
LOT SUBDIVIDABLE	No
LOT OVERSIZED	No
LAKE ACCESS EASEMENT	No
SHORE QUALITY	No dominant problem
WATER QUALITY	No dominant problem
LAKE FRONT FT.	0
LOT ON CORNER	No
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	None

SPECIAL STRUCTURES AND SITE IMPROVEMENTS

TENNIS COURT	?
OUTDOOR POOL	?
PATIO	?
STORAGE SHED	?
BOATHOUSE	?
SEAWALL	?
INDOOR POOL	?
ELEVATOR	?
?	?
?	?
SPECIAL STRUCTURES TOTAL	0
DRIVEWAY	??
NEIGHBORHOOD FOLIAGE	??
LANDSCAPING	??
SCREENING OF BACK	??
SCREENING OF FRONT	??
CURB AND GUTTER	??
SIDEWALK	??

*APPROX. USING VILLAGE MAP

IMPROVEMENT DATA

PREVIOUS SALE PRICE	?
PREVIOUS SALE DATE	?
YEAR BUILT	?
ERA	?
SQ. FT. LIVING SPACE	?
NUMBER OF STORIES	Vacant Lot
BUILDING STYLE	??
ROOF	
EXTERIOR	??
GARAGE	??
BASEMENT TYPE	?
BASEMENT CONDITION	?
QUALITY	??
APPEARANCE TO NEIGHBORS	?
ENCLOSED PORCH	??
NUMBER OF ROOMS	??
NUMBER OF BEDROOMS	??
NUMBER OF BATHROOMS	??.30
HALF BATHS	??
THREE QUARTER BATHS	??
FULL BATHS	??
BATH ON FIRST FLOOR	?
NUMBER OF FIREPLACES	??
LIVING ROOM	??
DINING ROOM	??
DEN/LIBRARY/STUDY	??
FAMILY ROOM	??
KITCHEN SCORE	???.30
SIZE	??
TYPE	??
WORK AREA	??
EATING SPACE	??
RECREATION ROOM	??
LAUNDRY AREA SCORE	?
LOCATION	?
TYPE	?
HEATING SYSTEM SCORE	??
FUEL	??
TYPE	??
ELECTRICAL SERVICE	??
WATER HEATER	??
INTERIOR CIRCULATION	??
SPECIAL FEATURES SCORE	??

LAND	[illegible]
IMPROVEMENTS	
1979 ASSESSMENT	28,330
LAND	26,300
IMPROVEMENTS	
1980 ASSESSMENT	26,300

```
SUS 33.RETRIE

I.I.FILE TO RETRIEVE DATA FROM >MPBLUF
OUTPUT FILE >
I.I.FILE MPBLUF:  540 RECORDS, 96 COLUMNS.
SA
COLUMN >18
<, >, OR = (WHICH ONE) >>
VALUE >0

SA
COLUMN >51
<, >, OR = (WHICH ONE) >>
VALUE >0
SP
NUMBER OF COLUMNS >12
RPT.COL. 1 >1
RPT.COL. 2 >3
RPT.COL. 3 >4
RPT.COL. 4 >10
RPT.COL. 5 >19
RPT.COL. 6 >50
RPT.COL. 7 >62
RPT.COL. 8 >63
RPT.COL. 9 >88
RPT.COL. 10 >89
RPT.COL. 11 >90
RPT.COL. 12 >91
DELIMITER (MAY BE NULL) >
DO YOU WANT ALLIGNED COLUMNS? >Y
POSITION TO BEGIN COLUMN 1 , TXPARNUM>0
POSITION TO BEGIN COLUMN 2 , STRNUM>13
POSITION TO BEGIN COLUMN 3 , STRNAM>21
POSITION TO BEGIN COLUMN 4 , LTSQFT>39
POSITION TO BEGIN COLUMN 5 , LXFFT>49
POSITION TO BEGIN COLUMN 6 , SQFTLS>59
POSITION TO BEGIN COLUMN 7 , BDRMS>69
POSITION TO BEGIN COLUMN 8 , BATHS>77
POSITION TO BEGIN COLUMN 9 , SPFTSCR>85
POSITION TO BEGIN COLUMN 10 , 79ASSESS>95
POSITION TO BEGIN COLUMN 11 , 80ASSESS>105
POSITION TO BEGIN COLUMN 12 , ICHANGE>115
```

Creation of list using DB/MPBLUF data file -- ordered by parcel number -- link properties

CH 18 = >0 link front ft.

CH 51 = >0 selects only parcels with improvements

TXPARNUM	STRNUM	STRNAM	LTSQFT	LXFFT	SQFTLS	BDRMS	BATHS	SPFTSCR	79ASSESS	80ASSESS	ICHANGE
4401T	43	BURROWS RD	13500	90	1960	4	2.25	7	112000	121000	1.08036
4401100	309	LAKEWOOD BLVD	63300	100	4960	5	3.5	16	107300	234000	2.177
4401101	303	LAKEWOOD BLVD	182000	275	5820	6	5.5	21	324000	339000	1.0463
4401104	81	CAMBRIDGE RD	31000	89	3840	5	4	16	159000	175000	1.1006
4401105	69	CAMBRIDGE RD	59000	260	5730	8	6	21	257000	270000	1.0505
4401106	57	CAMBRIDGE RD	21500	100	2680	5	3.25	10	113000	140000	1.23894
4401107	49	CAMBRIDGE RD	17000	80	4240	3	3.25	17	162000	180000	1.11111
4401108	45	CAMBRIDGE RD	18000	80	3000	4	2.25	4	143000	143000	1
4401109	37	CAMBRIDGE RD	20500	80	2480	3	3.25	8	140000	140000	1
4401110	33	CAMBRIDGE RD	29500	77	3000	5	2.5	4	124000	154500	1.22617
4401111	29	CAMBRIDGE RD	24500	92	2640	6	3.5	10	141500	147000	1.03887
4401112	25	CAMBRIDGE CT	24000	91	3000	4	4.25	13	172000	179000	1.0407
4401113	22	CAMBRIDGE CT	13000	87	2620	4	2.5	7	135000	130000	.962963
4401114	17	CAMBRIDGE CT	87500	475	4460	6	6	16	320000	310000	.96875
4401117	11	CAMBRIDGE RD	12500	50	1730	3	1.5	2	95000	105000	1.10526
4401118	9	CAMBRIDGE RD	16000	78	3000	4	2.75	14	131000	146000	1.1145
4401119	5	CAMBRIDGE RD	14500	79	2340	4	2.75	5	120000	120000	1
4401120	3	CAMBRIDGE RD	17000	70	1580	3	1.5	8	105000	110000	1.04762
4401121	15	BAYSIDE DR	20000	72	2440	4	3	9	130000	141500	1.0885
4401123	27	BAYSIDE DR	19500	75	2900	5	3	7	153000	157500	1.02941
4401[illegible]	51	BURROWS RD	22500	275	1740	2	1.5	12	142000	155000	1.09155
4401[illegible]	1008	BAY DR	26000	100	2340	5	2.5	6	184000	189000	1.01613
4401[illegible]											

SG

[illegible] TO GROUP >91

```
 I
D.B.FILE MBCPY:  560 RECORDS, 96 COLUMNS.
#P
NUMBER OF COLUMNS >4
RPT.COL. 1 >3
RPT.COL. 2 >4
RPT.COL. 3 >2
RPT.COL. 4 >1
DELIMITER (MAY BE NULL) >
DO YOU WANT ALLIGNED COLUMNS? >Y
POSITION TO BEGIN COLUMN 1 , STRNUM>10
POSITION TO BEGIN COLUMN 2 , STRNAM>15
POSITION TO BEGIN COLUMN 3 , PROPOWN>32
POSITION TO BEGIN COLUMN 4 , TXPARNUM>62
```

Creation of list using DB MBCOPY data file which had been sorted by street name — all properties included

STRNUM	STRNAM	PROPOWN	TXPARNUM
1008	BAY DR	RAEMISCH,BRUCE & GREG	4601120.7
8	BAYSIDE DR	BUTCHER,GORDON G	46019
23	BAYSIDE DR	BACH,FRANCIS H	46017.2
35	BAYSIDE DR	WHIFFEN,JOHN P & LORNA D	4601121
27	BAYSIDE DR	WESTON,JOHN C	4601123
3	BAYSIDE DR	HARPER,ALPHA S	46015
4	BAYSIDE DR	BRUDEN,PHILIP M & PATRICIA I	46018
7	BAYSIDE DR	SHELTON,WILLIAM E & CAROL	46016
15	BAYSIDE DR	FISHER,JEROME	46017
44	BURROWS RD	KLIPSCH,RICHARD W & MARCIA	46013.1
22	BURROWS RD	SHERRY,TOBY E	460112
48	BURROWS RD	BLAKE,PHOEBE	46013
51	BURROWS RD	HAIGHT,NANCY K	46012
43	BURROWS RD	ELA,DOROTHY A	46011
837	BUTTERNUT RD	VOLZ,GORDON	4601398
816	BUTTERNUT RD	TRAVERS,THOMAS G & MARY ANN	4601390
811	BUTTERNUT RD	HOBBINS,MEREDITH L	4601395
911	BUTTERNUT RD	LEIDEL,FREDERICK D	4601349
822	BUTTERNUT RD	SIEBRECHT,HARLAN & DIANE	4601389
840	BUTTERNUT RD	ORR,ELEANOR A	4601387
819	BUTTERNUT RD	BARRY,DAVID S & JANE	4601396
831	BUTTERNUT RD	WITTMEYER,ESTHER E	4601397
704	BUTTERNUT RD	HOLMES,GEORGE E	4601404.1
829	BUTTERNUT RD	STRUCK,VERNON C & GERTRUDE M	4601388
806	BUTTERNUT RD	BREDESON,DUANE	4601392
812	BUTTERNUT RD	VACARRO,JAMES A & SLYVIA	4601391
801	BUTTERNUT RD	BLANCKE,ROSEMARIE	4601468.1
902	BUTTERNUT RD	STEVENS,MYRON	4601362
708	BUTTERNUT RD	BLANCHAR,DONALD W	4601404.2
807	BUTTERNUT RD	HOPKINS,J D	4601394
801	BUTTERNUT RD	BLANCKE,ROSEMARIE	4601393
23	CAMBRIDGE CT	STICHA,PENELOPE G	4601413
23	CAMBRIDGE CT	STICHA,EDWARD H	4601113
29	CAMBRIDGE CT	SUHR,FREDERICK C	4601126
17	CAMBRIDGE CT	WHIFFEN,JAMES D & ARLIS E	4601114
25	CAMBRIDGE CT	FINDORFF,JOHN R	4601112
57	CAMBRIDGE RD	MAUTZ,BERNHARD M JR	4601106
33	CAMBRIDGE RD	MCGUIRE,R T	4601110
3	CAMBRIDGE RD	HARPER,JOHN & NANCY	4601120
92	CAMBRIDGE RD	HART,JOHN R	4601142
81	CAMBRIDGE RD	STEUER,JOSEPH T	4601104
109	CAMBRIDGE RD	HOVDE,RAYMOND	4601173
49	CAMBRIDGE RD	WESTON,CARL B	4601107
68	CAMBRIDGE RD	TORMEY,DR. WESTON	4601147
45	CAMBRIDGE RD	DIMOND,WALDO B	4601108
37	CAMBRIDGE RD	WHIFFEN,JOHN	4601109
29	CAMBRIDGE RD	SUHR,FREDERICK C & MARY E	4601111
118	CAMBRIDGE RD	KRUPP,JOSEPH & CYNTHIA J NEL	4601187
121	CAMBRIDGE RD	FRAZIER,ALBERT F JR	4601171
98	CAMBRIDGE RD	NOURSE,DENNIS	4601144
69	CAMBRIDGE RD	VILAS,H J FRANCIS	4601105
11	CAMBRIDGE RD	JENSEN,KAI	4601117
5	CAMBRIDGE RD	LIZON,ROBERT H & DOROTHY I	4601119
58	CAMBRIDGE RD	OSTBY,BYRON C	4601148
50	CAMBRIDGE RD	VARDA,JOHN P	4601150
33	CAMBRIDGE RD	SCHWARZ,FREDERICK C	4601152

APPRAISAL INSTITUTE OF CANADA/INSTITUT CANADIEN DES EVALUATEURS

EVALUATION SHEET

CONTEMPORARY APPRAISAL OF LARGE INCOME PROPERTIES SEMINAR
MONDAY AND TUESDAY, APRIL 5 AND 6, 1982, EDMONTON, ALBERTA

1. WHAT WAS YOUR GENERAL IMPRESSION OF THE SEMINAR?

   a) Content: Good_____ Fair_____ Poor_____

   b) Presentation: Good_____ Fair_____ Poor_____

   c) Equipment & Material used: Good_____ Fair_____ Poor_____

   d) Other comments re above: _____

2. SPECIFIC AREAS OF TOPICS THAT COULD HAVE BEEN GIVEN MORE / LESS TIME

3. WAS TWO DAYS SUFFICIENT TIME FOR THIS TYPE OF SEMINAR? _____ YES / NO

4. DID YOU BENEFIT? _____ YES / NO (explain)

5. SUGGESTIONS FOR IMPROVEMENT

CONTEMPORARY APPRAISAL SEMINAR

A Two Day Seminar For
APPRAISAL INSTITUTE OF CANADA

Presented by

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

I. Introduction

It is generally recognized that the real estate market is dependent on substantial amounts of credit to support effective demand so that real estate prices and perhaps values vary with the terms and supply of credit generally available in the marketplace. Indeed the old timers have seen the definition of fair market value gradually move away from the firm premise of cash to the seller to a somewhat more subjective condition of terms generally available in the market.

A. The pressure of double digit inflation is eroding many of the appraisers' favorite simplifications of the market model:

1. The long term fixed interest mortgage, amortized from property productivity is gone.
2. The simple division of income between the mortgage and the equity component is smothered in participating mortgages, limited partnerships, convertible mortgages and seller financing.
3. As the government had removed general subsidies to real estate finance such as regulation Q, it has made greater use of specific interest subsidies to selected special groups.
4. Real estate markets must be defined not only in terms of use, age, income, but also access to capital.
5. Moreover, most properties exist in a 3-tier market, utility to house an activity, commodity and money speculation, and as part of a going concern.
6. The 3-tier market can be further subdivided by the nature of permits or other entitlements that are site specific and define risk of a vested or non-vested opportunity.

B. Volatile money market conditions and the widespread use of creative financing leave the appraiser in considerable difficulty in defining typical market terms, cash equivalent prices or the relationship of

fair market value to transaction price. Does the client want fair market price, most probable price, going concern value, contributory value, investment value, or liquidating value in event of delinquency and foreclosure.

C. The impact of these elements is significantly different for problems involving:

1. Income investment properties
2. Economic development properties
3. Multi-family residential properties
4. Single family residential properties

D. The impact of financing in each situation requires that we go back to basics. The appraiser or his clinet must define:

1. What is the function of the appraisal?
2. Which rights are to be appraised? (Those that run with the establishment on the site, with the ownership position, or with fee simple title).
3. Which definition of value is appropriate?
4. How is productivity allocated to the agents of production?

E. Reference to Exhibit 1

F. Reference to definition of fee simple title in Exhibit 2

G. Reference to definition of fair market value in Exhibit 3 and compare to most probable price in Exhibit 4

II. The Games People Play With Income Investment Property makes it very difficult to apply any one of the three appraoches to value.

A. Sales prices are engineered by accountants to some degree to shift asset values among various classifications for land, structure, personalty, intangibles, capital gains and losses and ordinary gains and losses, making market comparison anything but objective (not to mention adjustments for non-market financing discussed in Section III).

B. Similarly, the income approach has great difficulty in applying the truism that income value is the present value of income plus the present value of reversion.

1. There is the problem of defining net operating income in terms of what is attributable to the real estate (aside from financing effect on cash throwoff).
2. There is the problem of defining the net reversion to equity in an uncertain future (aside from financing effect on mortgage balance).

EXHIBIT I

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 and 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 alternative	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

EXHIBIT 3

(*The most probable price - new edition, Institute)
FAIR MARKET VALUE - The highest price in terms of money 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, Real Estate Appraisal Terminology, Editor Byrl Boyce.

EXHIBIT 4

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, The Appraisal of 25 N. Pinckney, Editor James A. Graaskamp.

*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.

3. There is the problem of selecting a conversion process which reduces income cash flows and reversionary cash flows to a single present value.

C. Neither revenue, nor expenses nor debt service are constant over time anymore so that NOI/OAR is no longer a useful valuation model. Instead rents, vacancies, expenses, and financing must be staged using a spread sheet for both income and the reversion. Lenders may share in appreciation and owner and lender may share the risk of variable interest and the first principal payment.

D. The definition of economic rent attributable to the real estate

1. Is income attributable to entitlements that go with fee simple title to the land and are point specific or to transportable permits?
   a. For example - does liquor license go with the building? Is permit to build or maintain a dam assignable? Does right to management fee and brokerage fee go with general partnership or property?
2. Is the real estate income from retailing of space or from wholesaling space?
   a. Parking ramp lease versus parking space by the hour, observation deck versus ticket, condominium conversion fee versus apartment project investment.
3. Is the income for extraordinary services or intangible assets rather than customary?
   a. Maid service versus janitorial, shopping center premium for proximity or for joint merchandising and risk management.
4. Ancillary to rather than integral with the project.
   a. Can services be acquired off premises such as janitorial or utilities?
5. IRS classification as 1250 property (real) or 1231 property (personalty) or Section 38 (tangible) or Section1048(intangible).

6. Is income attributable to governmental agencies in exchange for contractual entitlements of control or use to the public interest for the term of the contract?

E. Problem of defining or forecasting a reversion

1. Pricing real estate for utilitarian purpose, to buy access to service sales, or speculate in long term demand/supply commodity relationships of long term commodity/money ratios.
2. Can the appraiser prove presence of necessary conditions for appreciation and amount of depreciation?
   a. Rising net income
   b. Falling interest rates
   c. Falling investor expectations

3. When is appreciation speculative, non-vested and excluded from fair market value?
4. Can the appraiser simulate alternative speculative gains for most probable price?
5. When a premium is paid anticipating syndication of condominium conversion, should there be an adjustment for purchase of a business opportunity? Does fair market value include management fees for conversion?

III. Case Study of an appraisal of a 50-year old high rise office building in the CBD with vacancy problems, utility problems and management problems.

A. Revenues reflected loss of a major tenant (State of Wisconsin), lack of demand for retail space on the first floor, a soft market for B-class space, and a reluctance of management and tenants to use pass-throughs for operating costs.

B. It was necessary to do a spread sheet indicating a gradual reduction of vacancy loss, a gradual updating of existing leases with pass-through clauses, and investment in critical energy conservation.

C. Resale price is tied to projected net income and gross with a debt cover ratio and a cash-on-cash yield. Loan-to-value ratio is irrelevant. (See The Appraisal Journal, January 1981, DCR/R_e Cap Rate Tables for Today's Financing, p. 15.)

D. Our firm makes heavy use of the backdoor approach on MRCAP for valuation.

LUNCH BREAK

CASE STUDY - EXHIBITS 4-29 - SEMINAR

LIST OF EXHIBITS

LIST OF EXHIBITS -- Continued

EXHIBIT 21

SCALE FOR SCORING COMPARABLES ON IMPORTANT INVESTOR CONSIDERATIONS FOR OFFICE/RETAIL SPACE IN MADISON C-4 ZONE

Parking 25%	5 = Ample private parking on site or available on contract within the same block. 3 = Limited parking on premises 0 = Little or no surface parking on premises.
Location 20%	5 = In the blocks of East and West Mifflin St. or North and South Carroll St., across from the Capitol Square 3 = In the blocks of North and South Pinckney St., across from the Capitol Square, or in the 100 block of West Washington, or adjacent to General Executive Facilities. 1 = Off of the Capitol Square
First Floor Retail Lease in Place at Time of Purchase 15%	5 = Strong lease in place. 3 = Strong lease in place for part of first floor. 0 = Lease expires in less than 6 months or vacant.
Need for Renovation of Office Space at Time of Purchase 15%	5 = No renovation required. 3 = Modest renovation required. 1 = Intensive renovation required.
Visual Quality of Office Entrance 10%	5 = Excellent design and location. 3 = Indifferent design and/or location. 1 = Poorly defined and/or adjacent to incompatible uses.
Vacancies in Existing Office Space at Time of Purchase 15%	5 = Less than 10% of net rentable area (NRA). 3 = More than 10% of NRA. 0 = Vacant

WEIGHTED MATRIX FOR COMPARABLE PROPERTIES

FEATURE/ WEIGHT	#1 30 W. Mifflin	#2 50 E. Mifflin	#3 16 N. Carroll	#4 123 W. Washington	#5 102 N. Hamilton	#6 212 E. Washington	Subject 110 E. Main
	Rating/Weighted Rating						
Parking 25%	5/1.25	3/.75	0/0	0/0	3/.75	3/.75	3/.75
Location 20%	5/1.00	5/1.00	5/1.00	3/.60	1/.20	3/.60	3/.60
First Floor Retail Lease In Place 15%	5/.75	5/.75	0/0	3/.45	3/.45	0/0	1/.15
Need for Renovation 15%	5/.75	1/.15	3/.45	5/.75	1/.15	1/.15	3/.45
Visual Quality of Office Entrance 10%	5/.50	3/.30	3/.30	5/.50	3/.30	3/.30	1/.10
Vacancies in Existing Office Space 15%	5/.75	0/0	5/.75	5/.75	0/0	0/0	1/.15
Total Weighted Score	5.00	2.95	2.50	3.05	1.85	1.80	2.20
Selling Price	$2,555,500	$850,000	$615,270	$2,896,000	$330,000	$472,000	X
Total Net Rentable Area (NRA)	65,000 sq. ft.	38,500 sq. ft.	35,725 sq. ft.	138,000 sq. ft.	28,000 sq. ft.	38,000 sq. ft.	74,000 sq. ft.
Price Per Square Foot (NRA)	$39.30	$22.10	$17.20	$21.00	$11.80	$12.40	
Price Per Square Foot of NRA / Total Weighted Score	7.86	7.49	6.88	6.89	6.38	6.89	

EXHIBIT 23

CALCULATION OF MOST PROBABLE PRICE USING
MEAN PRICE PER POINT EQUATION METHOD
(With Standardized Weighted Point Scores)

Comparable Property	Selling Price per NRA	Weighted Point Score	Price per NRA / Weighted Point Score (x)
1	$39.30	5.00	7.86
2	22.10	3.45	7.49
3	17.20	2.50	6.88
4	21.00	3.05	6.89
5	11.80	1.85	6.38
6	12.40	1.80	6.89
		TOTAL	42.39

$$\text{Central Tendency (Mean} = \bar{x}) = \frac{\Sigma x}{n} = \frac{42.39}{6} = 7.07$$

$$\text{Dispersion (Standard deviation} = s) = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}} = \sqrt{\frac{1.38}{5}} = .525$$

where:

x	$\bar{x}$	$\lvert(x-\bar{x})\rvert$	$\Sigma(x-\bar{x})^2$	n	$n-1$
7.86	7.07 =	.79	.62	6	5
7.49	7.07 =	.42	.18		
6.88	7.07 =	.19	.04		
6.89	7.07 =	.18	.03		
6.38	7.07 =	.69	.48		
6.89	7.07 =	.18	.03		
			1.38		

Value Range: $\bar{x} \pm s = 7.07 \pm .53$

Estimate of Value of Subject Property =

NRA of subject (74,000 S.F.) * Weighted point score of subject (2.2) *

[Sample mean of price per NRA per total weighted score ± (Dispersion * t value)]
[7.07 ± (.53 * t value)]

	Confidence Level: 68% (t = 1.000)	@ n-1 = 5; 90% (t = 2.015)
High Estimate:[1]	$1,240,000	$1,320,000
Central Tendency:	1,150,000	1,150,000
Low Estimate:	1,060,000	980,000

[1] All value estimates are rounded.

Schedule of Rental Revenues[1] for the Period of April 30, 1980 Through April 29, 1985

Occupancy as of April 30, 1980	Space Sq. Ft.	Annual Rent per Sq. Ft.[2]	Lease Terms as of 4/30/80[3]	Annualized Gross Rental Revenues 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Lower Level & Roof								
B level Vault-Vacant	700	3.00	--	$ 2,100	$ 2,100	$ 2,270	$ 2,270	$ 2,450
B level-Showroom & Office	4000	3.00	--	12,000	12,000	12,960	12,960	14,000
A level-Storage	400	4.00	6/30/80	1,600	2,400	2,600	2,800	3,000
Honeywell Phone Box	--	--	--	600	600	600	650	650
Total-Lower Level	5100			$16,300	$17,100	$18,430	$18,680	$20,100
First Floor								
Chez Vous-112	454	4.80	10/1/76 - 9/30/81	$ 2,180	$ 2,290	$ 2,360	$ 2,360	$ 2,360
Chez Vous-114	1000	4.80	10/1/76 - 9/30/81	4,810	5,030	5,200	5,200	5,200
North Entry	2000	9.00	--	18,000	19,500	21,000	22,500	24,000
South Entry-Leaf & Ladle[4]	3500	9.00	1/1/80 - 12/30/84	31,500	33,130	33,950	36,670	39,600
Total-First Floor	6954			$56,490	$59,950	$62,510	$66,730	$71,160
Second Floor								
201 Vacant	150	6.50	--	$ 970	$ 970	$ 1,050	$ 1,050	$ 1,140
202 State[5]	600	6.70	7/1/79 - 6/30/80	4,020	4,320	4,320	4,670	4,670
203-4 Vacant[5]	543	6.20	9/1/78 - 8/31/79	3,370	3,640	3,640	3,640	3,930
205-6 State	506	7.00	3/1/78 - 5/31/80	3,540	3,820	3,820	4,120	4,120
207-8 Homecrafts	386	7.20	1/1/79 - 12/31/81	2,780	2,850	3,000	3,000	3,080
209-10 State[5]	451	6.25	11/1/79 - 5/31/80	2,820	3,040	3,040	3,280	3,280
211 Dr. Regez	219	7.00	--	1,600	1,730	1,730	1,870	1,870
212-14 Dr. Wierwill	700	6.50	4/1/78 - 3/31/81	4,570	4,900	4,900	4,900	5,210
215 Vacant	415	6.75	7/1/78 - 6/30/79	2,800	3,020	3,020	3,270	3,270
216 UPI	500	7.50	5/1/80 - 4/30/81	3,750	4,050	4,050	4,370	4,370
218-19 Rape Crisis Center	816	7.00	1/1/80 - 12/31/81	5,840	6,120	6,260	6,530	6,690
220-21 State[5]	1400	6.25	12/1/79 - 5/31/80	8,750	9,450	9,450	10,200	10,200
Total-Second Floor	6886			$44,810	$47,910	$48,280	$50,900	$51,830

Schedule of Rental Revenues[1] for the Period of April 30, 1980 Through April 29, 1985

Occupancy as of April 30, 1980	Space Sq. Ft.	Annual Rent per Sq. Ft.[2]	Lease Terms as of 4/30/80[3]	Annualized Gross Rental Revenues 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Third Floor								
301 Vacant	150	5.75	--	$ 860	$ 860	$ 930	$ 930	$ 1,000
302-3 State[5]	1179	5.75	--	6,780	7,320	7,320	7,900	7,900
304 State[5]	230	6.70	--	1,540	1,660	1,660	1,800	1,800
305-8 State[5]	942	6.70	--	6,300	6,800	6,800	7,360	7,360
309 The Journal Co.	232	7.20	9/1/79 - 8/31/80	1,810	1,880	1,970	2,030	2,120
310-11 State[5]	456	6.70	--	3,050	3,300	3,300	3,560	3,560
312 Vacant	234	5.75	--	1,340	1,450	1,450	1,570	1,570
313-14 Dr. R. Meng	482	7.20	6/1/79 - 5/31/80	3,490	3,730	3,750	4,000	4,030
315 Vacant	334	6.70	10/1/79 - 9/30/80	5,000	5,080	5,310	5,480	5,630
316-19 Wisc. Builders Assoc.	1091	7.00	1/1/80 - 12/31/80	7,810	8,180	8,360	8,730	8,940
320-24 Vacant	1363	7.00	--	9,540	10,300	10,300	11,130	11,130
Total-Third Floor	7090			$47,520	$50,560	$51,150	$54,490	$55,040
Fourth Floor								
401 Vacant	150	6.40	--	$ 960	$ 960	$ 1,040	$ 1,040	$ 1,120
402 Furst, Carlson Inc.	648	6.40	5/1/79 - 4/30/80	4,350	4,370	4,700	4,730	5,090
403-11 State	2147	6.75	6/1/80 - 12/31/81	14,500	14,880	15,670	16,100	16,960
412 Vacant	202	6.40	--	1,290	1,290	1,400	1,400	1,500
413-14 Wisconsin Alliance of Cities	679	6.80	--	4,980	5,020	5,420	5,420	5,850
415 State[5]	259	7.00	3/1/79 - 2/28/81	1,830	1,940	1,970	2,100	2,130
416-19 State[5]	1370	6.00	vacated 6/30/80	8,220	8,880	8,880	9,590	9,590
420-20a State[5]	560	6.70	vacated 6/30/80	3,750	3,750	4,050	4,050	4,370
421-22 State	300	6.70	vacated 6/30/80	2,010	2,010	2,170	2,170	2,340
423-24 Ed Konkol	340	6.60	9/1/79 - 8/31/80	2,240	2,240	2,420	2,420	2,620
Total-Fourth Floor	6655			$44,130	$45,340	$47,720	$49,020	$51,570

EXHIBIT 24 -- Continued

Schedule of Rental Revenues[1] for the Period of April 30, 1980 Through April 29, 1985

Occupancy as of April 30, 1980	Space Sq. Ft.	Annual Rent per Sq. Ft.[2]	Lease Terms as of 4/30/80[3]	Annualized Gross Rental Revenues 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Fifth Floor								
501 E. C. Barton	150	7.60	--	$ 1,240	$ 1,270	$ 1,270	$ 1,380	$ 1,380
502 Vacant	842	7.50	--	6,310	6,820	6,820	7,360	7,360
503-5 Vacant	810	7.50	--	6,070	6,070	6,440	6,800	6,800
506-19 State	3922	6.25	11/1/79 - 10/31/83	24,500	24,500	24,500	30,590	31,770
520 State-Bd. of Aging	555	6.70	7/1/79 - 6/30/81	3,950	4,000	4,270	4,330	4,940
521-22 Dr. Coryell	339	7.20	7/1/79 - 6/30/80	2,440	2,690	2,740	2,920	2,950
523-24 Green Bay Press Gazette	337	7.60	9/1/79 - 8/31/82	2,560	2,690	2,760	2,760	2,760
Total-Fifth Floor	6955			$47,070	$48,040	$48,800	$56,140	$57,960
Sixth Floor								
601 Vacant	150	6.70	--	$ 1,000	$ 1,000	$ 1,080	$ 1,080	$ 1,170
602-4 State[5]	1473	6.00	vacated 6/30/80	8,840	9,540	9,540	10,300	10,300
605 Vacant	204	6.40	-- to 6/30/80 then mo. - mo.	1,300	1,300	1,410	1,410	1,520
606-10 State	1000	6.70		7,370	7,500	7,500	8,100	8,100
611 The Evjue Foundation	286	7.00	vacated 11/30/80	2,000	2,000	2,160	2,160	2,330
612-14 State	647	7.50	11/1/79 - 10/31/83	4,850	4,850	4,850	5,080	5,240
615 Tenney Bldg.	344	7.00	--	2,400	2,400	2,600	2,600	2,800
616 John Barsness	850	6.00	3/1/79 - 2/28/81	5,170	5,520	5,590	5,950	6,020
617 Bill Ward	250	6.70	vacated 5/31/80	1,940	2,120	2,120	2,300	2,300
618-19 State	494	8.00	vacated 5/31/79	3,950	3,950	4,270	4,270	4,610
620-24 Vacant	1262	6.70	--	8,450	9,130	9,130	9,860	9,860
Total-Sixth Floor	6960			$47,270	$49,310	$50,250	$53,110	$54,250
Seventh Floor								
701 Lawton & Cates	150	5.75	6/1/79 - 5/31/83	$ 930	$ 970	$ 1,100	$ 1,050	$ 1,090
702-19 Lawton & Cates	5417	5.75	6/1/79 - 5/31/83	33,600	35,100	36,450	37,850	39,160
720-24 Vacant	1106	7.00	--	7,740	7,740	8,360	8,360	9,030
Total-Seventh Floor	6673			$42,270	$43,810	$45,910	$47,260	$49,280

EXHIBIT 24 -- Continued

Schedule of Rental Revenues[1] for the Period of April 30, 1980 Through April 29, 1985

Occupancy as of April 30, 1980	Space Sq. Ft.	Annual Rent per Sq. Ft.[2]	Lease Terms as of 4/30/80[3]	Annualized Gross Rental Revenues 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Eighth Floor								
801 Wisconsin Radio News	150	7.00	to 6/30/80	$ 1,050	$ 1,050	$ 1,130	$ 1,130	$ 1,220
802-5 State	1536	7.55	to 10/31/83	11,600	11,600	11,600	12,060	12,520
806-7 Dr. Hannis	470	7.50	9/1/79 - 8/31/80	3,040	4,000	4,000	4,210	4,320
808-22 State	4580	6.00	7/1/79 - 6/30/80	27,480	36,620	37,100	37,100	39,580
823-24 Dr. Boyle	339	7.60	9/1/79 - 8/31/80	2,780	2,880	3,040	3,120	3,120
Total-Eighth Floor	7075			$46,750	$56,150	$56,870	$57,620	$60,760
Ninth Floor								
901 Hillman & Robertson	150	8.00	1/1/80 - 12/31/80	$ 1,230	$ 1,300	$ 1,340	$ 1,400	$ 1,400
902 Wisc. Ins. Alliance	864	7.00	6/1/79 - 5/31/80	6,400	6,480	6,910	7,000	7,000
903-6 Hulcahy & Wherry	980	8.00	1/1/79 - 12/31/81	8,070	8,530	8,750	9,210	9,210
907 Robert Dehling	225	8.00	4/1/80 - 3/31/81	1,810	1,960	1,980	2,110	2,110
909-10 Larry Hall	700	6.00	6/1/79 - 5/31/80	4,520	4,550	4,870	4,900	4,900
911 Dr. Schultz	248	7.75	1/1/79 - 12/31/80	1,920	1,970	2,060	2,140	2,230
912-19 Devine Insurance	2580	7.00	4/1/80 - 3/31/83	18,060	18,060	18,180	19,350	19,350
921 State	575	7.00	vacated 7/1/80	4,020	4,350	4,350	4,700	4,700
922-23 Judicial Commission	355	6.50	5/1/79 - 4/30/81	2,300	2,500	2,500	2,700	2,700
924-25 Dr. Rundell	339	7.20	6/1/79 - 5/31/80	2,650	2,680	2,860	2,880	2,880
Total-Ninth Floor	7016			$50,980	$52,380	$53,800	$56,390	$56,480
Tenth Floor								
1001 Victor Lind	150	6.80	11/1/79 - 10/31/80	$ 1,050	$ 1,200	$ 1,250	$ 1,300	$ 1,350
1002 Wisc. Assoc. of Indep. Colleges	864	6.50	1/1/80 - 12/31/80	5,760	6,050	6,190	6,480	6,650
1003-4 Wisc. Canners & Freezers	756	8.00	5/1/79 - 4/30/80	6,050	6,050	6,530	6,530	7,050
1005-8 Boelter Co.	911	6.80	12/1/79 - 11/30/80	6,370	6,650	6,880	7,200	7,400
1009-10 Vacant	455	6.50	--	2,950	3,190	3,190	3,450	3,450
1011-13 Dr. Doll	727	6.65	6/1/79 - 5/31/80	5,230	5,270	5,640	5,670	6,100
1014 Vacant	229	6.25	--	1,430	1,430	1,540	1,540	1,670
1015-18 State	1616	7.50	11/1/79 - 10/31/83	12,120	12,120	12,120	12,600	13,090
1019-21 Vacant	680	6.70	vacated 2/29/80	5,380	5,440	5,870	5,910	6,350
1022 Herb Walsh	171	8.00	12/1/79 - 11/30/80	1,420	1,490	1,490	1,540	1,600
1023-24 Dane Co. Advocate for Battered Women	331	7.20	8/1/79 - 7/31/80	2,610	2,680	2,840	2,900	3,070
Total-Tenth Floor	6890			$50,370	$51,570	$53,540	$55,120	$57,780
Annual Totals for	74,054 sq. ft.			$493,960	$522,120	$537,260	$565,460	$586,210

EXHIBIT 24 - Continued

Notes to Schedule of Rental Revenues for the Period of April 30, 1980 Through April 29, 1985

[1] The annualized gross rental revenue for the period from April 30, 1980 through April 29, 1981 is consistent with the actual lease terms, if at market rents, as of April 30, 1980. Increases in rents are assumed to take place according to lease terms and conditions; an increase of 8 percent is used at lease renewal dates. This factor was taken from a survey of office rent increases in Class B buildings on and near the Capitol Square in Madison and is the current rate used by the Tenney Building manager.

[2] The annual rental market rate is given as of April 30, 1980. Only one tenant in Rooms 909-10 is considered to be below market rent at $4.73/square foot; therefore the rent for this space is calculated at a market rate of $6.00/square foot. Market rents are also imputed to spaces used by the building owner.

[3] Of the 87 rental space units in the Tenney Building as of April 30, 1980, there are 62 leases in place, but 54 of those terminate between 1980 and 1982. Only eight have leases that extend beyond April 30, 1982.

[4] The Leaf and Ladle Restaurant began its lease of 3500 sq. ft. of the first floor retail space on January 1, 1980. The restaurant had closed its door by October 1, 1980, and the remodeled space is once again on the market. The rental rate of $9.00 with an annual escalator of 8% per year commencing in the second year is considered comparable for the area. A most probable investor might consider an escalator basdd upon a percentage of gross sales to encourage rental of this space if restaurant use is most likely; the projected revenues probably would not increase as rapidly as forecast.

[5] The state has given notice that it will vacate these spaces by June 30, 1980.

Schedule of Vacancies by Floor and by Lease Terms for the Period of April 30, 1980 Through April 29, 1985

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per. Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Lower Level & Roof[1]									
B level - Vault	700	100	3.00	12	$ 2,100				
	700	100	3.00	12		$ 2,100			
	700	100	3.25	12			$ 2,270		
	700	50	3.25	6				$ 1,140	
	700	50	3.50	6					$ 1,140
B Level									
Showroom and Office	4,000	100	3.00	12	12,000				
	4,000	100	3.00	6		6,000			
	4,000	50	3.25	6			3,250		
	4,000	50	3.25	6				3,250	
	4,000	50	3.50	3					1,750
A Level - Storage	400	100	7.00	6				1,400	
	400	100	7.50	9					2,250
Total - Lower Level					$14,100	$ 8,100	$ 5,520	$ 5,790	$ 5,140
First Floor									
112 East Main	454	100	5.20	8		$ 1,570			
	454	100	5.20	12			$ 2,360		
	454	100	5.20	4				$ 780	
114 East Main	1,000	100	5.20	8		3,480			
	1,000	50	5.20	12			2,600		
	1,000	50	5.20	4				860	
Leaf & Ladle	3,500	100	9.00	7	18,370				
	3,500	100	9.50	3		8,310			
	3,500	100	10.50	3				9,190	
	3,500	100	11.30	3					$ 9,890
North Entry	2,000	100	9.00	9	13,500				
Total - First Floor					$31,870	$13,360	$ 4,960	$10,830	$ 9,890

EXHIBIT 25

Schedule of Vacancies by Floor and by Lease Terms for the Period of April 30, 1980 Through April 29, 1985

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Second Floor[3]									
201	150	100	6.50	12	$ 900				
	150	100	6.50	12		$ 900			
	150	100	7.00	12			$ 1,050		
	150	100	7.00	12				$ 1,050	
	150	100	7.60	12					$ 1,140
202	600	100	6.70	6	2,010				
	600	50	7.20	12		2,160			
	600	50	7.20	12			2,160		
	600	50	7.80	6				1,170	
	600	50	7.80	3					580
203-4	543	100	6.20	12	3,370				
	543	50	6.70	12		1,820			
	543	50	6.70	12			1,820		
	543	50	6.70	9				1,360	
205-6	506	100	7.00	6	1,770				
	506	50	7.50	12		1,900			
	506	50	7.50	12			1,900		
	506	50	8.15	9				1,550	
	506	50	8.15	6					1,030
209-10	451	100	6.25	6	1,410				
	451	50	6.75	12		1,520			
	451	50	6.75	12			1,520		
	451	50	7.30	9				1,230	
215	415	100	6.75	12	2,800				
	415	100	7.30	6		1,510			
	415	100	7.30	3			760		
218-19	816	100	8.00	8				4,370	
	816	100	8.20	12					6,690
220-21	1,400	100	6.25	6	4,370				
	1,400	50	6.75	12		4,720			
	1,400	50	6.75	6			2,360		
	1,400	50	7.30	6				2,560	
Total - Second Floor					$16,630	$14,530	$11,570	$13,290	$ 9,440

EXHIBIT 25 -- Continued

Schedule of Vacancies by Floor and by Lease Terms for
the Period of April 30, 1980 Through April 29, 1985

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Third Floor[3]									
301	150	100	5.75	12	$ 860				
	150	100	5.75	12		$ 860			
	150	100	6.20	12			$ 930		
	150	100	6.20	12				$ 930	
	150	100	6.70	12					$ 1,000
302-3	1,179	100	5.75	6	3,390				
	1,179	50	6.20	12		3,650			
	1,179	50	6.20	12			3,650		
	1,179	50	6.70	6				3,950	
304	230	100	6.70	6	770				
	230	100	7.20	12		1,660			
	230	100	7.80	6					900
305-8	942	100	6.70	6	3,150				
	942	50	7.20	12		3,390			
	942	50	7.20	12			3,390		
	942	50	7.80	3					1,830
310-11	456	100	6.70	6	1,530				
	456	50	7.20	12		1,640			
	456	50	7.20	12			1,640		
312	234	100	5.75	12	1,340				
	234	100	6.20	12		1,450			
	234	100	6.20	12			1,450		
	234	100	6.70	12				1,570	
	234	100	6.70	12					1,570
315	731	100	6.70	4	1,610				
320-24	1,363	100	7.00	12	9,540				
	1,363	100	7.60	6		5,150			
Total - Third Floor					$22,190	$17,800	$11,060	$ 6,450	$ 5,300

EXHIBIT 25 -- Continued

Schedule of Vacancies by Floor and by Lease Terms for
the Period of April 30, 1980 Through April 29, 1985

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Fourth Floor									
401	150	100	6.40	12	$ 960				
	150	100	6.40	12		$ 960			
	150	100	6.90	12			$ 1,040		
	150	100	6.90	12				$ 1,040	
	150	100	7.45	12					$ 1,120
412	202	100	6.40	12	1,290				
	202	100	6.40	12		1,290			
	202	100	6.90	12			1,400		
	202	100	6.90	12				1,400	
	202	100	7.40	12					1,500
416-19	1,370	100	6.00	6	4,110				
	1,370	50	6.50	12		4,450			
	1,370	50	6.50	12			4,450		
	1,370	50	7.00	12				4,800	
	1,370	50	7.00	6					2,400
420-20a	560	100	6.70	6	1,880				
	560	50	6.70	12		1,870			
	560	50	7.20	9			1,520		
Total - Fourth Floor					$ 8,240	$ 8,570	$ 8,410	$ 7,240	$ 5,020
Fifth Floor									
502	842	100	7.50	12	$ 6,310				
	842	50	8.00	12		$ 3,410			
	842	50	8.00	12			$ 3,410		
	842	50	8.75	6				$ 3,410	
520	555	100	7.70	6			2,130		
	555	50	7.80	12				2,160	
	555	50	8.90	9					$ 1,850
Total - Fifth Floor					$ 6,310	$ 3,410	$ 5,540	$ 5,570	$ 1,850

EXHIBIT 25 -- Continued

Schedule of Vacancies by Floor and by Lease Terms for
the Period of April 30, 1980 Through April 29, 1985

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Sixth Floor									
601	150	100	6.70	12	$ 1,000				
	150	100	6.70	12		$ 1,000			
	150	100	7.20	9			$ 810		
602-4	1,473	100	6.00	6	4,420				
	1,473	50	6.50	12		4,770			
	1,473	50	6.50	12			4,770		
	1,473	50	7.00	9				$ 3,870	
	1,473	50	7.00	6					$ 2,580
605	204	100	6.40	12	1,300				
	204	100	6.40	12		1,300			
	204	100	6.90	12			1,410		
	204	100	6.90	9				1,060	
617	250	100	7.75	4	640				
620-24	1,262	100	6.70	12	8,450				
	1,262	100	7.20	6		4,540			
	1,262	100	7.20	6			4,540		
	1,262	50	7.80	9				3,690	
Total - Sixth Floor					$15,810	$11,610	$11,530	$ 8,620	$ 2,580
Seventh Floor									
No Vacancies Projected									
Eighth Floor									
801	150	100	7.00	10	$ 880				
	150	100	7.00	12		$ 1,050			
	150	100	7.50	6			$ 560		
Total - Eighth Floor					$ 880	$ 1,050	$ 560	0	0

EXHIBIT 25 -- Continued

Schedule of Vacancies by Floor and by Lease Terms for the Period of April 30, 1980 Through April 29, 1985

EXHIBIT 25 -- Continued

	Space Sq. Ft.[2]	% Vacant	Annual Rental Rate Per Sq. Ft.	# of Months Vacant	Projection Period 4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Ninth Floor									
909-10	700	100	6.50	6		$ 2,280			
	700	100	7.00	6			$ 2,440		
922-23	355	100	7.00	12			2,500		
	355	100	7.60	6				$ 1,350	
Total - Ninth Floor					0	$ 2,280	$ 4,940	$ 1,350	0
Tenth Floor									
1009-10	455	100	6.50	12	$ 2,950				
	455	100	7.00	12		$ 3,190			
	455	100	7.00	9			$ 2,390		
1014	229	100	6.25	12	1,430				
	229	100	6.25	12		1,430			
	229	100	6.70	6				770	
1019-20	680	100	6.70	1	380				
Total - Tenth Floor					$ 4,760	$ 4,620	$ 2,390	$ 770	0
TENNEY BUILDING TOTALS[4]					$120,790	$85,330	$66,480	$59,910	$39,220

Notes to Schedule of Vacancies by Floor and by Lease Terms
For the Period of April 30, 1980 Through April 29, 1985

[1] The lower level space has a continued record of vacancy; it is assumed that until the space is made more marketable by remodeling, rents will not keep pace with the market. Uses other than a showroom for the 4000 sq. ft. will need to be explored; subdividing the larger space for office space and/or storage space are possibilities.

[2] It is assumed that the smaller office spaces from 200-500 square feet will experience less overall vacancy than the larger spaces. There appears to be a trend toward several small independent businessmen sharing a common secretarial staff; some of the larger vacant suites could be remodeled for this type of use.

[3] The second and third floors have the greatest amount of vacancy due to the exodus of State tenants. By the end of June, 1980, the State's move alone will cause 44% of the second floor vacancies; the third floor will experience a vacancy rate of 39.5% due to loss of State tenants; the State related vacancy rates on the fourth and sixth floors will be 29% and 21% respectively. A most probable buyer will have to anticipate a large capital investment in 1980 to remodel and refurbish the Building to make it competitive in the Class B office market that already has a large supply of space available on and near the Square.

[4] Vacancies are assumed to gradually decrease between 1981 and 1983; a most probable buyer will institute a vigorous marketing program which will involve research of space needs in the area and remodeling which will be targeted to those needs.

Schedule of Projected Revenues and Expenses From April 30, 1980 Through April 29, 1985

	4/30/80-4/29/81	4/30/81-4/29/82	4/30/82-4/29/83	4/30/83-4/29/84	4/30/84-4/29/85
Revenues:					
Gross Income	$493,960	$522,120	$537,260	$565,460	$586,210
less: Vacancies	(120,790) (24.5%)	(85,330) (16.3%)	(66,480) (12.4%)	(59,910) (10.6%)	(39,220) (6.7%)
Effective Gross	373,170	436,790	470,780	505,550	546,990
Parking Rentals	12,960	12,960	12,960	14,000	14,000
Total Revenues	$386,130	$449,750	$483,740	$519,550	$560,990
Expenses:[1]					
Accounting & Legal	4,200	4,640	5,120	5,650	6,240
Building Security[2]	21,840	24,100	26,620	29,390	32,440
Insurance	7,000	7,730	8,530	9,420	10,400
Maintenance[3]	28,850	31,850	35,160	38,820	42,860
Wage & Salaries	60,000	66,240	73,130	80,730	89,130
Payroll Taxes	11,500	12,700	14,020	15,470	17,080
Repairs	14,880	16,430	18,130	20,020	22,100
Telephone	1,600	1,770	1,950	2,150	2,380
Utilities[4]	90,600	101,470	107,560	114,380	122,020
Office Expenses[5]	7,040	7,520	8,250	8,840	9,690
Management[6]	22,390	26,320	27,540	30,280	32,570
Concourse Special Assessment	2,360	2,410	2,630	2,550	2,480
Total Operating Expenses Before R.E. Taxes[7]	($272,260)	($303,180)	($328,640)	($357,700)	($389,390)
Net Operating Income Before R.E. Taxes	$113,870	$146,570	$155,100	$161,850	$171,600
Real Estate Taxes[8]	(26,680)	(28,000)	(29,400)	(30,880)	(32,420)
Net Operating Income	$ 87,190	$118,570	$125,700	$130,970	$139,180

EXHIBIT 27

Notes to Schedule of Projected Revenues and Expenses
From April 30, 1980 Through April 29, 1985

[1] Expenses

In general, expenses are projected to increase according to the average annual change of 10.4% in the All Item Consumer Price Index over the past five years. (See amended Exhibit 27).

[2] Building Security

Security personnel is hired from 10 P.M. to 6 A.M. on weekdays with 24 hour coverage on the weekends. The building is open to the public from 6 A.M. to 6 P.M. each weekday. The continuing problems created by the presence of bars and adult entertainment places across the street make this security protection mandatory.

[3] Maintenance

This account includes an elevator maintenance contract at $9,060 a year.

[4] Utilities

At present the Tenney Building consumes approximately 55,000 to 70,000 gallons of No. 2 fuel oil per year depending upon the weather. The cost of fuel has increased as follows:

January 12, 1979	.43/gallon
October 1, 1979	.77/gallon
February 1, 1980	.95/gallon

In thirteen months the cost has risen 121%. Though the Tenney Building is converting to natural gas on its primary boiler, the cost of natural gas is also volatile. Over the past five years natural gas has had an average annual increase of 17.6% for the commercial time-of-use consumer, according to Milton Spiros, Madison Gas & Electric Co.

The installation of combination storm windows throughout the building should help to conserve fuel costs. To stabilize utility costs it is assumed management will place energy cost escalators in renewed leases; therefore in the pro forma income statement utility costs are escalated at 12 percent annually with 50 percent of the increase passed through to the tenant after year 2.

[5] Office expenses include rental of space in the Tenney Building for management operations.

[6] Management costs are computed as 6% of effective gross office revenue with 4% allowed for management and 2% for leasing commissions for space turnover.

Notes to Schedule of Projected Revenues and Expenses
From April 30, 1980 Through April 29, 1985

[7]Total operating expenses are calculated before including real estate taxes for ease in using the MRCAP discounted cash flow program.

[8]Real estate taxes are calculated as 5.4% of gross revenues in the first year and increased at 5% per annum thereafter. These calculations are based on the following fact and assumptions:

1. The assessed value as of 1/1/80 is $1,200,000.
2. The mill rate is assumed to increase slightly (approximately 1%) after several years of decrease.
3. Taxes will continue to increase due to inflated city budgets and decreasing state aids.

4. Conversion of Net Income to Present Value

The MRCAP program from the National EDUCARE library of programs, :eviously described, is used to convert net income to a present alue after taxes as of April 30, 1980, for the Tenney Building t the end of a five-year holding period.

:. Assumptions Used in MRCAP

The MRCAP discounted cash flow program can solve for a justified project value by specifying the ratio of net income to debt service acceptable to an institutional mortgage lender. Given the interest rate and term available as of April 30, 1980, the program will solve for the justified amount of mortgage and for justified cash equity, assuming typical before-tax cash-on-cash investor requirements for office buildings, with potential for inflation sensitive rents. Exhibit 28 is a simplified flow chart depicting the steps in solving for the justified project budget.

On April 30, 1980, prudent lenders will require a minimum debt cover ratio of 1.3 and equity investors expect no less than 6 percent cash-on-cash.

1. Inputs into MRCAP Program

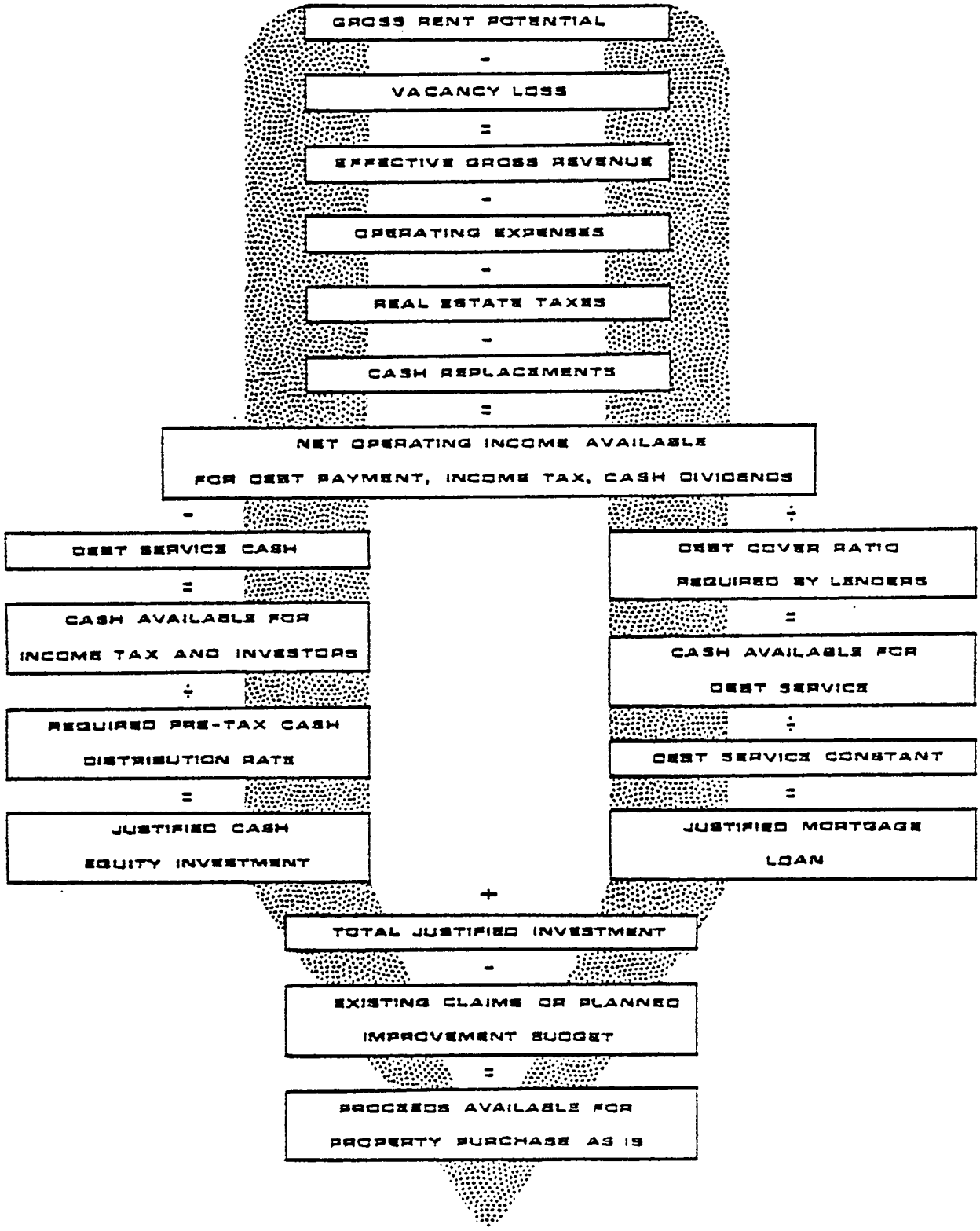
   a. Debt cover ratio = 1.3

   b. Before tax cash-on-cash requirements = 6%

   c. Project holding period = 5 years

EXHIBIT 28

REVENUE JUSTIFIED CAPITAL BUDGET
DEBT COVER RATIO APPROACH



d. Real estate taxes = historical pattern suggests real estate taxes at 5.4 percent of first year's gross with an annual inflation factor of 5% (see assumptions discussed below)

e. Discount rate = 13% (present value factor used to discount cash flow)

f. Reinvestment rate = 6% after tax rate applied to after tax cash flow

g. Resale price = 10 times net operating income in year of sale

h. Resale cost rate = 4%

i. Working capital reserves from equity to cover one month's expenses = $30,000

j. Investor marginal income tax rate = 50%

k. Land = $340,000, as of most recent appraisal for IRS

l. Buildings = 60% of total improvement value

m. Mechanicals and site improvements = 40% of total improvement value

n. Elevators = remaining book value of $73,000

o. Improvements for Energy Conservation = a total of $54,000 which includes $43,000 for storm windows and $11,000 for natural gas conversion unit.

p. Tenant Improvements = $50,000 for carpeting and partitions as needed to upgrade vacant office space

q. Investment Credit Dummy = to allow for tax benefit of investment credit in first year for capital improvement for energy conservation

r. Mortgage = principal amount determined by debt cover ratio; interest rate a minimum of 12% with a 20-year term, paid monthly, on the first mortgage and 13% interest and an 8-year term for the second mortgage

2. Real Estate Tax Assumptions

Real estate taxes are a function of assessed value (or fair market value when assessed value is 100 percent of market value) and the net mill rate; therefore, real estate taxes are estimated as a function of gross rental income. During the past two years, real estate taxes have been between 5 percent and 6 percent of the Building's potential gross rental income. As a result of tests of several values between 5 percent and 6 percent, it is determined that 5.4 percent of gross rental revenues best represents the historical pattern of the Building's real estate taxes. MRCAP is programmed to use 5.4 percent of the first year's gross rental income to compute the first year's real estate taxes and then provides for a growth factor of 5 percent to increase the taxes each year thereafter.

D. Analysis of Test Results

Four runs of the MRCAP program were done using different assumptions about the amount of real estate taxes that would be paid on the subject property. Taxes and net mill rates for the past three years on the subject property have been:

Year	1977	1978	1979
Real Estate Taxes	$33,118.75	$29,951.95	$25,340.93
Net Mill Rate	.026495	.024153	.022036

Real estate taxes estimated at various percentages of the first year's projected gross and inflated 5 percent a year gave these results in the MRCAP runs:

Percentage of First Year's Gross Rental Revenue	Real Estate Taxes				
	1980	1981	1982	1983	1984
5.0	$24,698	$25,933	$27,230	$28,591	$30,021
5.4	$26,674	$28,008	$29,408	$30,878	$32,422
5.8	$28,650	$30,082	$31,586	$33,166	$34,824
6.0	$29,638	$31,119	$32,675	$34,309	$36,025

The real estate taxes estimated at 5.4 percent of the first year's gross rent best approximates the shift from a decreasing to an increasing net mill rate that can now be expected due to an anticipated decrease in state aids to cities. Rising costs of local government can be expected to be borne by the local taxpayer.

The input and output for the MRCAP program using real estate taxes estimated at 5.4 percent of gross rental revenue are found in Exhibit 29.

If taxes are a conservative 5.4 percent of gross rental revenue, MRCAP substantiates the fair market value of $1,150,000 estimated by the market comparison approach to value.

EXHIBIT 29

MRCAP INPUT AND OUTPUT--
JUSTIFIED CAPITAL BUDGET WITH
REAL ESTATE TAXES AT 5.4% OF
FIRST YEAR'S GROSS RENT

```
MRCAP        09:49CST    12/20/80

ENTER INPUT FILE NAME?


THE PROGRAM MRCAP IS THE PROPERTY OF
MICHAEL L. ROBBINS
C/O REAL ESTATE DYNAMICS INC.
4701 WINNEQUAH RD.
MONONA, WISC.

USER NO. 66

(608)-221-1120


NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS OR
COMPUTATIONAL FORMAT USED IN THIS PROJECTION WILL
BE ACCEPTABLE TO TAXING AUTHORITIES.

**$10.00 LIB CHG APPLIED
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R E P O R T   S E C T I O N   N U M B E R   1                PAGE 1
==========================================

* GROSS RENT      $ 554378.   * RATE OF GROWTH OF GROSS RENT   0.0432
* EXPENSES        $ 330234.   * RATE OF GROWTH OF EXPENSES     0.0930
* R E TAXES       $  29478.   * RATE OF GROWTH OF R E TAXES    0.0500
  INCOME TAX RATE    0.5000     PROJECT VALUE GROWTH OF        2.0000
* VACANCY RATE       0.1375     WORKING CAPITAL LOAN RATE      0.1400
  EQUITY DISCOUNT    0.1300     EXTRAORDINARY EXPENSES   $       0.
  RESALE COST        0.0400     REINVESTMENT RATE              0.0600
  WKG CAPITAL RS  $  30000.     CAPITAL RESER INTEREST RATE    0.
  INITIAL COST    $ 1091502.    INITIAL EQUITY REQUIRED  $  486002.

  ALL '*' VALUES ARE AVERAGE AMOUNTS FOR HOLDING PERIOD, OF  5 YRS.


  INITIAL COST DERIVED THROUGH BACKDOOR TYPE 3 USING 2 MORTGAGES
```

PRO FORMA

INVESTMENT ANALYSIS OF

BUILDING

FOR

REPORT SECTION NUMBER 2 PAGE 1

COMPONENT SUMMARY

TITLE	PCT. DEPR	BEGIN USE	USEFUL LIFE	DEPR METHOD		COST	SCH
LAND	0.	1	25.	0	$	340000.	0
BUILDING	0.80	1	29.	2	$	338221.	0
HVAC	0.90	1	9.	2	$	225481.	0
ELEVATORS	0.90	1	4.	2	$	73000.	0
ENERGY CONSERVATION	0.90	1	5.	2	$	54000.	0
TENANT IMPROVEMENTS	0.90	1	10.	4	$	50000.	0
INVESTMENT CREDIT 30	1.00	1	1.	2	$	10800.	0

MORTGAGE SUMMARY

TITLE	INTR RATE	BEGIN YR.	END YR.	TERM		ORIG BALC	PCT VALUE
FIRST MORTGAGE	0.1200	1	20	20	$	531493.	0.487
SECOND MORTGAGE	0.1300	1	8	8	$	104000.	0.095

EXHIBIT 29 -- Continued

P R O F O R M A

INVESTMENT ANALYSIS OF

BUILDING

FOR

R E P O R T S E C T I O N N U M B E R 3 PAGE 1

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
1	GROSS INCOME	50a929.	535080.	550220.	5794a0.	600210.
2	LESS VACANCY	129799.	65330.	6a480.	5a919.	69229.
3	LESS REAL ESTATE TAXES	2aa74.	28008.	29408.	30873.	32422.
4	LESS EXPENSES	272260.	303180.	328a40.	357799.	389390.
5	NET INCOME	87196.	118562.	125692.	130972.	139178.
6	LESS DEPRECIATION	76323.	64398.	63442.	62629.	45513.
7	LESS INTEREST	76472.	74515.	72298.	69785.	66938.
8	TAXABLE INCOME	-65599.	-20351.	-10048.	-1443.	26726.
9	PLUS DEPRECIATION	76323.	64398.	63442.	62629.	45513.
10	LESS PRINCIPAL PAYMENTS	14730.	16687.	18904.	21417.	24263.
11	CASH THROW-OFF	-4006.	27361.	34490.	39770.	47976.
12	LESS TAXES	0.	0.	0.	0.	13363.
13	LESS RESERVES	0.	0.	0.	0.	0.
14	CASH FROM OPERATIONS	0.	27361.	34490.	39770.	34613.
15	WORKING CAPITAL LOAN	0.	0.	0.	0.	0.
16	DISTRIBUTABLE CASH AFR TAX	0.	27361.	34490.	39770.	34613.
17	TAX SAVING ON OTHER INCOME	32799.	10175.	5024.	721.	0.
18	SPENDABLE CASH AFTER TAX	32799.	37536.	39514.	40491.	34613.

MARKET VALUE & REVERSION

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
19	END OF YEAR MARKET VALUE	871962.	1185625.	1256921.	1309717.	1391778.
20	LESS RESALE COST	34879.	47425.	50277.	52389.	55671.
21	LESS LOAN BALANCES	620764.	604077.	585173.	563750.	539493.
22	PLUS CUM. CASH RESERVES	25994.	25994.	25994.	25994.	25994.
23	BEFORE TAX NET WORTH	242313.	560117.	647466.	719566.	822608.
24	CAPITAL GAIN (IF SOLD)	-181096.	182544.	313511.	426719.	551596.
25	CAPITAL GAINS TAX	-36219.	36509.	62702.	85344.	110319.
26	MINIMUM PREF. TAX	0.	0.	0.	0.	0.
27	INCOME TAX ON EXCESS DEP.	1500.	2438.	2897.	2950.	2657.
28	TOTAL TAX ON SALE	-16610.	38946.	65599.	88294.	112977.
29	AFTER TAX NET WORTH	258924.	521171.	581867.	631273.	709632.

BEFORE TAX RATIO ANALYSIS

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
30	RETURN ON NET WORTH B/4 TAX	-0.5014	1.4245	0.2175	0.1728	0.2099
31	CHANGE IN NET WORTH B/4 TAX	-243696.	317803.	87349.	72100.	103042.
32	ORIG EQUITY CASH RTNB/4 TAX	-0.0082	0.0563	0.0710	0.0818	0.0987
33	ORIG EQUITY PAYBACK B/4 TAX	0.0000	0.0563	0.1273	0.2091	0.2803
34	B/4 TAX PRESENT VALUE	846386.	1092030.	1126006.	1142995.	1174189.

AFTER TAX RATIO ANALYSIS

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
35	RETURN ON NET WORTH AFR TAX	-0.3998	1.1578	0.1923	0.1545	0.1790
36	CHANGE IN NET WORTH AFR TAX	-227086.	262248.	60696.	49406.	78359.
37	ORIG EQUITY CASH RTNAFR TAX	0.0675	0.0772	0.0813	0.0833	0.0712
38	ORIG EQUITY PAYBACK AFR TAX	0.0675	0.1447	0.2260	0.3093	0.3806
39	AFTER TAX PRESENT VALUE	893655.	1102069.	1124504.	1133367.	1150092.

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
40	NET INCOME-MARKET VALUE RTO	0.1000	0.1000	0.1000	0.1000	0.1000
41	LENDER BONUS INTEREST RATE	0.0000	0.0000	0.0000	0.0000	0.0000
42	DEFAULT RATIO	0.7696	0.7894	0.8165	0.8358	0.8517

EXHIBIT 29 -- Continued

INPUT FILE

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530 403,99,1,2,3,4,5
540 999,99
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IV. Aside from the problem of defining and allocating income and reversion to the real estate interest, income property appraisal is at C. with the problem of cash equivalency adjustments for both comparable sales and the subject property. Many of the issues on how to appraise properties with economic development loans, state-subsidized housing loans, or seller financed property relate to when and how cash equivalency rules should be applied.

A. Fair market value seems to call for cash to the seller (Exhibit 3) but then provides an exception where market practice may be different. The Institute textbook says,

> "Unusual financing or other factors that might result in a price deviation from market value are also excluded. However, if the availability of other than conventional financing (such as FHA or VA loan terms) is sufficiently extensive to constitute a market within which the property being appraised is expected to sell, the typical purchaser may be expected to take advantage of this available financing, and the market value of the property reflects the probable sale price in this market. In market valuation assignments the appraiser first identifies the market in which the property being appraised will be exposed and sold. The market value of the property is then identified within parameters that reflect conditions in this market." Source: The Appraisal of Real Estate, Seventh Edition.

B. In addition to market characteristics, we need to know the purpose of the appraisal before determining where their fair market value based on fee simple title or most probable price or going concern value is appropriate.

1. For example, the assessor is required by law to look at fee simple title; he does not recognize contract rents when they are below market rent nor can he look at premium rents and going concern values over and above market or economic rents. Cash equivalency is a must.

2. However, in a Section 8 loan from a state housing authority, it is typical to take an assignment of the general partnership position which can be exercised by the Housing Authority in the event of default on the mortgage terms or the related property management agreement. Control of the property can pass through subsequent assignment without disturbing the tax position or the special non-market interest rate of the deal. Moreover, the rights transfered include existing reserve funds. Therefore, fair market value is not relevant relative to the security of the loan. The investor purchases a fee simple title encumbered by transfers of owner prerogatives to the government in exchange for tax privileges and minimum income guarantees for 20-40 years. That is the question of most probable price or going concern value.

Exhibit 30

MCCLOUD B. HODGES, JR.
REAL ESTATE INVESTMENT, VALUATION AND COUNSELING
410 PINE STREET, SUITE 203
VIENNA, VIRGINIA 22180 703 - 281-5668

October 9, 1980

MEMORANDUM FOR several interested RE appraisers/counselors, trial attorneys and academicians

Enclosed is an expanded and revised list of OARs and assessment/sales ratios which are self explanatory. This list is not a pure (random) sample by statistical rules. On one hand it is much larger than a sample need be, as it covers nearly 70% of all known property sales for the areas described, in the price range above about one-half million dollars, excluding MF apartment properties sold for condo conversion. On the other hand, it is possible that the 30% of investors-purchasers who, thus far, have not cooperated in furnishing data for this survey, may have shown slightly lower average OARs and A/S ratios.

This study, consuming several hundred man-hours in visits to offices of investors and inspections of their properties, was initiated more than two years ago primarily to obtain market data for rebutting several ad valorem tax valuations of properties owned by my clients. But it is now evident, from the specific results of the study and from its sheer coverage, that it ought to serve as the basis for a new educational manuscript advocating modern methods of valuing investment classed property. The "OAR" capitalization method, regardless of how the OAR is derived or constructed, is quite crude, often erroneous, and therefore useless as applied to higher priced property valuations. It was made even more useless during the last year in which many institutional sources of long term, level payment mortgage loans have withdrawn or have changed their lending practices in order to share in part of the inflation-produced cash flow through additional interest and/or future capital gain.

The second enclosure, a revised edition of "Effects of Financing on Price and Value", should explain the main reasons for the variances in OARs shown in the first enclosure: financing and tax shelter. The other reasons for OAR variances are the buyers' anticipated future changes in net income and resale/exchange values. Some properties are expected to produce large profits, or their only profits, in the distant future, while others will be nominally profitable only in the short range. This reduces the "NOI" either as a first year or a "stablized" figure to a position of invalidity in the valuation appraisal practice.

Enclosures

McCLOUD B. HODGES, JR.
REAL ESTATE INVESTMENT, VALUATION AND COUNSELING
410 PINE STREET, SUITE 203
VIENNA, VIRGINIA 22180 703 - 281-5668

Sample of investment-classed property resales in the Virginia and Maryland suburbs of Washington, D. C., showing the wide variations in the overall capitalization rate (OAR) and in the assessment/sale price ratio. For any property which was not sold for cash above new, market-rate mortgage financing, the price shown is the cash-equivalent price, being the sum of the equity cash and the balances of the mortgage loans after discounting the loans to their estimated cash liquidable values at dates of property sales.

The OAR is based upon the cash-equivalent sales price and the net operating income (NOI) produced in the first year following the date of sale. If a full year had not passed by the date of any datum sale analysis, the NOI is that which was budgeted by the new owners. The assessment/sale price ratio is based upon 100% market value assessment and the cash equivalent sales price. Supporting data for all property sales are contained in a separate, confidential listing with corresponding identification (ID) numbers.

ID	Year of Sale	Kind of Property and Location	Cash Equiv. Price	OAR	Assmt/ Sale
100	1977	Garden apts., Fairfax Co.	440,000	.1298	118%
105	1980	Office Bldg., Fairfax Co.	467,074	.0856	118%
107	1978	Elevator apts., Montgomery Co.	474,389	.0942	148%
110	1978	Elevator Apts., Arlington Co.	559,800	.0857	71%
113	1978	Office Bldg., Montgomery Co.	585,126	.1324	133%
115	1977	Garden apts., Fairfax Co.	589,000	.1091	94%
120	1980	Office Bldg., Fairfax Co.	590,255	.0860	158%
125	1980	Office Bldg., Fairfax Co.	638,975	.1291	229%
130	1976	Garden Apts., Alexandria City	730,058	.1232	77%
132	1978	Office Bldg., Montgomery Co.	746,833	.0818	97%
135	1978	Garden Apts., Fairfax Co.	802,900	.1396	104%
140	1980	Garden Apts., Fairfax Co.	836,857	.0874	96%
141	1977	Garden Apts, Prince Georges Co.	850,000	.1012	87%
142	1978	Office Bld., Montgomery Co.	950,000	.0759	89%
143	1978	Elevator Apts., Prince Georges Co	994,808	.1151	101%
144	1978	Office Bldg., Montgomery Co.	1,010,865	.0868	59%
145	1980	Office Bldg., Fairfax Co.	1,120,209	.0957	112%
147	1979	Garden Apts., Prince Georges Co.	1,159,172	.1267	102%
150	1977	Office Bldg., Fairfax Co.	1,245,200	.1124	106%
155	1976	Garden Apts., Arlington Co.	1,395,000	.1019	103%

ID	Year of Sale	Kind of Property and Location	Cash Equiv. Price	OAR	Assmt/ Sale
157	1977	Shopping Cntr., Montgomery Co.	1,461,500	.0879	98%
160	1976	Garden Apts., Alexandria City	1,577,300	.1065	108%
162	1980	Garden Apts., Ann Arundel Co.	1,638,000	.1416	90%
163	1979	Garden Apts., Prince Georges Co.	1,716,505	.1290	101%
164	1979	Garden Apts., Prince Georges Co.	1,732,107	.1827	144%
166	1978	Office Bldg., Arlington Co.	1,751,835	.0645	90%
168	1976	Garden Apts., Fairfax Co.	1,879,250	.1248	123%
170	1976	Garden Apts., Fairfax Co.	1,960,835	.1140	114%
175	1975	Elevator Apts., Fairfax Co.	1,984,500	.1321	156%
180	1978	Elevator Apts., Falls Church	2,000,000	.0821	91%
184*	1977	Garden Apts., Montgomery Co.	2,113,500	.1192	115%
185	1980	Shopping Center, Fairfax Co.	2,144,706	.1081	125%
190	1975	Elevator Apts., Alexandria City	2,153,606	.0831	137%
195	1978	Garden Apts., Fairfax Co.	2,324,000	.1224	106%
200	1975	Garden Apts., Fairfax Co.	2,375,000	.0950	115%
205	1977	Elevator Apts., Arlington Co.	2,400,000	.0975	66%
210	1980	Office Bldg., Fairfax Co.	2,510,492	.1290	133%
225	1978	Garden Apts., Fairfax Co.	2,569,500	.1068	85%
300	1975	Elevator Apts., Alexandria City	2,558,669	.1234	93%
301**	1979	Garden Apts., Prince Georges Co.	2,960,244	N/A	131%
303	1975	Garden Apts., Alexandria City	2,789,190	.0775	122%
304	1978	Garden Apts., Prince Georges Co.	3,090,639	Neg.	95%
305	1979	Office Bldg., Montgomery Co.	3,100,000	.1221	78%
306	1976	Garden Apts., Fairfax Co.	3,117,300	.1056	165%
307	1977	Garden Apts., Prince Georges Co.	3,125,000	.1070	102%
310	1979	Garden Apts., Alexandria City	3,214,928	.1110	110%
315	1980	Shopping Center, Fairfax Co.	3,765,341	.1093	132%
317*	1977	Garden Apts., Prince Georges Co.	4,000,000	.0810	86%
318	1978	Garden Apts., Prince Georges Co.	4,100,000	.1439	97%
319	1979	Garden Apts., Prince Georges Co.	4,128,173	.0962	98%
320	1975	Garden Apts., Fairfax Co.	4,190,700	.1359	155%
323	1977	Elevator Apts., Montgomery Co.	4,796,255	.0790	154%

* Financed under FHA 223(f) rehabilitation and refinancing program.

** Nominal price shown. No information available on terms of sale or NOI in first year of ownership.

ID	Year of Sale	Kind of Property and Location	Cash Equiv. Price	OAR	Assmt/ Sale
325	1980	Garden Apts., Fairfax Co.	4,871,282	.1316	124%
328*	1978	Garden Apts., Prince Georges Co	5,426,138	.0921	116%
330	1980	Office Bldg Complex, Fairfax Co	5,529,031	.1071	110%
335	1979	Garden Apts., Alexandria City	6,296,800	.1345	113%
340	1980	Office Bldg., Fairfax Co	6,593,267	.1121	154%
344	1979	Garden Apts., Prince Georges Co	6,726,848	.1457	88%
345	1976	Garden Apts., Fairfax Co.	6,735,450	.1161	102%
352	1979	Elevator Apts., Montgomery Co.	8,189,554	Neg.	208%
354	1979	Office Building, Montgomery Co	8,850,000	.0862	120%
355	1979	Office Bldg., Arlington Co.	8,857,450	.0593	128%
360	1978	Office Bldg., Montgomery Co.	10,729,000	.1025	80%
365	1976	Elevator Apts., Fairfax Co.	12,819,124	.0936	99%
375	1978	Office Bldg., Fairfax Co.	14,957,334	.0881	89%
385	1979	Elev. & Gdn. Apts., Prince Geo.	18,866,955	.0674	72%

* Financed under FHA 223(f) rehabilitation and refinancing program.

EFFECT OF FINANCING ON PRICE AND VALUE

WHAT CAN A 4-PERSON PARTNERSHIP PAY FOR A 10-YR. OLD, GOOD QUALITY APARTMENT COMPLEX UNDER 3 DIFFERENT SETS OF FINANCING TERMS ?

FACTORS CONSTANT IN ALL 3 ANALYSES:

- NET INCOME BEFORE R.E. TAXES STARTS AT $350,000 AND RISES ON A 4% SLOPE IN ACTUAL INFLATION $.
- R.E. TAX RATE = .0121; ASSESSED VALUE = SALE PRICE.
- DEPRECIABLE ASSETS = 85% OF PRICE, 25 YR. LIFE, 125% S/L D.B.
- NO MAJOR CAPITAL REPLACEMENTS IN NEXT TEN YEARS.
- RESALE PRICE 10 YEARS LATER = $3,662,000, CASH-TO-SELLERS
- OWNERS WILL REMAIN IN 50% FED. & 5.75% STATE INCOME TAX BRACKET DURING ALL 10 YEARS OF OWNERSHIP.
- OWNERS WANT 18% EQUITY YIELD (I.R.R.) AFTER INCOME TAX.
- 1978 TAX ACT GOVERNS INCOME, GAIN & ADD-ON TAXES.

VARIABLE FACTOR: FINANCING

1ST MTGE	$1,479,786 Asmd. @7½%, 17 More Yrs.	New $1,850,000 @ 13%, 30 Yr. Amort., Ballooning 10 Yrs.	None
2ND MTGE	$1,500,000 DPMM @6% Int. Only, 10 Yrs.	None	
PRICE/VALUE	$ 3 537 073	$ 2 527 098	$ 1 435 046
EQUITY CASH	557 287	677 098	1 435 046
AFTER-TAX CASH FLOW IN YEAR 1	$ 85 460	$ 88 738	$ 189 003
2	86 244	92 103	193 988
3	87 085	95 555	199 054
4	87 980	99 081	204 196
5	88 849	102 664	209 411
6	89 730	106 289	214 695
7	93 655	112 136	221 293
8	97 373	117 879	227 890
9	100 857	123 503	234 488
10	912 938	1297 106	2905 060
"O.A.R."	.0869	.1264	.2318

"Overall Rate" = Year 1 Net Income After R.E. Taxes ÷ Total Sale Price/Value

10/1980

3. Going concern value may be more relevant to an economic development loan. The public purpose of the loan subsidy is to create employment, improved physical environment, and the seeds of an economic base appropriate to redevelopment. In appraising the property for loan purposes the cash equivalency of fee simple title is not relevant if eventual delinquency on the loan gives the lender several options other than foreclosure. For example:

   a. assignment of business ownership as collateral permits transfer and sale of the going concern to better management.

   b. it could permit a change of use within constraints of the economic development program as a workout.

   c. it could look to additional forms of subsidy, such as applied to Section 8 rehab money as a deep subsidy applied to rescue of a delinquent moderate 236 subsidy program.

   d. Public purposes may create a monopoly for the facility to be appraised which provides a market price superior to fee simple title where it is not directly encumbered by long-term public priorities and commitments.

C. If the appraisal is for loan security, then the issue is whether similar nonmarket credit terms would be available to the next buyer. VA loans are assignable; economic development loans may be transferable with a change in management; subsidized rental housing loans may be undisturbed by default because of the assignability of control via transfer of partnership interests.

   1. The appraiser does not discount a purchase price of a home purchased with a shared appreciation mortgage. That is contingent interest for the lender.

   2. If a builder of condominiums buys down the loan of his customer, what are those points really worth? It depends on how long the buyer owns the property and is really an oblique form of a shared appreciation mortgage, is it not? Contingent interest for the borrower as well as the lender.

   3. Appraisers have generally overlooked cash equivalency arguments relative to the seller paying the points to buy down the loan for the buyer in VA loans. Similarly, it should be disregarded on financing through prior builders' commitments. Do you discount project unit values because he bought a FNMA commitment or hedged in the GNMA certificates market? After all, these costs are also included in the price and may be included in the resale price.

D. What is a point really worth? Refer to Exhibit 30A.

WHAT IS A POINT REALLY WORTH?

Daniel J. O'Connell

Many real estate professionals compile lists of personal rules of thumb. Ideally these rules of thumb serve to reduce effort and raise productivity in daily decision making—with minimal sacrifice in accuracy and quality.

One rule-of-thumb that seems to have made a lasting impression is that the payment of one loan point[1] should equate to an ⅛ percent reduction in the loan interest rate. For example, a borrower choosing between a 12-¾ percent loan with 2 points from ABC Mortgage Company and a 13 percent loan without points from the XYZ Mortgage Company would be indifferent as to the choice.[2] According to the rule-of-thumb, the two-point charge supposedly equates to the ¼ percent (⅛ percent per point) difference in interest rates. However, that may not be a valid rule, as can be seen when comparing the points and no-points alternatives.

A purchaser buys a house to be financed with a $100,000, 30-year loan. Financing is available from ABC Mortgage at 12-¾ percent plus 2 points ($2,000), and is also available from XYZ Mortgage at 13 percent with no points. This is illustrated in Table 1.

Assume the borrower plans to hold the property for a period of only two years at which point the balance of the loan will be paid. The difference in payments between the two loans is $468.00 for the two-year period, favoring the lower interest rate loan:

2-year payments @ 13%	$26,548.80
2-year payments @ 12-¾%	−26,080.80
Payment savings with 12-¾% loan	$ 468.00

The difference in remaining balances upon the loan pay-off must also be taken into account. Because the 12-¾ percent loan will amortize faster, it will have a remaining balance that is $34.71 lower than the 13 percent loan at the end of the two years. Adding this balance to the $468.00 in reduced payments results in a savings of $502.71 over the two-year life of the loan:

Payment savings with 12-¾% loan	$468.00
Additional loan reduction	+ 34.71
Total savings with 12-¾% loan	$502.71

The borrower, if choosing the 12-¾ percent loan, saves $502.71 in payments and additional amortization over the 13 percent loan, but has paid $2,000 to do so. Obviously, the two-point fee does not always equate to the corresponding ¼

Table 1	ABC Mortgage Co.	XYZ Mortgage Co.
Loan	$100,000	$100,000
Interest rate	12-¾%	13%
Monthly payments	$1,086.70	$1,106.20
Annual payments	$13,040.40	$13,274.40
Points	2	0
$ Point charge	$2,000	0

[1] As used here, a point is defined as an additional up-front charge made by a lender and paid by a borrower, that enables a loan to be made at a lower interest rate. A point is computed as 1% of the loan amount. More than one point may be charged, with each point creating a corresponding decrease in the interest rate.

[2] Assuming the borrower has the available funds to pay the points.

Table 3

Discounted, after-tax payment savings with 12¾% loan

Year	1 Payment Difference	2 Tax Savings On 13% Loan	3 Annual After-Tax Payment Savings	4 Column 3 Discounted @ 8%	5 Cumulative Payment Savings
1	$234.00	$92.74	$141.26	$130.80	$ 130.80
2	234.00	93.26	140.74	120.66	251.46
3	234.00	93.82	140.18	111.28	362.74
4	234.00	94.41	139.59	102.60	465.34
5	234.00	95.02	138.98	94.59	559.93
6	234.00	95.56	138.44	87.24	647.17
7	234.00	96.31	137.69	80.34	727.51
8	234.00	96.95	137.05	74.04	801.55
9	234.00	97.62	136.38	68.22	869.77
10	234.00	98.25	135.75	62.88	932.65
15	234.00	100.49	133.51	57.26	1,160.99
20	234.00	97.34	136.66	54.27	1,350.33
25	234.00	77.38	156.62	22.87	1,475.26
30	234.00	12.91	221.09	21.97	1,584.75

Column 1 is the annual difference in payments between the two loans with the advantage to the 12¾% loan.

Column 2 is the annual savings in taxes attributable to the 13% loan due to additional interest payments.

Column 3 is the combined effects of the first two columns: Column 1 minus Column 2 = Column 3.

Column 4 is Column 3 discounted to the present at 8% per annum.

Column 5 is the cumulative total of Column 4.

Table 4

Discounted, after-tax pay-off and combined savings with 12¾% loan

Year	1 Pay-Off Difference	2 Column 1 Discounted @ 8%	3 Cumulative Payment Savings (Table 3, Col. 5)	4 Combined Savings
1	$ 16.65	$ 15.42	$ 130.80	$ 146.22
2	34.71	29.76	251.46	281.22
3	54.29	43.10	362.74	405.84
4	75.44	55.45	465.34	520.79
5	98.26	66.87	559.93	626.80
6	122.80	77.38	647.17	724.55
7	149.09	86.99	727.51	814.50
8	177.13	95.70	801.55	897.25
9	206.96	103.59	869.77	973.30
10	238.51	110.48	932.65	1,043.13
11	271.70	116.53	990.61	1,107.14
12	306.38	121.67	1,044.06	1,165.73
13	342.37	125.89	1,093.37	1,219.26
14	379.38	129.16	1,138.90	1,268.06
15	416.98	131.45	1,180.99	1,312.44
20	569.40	126.45	1,350.33	1,476.78
25	601.55	87.34	1,475.26	1,563.10
30	0	0	1,584.75	1,584.75

Figure A

Present value of borrower's after-tax savings with up-front point deduction (TABLE 4)

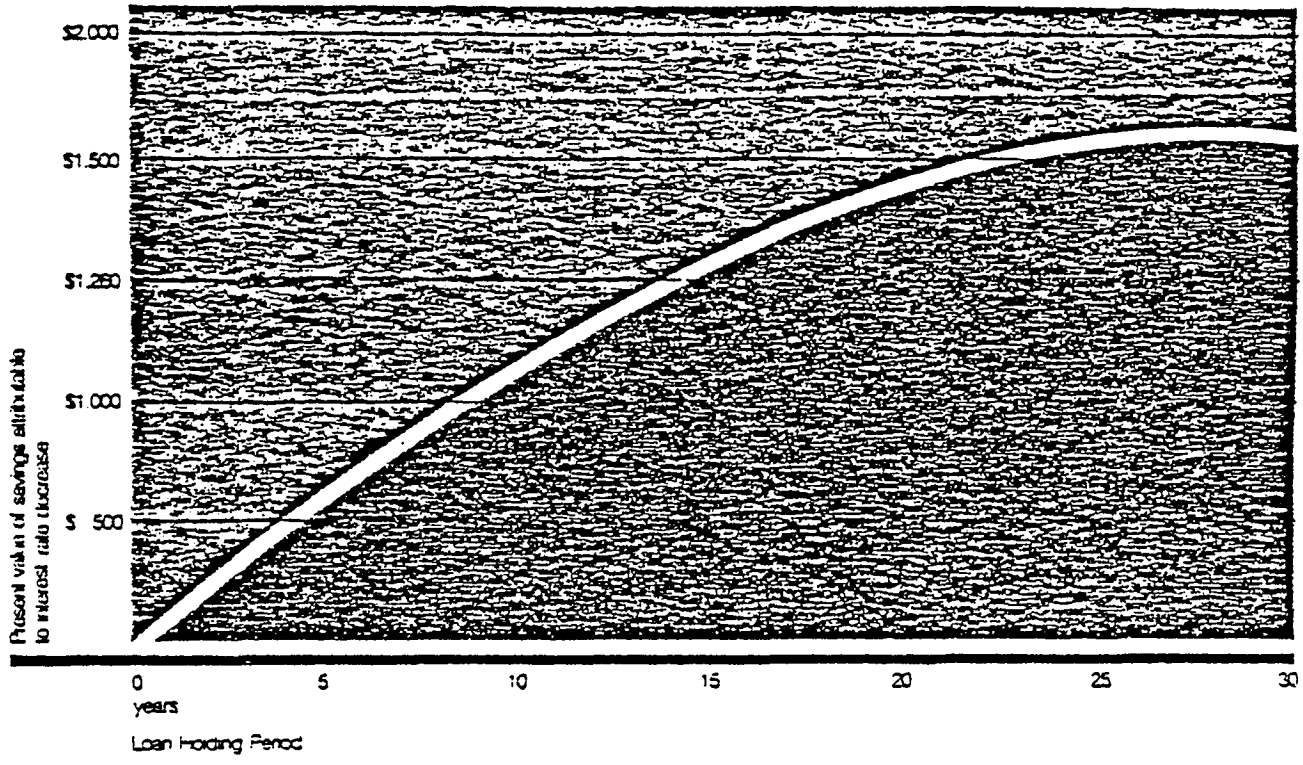
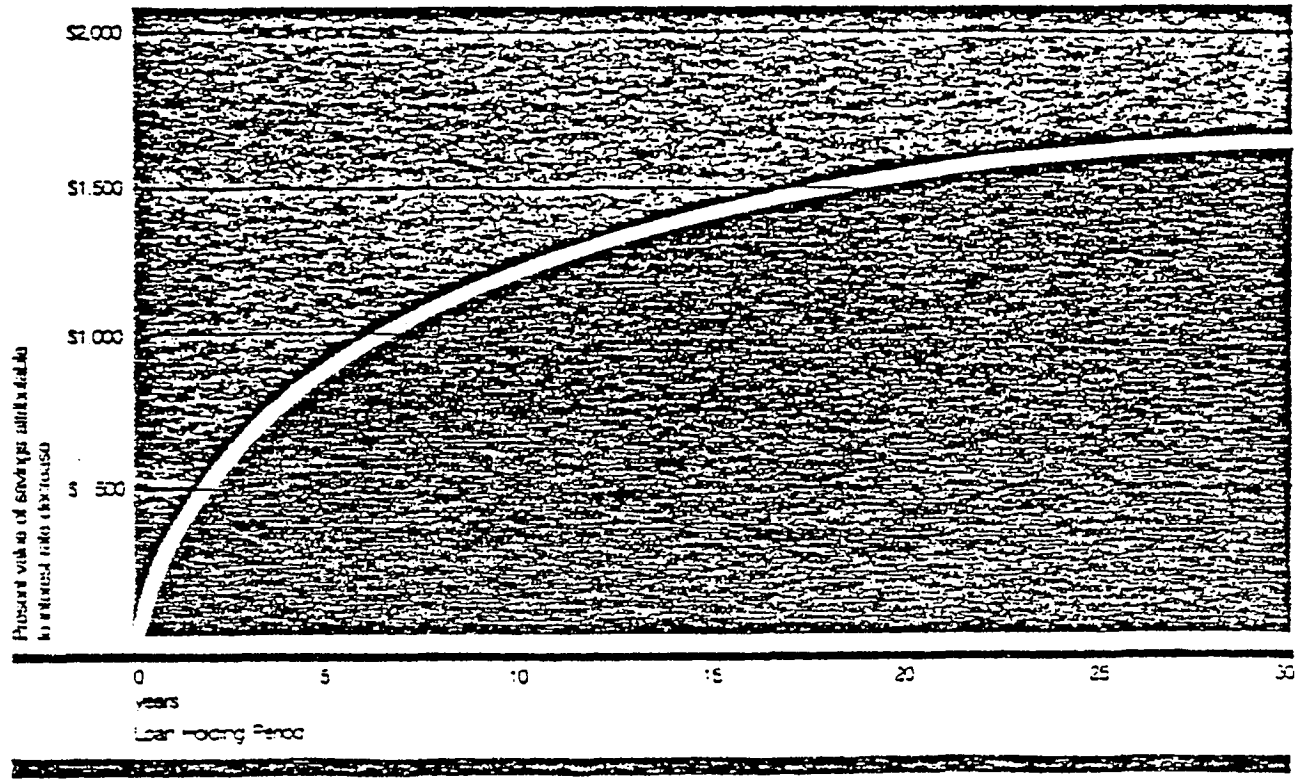


Figure B

Present value of borrower's after-tax savings with point charge added to basis



Example Problem: Cash Equivalent Price - Existing Mortgage plus Purchase Money Mortgage

Given the following information, determine the cash equivalent price of the transaction:

Sale Price	$1,000,000
Existing Mortgage (assumed)	Balance $682,052 Mo. Pmt. $6,039.20 Contract rate 8.5% Expired Term 6 years Remaining Term 19 years
Purchase Money Mortgage	$200,000 @ 10% Amortization over 20 years, balloon in 10 years
Current Financing	14,5%, 20 year amortization with 10 year balloon

A. What is the equity investment?
B. What is the balance outstanding on the existing (assumed) mortgage in 10 years?
C. What is the payment on the PMM?
   What is the balance outstanding EOY 10?
D. What is the cash equivalent price of the transaction?

Suggested Solution - II
Existing Mortgage plus PMM

A. $117,948

B. $454,781

C. $ 1,930
   $146,049

D. Equity	$117,948
Assumed Existing Mortgage	
PW $6,039.20, 120 mos. @ 14.5%	$381,535
PW $454,781, EOY 10 @ 14.5%	
Purchase Money Mortgage	
PW $1,930, 120 mos. @ 14.5%	$121,931
PW $146,049, EOY 10 @ 14.5%	$ 34,558
Total (Cash Equivalent Price)	$763,581

* Courtesy of Byrl Boyce

IX. PROBLEM (CASH EQUIVALENCY)*
*Courtesy of A. Robert Parente, SREA, MAI.

An income producing property (special purpose) was resold by the Midland National Bank on a "workout." The terms of the sale were as follows:

Sale Price:	$1,178,808, no cash by purchaser, i.e., 100% debt financing
Terms of Financing:	First year - interest only at a rate of 4-1/2% and payable monthly
	Second year - interest only at a rate of 6% and payable monthly
	For the next 23 years - principal and interest at 8-1/2%, payable monthly

The property (a 12,000 sq. ft., 3-year old restaurant building) was purchased on November 10, 1977 for $1,178,808. Typical terms of financing at that time (11/77) were 9-3/4% interest for 25 years on a 75% loan-to-value ratio. It is estimated that equity required a 12-15% return.

Questions:

A. What are the monthly interest costs in years 1 and 2?

B. What is the constant on the amortized portion of the mortgage?

C. What is the monthly payment on the mortgage?

D. What is the unadjusted sales price per square foot for use in the DSC approach?

E. What is the cash equivalent price assuming 100% financing were typical in the market?

F. What is the cash equivalent price assuming an equity yield requirement of 12% 15%?

G. What is the adjusted sales price per square foot under each of the conditions set forth above?

Suggested Solution - IX
Problem (Cash Equivalency)

A. Year 1: $4,420.53
Year 2: $5,894.04

B. f = .09913

C. $9,737.97

D. $1,178,808 ÷ 12,000 = $98.23/sq. ft.

E. PW i Costs Year 1 @ 9-3/4% = $ 50,347.92
PW i Costs Year 2 @ 9-3/4% = 60,918.28
PW Amortization payments
Years 3-25 @ 9-3/4% = 881,198.63

Cash Equivalent Price
(100% Financing) = $992,464.83*

*$186,343.17 less than face value of note

$992,464.83 ÷ 12,000 = $82.71/sq. ft.

F. Discount Rates given Y = 12%, Y = 15%, m = 75% i = 9.75%

	Y = 12%		Y = 15%	
Mortgage	.75 x .0975	= .073125	.75 x .0975	= .073125
Equity	.25 x .12	= .03	.25 x .15	= .0375
Discount Rate (r)		= .103125	Discount rate (r)	= .110625

	PWCF @ 10.3125%	PWCF @ 11.0625%
Year 1	$ 50,198.33	$ 49,999.88
Year 2	60,399.42	59,715.07
Years 3-25	835,796.73	780,188.86
	$946,394.48**	$889,903.81***

$232,413.52 below face *$288,904.19 below face

G. $946,394.48 ÷ 12,000 = $78.87/sq. ft.

$889,903.81 ÷ 12,000 = $74.16/sq. ft.

* Courtesy of Byrl Boyce

EXHIBIT 33

CASH EQUIVALENCY EXAMPLE

NAKOMA HEIGHTS
168 APARTMENT UNITS
SOLD NOVEMBER 1, 1979
NOMINAL SALES PRICE $3,450,000

A. One appraisal reviewed recently contained the following summary analysis. It is used as it probably parallels the Madison Assessor's Office perception of the transaction:

Date	Price	Gross	Net	GIM	Income Expense	S.P. Unit	OAR
7/79	$3,450,000	$449,249	$196,548	7.68	56.3	$20,536	5.7

B. Cash Equivalency - Monthly payment differential

If 25% down with 75% L/V at 10.55 for 25 years

Down	862,000
Mortgage	$2,588,000
	$3,450,000

Monthly payment $24,528; Annual payment $294,335

1979 - 4/80

Conv. Mortgage	$294,335
L.C. (9.25)	272,875
	$ 21,460/12 = $1,788 (A)

4/80 - 4/81

$2,950,000				Conv. Mortgage	$294,335
250,000		L.C.	=		249,750
$2,700,000	X	.0925			$ 44,585/12 = $3,715 (B)

4/81

$2,700,000				$294,335
250,000				226,625
$2,450,000	X	.0125		$ 67,710/12 = $5,643 (C)

NET PRESENT VALUE UNDER
L.C. FINANCING AND BALLOON PAYOUT
ACCORDING TO CONTRACT ON 12/31/85

	1979	1980	1981	1982 - 84 4 years
Down	$500,000	$250,000	$250,000	
Payment	3,576 (2A)	5,364 (3A)	11,145 (3B)	$ 67,710 (12C)
	$503,576	33,435 (9B)	50,787 (9C)	
		$288,799	$311,932	
			Balance	2,450,000
				$2,517,710

NET PRESENT VALUE CONVENTIONAL LOAN

	1979				
Down	$862,000				
Payment	--			Balance	2,404,022

Cash year 1	$503,576	$288,799	$311,932		
		.884666	.796455		
Cash year 2	255,491	$255,491			
Cash year 3	248,440		248,440		
Cash year 4	48,551			$67,710	
Cash year 5	43,710			67,710	
Cash year 6	39,351			67,710	
Cash year 7	$1,317,332				$2,517.710
	$2,456,451	Total Cash Equivalency			
		(Versus $3,450,000 nominal selling price)			

INCOME PREPORTED	GROSS INCOME	$499,249
(Contract)	NET INCOME	196,548

MARKET RENT LEVELS

At least gross	$450,000
Less 40% expense	180,000
NOI	$270,000

$$OAR = \frac{270,000}{2,456,451} = .109915$$

$$SP/Unit = \frac{2,456,451}{168} = 14,622$$

1. Most probable price always requires a statement as to the financial terms which are a condition of effective demand at that price. Fair market value definition is sufficiently ambiguous to require a statement of financial terms as a qualification on conclusion.

2. In practice you ignore points paid by the seller in a VA loan. To predict the most probable price, why not ignore points paid by the seller for a conventional loan? For loan security the lender is interested in the most probable price at which it will sell or whether the spread between probable price and fair market value will be covered by private mortgage insurance. In the latter case the appraiser could provide both numbers if asked.

3. Only the assessor is locked into cash equivalent fair market value!

E. The mechanics of cash equivalency values come into play where income properties are sold subject to non-market financing or for purposes other than income investment, such as syndication or condominium conversion. Professors Byrl Boyce and William Kinnard have prepared an excellent half-day presentation on cash equivalencies. The cases in Exhibits 31 and 32 are from their seminar and are suggestive of the mechanics of cash equivalency due to non-market financing.

V. The fair market value appraisal for tax assessment of subsidized, rental housing is a very frustrating experience for both the assessor and the ownership position. None of the components of value are what they seem to be.

A. It should be noted that 221 d3 and d4 and 236 projects involve subsidy of the interest rate only, while Section 8 recognize the damage done by inflati-n to cost to construct and operating expenses, so that it subsidizes the total project.

1. Section 8 was intended to subsidize conventionally financed apartments within a larger project, thus avoiding a ghetto of subsidized projects and permitting the depth of subsidy to vary; government would pay the difference between fair market rents and 25% of eligible tenants income.

2. The legislation included instructions that the subsidy would cover full taxes and utilities, presuming taxes would be similar to non-subsidized development pegged at prevailing market rents. It was an operating subsidy program with no specific relationship to financing.

3. The 1974 legislation did say that if the Section 8 contract was used as collateral to obtain financing, HUD had the right to approve financing and refinancing.

4. Three factors precluded the original concept - rising interest rates in the conventional market, the evolution of HUD prerogatives for auditing, management, and tenant selection or eviction, and finally the operating procedures of state housing finance agencies and GNMA tandem plans which provide virtually all of the financing.

Exhibit 34

WHFA FORM NO. #100
Revised 1/19/77
Page 1 of 4

Wisconsin Housing Finance Authority

I. GENERAL INFORMATION

1. Development Name: Woodview Park
2. Development Sponsor: Munz Investment Real Estate, Inc.
3. Development Location: Tyrell Ave. & Geneva St. (Street)
   Delavan, (City) Walworth (County)
4. (x) Feasibility
   ( ) Firm
5. Type of Mortgagor:
   (X) L.D.
   ( ) N.P.
6. (X) New Construction
   ( ) Rehabilitation
7. Permanent Mtg. Interest Rate 7.5%
8. Construction Financing: XX WHFA
   ( ) Conventional
9. Type of Development. . . . . No. of Units. . . . . No. of Stories
   E - 3 Story
   F - 2 Story

(X) Low Rise (1-3 stories)	84 Apt. Units	6 T.H. Units	F - 2 Story
	____ Duplex Units	____ S.F. Units	
( ) Mid Rise (4-6 stories)	____ No. of Units		____
( ) High Rise (7 stories and over)	____ No. of Units		____

10. Accessory Buildings: (No. and type) None
11. Total Number of Buildings: Three
12. Total Number of Units: 90 (Family 22 ; Elderly 68 ; Handicap ____)
13. Total Number of Units: 90 Revenue; ____ Non-Revenue
14. Density: 20 Units Per Acre
15. Building Information: Structural System Wood frame w/exterior & interior masonry
    Exterior Finish Masonry /bearing walls
    Floor System Wood
16. Gross Floor Area (Including Basement and Common Areas) 85,600 Sq. Ft.
17. Net Rentable Floor Area: 53,396 Sq. Ft.
18. Number of Parking Spaces:
    34 Elderly
    44 Family
19. Parking Ratio:
    1/.87

II. AMENITIES

X	Range (~~Gas~~ Electric)
X	Refrigerator
X	Air Conditioning (Sleeve Only)
____	Air Conditioning (Sleeve Unit)
____	Central Air Conditioning
X	Kitchen Exhaust Fan
X	Central Laundry Facilities
X	Unit Laundry Facilities
X	Disposal
____	Dishwasher
X	Carpet
X	Drapes
X	Shades
X	Rods
X	Common Area Furnishings
X	Tot Lot
____	Other (Specify)

III. SERVICES

	Included in Rent Yes	No
Heat		
Gas/Hot Water	(X)	( )
Gas/Forced Air	(X) 3Bdr.	( )
Electric	( )	( )
Hot Water		
Gas	(X)	( )
Electric	( )	( )
Unit Electric (Lights, Cooking, etc.)	(X)	( )
Water	(X)	( )
Other Fuel (Specify)		
____	( )	( )
____	( )	( )
____	( )	( )

IV. RENT SCHEDULE

No. of Units	Type	Bdrms	Size by Sq. Ft. Net	Gross	FMR	Contract Rent	Utility Allowance
67	E -L.R.	1	500	546	$271	$258.10	$14G, $4E
1	E -L.R	2	800	860	$348	$278.84	$20G, $8E
16	W- L.R.	2	820	875	$293	$278.84	$20G, $8E
6	T.H.	3	996	1080	$381	$372.21	$35G,$12E

Gross Annual Contract Rent - $ 291,194

Gross Annual Contract Rent & Utility Allowance - - - - - - - - - - - - - - - - $ 314,762

V. EQUITY CALCULATION

1. Total Replacement Cost - - - $ 2,212,267
2. Mortgage Amount- - - - - - - $ 1,991,040
3. BSPRA - - - - - - - - - - - $ 192,737
4. BSPRA & Mtg. Amount - - - - $ 2,183,777
5. Equity Cash (Line 1 minus Line 4) - - - - $ 28,490

VI. INCOME COMPUTATION

1. Gross Annual Income (Contract Rent) - - - - - - $ 314,762
2. Vacancy (5 %) - - - - - - - $ 15,738
3. Effective Gross Income - - $ 299,024
4. Debt Service (7¼ %) - - - $ 157,229
5. MHFA Service Fee (½ %)- - $ 9,955
6. Total Operating Expenses & Taxes - - - - - $ 118,568
7. Return on Equity- - - - - - $ 13,274

VII. SETTLEMENT REQUIREMENTS - INITIAL CLOSING

1. Cash
   Equity Cash - - - - - - - - $ _____
   Construction Adjustments- - $ _____
   Off-Site- - - - - - - - - - $ _____
   Completion Assurance- - - - $ _____
   Total Cash Requirement - - $ _____

2. Letter of Credit
   Construction Adjustments- - $ _____
   Off-Site- - - - - - - - - - $ _____
   Completion Assurance- - - - $ _____
   Total Letter of Credit Requirement - - - - - - - - $ _____

3. Total Cash & Letter of Credit Requirement - - - - $ _____

4. Bonus
   Completion Assurance- - - - $ _____
   Off-Site- - - - - - - - - - $ _____

VIII. RECONCILIATION

1. ACC Authorization - - - - - - - - - $ _____
2. Tenant Payments - - - - - - - - - - $ _____
3. Expected HUD Contributions- - - - - $ _____
4. Total Revenue - - - - - - - - - - - $ _____
5. Total Expenses- - - - - - - - - - - $ _____

IX. REPLACEMENT COST AND MORTGAGE

A. CONSTRUCTION CONTRACT

		Per Unit	Total	
1.	STRUCTURES:			
	1a. Apartments	$ 15,162	$ 1,273,600	
	1b. Townhouses	$ 23,000	$ 138,000	
	1c. Duplexes	$	$	
	1d. Single Family	$	$	
	1e. Other Buildings	$	$	
	1f. TOTAL STRUCTURES	$ 15,684	$ 1,411,600	$ 1,411,600
2.	LAND IMPROVEMENTS:			
	2a. Usual (landscaping paving, etc)	$ 1,433	$ 129,000	
	2b. Unusual	$	$	
	2c. TOTAL LAND IMPROVEMENTS	$ 1,433	$ 129,000	$ 129,000
3.	GENERAL REQUIREMENTS (___%)			$ 35,550
4.	GENERAL OVERHEAD (_____%)			$ 28,935
5.	BOND PREMIUM/LETTER OF CREDIT FEE			$ 16,123
6.	OTHER Tyrell Ave. Improvements-Eng. Est. $70$75000÷122 D.U.'s=$614 per D.U. X 90 =			$ 55,260
7.	TOTAL CONSTRUCTION CONTRACT			$ 1,676,468
	7a. Per Unit Construction Contract	$ 18,627		
8.	ARCHITECTURAL FEES			
	8a. Design (____%)		$ 46,000	
	8b. Supervision (_____%)		$ 14,000	
	8c. TOTAL ARCHITECTURAL FEES			$ 60,000
	8d. Per Unit Architectural Fees	$ 666.67		
9.	TOTAL CONSTRUCTION CONTRACT & ARCHITECTURAL FEES			$ 1,736,468
10.	CONSTRUCTION INTEREST (10 mo.@ 8 %) for 1 & 2 Bdrms. 8 mo. @ 8% for 3 Bdrms.		$ 65,139	
11.	CONSTRUCTION TAXES		$ 13,875	
12.	CONSTRUCTION INSURANCE		$ 3,020	
13.	TITLE & RECORDING		$ 2,366	
14.	WHFA PROCESSING FEE (2.5 %)		$ 49,776	
15.	LOAN LOSS RESERVE (2.5%)		$ 49,776	
16.	LEGAL ($ 4950) & COST CERTIFICATION ($ 2,000)		$ 6,950	
17.	TOTAL CARRYING CHARGES & FINANCING FEES			$ 190,902
	17a. Per Unit Carrying Chgs. & Fin. Fees	$ 2,121		
18.	TOTAL (Lines 9 + 17)			$ 1,927,370
19.	3SPRA			$ 192,737
20.	LAND			$ 92,160
21.	TOTAL REPLACEMENT COST (Lines 18 + 19 + 20)			$ 2,212,267
	21a. Per Unit Replacement Cost	$ 24,581		
22.	MORTGAGE (90 %)			$ 1,991,040
	22a. Per Unit Mortgage	$ 22,123		

I. OPERATING EXPENSES

1.	REAL ESTATE TAXES:	Est. assessed Mkt. Value	Per Unit	Sub-Total
		1 Br	$17,000 x 68 x 67% =	$774,520
		2 Br	$19,000 x 16 x 67% =	$203,680
	1a. Est. Assessed Val. 67 %	3 Br	$26,000 x 6 x 67% =	$104,520
	@ $ 33.37 per $1000		X $1,082,720	$ 36,672
	1b. Per Unit R.E. Taxes		$ 408	
2.	SERVICE ACCOUNTS:			
	2a. Fuel (Htg. & Dom. Hot Water)		$ 198.40	$ 17,856
	2b. Electric		$ 63.47	$ 5,712
	2c. Water - Sewer		$ 45.07	$ 4,056
	2d. Garbage & Trash Removal		$ 27.00	$ 2,430
	2e. Other - Advertising		$ 3.00	$ 270
	2f. TOTAL SERVICE ACCOUNTS			$ 30,324
	2g. Per Unit Service Accounts		$ 336.94	
3.	INSURANCE			$ 4,062
4.	AUDIT			$ 1,080
5.	LEGAL			$ 540
6.	MANAGEMENT:			
	6a. Fees			
	6b. Central			$ 6,756
	6c. On-Site			$ 9,192
	6d. Administrative			$
	6e. TOTAL MANAGEMENT			$ 15,948
	6f. Per Unit Management		$ 177.20	
7.	MAINTENANCE:			
	7a. Caretaker Salary			$ 6,480
	7b. Other Salaries			$
	7c. Contract Services			$ 4,998
	7d. Supplies			$ 2,700
	7e. Other - Repair Services			$ 7,170
	7f. TOTAL MAINTENANCE			$ 21,348
	7g. Per Unit Maintenance		$ 237.20	
8.	REPLACEMENT RESERVE			$ 8,594
9.	TOTAL OPERATING EXPENSES (Lines 1a + 2f + 3 + 4 + 5 + 6e + 7f + 8)			$ 119,568
10.	DEBT SERVICE			$ 167,183
	10a. Per Unit Debt Service		$ 1,857.59	
11.	RETURN ON EQUITY			$ 13,274
12.	TOTAL OPERATING EXPENSES, DEBT SERVICE & RETURN ON EQUITY (Lines 9 + 10 + 11)			$ 299,025

WISCONSIN HOUSING FINANCE AUTHORITY

WHFA Form No.
Page 1 of 1

Date: 5/12/77

Name: Munz Woodview Park Assoc.

CONTRACTOR'S and/or MORTGAGOR'S COST BREAKDOWN (SCHEDULES OF VALUES)

Project No.: 214

Name of Project: Woodview Park

Location: Delavan Wis

This form represents the Contractors and/or Mortgagors firm costs and services as a basis for disbursing dollar amounts when advances are requested.

DIV	TRADE ITEM	COST	TRADE DESCRIPTION
2	Excavating & Backfill	43438	
3	Concrete	95457	
4	Masonry	147925	
5	Metals	10638	
6	Rough Carpentry	147688	
6	Rough Carpentry Labor	94282	
6	Finish Carpentry	23157	
6	Finish Carpentry Labor	40094	
7	Waterproofing	54007	
7	Insulation	24400	
7	Roofing	20032	
7	Sheet Metal	16175	
8	Doors	47500	
8	Windows	13063	
8	Glass	12282	
9	Lath & Plaster	—	
9	Drywall	93050	
9	Tile Work	7250	
9	Acoustical	4600	
9	Wood Flooring	—	
9	Resilient Flooring	4025	
9	Painting & Decorating	17625	
10	Specialities	5938	
11	Special Equipment	6563	
11	Cabinets	38157	
11	Appliances	43900	
12	Blinds & Shades, Artwork	9325	
12	Carpets	45600	
13	Special Construction	—	
14	Elevators	24911	
15	Plumbing & Hot Water	122000	
15	Heat & Ventilation	125073	
15	Air Conditioning	1000	
16	Electrical	149777	
	Accessory Structures	4000	
	TOTAL STRUCTURE(S)	1428623	
2	Earth Work	11250	
2	Site Utilities	16406	
2	Roads & Walks	30720	
2	Site Improvements	4000	
2	Lawns & Planting	34964	
2	Unusual Site Condition	55260	
	TOTAL LAND IMPRVTS.	152600	
	TOT. STRUCT. & LAND IMPRVTS.	1581223	
1	GENERAL REQUIREMENTS	35500	
	SUBTOTAL (Lines 41 and 42)	1616723	
	BUILDER'S OVERHEAD	28935	
	BUILDER'S PROFIT	—	
	SUBTOTAL (Lines 43 thru 45)	1645658	
	OTHER FEES		
	BOND PREMIUM	16123	
	TOTAL FOR ALL IMPROVEMENTS	1661781	
	Builder's Profit paid by means other than cash		
	TOTAL FOR ALL IMPROVEMENTS LESS LINE 52		

NONRESIDENTIAL AND SPECIAL EXTERIOR LAND IMPROVEMENT (costs included in trade item breakdown)

DESCRIPTION	EST. COST
TOTAL $	

OFFSITE COSTS (costs not included in trade item breakdown)

DESCRIPTION	EST. COST
TOTAL $	

DEMOLITION (costs not included in trade item breakdown)

DESCRIPTION	EST. COST
TOTAL $	

Mortgagor: Munz Woodview Park Assoc. By ____ Date 5/12/77

Contractor: Munz Investment Bill Cook Inc. By ____ Date 5/12/77

WHFA ____ Date ____

3/6/75

B. Fair market rent (FMR) has nothing to do with rents from the marketplace for the specific units in question. Instead, they are established by HUD at a level which is expected to justify construction costs in a particular locale; if the FMR's don't work, deviations as high as 10% upward are premitted, but they are indexed to HUD estimates of cost to construct rather than community norms.

C. Using the FMR's for the unit mix of a proposed project, the developer works through the 2013 form (See WHFA, Exhibit 34) backwards to arrive at a capital budget available for hard construction costs; he typically buys his land at a value not to exceed 90% of the HUD acceptable unit cost of land. The 2013 budget is then a tentative maximum but actual project costs are audited and any savings are used to adjust the maximum mortgage commitment. The 2013 does not recognize points paid for the permanent loan or overruns on cost, but the audit doesn't recognize rents collected prior to the audit certification date. With adroit phasing these costs may be offset with revenues during a period when most operating costs are funded as indirect costs of construction.

D. The cost approach to value is distorted by HUD's specifications, lengthy procedures, hidden profit centers in fixed allowances for design, supervision, bonding, overhead, etc. Space allocations within the project may reflect social purposes such as meeting rooms, medical centers, craft shops, and infirmary. Moreover most projects are multiple site, multiple buildings, mixed units where perhaps the FMR on elderly will subsidize inadequate FMR's on family units.

E. Comparative operating budgets for 100-unit one bedroom project is provided in Exhibit 35.

F. The market comparison approach is inoperative because of constraints on resale inherent in the mortgage and management contracts, the tax trap of accelerated depreciation, the loss of depreciation benefits to the second owner, the emphasis on profit centers for construction rather than management, the rent controls following construction, and the fact that conversion to a conventional market rent structure in the early years would mean rents below the government level with interest rates higher than government level, thus forcing a resale price at a capital loss to the sellers.

G. In short, it will be almost impossible to find or simulate a sale at fee simple title. Rather a transfer would come with all the liens and contractual obligations because the owners are not the controlling powers; HUD and the finance authorities are. Owners may change but the contractual pyramid will remain in place.

1. The Legislature recognized higher costs and higher risks could not be funded up front by direct subsidy so what has emerged is a series of mandatory management and operational reform and a series of initial and delayed profit centers, augmented by favorable tax rules, and automatically guaranteed.

2. Three groups of restrictions are the 1974 Act, complimentary administrative rules, and financing restrictions.

3. Section 8 developments are built to conform to the regulatory mold rather than market or merchandising feasibility. Size 10-15% less, finishes are utilitarian, secondary locations, etc. for inferior products.

4. The inferior product may cost more because of mandatory union wages, mandatory bonding and escrows, and non-competitive bidding to the degree that FMR's permit capital cost inflation. These costs can only be amortized by maintaining Section 8 agreements or conversion to tenant ownership. HUD is not encouraging the latter and there is no financing available that would place the tenants as owners at the same level of occupancy costs.

H. As a practical matter revenue could be subsidy payments plus actual payments from the tenants. But the subsidy payment includes a payment for the right to set rents, tenant eligibility standards and cash dividends to the investor - in short, a defeasible partial transfer of the fee to the public. Is that parallel to a lease or an easement in gross to the public?

1. As a practical matter the assessor can use the annual audited financial statement of the Section 8 project.

2. Gross rent equals 1/5 the ACC contract amount plus actual receipts from tenants.

3. Operating expenses should be used for the actual operations because they are different for subsidized projects (See Exhibit 36).

Exhit 35

COMPARATIVE OPERATING BUDGETS FOR 100 ONE-BEDROOM UNITS

	Section 8		Conventional High Range		Conventional Low Range	
Rent	342,000	285/U	276,000	230/mo	240,000	200/mo
Management	15,800	158/yr	16,200 6%	162/yr	12,000 5%	120/yr
Maintenance	20,300	203/yr	18,000	180/yr	10,000	100/yr
Services/ Heat	27,000	270/yr	24,000	240/yr	22,000	220/yr
Insurance	6,850	68/yr	6,000	60/yr	4,000	40/yr
Audit/Legal	900	9/yr			-0-	
Replacement Reserve	9,200	92/yr			-0-	
Equity Return	14,000	140/yr	-0-	-0-		
Taxes*	51,600		42,960		37,200	
Mortgage	2,150,000		1,532,567		1,405,125	
Debt Service	184,834		168,840		154,800	
Total Replacement Cost	2,391,000		1,803,020		1,653,088	

*Based Upon Unadjusted Total Costs

Exhibit 36

Assessment Valuation of Section 8
Using Income Approach

Gross Receipts =	$142,000	Collected from tenants
	190,000	Collected from ACC contract for five years totalling $950,000
Net Revenue	$332,000	
Vacancy deduction - none		ACC pays up to 60 days of vacancy and tenants pay only when occupying unit
Management fee	$ 15,800	
Maintenance	20,300	
Services/heat*	27,000	
Insurance	6,850	
Audit-legal	900	
Replacement reserve	9,200	
Net operating exp	$80,050	

Net operating income
8/4 real estate taxes $251,950 or $252,000
$252,000/.1374264 = 1,833,344 or 1,830,000
Capitalization rate = .126384 (25 year 12% mortgage)

(.126384 x .85) + (.15 x .05) + (.75** x .03 mill rate)

.1074264 .0075 .02225 =

Cap rate .1374264

*Be sure gross receipts include utility allowance; in some cases the tenant contribution is less than the utility bill.

** Local tax equalization rate

85% loan ratio x $1,830,000 x 126384 = 196,590
$\frac{\$252,000}{196,600}$ = 1.28 debt cover ratio

VI. Until now, cash equivalent prices have made adjustment for differences in fixed mortgage constants and predictable mortgage balances due at some future point in time. However, today we are faced with variable rate mortgages and a subsector of those called mortgage participation loans.

A. Variable rate mortgages should offer the appraiser little problem; indeed, it should help in that tricky allocation problem in terms of the source of value. Adjusting a sale price subject to an existing favorable mortgage is simply attributing value to the intangible element of finance rather than the productive asset of real estate.

1. To the degree that the variable rate mortgage removes the commodity speculation in money from the benefits of ownership, the more likely the price represents the value of the real estate rather than real estate plus an option on cheap money.

2. The form of the variable rate mortgage may cause cash throwoff to vary or net reversion on sale to vary. Hence, the necessity of doing a spread sheet if the appraiser has reason to believe rates will be adjusted upward or downward within the foreseeable future. In the absence of a rate notification or in the presence of a maximum rate limit, the appraiser does not have to speculate (capital budgeting theory would hold that the cap rate should be loaded for the third moment of the maximum interest variance to reflect the risk of alternative financial outcomes, but I doubt if appraisers are ready for that).

3. Lenders may modify debt cover ratios or mortgage investment guides like default points or loan-per-unit.

B. Various forms of equity participation represent contingent interest payments to the lender. The appraiser has no alternative but to do a spread sheet forecast year by year for five or ten years of the proforma income and resale possibilities of the property. Participation takes on a variety of forms:

1. Participation in gross rent, generally above a floor of normalized gross. (May reduce value for mortgage loan-to-ratio value purposes).

2. Participation in effective gross rent (set at a minimum level so that excessive vacancy penalizes the borrower; may exclude certain rental units or percentage rents or rents for services not funded by mortgage, i.e., a defined base effective rent).

3. Percentage of net operating income (certain expenses allowed in full while other discretionary expenses and vacancy allowance may be defined in amount or percentage of effective gross). Sometimes found on land leases and reduces net income available for debt service if land lease is unsubordinated.

4. Percentage of cash throwoff, after debt service and with defined priorities and allowable debt limits. Other restrictions may include mandatory reserves to be set aside before participation.

5. One of the above plus participation in refinancing surplus, net resale proceeds, or other capital transactions subject to a floor permitting recapture of equity capital and a ceiling for good fortune.

C. Some forms of equity participation are more subtle, such as the convertible mortgage which takes several forms:

1. A community shopping center costing $6 million to build and with a million in runaway construction interests can be sold for $7.3 million for $800-850,000 net operating income in the first five years. Lender provides $7.3 million for 11% interest only ten-year mortgage; in addition, he receives 50% of cash throwoff and whatever percentage of ownership is needed in the tenth year to provide overall 18% return.

2. An office building in San Francisco received 100% financing for construction and eight year balloon. In addition, the developer-borrower becomes a general partner with two limited partners, the land owner and the lender, each receiving some percentage of tax shelter, cash dividends, refinancing surplus or resale value and perhaps retaining first right of refusal as well.

3. In each case, the mortgage loan represents fee simple title while the interests above that represent entitlements to tax shelter, nonvested future interests, managements and contracting fees and marketing skills.

Howard Johnson -
Schedule of Projected Income and Expenses
For the Years Commencing May 1, 1974-78

Exhibit 4-6

Period	1974-75	1975-76	1976-77	1977-78	1978-79
Occupancy (163 rooms)	68%	70%	71%	72%	73%
Revenue:					
Available Rooms	59,463	59,400	59,400	59,400	59,400
Occupied Rooms	40,463	41,580	42,174	42,768	43,362
Rate Average[1]	18.89	19.00	19.50	20.00	20.50
Room Revenue	764,450	790,020	822,390	855,360	888,920
Public Room Rental[2]	7,116	7,200	7,200	7,200	7,200
Restaurant Rental[3]	31,500	31,500	31,500	31,500	31,500
Telephone[4]	(14,345)	(14,795)	(15,375)	(15,960)	(16,560)
Other Income[5]	6,113	6,165	6,405	6,650	6,900
Room Service Commissions[6]	1,635	1,850	1,920	1,995	2,070
Total Revenue	796,468	821,940	854,040	886,745	920,030
Operating Expenses:					
Payroll[7]	166,180	164,390	170,808	177,349	184,006
Housekeeping[8]	33,160	33,700	34,200	34,700	35,200
Adm. & Gen.[9]	83,150	85,690	89,250	92,665	96,145
Adv. & Promotion[10]	82,250	82,735	84,704	86,352	88,030
Utilities[11]	66,500	76,030	79,000	82,025	85,100
Repairs & Maintenance[12]	16,550	13,500	13,500	13,500	13,500
Total Operating Expenses	447,790	456,245	471,462	486,591	501,981
House Profit	348,678	365,695	382,578	400,154	418,049
Misc. Interest Income	720	720	720	720	720
Gross Profit	349,398	366,415	383,298	400,874	418,769
Less: Insurance	10,314	9,926	9,926	9,926	9,926
Land Rental[13]	7,680	7,680	7,680	7,680	7,680
Income to Furnishing[14]	64,000	64,000	64,000	64,000	64,000
Income before RE Taxes and Debt Service to Land and Buildings	267,404	284,809	301,692	319,268	337,163

Landmark Realty, Inc.

Notes to Exhibit 4-6

1. Rate Average:

   - The average room rate for the year ending April 30, 1975 was $18.89. This was a $.19 increase over the room rate for the period ending April 30, 1974, or about 1%. The increase was due in large part to standardizing room discounts for major clients and for functions requiring a large number of rooms.

2. Public Rooms:

   - For the year ending April 30, 1975 the total dollar volume was $7,116. In comparison, for the year ending December 31, 1974, the total volume was $6,854. Public room rental was not found to be related to the level of occupancy or total revenues, thus it is assumed to be fairly fixed in character.

3. Restaurant Rental:

   - The restaurant is leased to Howard Johnson's for a minimum rent of $31,500, plus 5% of the amount of gross receipts which exceeds 20 times the minimum rental.

4. Telephone:

   - Telephone revenues have averaged 3.4% of room revenues, compared with an industry average of 3.6% (Lodging Industry, by Laventhal, Krekstein, Horwath, and Horwath).
   - Annual equipment lease payment is $12,764.40.
   - Net losses have average 1.8% of revenues. With increased occupancy, losses should not exceed 1.5%, comparable to national averages in Laventhal, Krekstein, Horwath and Horwath.

5. Other Income:

   - Includes valet and laundry, vending sales, sundry sales, and 10% commission on banquet food sales. Vending has averaged 1/2 of 1% of total revenues. The remainder accounts for 1/4 of 1% of total revenues.

6. Room Service Commissions:

   - 2% commission on restaurant bills and room service charged through motel plus 20¢/room service ticket, thus variable with occupancy.

7. Payroll:

   - Actual and target results are 20% of total revenues.

8. Housekeeping:

- Averages have ranged from $33,157 (December 31, 1974 closing) to $33,775 (April 30, 1975 closing), or 4.06% to 4.27% of total revenues. Dollar amounts are fairly constant within a narrower range of occupancies.
- Includes commissions to travel agencies.

9. Administrative and General:

- For the year ending December 31, 1974 the total amount was approximately $82,750, or 10.45% of revenues. The totals are comprised of expenditures the majority of which are variable in nature.
- Includes a 3% fee for management services.

10. Advertising and Promotion:

Schedule

		1975-76
Outdoor Sign		
Sign Co.	$1625.50/mo.	
Advertising Co.	31.50/mo.	
Less: Howard Johnson's share	(275.00/mo.)	
Total	$1377/month X 12 =	$16,524
Promotions		1,500
Publications		7,200
Franchise Fee (5% of gross room receipts plus public room rentals)		39,537
Manager Expense and Promotion		3,475
Miscellaneous Advertising		2,500
Reservation Charge to Howard Johnson		12,000
Total		$82,736

11. Utilities:

- The total is comprised of four elements: electric bulbs, electric current, fuel, and water. The total for the year ending December 31, 1974 was $64,274 or 8.12% of total revenues.
- Interim rate increases by Gas and Electric commenced in June 1975. Electric increased 17.7% while fuel (gas) increased 7.33%. At present, additional proposed increased are being evaluated by the Public Service Commission which would become effective in 1976. Electric increases are proposed to be an additional 14.9% while gas is to increase 4.9%. Beyond 1976, increases are expected to be between 5% and 10% per year for both forms of energy.
- Utilities are not expected to exceed 9.23% of total revenues without a corresponding increase in room rates. Increases in utilities are expected to occur faster than any corresponding increase in room rates, thus it should be some time before the utility expense ratio will stabilize at approximately 9%.
- Year to date totals indicate the projections for 1975-76 are consistent with the above assumptions concerning the room revenue increase lag.

12. Repairs and Maintenance:

- Contracts

Plabocki Sign Repair Contract	$1,060
Westinghouse Elevator Contract	3,336
Pellitteri Wast Removal	738

- Actual for year ending December 31, 1974 was approximately $16,550.
- For the year 1975-76, the year to date totals indicate a decrease in expenditure. Such expenditures should remain fairly constant over the next five years.

13. Land Rent:

Monthly rental charges	$1000
Less: Recovery from leased property	(360)
Net land cost per month	640

14. Furnishings and Other Assets:

Furnishings and Equipment

Furnishings and Equipment	$251,120
Carpeting	60,490
Two Autos	9,480
Signs	9,967
Leasehold Improvements	5,778
Total per Audit	336,835

Factors Attributed to Furnishings

Rate of Return	9.0%
Recapture	10.0%
Personal Property Tax	4.5%

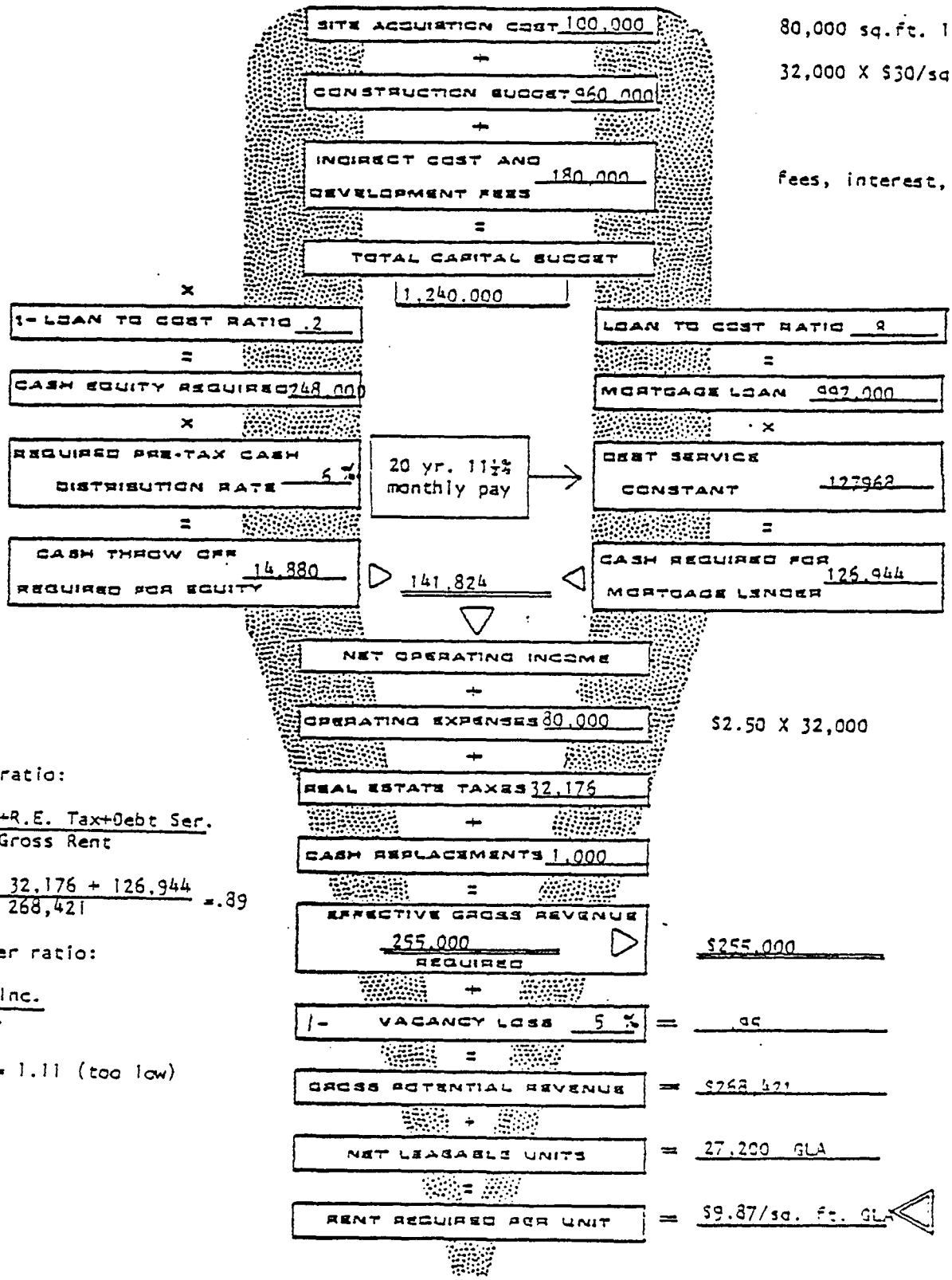
Income Equivalent of Recapture and Return to Equity

336,835 + 336,835(9% X 10 years) = 639,987

639,987 ÷ 10 = 63,999 or 64,000

EXHIBIT 1

LOAN TO COST RATIO APPROACH



Default ratio:

$$\frac{\text{Op. Exp.+R.E. Tax+Debt Ser.}}{\text{Gross Rent}}$$

$$\frac{80,000 + 32,176 + 126,944}{268,421} = .89$$

Debt cover ratio:

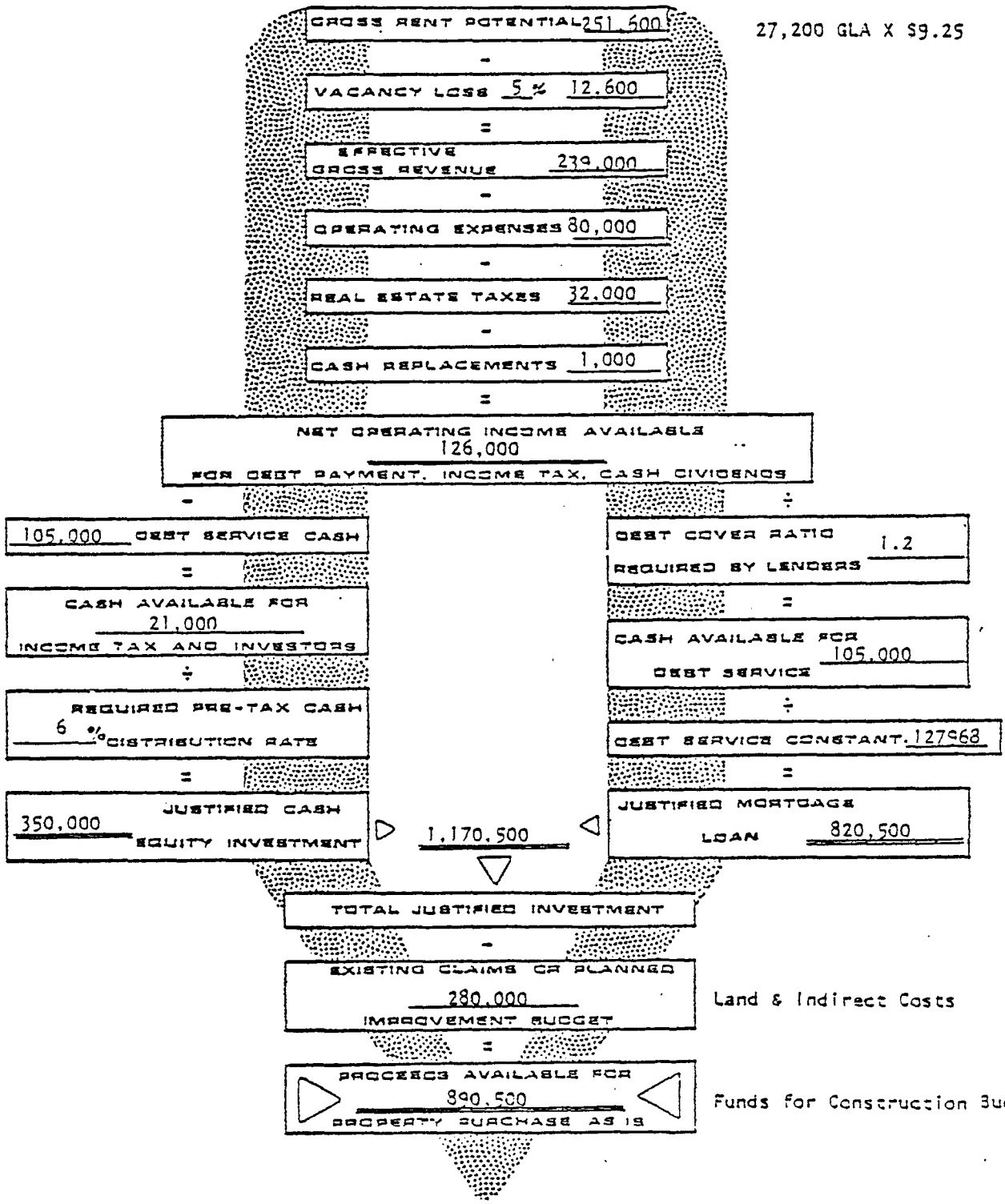
$$\frac{\text{Net Op. Inc.}}{\text{Debt Ser.}}$$

$$\frac{141,824}{126,944} = 1.11 \text{ (too low)}$$

LENDER'S POINT OF VIEW

EXHIBIT 2

DEBT COVER RATIO APPROACH

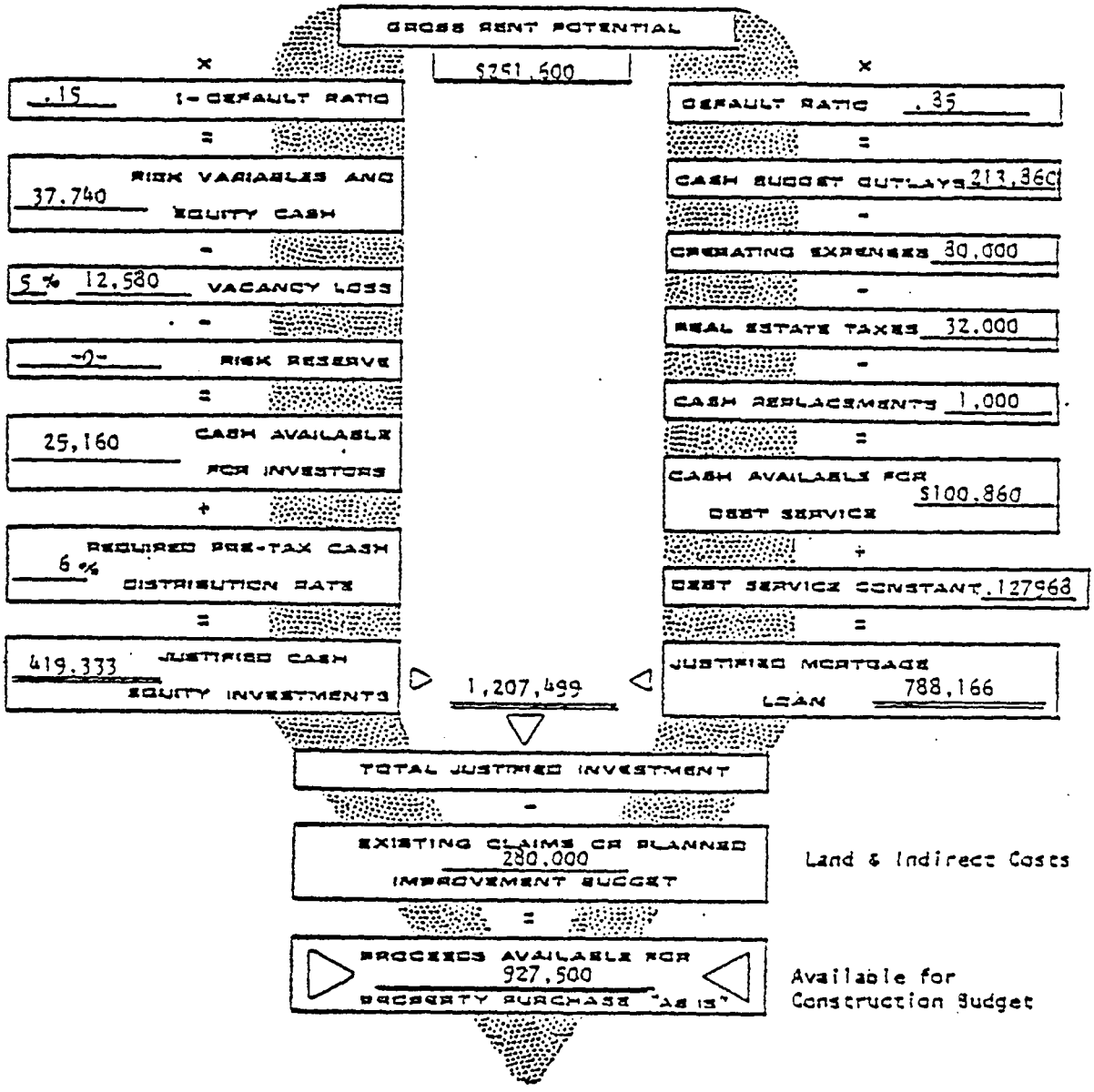


$\frac{890,500}{32,000}$ = $27.80/sq. ft. justified building budget

DEVELOPER'S POINT OF VIEW

EXHIBIT 3

DEFAULT RATIO APPROACH



$37/sq. ft. of gross area for justified bldg. budget