

JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

V. INDUSTRY SEMINARS AND SPEECHES - SHORT TERM

F. Miscellaneous Professional Associations

16. "Real Estate Feasibility and Creative Problem Solving", co-sponsored by the Commercial Real Estate Organization, September 13-14, 1984
Similar seminar given May 28-29, 1985 (See Section V. A. 15. b.)

REAL ESTATE FEASIBILITY ANALYSIS
AND
CREATIVE PROBLEM SOLVING

Presented by:

Professor James A. Graaskamp
University of Wisconsin-Madison
School of Business

September 13 & 14, 1984

Ritz Carlton Hotel -- Chicago

Co-Sponsored by: The Commercial Real Estate Organization
101 N. Wacker Drive
Suite 1200
Chicago, IL 60606

The Center for Advanced Studies
University of Wisconsin
School of Business
1155 Observatory Drive
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REAL ESTATE FEASIBILITY

Presented by

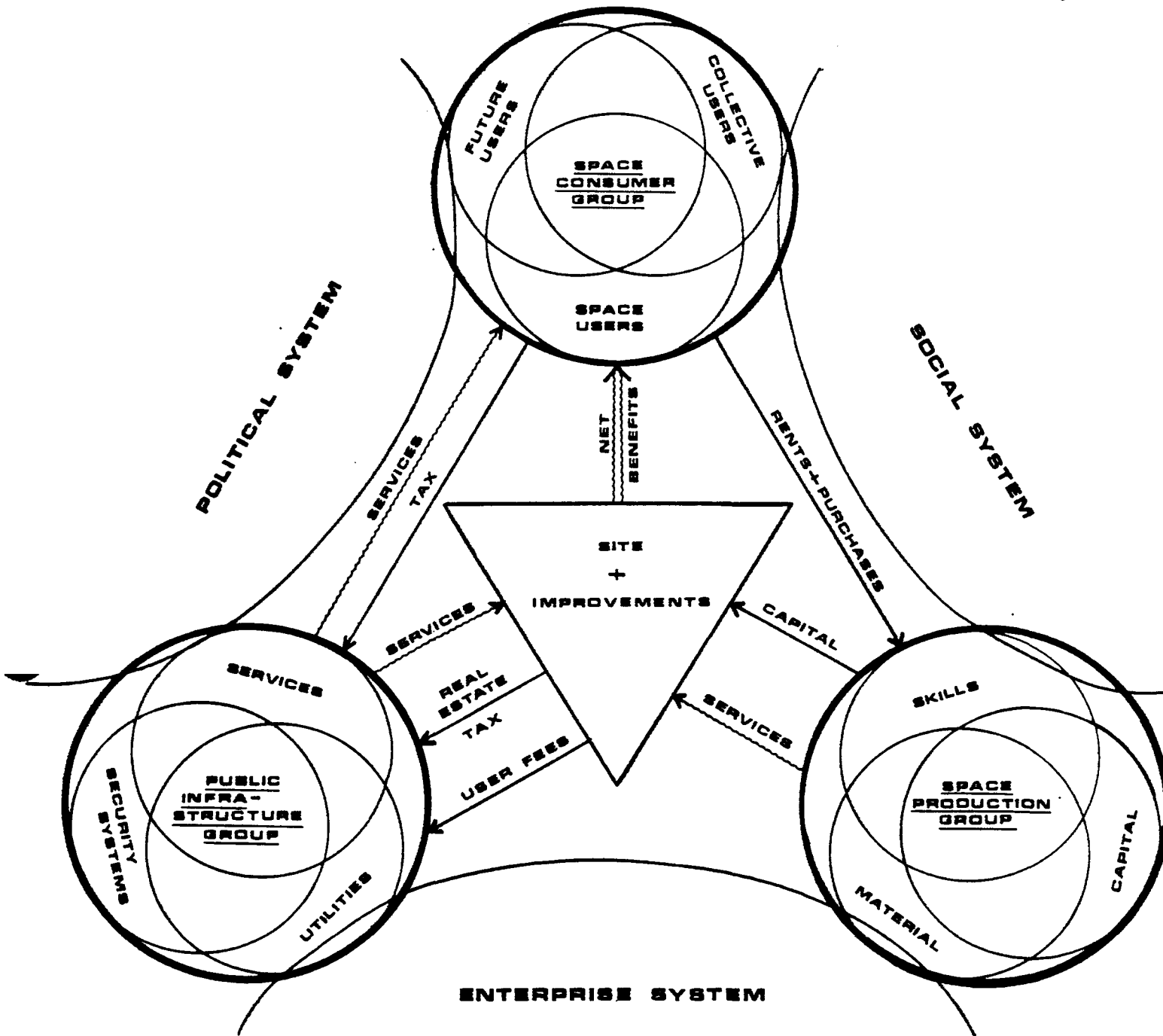
Professor James A. Graaskamp, Ph.D, CRE, SREA
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FIRST HOUR

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 a cash cycle business enterprise which combines a space-time product with certain types of management services to meet the needs of a specific user. It is the process of converting space-time needs to money-time dimensions in a cash economy.
1. A real estate business is any business which provides expertise necessary to relate space-time need to money-time requirements and includes architects, brokers, city planners, mortgage bankers, and all other special skills.
 2. The true profit centers in real estate are in the delivery of services and cash capital. Money is an energy transfer system.
 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 breakeven at a minimum, after full payment for services rendered.
 3. Solvency of the total process, not value, is the critical issue.
 4. Land is an environmental constraint and not a profit center.
 5. Land provides access to a real estate business opportunity and is not the opportunity itself. Real estate business wants to control land to create a captive market for services.
- D. Land is the point where demand and supply forces find cash solvency. Location is a manufactured attribute. Site attributes are exploited to reduce outlays and to increase receipts and include:
1. Physical attributes
 2. Legal-political attributes
 3. Linkage attributes
 4. Dynamic attributes
 5. Environmental 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;



THE REAL ESTATE PROCESS

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.

"Highest and Best Use: That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value. The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use. Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraiser's judgment and analytical skill, i.e., that the use determined

from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable use. In the context of investment value an alternative term would be most profitable use."

Real Estate Appraisal Terminology, Edited by Byrl Boyce, Ph.D., SRPA, Ballinger Publishing Co., Cambridge, Mass., 1975. (Emphasis added.)

- F. The purchase of a piece of real estate today involves the acceptance of a great many assumptions about the future. Those who take care to validate these assumptions in a period of transition as to public land use control tend to have the most successful investment.
1. Business decisions today make explicit recognition of their assumptions and the need to act under conditions of uncertainty.
 2. Business risk is the difference between assumptions about the future and realizations, and the proforma budget and the end of the year income statement.
 3. Risk management is the control of variance between key assumptions and realizations.
 4. An appraisal is a set of assumptions about the future productivity of a property under conditions of uncertainty.
- G. The concept of highest and best use of land was a commodity concept which did not consider externalities adequately. It is being replaced by 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 upon 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 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 budget is the drive wheel.
 3. The public sector represents the community owned consumer service delivery system, seeking to minimize marginal cost to the consumer and average cost to the community at large.
 4. The production sector responds to a derivative demand for engineering and management expertise.
- I. Critiquing the form and adequacy of a real estate solution is analogous to the artistic concept of judging the success of an art object by relating form of the solution to the context to which it was created.
1. Context includes those elements which are fixed, given, or objective, and to which any solution must adapt.
 2. Form-giving elements are those variables within the artists control, i.e., options or alternatives at a particular time.
 3. A solution is judged for its correctness or success in terms of the degree of fit of the form proposed to the content.
 4. Feasibility analysis is concerned with the degree of fit or the extent of misfit between a proposed course of action and the context within which it must operate or fit.
 5. Success therefore depends on how appropriately the problem is defined; testing feasibility depends primarily upon accurate and comprehensive definition of the context.

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

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

REAL ESTATE FEASIBILITY

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SECOND HOUR

I. Feasibility Analysis

- A. The concept of feasibility is elusive and much abused. Combining the systems concept of enterprise under conditions of uncertainty and the physical design concept of fit leads to the following definition:

"A real estate project is 'feasible' when the real estate analyst determines that there is a reasonable likelihood of satisfying explicit objectives when a selected course of action is tested for fit to a context of specific constraints and limited resources."

- B. The problem of defining objectives and measuring success depends almost entirely on correctly defining the problem and values of the client.
1. The nature of a decision process must be made explicit.
 2. Defining a problem in terms of inherent characteristics must be addressed today.
 3. The nature of risk and risk management must be made explicit because the definition implies uncertainty by means of a subjective probability, "reasonable likelihood of succeeding."
 4. There is a need to identify and measure the weight elements of success.
 5. There is a need to identify and dimension the limited resources of the client in terms of personnel, expertise, cash, and time for commitment and completion.
 6. Definition of decision process and problem lead to proper description of work project for the analyst.

- C. The general theory of the management process for any enterprise can be converted to real estate semantics for feasibility:

Values, objectives, policy	Strategic format
Search for opportunity alternatives	Market trend analysis
Selection of an opportunity	Merchandising target with monopoly character
Program to capture opportunity	Legal-political constraints
	Ethical-aesthetic constraints
	Physical-technical constraints
	Financial constraints
Construction of program	Project development
Operation of program	Property management
Monitoring and feedback	Real estate research

- D. These basic elements and definitions then lead to the requirement of a correct report title. Most feasibility reports go wrong on the title page because the analyst did not clearly understand to which elements of context and form his report was to be addressed. Seldom does the analyst do a complete feasibility study as a single report on his own. Components may be provided by others and the sequence of set may differ in each case depending on how the consultant understands the client. Therefore, a report should be entitled as one of the following:

1. Strategy study: selection of objectives, tactics, and decision criteria.
2. Market analysis: Economic base studies or other related aggregate data review.
3. Merchandising studies: consumer surveys, competitive property analysis, marketability evaluation, etc.
4. Legal studies: opinion on potential legal constraints, model contracts of forms of organization, and politician briefs.
5. Architectural and engineering studies: alternative building envelopes, structural solutions, and net usable space and space relationships, together with technical resolutions of problems in the physical context adequate for budgeting and marketing work.
6. Compatibility studies: project impact on various groups affected in terms of their attitudes, expectations and vested interests in the status quo and community goals.
7. Financial studies: cash flow budgets, potential risk and sensitivity analysis, fiscal impact analysis, and alternative sources of capital. tax implications, etc.

E. Feasibility analysis is a sub-topic within the generally expanding literature of problem solving. Any Counselor or problem solver is urged to read the following:

1. The Art of Problem Solving, Russell L. Ackoff, John Wiley & Sons, New York, 1978.
2. The Complete Problem Solver, John R. Hayes, The Franklin Institute Press, Philadelphia, 1981.
3. Strategic Planning in Emerging Companies, Steven C. Brandt, Addison-Wesley Publishing Company, 1981.

Ackoff subdivides any problem into five types of components:

1. The decision maker--the person or persons faced with the problem as a group or individual.
2. The controllable variables--those aspects of the problem situation the decision maker can control.
3. The uncontrolled variables--those aspects of the problem situation the decision maker cannot control but those which, together with the controlled variables can effect the outcome of his choice. The uncontrolled variables may be quantitative or qualitative, but together they define the problem environment, in the language of Ackoff, or the context in the language of Christopher Alexander.
4. Constraints imposed from within or without on the values of the controlled and uncontrolled variables. For example, the consumer places a limit on how much he is willing to pay for rent, although rent levels themselves are often set by cost factors beyond his control.
5. The possible outcomes produced jointly by the decision makers choice and the uncontrolled variable.

Ackoff further refines problem solving:

A problem is said to be solved when the decision maker selects those values of the controlled variables which maximize the value of the outcome; that is, when he has optimized. If he selects values of the controlled variables that do not maximize the value of the outcome but produce an outcome that is good enough, he has resolved the problem by satisficing. There is a third possibility: he may dissolve the problem. This is accomplished by changing his values so that the choices available are no longer meaningful. For example, the

problem of selecting a new car may be dissolved by deciding that the use of public transportation is better than driving oneself. It may also be dissolved by moving to within walking distance from work so that driving is no longer required. We use "solving" loosely to cover all three alternatives.

Ackoff also points out that many problem solvers are reactive responding to the immediate irritation which leads us "to walk into the future facing the past - we move away from, rather than toward something. This often results in unforeseen consequences that are more distasteful than the deficiencies removed." Recall D.D.T. Problem should be proactive by specifying the ideal outcome and looking for ways to move in that direction. "The chances of overlooking relevant consequences are minimized when we formulate a problem in terms of approaching ideals ... focusing on an ideal reveals the relationships between things that can be done in the future and tends to make us feel simultaneously with sets of interacting threats and opportunities, to treat them as a whole, as a system of problems.

From that it is important to learn that:

Planning is dealing with sets of interacting problems

Problem solving is finding alternative routes to approach an ideal solution

Feasibility analysis is testing a specified course of action for its likelihood of fulfilling the ideal

An appraisal is a fictitious feasibility study in which human behavior is assumed to be normative

F. The Hayes text is a rich collection of problem solving and decision making methods. Hayes believes that problems should be represented with doodles, flow charts, simple diagrams, or other graphics. He sees the problem solving process as correctly representing the goal, correctly specifying the initial state of affairs, correctly specifying the differences between the current state of affairs and the goal, the restrictions in moving toward the goal and operators available to advance affairs to the goal. He defines decision technique for conditions of certainty, uncertainty, or competitive conflict. Hayes develops for strategic viewpoints:

1. The mini-max strategy which assumes that "nature is against us" so that the object is to choose the strategy that will minimize the disaster, although it has the unfortunate property that may also eliminate the best possible outcome.

2. The maxi-max strategy chooses the course of action which could provide the best of the best possible outcomes, but it does not defend you against the possibility of enjoying the worst possible outcome.
 3. The Hurwitz strategy allows a compromise between the pessimistic and the very optimistic strategies above while allowing one to modify the probabilities with a factor for the level of optimism or pessimism of the decision maker.
 4. Minimizing maximum regret strategy may be most significant for real estate investors as in phasing the project or buying standby credit at an exorbitant rate.
- G. Hayes describes four general types of decisions which require different decision procedures: decisions under certainty, under risk, under uncertainty, and under conflict. In the case of certainty the facts are known and static, and it is only necessary to rank in terms of desirability. Consider four student apartments as described in Exhibit 1. Hayes demonstrates five different methods which may be useful for making decisions under certainty:
1. Dominance which determines that one alternative dominates if it is at least as good as the other properties and is better in one attribute on at least one property. (See Exhibit 2.)
 2. The lexicographic method which ranks like a dictionary specifying the most important attributes first and then resolving ties in ranking by going to the second most important attribute second. The weakness is that the selection process ignores all but the most important attributes so that the selection may have serious unattractive secondary attributes.
 3. Additive weighting takes all attributes into account but gives them different weights depending on value systems of observer. It does not recognize interactions of attributes so it can lead to inappropriate decisions by ignoring interactions just as lexicographics ignore minor attributes. (See Exhibit 3.)
 4. Effectiveness indices take into account interactions, such as the profitability index which takes present value of premises relative to total capital budget.

Student Apartments

A1		A2	
brightness:	always needs artificial lighting	size of rooms:	cramped
cleanliness:	needs vacuuming	noise level:	usually quiet
kitchen:	new stove, sink, and refrigerator	general repairs:	needs no repairs
noise level:	frequently noisy	brightness:	very bright throughout the day
size of rooms:	average	cleanliness:	needs vacuuming
general repair:	needs no repairs	landlord attitude:	cordial
distance from place of employment:	15 minutes	distance from place of employment:	60 minutes
landlord attitude:	indifferent	kitchen:	stove, sink, and refrigerator in good condition
A3		A4	
distance from place of employment:	20 minutes	general repair:	needs no repairs
brightness:	fairly bright	brightness:	very bright
landlord attitude:	very friendly	noise level:	often quiet
cleanliness:	ready to move in	size of rooms:	small
kitchen	stove, sink, & refrigerator, old but useable	distance from place of employment:	45 minutes
noise level:	sometimes noisy	kitchen:	stove & refrigerator in good condition
general repair:	needs one week repair work	landlord attitude:	cordial
size of rooms:	comfortable	cleanliness:	ready to move in

EXHIBIT 2
Alternatives

	1	2	3	4
Distance in Minutes	15 Min	60 Min	20 Min	45 Min
Size of Rooms	Average	Cramped	Comfortable	Small
Kitchen	New stove, etc.	Stove, etc. in good condition	Stove, etc. old but useable	Stove, etc. in good condition
General Repair	Needs no Repair	Needs no Repair	Needs one Week work	Needs no Repair
Cleanliness	Needs Vacuuming	Needs Vacuuming	Ready to Move in	Ready to Move in
Noise Level	Frequently Noisy	Often Quiet	Sometimes Noisy	Often Quiet
Brightness	Always needs artificial light	Very Bright	Fairly Bright	Very Bright
Landlord	Indifferent	Cordial	Very Friendly	Cordial

Only one alternative dominates another in this problem: Alternative 4 dominates Alternative 2. Alternative 4 is as good as Alternative 2 in "kitchen," "general repair," "noise level," "brightness," and "landlord," and it is better in "distance," "size," and "cleanliness." Alternative 1 does not dominate Alternative 2 because, while it is better in some properties, such as "distance," it is worse in others.

EXHIBIT 3

8

Alternative Apartments

	1	2	3	4	Weight
Distance in Minutes	15 Min (4)	60 Min (1)	20 Min (3)	45 Min (2)	7
	28	7	21	14	
Size of Rooms	Average (3)	Cramped (1)	Comfortable(4)	Small (2)	4
	12	4	16	8	
Kitchen	New stove, etc. (5)	Stove, etc. in good condition (4)	Stove, etc. old but useable (3)	Stove, etc. in good condition (4)	3
	15	12	9	12	
General Repair	Needs no Repair (5)	Needs no Repair (5)	Needs one Week work (2)	Needs no Repair (5)	2
	10	10	4	10	
Cleanliness	Needs Vacuuming (4)	Needs Vacuuming (4)	Ready to Move in (5)	Ready to Move in (5)	1
	4	4	5	5	
Noise Level	Frequently Noisy (2)	Often quiet (4)	Sometimes Noisy (3)	Often quiet (4)	1
	2	4	3	4	
Brightness	Always needs artificial light (1)	Very bright (5)	Fairly Bright (3)	Very Bright (5)	1
	1	5	3	5	
Landlord	Indifferent(3)	Cordial (5)	Very Friendly (4)	Cordial (5)	1
	3	5	4	5	
Sum of Value X Weight	75	51	65	63	

5. Satisficing approach requires the decision maker to identify the minimum value he is willing to accept for each of the attributes, rejecting alternatives which fail the test, and accepting the first alternative which meets all the minimal values tests. (For example, a building with a debt cover ratio no less than 1.2, a cash on cash yield of 9%, leasable area no less than 60,000 square feet in an office building no more than five years old with one parking stall per 300 square feet of G.L.A.) (See Exhibit 4.)

H. Summary of systems in Exhibit 5.

Success may be measured by any of the above systems with lists of attributes selected by the analyst as relevant tests of alternative courses of action, such as:

1. A check list of physical attributes
2. A check list of critical linkage attributes
3. A check list of dynamic behavioral attributes
4. A check list of attributes or services (given weighted point scores)
5. Financial ratios measuring risk, such as cash breakeven, rate of capital recapture, loan ratios or sensitivity to specified contingencies
6. Probability distributions of alternative outcomes and standard error
7. Psychological gratifications
8. Specified legal attributes
9. Measures of impact on environment

- I. Data base management on personal computers will require that you learn to use decision rules dealing with certainty, conflict, and difference by understanding the advantages and disadvantages of each rule.

EXHIBIT 4

Worksheet Containing MUSTS and WANTS,
With Appropriate Weights Added, For a House-Purchase

MUST OBJECTIVES: Resource Limits and Requirements

Down payment not to exceed \$10,000
 Monthly payment (principal, interest, taxes, and insurance)
 not to exceed \$300
 Minimum of four bedrooms
 Minimum of two bathrooms
 Location outside of downtown area, within 45-minutes driving
 time to office parking lot
 Occupancy within 60 days

WANT OBJECTIVES: Best use of resources, maximum results and returns,
minimum disadvantage

	Weight
Minimum down payment	6
Lowest monthly payment	10
Location conveniently close to work	7
Able to use present furnishings, drapes	5
Shelter for two cars	4
Public transportation nearby	4
Location convenient to elementary and high schools	8
Location convenient to shopping center, stores	7
Workshop and storage space available	2
Stable resale value	7
Attractive; modern style and appearance	5
Good landscaping; trees, shrubs	4
Large play area for kids	5
Large, modern kitchen with a view	2
Large, comfortable family room	3
Location on quiet street, in good neighborhood	4
Minimum maintenance cost to house	7
Minimum risk - tax increase or special assessments	4

Source: Page 198, The Rational Manager by Charles H. Kepner and Benjamin B. Tregoe.

EXHIBIT 5

Decision Making Methods

Method	Type	Use this method	Cost of computation required	Number of alternatives examined
Dominance	Optimizing	for preliminary screening of alternatives	low	all
Lexicography	Optimizing	when attributes are very different in weight	very low	all
Additive Weighting	Optimizing	when it is important to find the best alternative	high	all
Effectiveness Index	Optimizing	when it is very important to get best alternative	very high	all
Satisficing	Non-optimizing	when the cost of examining the whole set of alternatives is very high	very low	some

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THIRD HOUR

I. Problem Perceived by the Client

The original problem as perceived by the client is generally ill-defined or misdirected as the problem becomes understood by the analyst.

A. There are several reasons for the shift in perception by both parties, such as:

1. Implicit assumptions by the client as to the services offered by a real estate appraiser
2. Implicit assumptions and poor sequencing in the decision process
3. The bias of viewpoint, because everyone is an expert on real estate
4. A bias introduced by training, previous experience, or peer group controlling the client

B. The consultant must begin by attempting to discover the sequence or protocol of decisions which have brought the client to that point to discover what has been taken for granted, what has been overlooked, and what will be needed.

C. Education can't provide the tools for this critical initial step in the relationship between counselor and client. Ackoff pointed out that educators generally produce only competence, communicativeness, and concern while the characteristics that makes for outstanding managers are courage and creativity. Hayes goes on to define creativity as "A special kind of problem solving, that is the act of solving an ill-defined problem. Ill-defined problems are those which require problem solvers to contribute to the definition of the problem from their own resources."

D. The consultant must structure the initial interview and subsequent intermediate report sessions to ask the client explicitly about the following:

1. His concept as to the "essence" of his business
2. His preferred method of meeting entrepreneurial risk
3. His preferred method of dealing with governmental regulation and news media
4. His preferred method of personnel compensation
5. His style of value decision trade-offs between qualitative and quantitative issues
6. His perception of his risk position and his risk utility "curve"
7. His personal non-business objective
8. His reasons for being involved with real estate (a simple question revealing, in most cases, tremendous naivete and lack of in-depth preparation by the client)

E. In the process of developing the assignment with the client, keep in mind the following questions:

1. What is the Problem at hand?
2. From what Viewpoint or Perspective should the problem be analyzed?
3. What Judgments seem to be appropriate?
4. What Assumptions should be adopted?
5. Is the resulting Premise realistic?
6. What Derivation Process should be applied?
7. What Conclusion results?
8. What Alternative choices are available?

F. Since the problem perceived by the client may be poorly defined, the analyst needs to convert the stated problem into a sequence of issues which relate to the enterprise decision process outlined earlier. (See Exhibit 1.)

1. That stated question, "How much should I pay for the land?" is a step in implementation of the program. Go back to the statement of objectives, "Why do I need to invest in land?" and the search for opportunities, "How did we choose this piece of land?"
2. In general, you must discover what has been done, what explicit assumptions have been made, what implicit assumptions seem to be operating, and who made the decisions thus far. (See Exhibit 2.)

EXHIBIT 1

SCOPE OF SERVICES

BASIC BUSINESS	BASIC SERVICES	COMPONENT ACTIVITIES	INFORMATION TRACTS & CRITICAL DETAILS
Real Estate Investment Analysis	Development Coordination	Planning & Programming	Analysis of Economic Context Re: Past Growth Trends Economic Base & Volatility Strengths & Weaknesses Recent Trends & Changes Future Economic Outlook including - Growth Potential - Growth Constraints - Investment Considerations
		Site & Use Analysis	
		Economic Analysis of Region	
		Construction Cost Analysis	
	Development Feasibility Analysis	Highest & Best Use Analysis	Analysis of Specific Property Types Re: Past Directions of Growth Major Growth Factors Future Growth Areas Sub-Area Differentiation Historic Supply/Demand Relationships Future Demand Trends Absorption Capacity Recent Trends & Projected Construction
		Market Analysis	
		Marketability Analysis	
	Appraisal	Location Analysis	Analysis of Specific Property Types Re: Rent Levels & Trends Vacancy Levels & Trends Quality Differences Locational Differences Lease Terms & Differences
		Rent & Vacancy Survey	
		Market Price Analysis	
	Income Property Analysis (potential or previous acquisitions & problem properties)	Value-Price Determination	Analysis of a Specific Property Re: Revenue Assumptions (1st year & Growth) Expense Assumptions (1st year & Growth) Reserves and Capital Replacement Req'ts Financing Assumptions Depreciation Assumptions Resale Assumptions Return Comparisons
		Financial Return Analysis	
		Transaction Structuring	
	Acquisition, Sale, Trade, Refinancing Assistance	Hold/Sell/Refinance/Evaluation	Formulation of Investment Criteria Re: Economic expectations (nat'l & local) Realistic Return Levels for alternate markets and property types Risk/return tradeoffs Diversification (geographic & prop. type) Management Strategies Alternate investment vehicles
		Investment Strategy Formulation	
		Acquisition Negotiation	
		Sale & Debt Packaging	
	Property Management & Analysis	Property Search & Evaluation	Formulation of Search Methodology Re: Comparison/Selection of Markets Identification/Solicitation of available properties Contact with Owners and/or Brokers Determination of Market Preference Points (Cap rates, cash-on cash returns, expense ratios, and market trends) Approximation of Value to Buyer Determination of Upside Potential
		Buyer Identification	
	Management Assistance	Management Analysis & Planning	

EXHIBIT 2

4

FEASIBILITY ASSIGNMENT AND ACCOUNTABILITY WORKSHEET
 XYZ APPRAISAL COMPANY
 XXX STREET ANYWHERE, U.S.A.

Name of Client: _____ Date: _____

Assignment Description: _____

FEASIBILITY INPUT	PROVIDED BY	APPROVED BY	SEQUENCE AND DATE AVAILABLE
1. Definition of questions and strategic objectives			
2. Definition of success criterion			
3. Ranking of criteria by priority			
4. Definition of specific site			
5. Definition of market opportunity			
6. Space user profile			
7. Space consumer preference survey			
8. Space product definition			
9. Aggregate and market forecast and absorption rate			
10. Merchandising capture rate by product mix			
11. Legal and political constraints assumed for user and investor			
12. Site constraints and site development plan			
13. Architectural constraints and plans			
14. Environmental impact assumptions			
15. School district impact assumption			
16. Municipal infrastructure and revenue impact			
17. Aesthetic and social impact			
18. Land cost assumptions			
19. Improvement cost assumptions			
20. Indirect cost assumptions			
21. Operational cash-flow budget assumptions			
22. Income tax liability assumptions			
23. Financing and refinancing assumption			
24. Other			

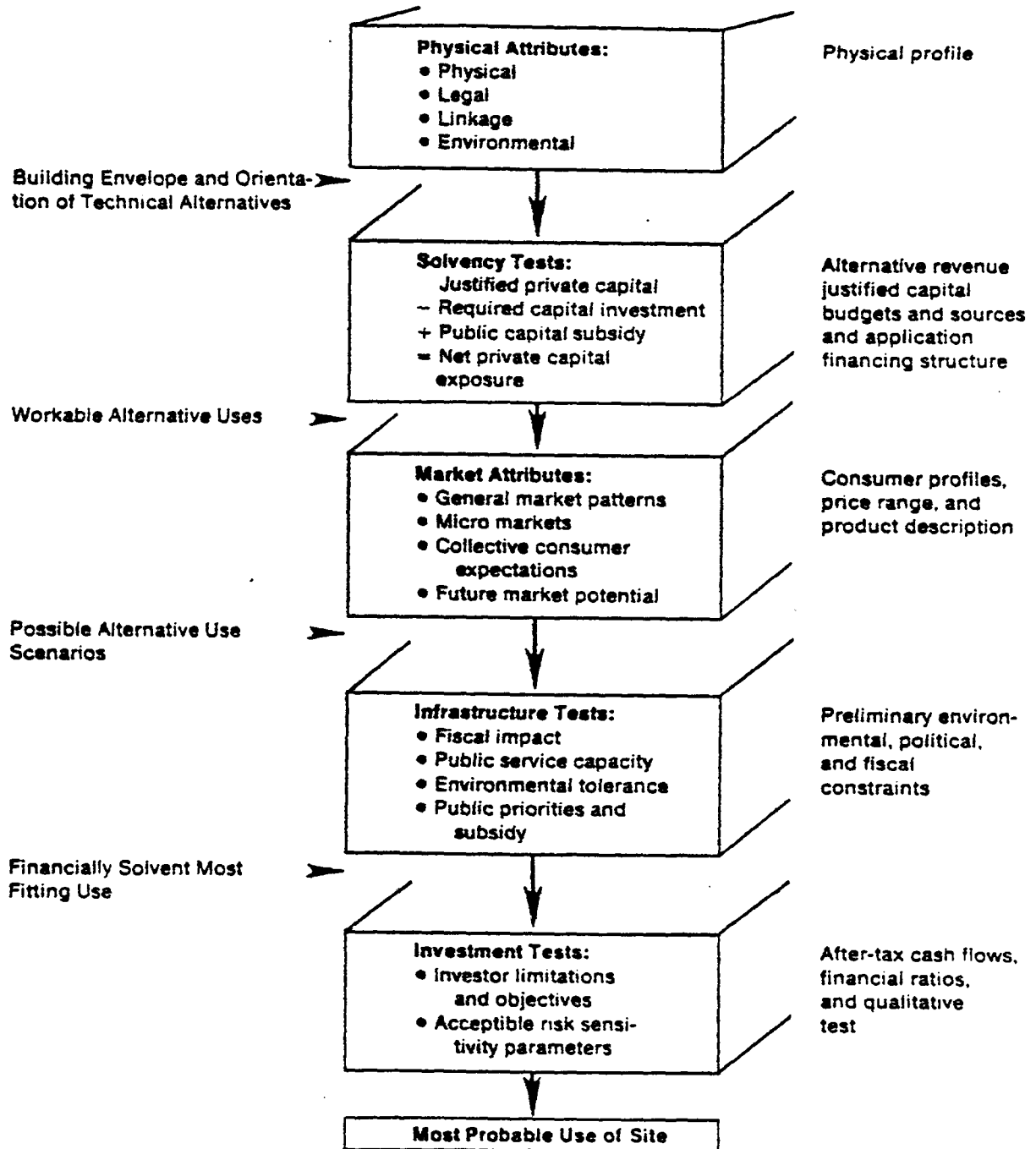
Accepted by Client _____
 (Date)

Worksheet suggested in part by John Rasmussen, Feasibility Research Group,
 210 Michigan Theater Building, Ann Arbor, Michigan 48108.

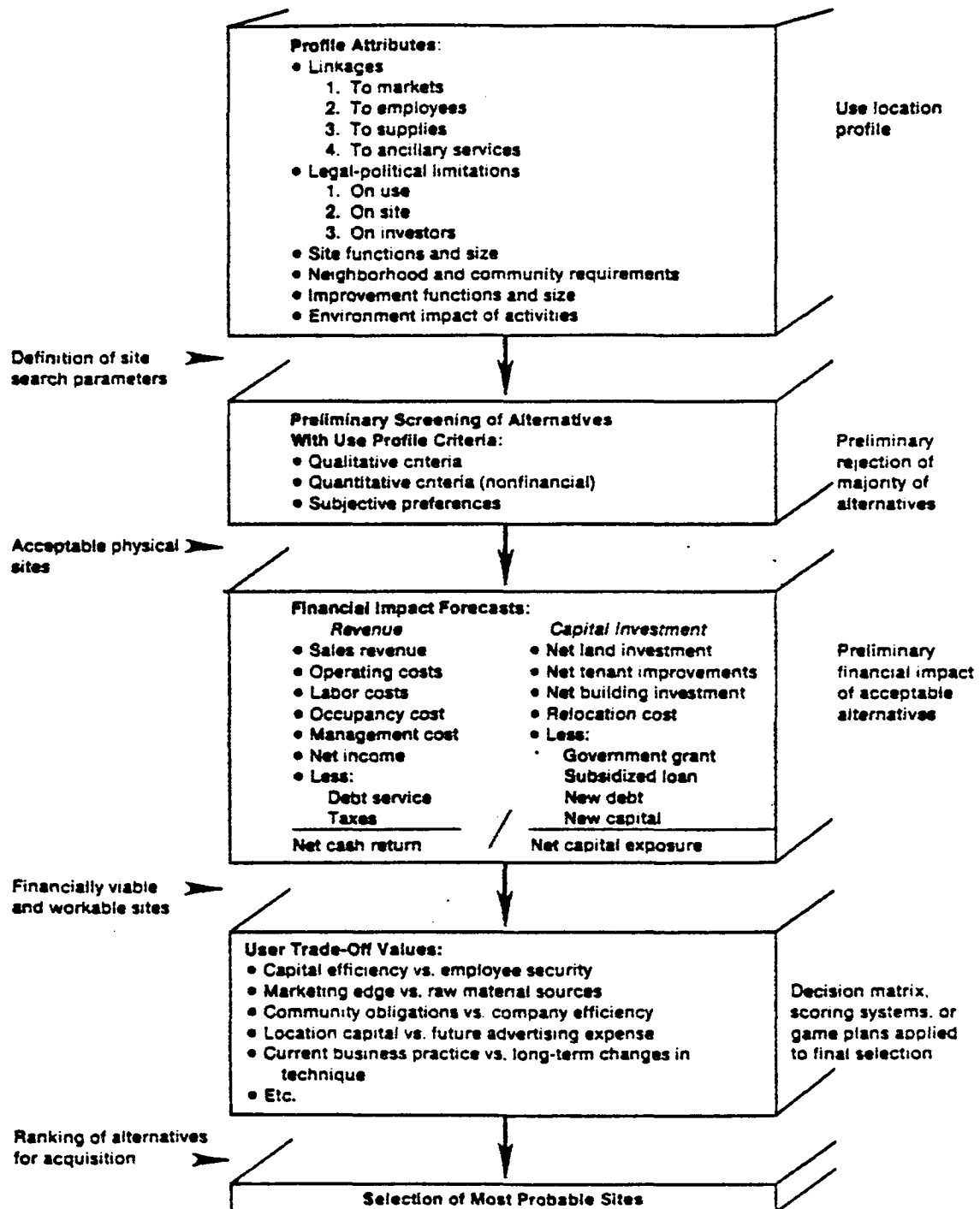
3. A useful technique is always to reverse the question or place it in some hierarchy of values.
 - a. For industrial real estate assume that working capital is preferable to fixed assets. Therefore,
 - b. Own no real estate - shift real estate problems by purchasing procedures.
 - c. If you can't shift space needs, lease short term
 - d. If you want the option of long term leases, negotiate a long term lease for rental discount and then give back part of the discount if you cancel under a change of conditions clause.
 - e. Own or build only as last resort
 4. One creative think system recommends conversion of new problem by analogy to old format; retail location is useful for any multi-tenant space just as commodity terms made describe a mortgage. Familiar problems may need a purge of conventional answers by conversion to strange analogies.
- G. Another way of understanding the problem is to relate it to scope of services you can offer, as in Exhibit 1, or the ideal way to approach a solution for the client. For example:
1. It is preferred to identify locational need and use requirements of a user before searching for a specific site. (See Exhibit 3.)
 2. If the site is already owned by a specific client, it is then necessary to adapt the use to the specific limitations of the site. (See Exhibit 4.)
 3. In the absence of a site in search of a use or a use in search of a site, the problem is to search for an investment opportunity in real estate. (See Exhibit 5.)
 4. Limitations of a site owned may require the consultant to solve both a disposition and an acquisition problem.
- H. Definition of a report medium and viewpoint of an intended audience is critical in the early stages of defining the assignment.
- I. In distinguishing between judgment and assumptions, the analyst may need to be an expert on experts, helping to select members of a team of specialists under the control of a generalist.

EXHIBIT 3

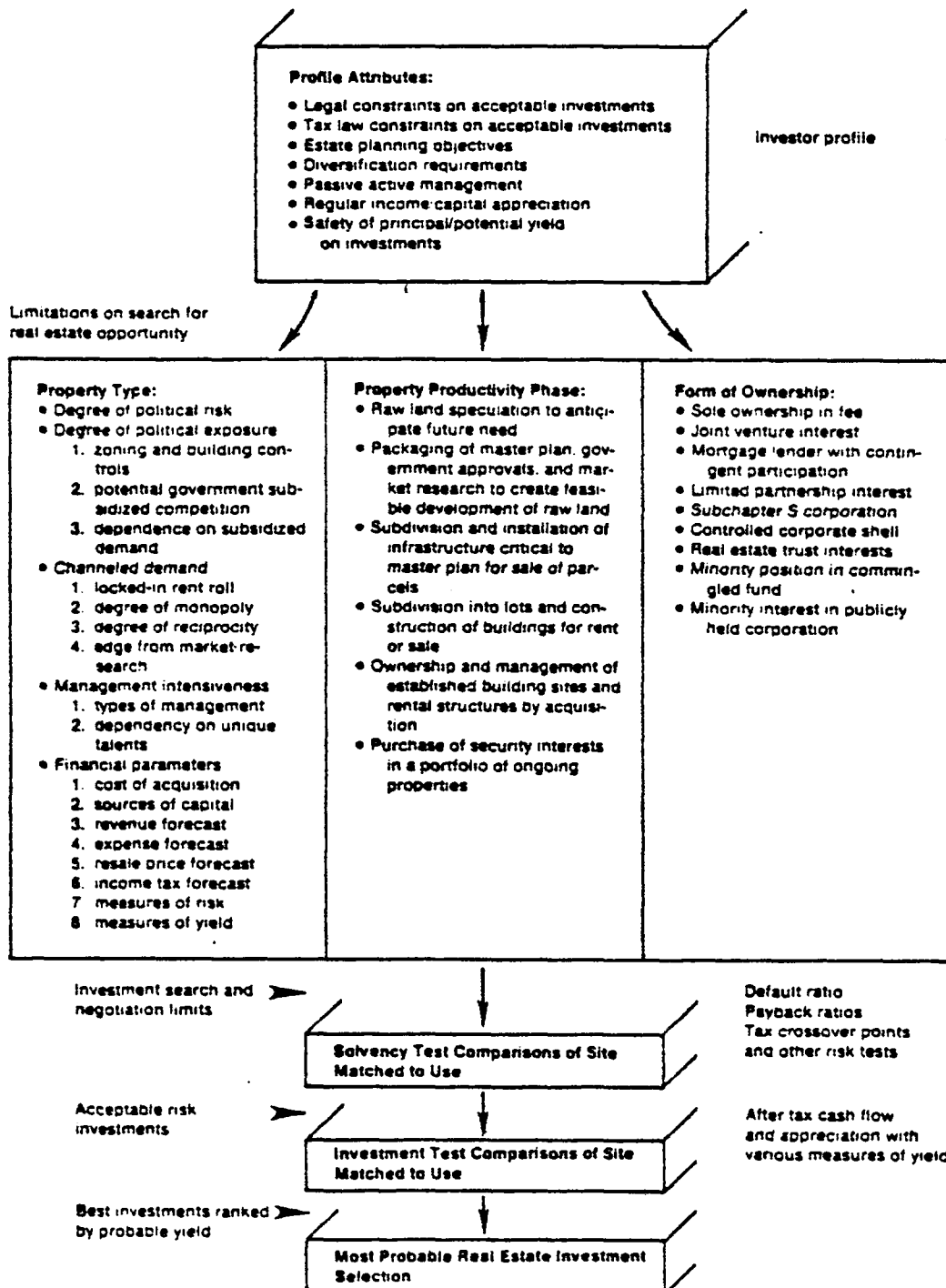
Analysis Process: In Search of a Use(s) For a Site



Analysis Process: The Search For a Site For a Use(s)



Process for Investor Selection of Real Estate



REAL ESTATE FEASIBILITY

Presented By

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

FOURTH HOUR

ANALYSIS OF LAND AND IMPROVEMENTS

I. BASIC CONCEPTS

Site analysis begins with a specific site and structures or stems from the market revenue approach as a set of site specifications which will control the search for alternatives. Today there is no such thing as raw land or a vacant lot. A site suitability study recognizes every site as having:

- A. Static attributes--physical characteristics of size, shape, topography, soils, etc.
- B. Legal attributes--public controls, private agreements, and potential legislation defining use.
- C. Linkage attributes--relationships to other sites which may tend to generate movements of goods and people to the subject site.
- D. Dynamic attributes--characteristics which affect behavior such as visibility, prestige, or feeling of fear or anxiety.
- E. Environmental impact attributes on physical, social, or economic factors both on and off the site.

II. PHYSICAL ATTRIBUTES

Static site attributes which begin to narrow the potential market alternative uses should include both the facts and their implications for productive use in such topic areas as:

- A. Size, shape, and lot area
- B. Topography, soils, geology, slope stability, bearing capacity, septic suitability, potential for subsidence, etc.
- C. Water table, wells, streams, ponds, storm water swales, shoreland edges, bulkhead lines, flood plain designations, etc.
- D. Flora and fauna which enhance marketability or which might cause environmental impact litigation.
- E. Concealed utility easements, old foundations, etc.
- F. Existing on-site utility services and capacity.
- G. Access points to public thoroughfares or private right-of-ways.
- H. Site improvements such as paving, retaining walls, pedestrian paths, culverts, etc.
- I. Landmark attributes or historical site features
- J. Define physical system sub-systems
 - 1. Foundation system
 - 2. Structural system
 - 3. Floor system
 - 4. Ceiling system
 - 5. Roof system
 - 6. Exterior wall system
 - 7. Interior wall system
 - 8. Horizontal circulation system
 - 9. Vertical circulation system
 - 10. Life-safety system
 - 11. HVAC system
 - 12. Site circulation system
 - 13. Social control system

III. LEGAL ATTRIBUTES

Legal attributes should move from specific limitations on the site imposed by rights of others to private covenants, private controls, etc. It is important to recognize not only the black letter law but the composition of those authorities who have discretionary responsibility for interpretation, enforcement, or amendment of these controls relative to future uses of the site.

- A. Legal interests, vested or continued of other persons in the site.
- B. Legal description, its accuracy, and implied transfers.
- C. All local ordinances defining alternative setback lines and height limitations in order to identify alternative building envelopes permissible on the site.
- D. Private covenants limiting use, reuse, or modification of the property (urban renewal covenants, landmark building facade bequests, etc.)
- E. Applicable zoning and building code limitations on use and the critical constraints of each relative to floor area ratio (FAR) bulk, parking requirements, dwelling units (DU), etc.
- F. Special zoning options which may be available at owner's option such as rezoning, down-zoning, PUD zoning, etc.
- G. Special controls imposed by other communities through extra-territorial zoning, tax conservancy commitments, urban renewal districts, tax increment districts, county regulation of subdivision, and overlapping jurisdiction.
- H. Special state constraints on uses affecting shorelands, state highways, state airports, etc., including state industrial building codes.

- I. Special federal constraints such as airport approach zone districts, harbor and river commissions, office of environmental protection, Department of Housing and Development (HUD), provisions for the handicapped (HEW), and many more.
- J. Since the building process takes time, impending legislation is important, and regulations require interpretation or public hearings so that public attitudes and expectations may modify black letter law.
- K. A hidden source of regulation are the rules which control the lending institutions which lend the money. For example, they cannot lend on any properties located in a designated flood plain except under certain conditions which include community participation in flood prevention programs.
- L. Attitudes of sewer, water, and highway commissions.
- M. Planner's views of physical barriers to restrict "sprawl".
- N. Following the legal attribute inventory, an analysis of the static and legal attributes should be summarized in terms of competitive advantages and disadvantages for costs, pricing, and marketing.
 - 1. Some attributes lead to higher cost which the front door approach may reveal as leading to excessive rents or prices.
 - 2. Some static or legal attributes can provide monopoly advantages because its suitability is unique relative to lands all around it, because of exemption from certain regulations, or existing approvals of development plans, including licenses for dredging, building code variances, etc.
 - 3. Static attributes will also help identify "best use" or the most probable buyer.
 - 4. Lack of fit between static site attributes and merchandising data is a basic cause of unsuccessful projects.

IV. LINKAGES

Linkage attributes have to do with functional network relationships or points of interaction with activity centers which may generate users or provide the infrastructure which support the site.

- A. Streets, sidewalks, rail, and transit systems serving the site.
- B. Access points.
- C. Utility services are linkages, too.
- D. Capacity of existing systems to absorb unit volume generated on site and implications for off-site improvements budgets.
- E. Relationship of subject site to generators of potential needs and uses for the subject site.
- F. Neighborhood demographics (population, age, employment, income, etc.)
- G. Relationship to competitive alternatives and projects and exposure to interception of linkages.

V. DYNAMIC ATTRIBUTES

Dynamic attributes have to do with the mental or emotional responses which a site or project stimulates as it affects decision-making behavior. These decision makers may be property buyer, regulators of site use, customers of establishments located on the site, or peer groups which set community attributes or make decisions for others by proxy (Board of Elderly Care Organization).

- A. Image conditioning of the approach zone.
- B. Visual factors in terms of prominence of the site, views from the site, potential for controlled sight lines, etc.
- C. Anxiety factors of access and security.

- D. Noise as a function of traffic count or of nearby land uses.
- E. Prevailing air currents and airborne pollution (phosphate plants or sulphite paper mills, for example).
- F. Political images established for a site by the public positions of local politicians or vested interest groups.
- G. Historical community reputation and values attached to the project site and structures.
 - 1. Recycling of old buildings within existing urban areas is fashionable among architects and the upper class.
 - 2. Recycling may establish historical roots and images.
- H. Perceived supply and demand factors.

VI. OFF-SITE ENVIRONMENTAL IMPACTS

The real estate product today must respond not only to the needs of the individual consumer in the market place but to the collective community of consumers which represent the community political environment. The landscape builds like a reef, the cumulative bones of thousands of individual decisions. This decade will witness a final transition from relative laissez faire attitudes of land as a commodity to highly democratic regulation of land as a public resource and land use as a privilege granted by the public. If the proposal won't sell at City Hall, there will be no opportunity to market the product to individuals. Therefore, the project must consider in its feasibility procedures and in constraints imposed by pre-architectural programs the impact on the environment of:

- A. Physical factors of the environment.
 - 1. Soil stability and water tables beyond the site boundaries.
 - 2. Eutrophication of lakes and streams.

3. Disruption of environmental edges, plant, and wildlife areas.
4. Impact on energy resources.
5. Contribution to social disintegration.
6. Aesthetic and urban design.

B. Social factors of the environment.

1. Displacement of existing residents and neighborhood units.
2. Contribution to social integration or mobility barriers.
3. Contribution to land use heterogeneity.
4. Contribution to regional and community master plans.

C. Economic factors of the environment.

1. Direct impact on real estate tax revenues.
2. Direct impact on other governmental revenue.
3. Direct impact on incremental government.
4. Secondary contributions to local government revenues.
5. Secondary cost burdens created for local communities.

D. Real estate business ethic environment.

1. Impact on supply equilibrium.
2. Impact on associated contractors.
3. Impact on families of project sponsor.
4. Legitimacy of financing structure.

- E. Silhouette of proposed project in terms of public perception of impact.
- F. Relationship of impact assessment to:
 - 1. Scale of project.
 - 2. Vulnerability of project sponsor to secondary consequences of political discretion.
 - 3. Stamina of project sponsor in the face of public pressure.

VII. MOST PROBABLE USE MATRIX

Definition of the site attributes permits the appraiser or the planner to hypothesize some alternative uses for the site. (Exhibit 1.) The appraiser should be able to set up a series of back door, revenue to justified budget parameters for these uses to suggest the parameters within which cash flows might crunch.

This technique is not unlike the residual approach, it has the same potential for misleading, but when combined with a sensitivity approach, does identify the conditions critical for financial solvency.

FEASIBILITY OF ALTERNATIVE USES FOR

OLD TRANSIENT HOTEL LANDMARK

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

REAL ESTATE FEASIBILITY

Presented By

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University of Wisconsin School of Business

FIFTH HOUR

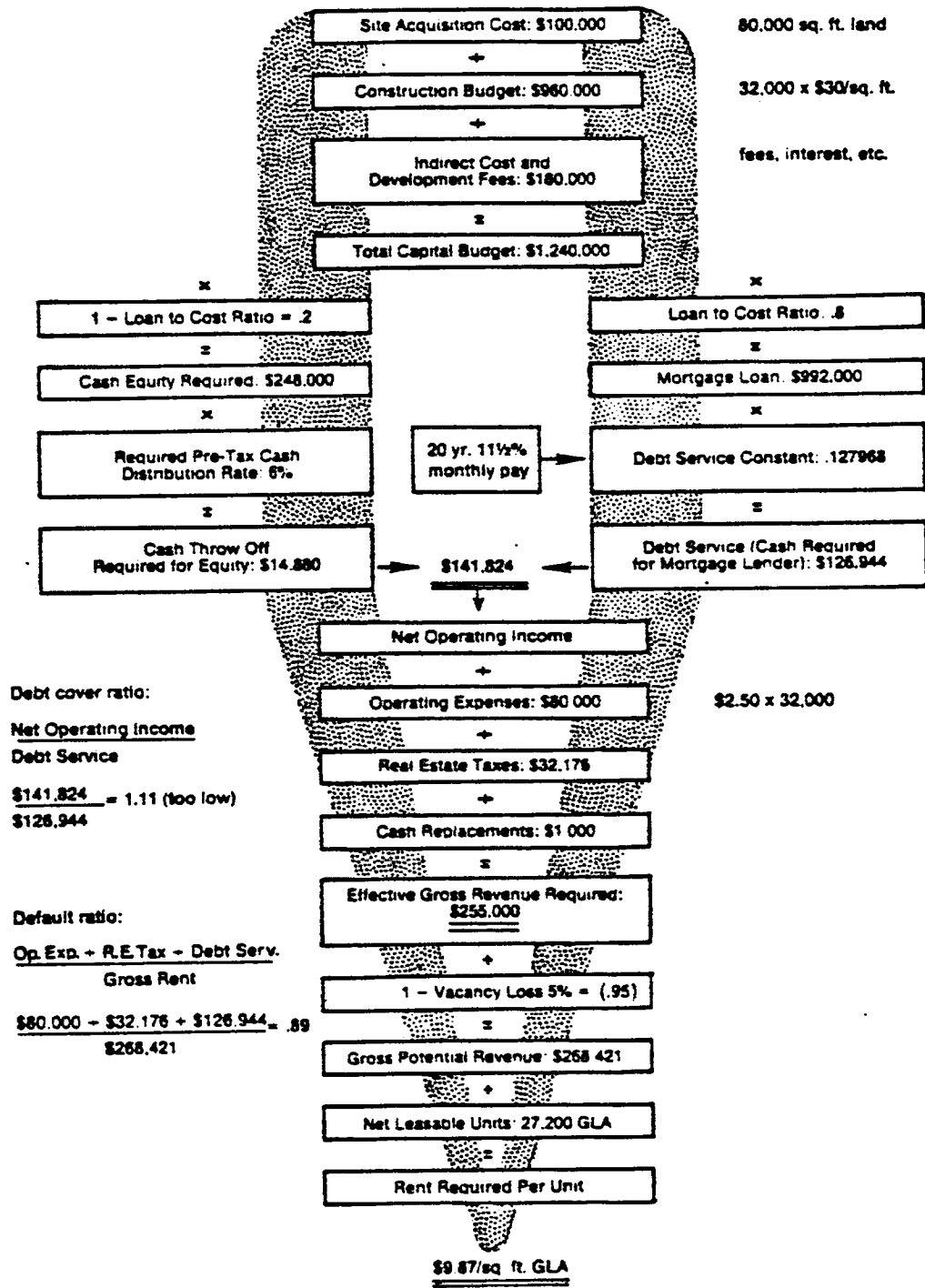
I. FINANCIAL PARAMETERS AND ANALYSIS

The forecasting of future money returns to a present investment is the ultimate business problem and the dynamics of these problems explains the actions of consumer, producer, and the society.

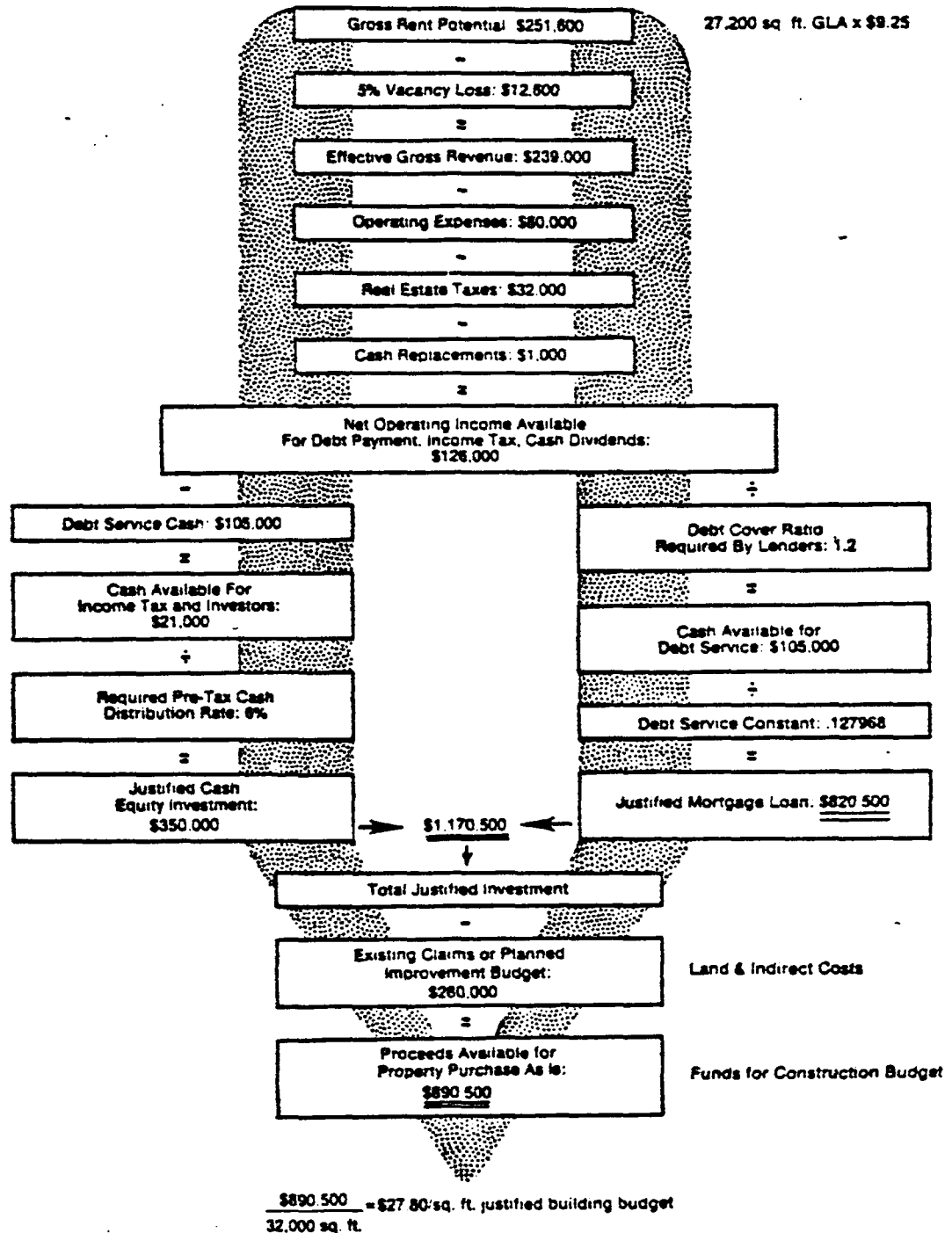
- A. An investment in a bond can be defined as to when it begins in time, when it is sold, when coupons are collectible, and total costs and total receipts under alternative outcomes. Thus, yield is easily computed and risk depends on whether you can rely on the promisor.
- B. Real estate financial forecasting seldom enjoys such a rigid set of financial specifications and therefore seldom enjoys conservative conditions of certainty. An investment in real estate really means somebody "bought" a set of assumptions.
 - 1. Risk is the potential variance between assumptions and realizations between proforma prospects and the historical balance sheet and P & L statements.
 - 2. Degree of professionalism is measured, ultimately, by the care with which assumptions are made and supported by careful research.
- C. Basic cash flow analysis depends on four essential set of assumptions:
 - 1. Schedule of cash outlays (capital costs and expenses.)
 - 2. Schedule of cash receipts (periodic and reversions).
 - 3. Net cash flows for each period (negative and positive).
 - 4. Devices for comparison of alternatives

5. However, it quickly becomes apparent when accounting for the dollars "in and out" that not all dollars are the same. Some are current expenses while others represent acquisition of assets and many are shared with local and federal government through various tax processes.
- D. A single period proforma is the first test of financial parameters.
1. A given purchase price can be converted to a necessary rent level in the market (Front Door Approach, see Exhibit 1).
 2. A given market rent level can be converted to a justified capital budget (Back Door Approach, see Exhibit 2).
 3. While lenders prefer debt cover ratios for back door approach, equity investors should prefer risk orientated Default Ratio Approach (Exhibit 3).
- E. Basic elements of proforma can then be expanded over time to include the following assumptions:
1. Definition of desired profit centers
 2. Definition of time line over which events will still take place
 3. Assumptions on the capital budget and sequence of source and application of funds.
 - a. Direct construction or purchase cost
 - b. Indirect and capitalized carrying cost
 4. Financial plan
 - a. Credit amounts and terms
 - b. Equity amounts and terms
 - c. Holding power

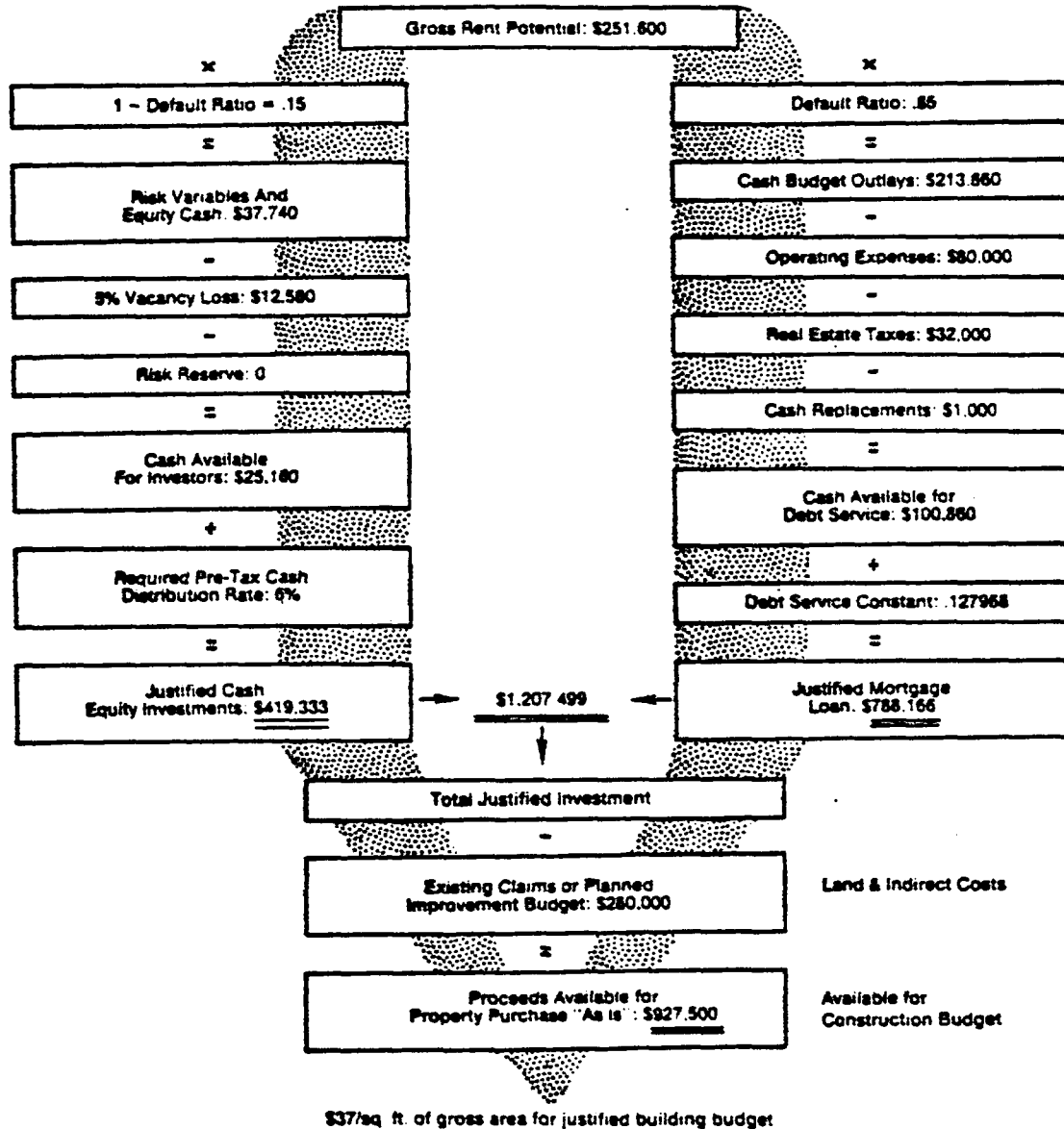
Loan to Cost Ratio Approach (Frontdoor Approach)



**Debt Cover Ratio Approach
(A Backdoor Approach)
Lender's Point of View**



**Default Ratio Approach
(Another Backdoor Approach)
Developer's Point of View**



5. Profits classified as to type and tax
 - a. Cash from operations
 - b. Cash from capital gains
 - c. Cash surplus from financing
 - d. Cash from tax savings on other income
6. Selected measures of profitability
 - a. Definition of investment
 - b. Definition of profit
 - c. Selected ratios of profit to investment
7. Selected measures of risk
 - a. Payback periods
 - b. Capacity for variance
 - c. Variance controls

F. For a rental investment property, the general format for determining after-tax cash flows for each period or year would generally be as follows:

PART I. ANNUAL (PERIODIC) RETURNS TO INVESTORS

1. Estimate potential gross cash income; Cash income from space sales
2. Deductions from potential gross
 - a. Normal vacancy
 - b. Seasonal income loss
 - c. Collection losses
 - d. Franchise fees, deposits returned, etc.
3. Add "other" income from service sales
4. Derive effective gross income
5. Deduct operating expenses (on expected cash outlay without accrual reserves)
 - a. Fixed expenses
 - b. Variable expenses
 - c. Repairs and maintenance
 - d. Replacements

6. Derive net_operating_income (NOI)
7. Deduct annual_debt_service
 - a. Contract interest
 - b. Supplementary variable interest
 - c. Principal amortization
8. Derive cash_throw-off
9. Add back principal_payments_and_replacements
10. Deduct tax_depreciation_allowance
11. Derive taxable_income
12. Determine marginal_income_tax on real estate income
13. Deduct income tax from cash throw-off (H)
14. Derive after-tax_cash_flow
15. Add tax_savings_on_other_income (if K is negative)
16. Add surplus_from_refinancing
17. Derive spendable_after-tax_cash

PART II. RESALE (REVERSION) RETURNS TO INVESTOR

1. Estimated_resale_price (end of period)
2. Deduct broker's commission and other transaction_costs
3. Derive effective_gross_proceeds from sale

4. Deduct all credit claims outstanding (end of period)
 - a. Short and long term note balances due
 - b. Prepayment penalties
 - c. Deduct equity shares to non-owner interest
5. Derive ~~pre-tax-reversion~~ to equity
6. Deduct tax claims on ownership interest
 - a. Deduct capital gains tax
 - b. Deduct income tax on disallowed accelerated depreciation
 - c. Deduct surtax on taxable preferential income
7. Derive ~~after-tax-resale-proceeds~~ to investor
(See Exhibit 4)

G. Financial risk is the variance between proforma budgets and historical accounting of results. Since loss of assets or of income expectations from static perils can be minimized by means of insurance devices for prediction and leveling of shock losses, financial risk management then becomes a matter of shaping incentives to reduce dynamic risks and provide a cushion or tolerance for surprise in the financial parameters of the enterprise.

H. The first level of risk analysis are gross statements of the maximum potential loss and the cushion for partial losses.

1. The loan to value ratio is an inexact measure of the maximum potential loss to the lender to a presumed salvage value of an asset. One minus the LTV plus the amount of personal guarantee is the measure of the borrower's maximum potential loss.
2. Financial judgment expects that the maximum potential loss would be only a fraction of net worth of either party.

P R O F O R M A
INVESTMENT ANALYSIS OF

FOR
DEMO.PROBLEM

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

* GROSS RENT	\$ 74368.	* RATE OF GROWTH OF GROSS RENT	0.0000
* EXPENSES	\$ 4738.	* RATE OF GROWTH OF EXPENSES	0.0000
* R E TAXES	\$ 5868.	* RATE OF GROWTH OF R E TAXES	0.0000
* INCOME TAX RATE	0.5000	PROJECT VALUE GROWTH OF	5.0000
* VACANCY RATE	0.0688	WORKING CAPITAL LOAN RATE	0.1200
EQUITY DISCOUNT	0.0970	EXTRAORDINARY EXPENSES	\$ 0.
RESALE COST	0.0650	REINVESTMENT RATE	0.0700
WKG CAPITAL RS	\$ 0.	CAPITAL RESER INTEREST RATE	0.0000
INITIAL COST	\$ 429674.	INITIAL EQUITY REQUIRED	\$ 107419.

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

- R E P O R T S E C T I O N N U M B E R 2 PAGE 1 -
=====

C O M P O N E N T S U M M A R Y

TITLE	PCT. DEPR	BEGIN USE	USEFUL LIFE	DEPR METHOD	COST	SCH
LAND	0.00	1	0.	0	\$ 87304.	0
IMPROVEMENTS	0.90	1	33.	4	\$ 342370.	0

M O R T G A G E S U M M A R Y

TITLE	INTR RATE	BEGIN YR.	END YR.	TERM	ORIG BALC	PCT VALUE
FIRST MORTGAGE	0.0942	1	27	27	\$ 322254	0.750

P R O F O R M A
INVESTMENT ANALYSIS OF

FOR

DEMO.PROBLEM

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

	1979	1980	1981	1982
1 GROSS RENT	74368.	74368.	74368.	74368.
2 LESS VACANCY	5114.	5114.	5114.	5114.
3 LESS REAL ESTATE TAXES	5868.	5868.	5868.	5868.
4 LESS EXPENSES	4738.	4738.	4738.	4738.
5 NET INCOME	58648.	58648.	58648.	58648.
6 LESS DEPRECIATION	15562.	14855.	14180.	13535.
7 LESS INTEREST	30903.	30638.	30346.	30025.
8 TAXABLE INCOME	12183.	13155.	14122.	15088.
9 PLUS DEPRECIATION	15562.	14855.	14180.	13535.
10 LESS PRINCIPAL PAYMENTS	2634.	2899.	3191.	3512.
11 CASH THROW-OFF	25111.	25111.	25111.	25111.
12 LESS TAXES	6091.	6578.	7061.	7544.
13 LESS RESERVES AT 730.000	730.	730.	730.	730.
14 CASH FROM OPERATIONS	18290.	17803.	17320.	16837.
15 WORKING CAPITAL LOAN(CUM B)	0.	0.	0.	0.
16 DISTRIBUTABLE CASH AFR TAX	18290.	17803.	17320.	16837.
17 TAX SAVING ON OTHER INCOME	0.	0.	0.	0.
18 SPENDABLE CASH AFTER TAXES	18290.	17803.	17320.	16837.

EXHIBIT 4 (Continued)

R E P O R T S E C T I O N N U M B E R 4

PAGE 1

11

CASH FLOW ANALYSIS

=====	1979	1980	1981	1982
MARKET VALUE				
19 BY METHOD - 5 - AT 0.0000	429674.	429674.	429674.	429674.
20 LESS RESALE COST	27929.	27929.	27929.	27929.
21 LESS LOAN BALANCES	319621.	316722.	313531.	310019.
22 PLUS CUM. CASH RESERVES	730.	1460.	2190.	2920.
23 B/4 TAX NET WORTH	82854.	86483.	90404.	94646.
24 CAPITAL GAIN (IF SOLD)	-18591.	-9254.	83.	9421.
25 CAPITAL GAINS TAX	-3718.	-1851.	17.	1884.
26 TAX PREFERENCE TAX	0.	0.	0.	0.
27 INCOME TAX ON EXCESS DEP	3112.	5871.	8292.	10391.
28 TOTAL TAX ON SALE	1253.	4946.	8309.	12275.
29 AFTER TAX NET WORTH	81601.	81537.	82095.	82370.

R E P O R T S E C T I O N N U M B E R 5

PAGE 1

YEAR OF ANALYSIS

=====	1979	1980	1981	1982
BEFORE TAX RATIO ANALYSIS				
30 RETURN ON NET WORTH B/4 TAX	0.0051	0.3469	0.3357	0.3247
31 CHANGE IN NET WORTH B/4 TAX	-24565.	3629.	3921.	4242.
32 CASH RTN ON ORIG CASH EQUIY	0.2338	0.2338	0.2338	0.2338
33 PERCENT ORIG EQUITY PAYBACK	0.1703	0.3360	0.4972	0.6540
34 PRESENT VALUE OF PROJECT	420678.	437887.	453529.	467748.

EXHIBIT 4(Continued)

REPORT SECTION NUMBER 6
=====

PAGE 1

YEAR OF ANALYSIS

=====

1979 1980 1981 1982

AFTER TAX RATIO ANALYSIS

=====

35	RETURN ON NET WORTH AFT TAX	-0.0701	0.2174	0.2193	0.2084
36	CHANGE IN NET WORTH AFT TAX	-25818.	-63.	558.	276.
37	CASH RTN ON ORIG CASH EQUIY	0.1703	0.1657	0.1612	0.1567
38	PERCENT ORIG EQUITY PAYBACK	0.1703	0.3360	0.4972	0.6540
39	PRESENT VALUE OF PROJECT	413317.	421485.	429041.	435362.

40	NET INCOME-MARKET VALUE RTO	0.1365	0.1365	0.1365	0.1365
41	LENDER BONUS INTEREST RATE	0.0000	0.0000	0.0000	0.0000
42	DEFAULT RATIO	0.5936	0.5936	0.5936	0.5936

REPORT SECTION NUMBER 7
=====

PAGE 1

YEAR OF ANALYSIS

=====

1979 1980 1981 1982

MODIFIED INTERNAL RATE OF RETURN ANALYSIS

=====

RETURN ANALYSIS WITHOUT SALE

=====

41	CUM. AFT TAX SPENDABLE CASH	18290.	37373.	57309.	78158.
44	MOD. I.R.R. ON ORIG EQUITY	-0.8297	-0.4102	-0.1889	-0.0764
45	MOD. I.R.R. ON CUM. EQUITY	-0.8297	-0.4102	-0.1889	-0.0764

RETURN ANALYSIS WITH SALE

=====

46	CUM. CASH LESS ORIG EQUITY	-7528.	11492.	31985.	53110.
47	CUM. CASH LESS CUM. EQUITY	-7528.	11492.	31985.	53110.
48	MOD I.R.R. ON ORIG EQUITY	-0.0701	0.0521	0.0908	0.1057
49	MOD I.R.R. ON CUM. EQUITY	-0.0701	0.0521	0.0908	0.1057

R E P O R T S E C T I O N

=====

SENSITIVITY ANALYSIS

=====

ANALYSIS YEAR IS 2 = 1980

DEFAULT RATE - NEEDED -	0.8300	0.8300	0.8300	0.8300
DEFAULT RATE - ACTUAL -	0.7979	0.7979	0.7979	0.7979
DIFFER -	0.0321	0.0321	0.0321	0.0321

TO CHANGE THE DEFAULT RATE .01
CHANGE ANY ONE OF THE FOLLOWING

CASH OUTLAYS		1979	1980	1981	1982
=====					

REAL ESTATE TAXES	BY	0.0917	0.0917	0.0917	0.0917
TOTAL EXPENSES	BY	0.1135	0.1135	0.1135	0.1135
FIXED EXPENSES	BY	0.1135	0.1135	0.1135	0.1135
VARIABLE EXPENSES	BY	0.0000	0.0000	0.0000	0.0000
TOTAL INTEREST PNTS.	BY	0.0181	0.0182	0.0184	0.0186
TOTAL PRINCIPAL PNTS.	BY	0.2119	0.1926	0.1750	0.1590
WORKING CAPITAL LOAN	BY	0.0000	0.0000	0.0000	0.0000
GROSS INCOME	BY	-0.0080	-0.0080	-0.0080	-0.0080
FIXED INCOME	BY	-0.0080	-0.0080	-0.0080	-0.0080
VARIABLE INCOME	BY	0.0000	0.0000	0.0000	0.0000

COMPONENTS

=====

		1979	1980	1981	1982
--	--	------	------	------	------

INITIAL INVESTMENT	BY	0.0917	0.0917	0.0917	0.0917
--------------------	----	--------	--------	--------	--------

LAND	BY	0.4452	0.4452	0.4452	0.4452
IMPROVEMENTS	BY	0.1033	0.1033	0.1033	0.1033
ENTREPRENEURIAL SKIL	BY	-0.9866	-0.9866	-0.9866	-0.9866

MORTGAGES

=====

		1979	1980	1981	1982
--	--	------	------	------	------

FIRST MORTGAGE	BY	0.0166	0.0166	0.0166	0.0166
----------------	----	--------	--------	--------	--------

EXHIBIT 4 (Continued)

REPORT SECTION

=====

SENSITIVITY ANALYSIS

=====

ANALYSIS YEAR IS 2 = 1980

TO CHANGE CASH RETURN BEFORE TAXES BY 1000.
 CHANGE ANY ONE OF THE FOLLOWING

CASH OUTLAYS		1979	1980	1981	1982
REAL ESTATE TAXES	BY	0.0415	0.0415	0.0415	0.0415
TOTAL EXPENSES	BY	0.0514	0.0514	0.0514	0.0514
FIXED EXPENSES	BY	0.0514	0.0514	0.0514	0.0514
VARIABLE EXPENSES	BY	0.0000	0.0000	0.0000	0.0000
TOTAL INTEREST PMTS.	BY	0.0082	0.0082	0.0083	0.0084
TOTAL PRINCIPAL PMTS.	BY	0.0960	0.0872	0.0792	0.0720
WORKING CAPITAL LOAN	BY	0.0000	0.0000	0.0000	0.0000
GROSS INCOME	BY	0.0045	0.0045	0.0045	0.0045
FIXED INCOME	BY	0.0045	0.0045	0.0045	0.0045
VARIABLE INCOME	BY	0.0000	0.0000	0.0000	0.0000

COMPONENTS

=====

		1979	1980	1981	1982
INITIAL INVESTMENT	BY	0.0415	0.0415	0.0415	0.0415
LAND	BY	0.2015	0.2015	0.2015	0.2015
IMPROVEMENTS	BY	0.0468	0.0468	0.0468	0.0468
ENTREPRENEURIAL SKIL	BY	-0.4466	-0.4466	-0.4466	-0.4466

MORTGAGES

=====

		1979	1980	1981	1982
FIRST MORTGAGE	BY	0.0075	0.0075	0.0075	0.0075

3. Conventional wisdom of the lender is that the pain of loss for the equity position will be sufficient to generate payment in almost all events or that the guarantees will be adequate to reduce minimum loss to zero.
4. Net income ratio:

$$\frac{\text{Net income}}{\text{Purchase price} + \text{additional cost} - \text{Overall rate or cap rate}} \text{ should reveal danger of reversed leverage}$$

5. The fallacy of such first level, over-simplified regulatory ratios is that value is the same as cash, that paper capital is as significant as cash available to meet the monthly payment, and that investor incentives are found solely or primarily below the net income level.
- I. Second level ratios begin to analyze and measure the relationship of specific assumptions one to another and in a way which provides relative measures of incentive, importance, and contribution to financial insecurity.

1. Construction loan to marginal cash cost of the borrower is such a balance sheet test ratio. The increment in risk of maximum loss for the borrower is the increase in his maximum potential loss as a result of financing the project.

2. Debt cover ratio:

$$\frac{\text{Net operating income}}{\text{Debt service}}$$

3. Default ratio:

$$\frac{\text{Operating expenses} + \text{real estate taxes} + \text{short term debt} + \text{interest} + \text{principal payments}}{\text{Gross rent}}$$

4. Payback ratio:

$$\frac{\text{Cumulative spendable cash}}{\text{Original budget} - \text{original debt} + \text{amount of personal guarantees}}$$

5. Spendable cash = distributable cash from operations + refinancing surplus + tax savings to other income + cash profits for services rendered.

6. All of these second level ratios assume a revenue stream called effective gross rent will simply be reallocated by the natural heirarchy of the income statement. That premise involves the major assumption of any enterprise, i.e., there are an adequate number of customers who prefer and who can afford the enterprise product.

- J. Third level risk ratios are those which link the space-time product to the money-time reflections in balance sheets and P & L statements. These ratios require some primary research.

1. Building efficiency ratio:

$$\frac{\text{Gross leasable area}}{\text{Gross building area}} \quad \text{or} \quad \frac{\text{Usable area}}{\text{Gross leasable area}}$$

or

$$\frac{\text{Gross leasable area}}{\text{Total site area}} \quad \text{or} \quad \frac{\text{Rentable area}}{\text{Usable area}}$$

or

$$\frac{\text{Building surface area}}{\text{Gross leasable area}}$$

2. Vacancy ratio:

$$\frac{\text{Space unit} \times \# \text{ of units} \times \text{rental payment periods per year} \times \text{turnover rate} \times \text{rental payments lost} \times \text{rent}}{\# \text{ of units} \times \# \text{ of payments} \times \text{rent per period}} = (\text{gross rent})$$

1-bedroom apartments x 20 x 50% turnover
x 1 month lost x \$200/mo.

$$\frac{20 \times 50\% \times 1 \times 200}{20 \times 12 \times 200}$$

$$\frac{2000}{48000} = \frac{1}{24} = 4.2\%$$

3. Absorption rate:

$$\frac{\text{Units sold or leased per period}}{\text{Total supply of units available for sale or lease}}$$

4. Capture rate:

$$\frac{\text{Units in specific project sold or leased per period}}{\text{Total competitive units sold or leased per period}}$$

5. Sensitivity models or tables permit measurement of a change in one variable as compared to all other variables to establish the parameters of tolerance or to identify the most useful areas for further modification of the financial structure.
6. A significant weakness of second level ratios is the fact that they do not deal with time or the opportunity costs of money for comparison of investments with alternative patterns of cash outlays and receipts.

K. Third level ratios modify comparisons for the influence of time, between one period and another or for cumulative periods of time. Prospective rates of return compare one time period with another while retrospective rates are concerned

with cumulative results. Probability models display the frequency distribution over time of alternative outcomes when certain variables are permitted to vary according to some pattern and parameter.

Prospective rates

1. Return on net worth before tax:

$$\frac{\text{Cash throw-off} + \text{change in net worth}}{\text{Net worth at end of previous period}}$$

2. Return on net worth after tax:

$$\frac{\text{Spendable cash} + (\text{change in net worth} - \text{change in taxes on sale or transfer})}{\text{Net worth at end of previous period} - \text{taxes on sale or transfer}}$$

3. Cash on cash before taxes:

$$\frac{\text{Cash throw-off}}{\text{Total cash budget less original debt}}$$

4. Cash on cash after tax:

$$\frac{\text{Distributable cash} + \text{tax savings to other income}}{\text{Total cash budget less original debt}}$$

Retrospective rates

5. Internal rate of return is that rate which makes the net present value difference between the present value of outlays and the present value of receipts equal to zero.
6. The modified internal rate of return (weighted average portfolio return) is the internal rate of return which makes the net present value difference of the outlays discounted at the opportunity cost of money and the cumulative receipts compounded at the reinvestment rate equal to zero. (The only difference between MIRR and the financial management rate of return FMRR is that the latter uses an average cost of

capital rather than recognizing short-term financing of deficit operations.)

7. Profitability index:

$$\frac{\text{Net present value of return}}{\text{Total cost of acquisition}}$$

8. Net cumulative cash after taxes less original investment with and without resale proceeds after taxes on sale or transfer.

L. Sensitivity analysis involves fine tuning of controllable variables and testing of tolerance of project for variance or surprise. There are many computer systems which permit testing of physical plan (Exhibit 5) or tax and finance implications (Exhibit 6).

M. New attempts to create real estate indexes of performance by property type over time are now experimental.

1. Problems in accounting standardization.

2. Problems in accounting/appraisal interface.

3. Problems in appraisal standard practice.

SHOPPING CENTER CASE STUDY

DATE: 3/11/ 79

BLDG: 1

RUN : 1

GROSS SQUARE FEET IN BUILDING: 60242.
 BUILDING EFFICIENCY : 100.0 PCT
 NET LEASEABLE SQUARE FOOTAGE : 60242.

LAND AND CONSTRUCTION COST : \$ 1766571.
 LOAN TO COST RATIO : 75.0 PCT
 ORIGINAL LOAN AMOUNT : \$ 1324929.

EQUITY REQUIREMENT : \$ 441643.

PERMANENT INTEREST RATE : 9.625 PCT
 TERM OF LOAN 27. YEARS

ANNUAL DEBT SERVICE : \$ 137885.

ANNUAL DOLLARS

GROSS INCOME : 60242. SQ FT AT \$ 3.67 221088.
 LESS: VACANCY OF 3.77 PCT 8335.

GROSS EFFECTIVE INCOME 212753.

OPERATING EXPENSES: 60242. SQ FT AT \$ 0.77 46386.

NET OPERATING INCOME 166367.

DEBT SERVICE (10.41 PCT CONSTANT) 137885.

PRO FORMA CASH FLOW 28482.

RETURN ON EQUITY 6.45 PERCENT

DEBT SERVICE COVERAGE: 1.207

DEFAULT RATIO : 83.35 PERCENT

PROGRAM STOP AT 17870

USED 17.97 UNITS
 /COST OFF

ACCRUED CHARGES SINCE SIGNIN

\$ 3.82 COMPUTER

6.35 CONNECT

5.70 CHARACTERS

\$ 15.87 TOTAL

EFFICIENCY = 89.8

00028.09 CRU 0000.46 TCH 0041.46 KC

OFF AT 16:59CST 03/12/79

INPUT DATA LISTING

BUILDING ID 1
DATE 3 11 79

TITLES

TITLES SHOPPING CENTER CASE STUDY

SQ FT IN TRACT 255698.00

RUN NO. 1

CONSTRUCTION-SHELL	0. SQ FT AT \$	0.	\$
CONSTRUCTION-INTERIOR	0. SQ FT AT \$	0.	\$
TOTAL BUILDING COST	60242. SQ FT AT \$	19.69	\$
GRADE PARKING 654.55SQFT	275.00SPACES @ \$	0.50	\$

STRUCT. PKING 0. SQFT 0. SPACES @ \$ 0.

LANDSCAPING 0.
FF AND E 0.

RESTAURANT 74538.00

FEES

ARCHITECTURE	0.
ENGINEERING	0.
LOAN FEES	20000.00
CLOSING COSTS	0.
TAXES AND INS	0.
OPTIONAL TITLE	OPTIONAL EXPENSES
LEASING FEES	10640.00

CONSTRUCTION INTERIM RATE	10.000 PCT
CONSTRUCTION PERIOD	8 MONTHS
LAND INTERIM RATE IS	0. PCT
255698.00 SQUARE FEET AT \$	1.30

INTERIM RATE 0. PCT FOR 0. MONTHS

COST PER MONTH 0. FOR 0. MONTHS

OTHER LAND COSTS 0.

CONSTRUCTION COST ESTIMATE

SHOPPING CENTER CASE STUDY

DATE: 3/11/ 79

BLDG: 1

RUN : 1

CONSTRUCTION COSTS

DOLLARS

TOTAL BUILDING COST	60242. SQ FT AT \$ 19.69	\$ 1186165.
GRADE PARKING	275. SPACES AT \$ 327.	90001.
RESTAURANT		74538.

SUBTOTAL CONSTRUCTION	1350704.
-----------------------	----------

LOAN ORIGATION FEES	AT 1.5 PCT	20000.
LEASING FEES	AT 0.8 PCT	10640.

CUMULATIVE SUBTOTAL	1381344.
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INTERIM INTEREST-CONSTRUCTION	
\$ 1381344. AT 10.0 PCT FOR 8 MONTHS COMPOUNDED	52820.

TOTAL CONSTRUCTION COSTS	1434164.
--------------------------	----------

LAND COSTS

255698. SQ FT AT \$ 1.30	332407.
INTERIM INTEREST-LAND	

TOTAL LAND COST	332407.
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TOTAL LAND AND CONSTRUCTION COST	1766571.
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PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE	1 OF 12
SITE : 255698. SQUARE FEET	DATE	3-11- 79
BUILDING : 60242. SQUARE FEET	BLDG	1
EFFICIENCY: 100.00 PCT(60242. SQ FT)		
LOAN RATIO: 75.00 PCT OF \$ 1766571.		
LOAN : \$ 1324929.		
EQUITY : \$ 441643.		
FINANCING : 27. YEARS 9.625 PCT		
GTR INCOME: \$ 0. ANNUALLY	RUN	1
EXPENSES : \$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

VACANCY ALLOWANCE

	3.00 PCT	3.77 PCT	4.00 PCT	5.00 PCT	6.00 PCT
RENTAL RATES ANNUAL \$/SQ FT	-----	-----	-----	-----	-----
\$ 3.25	5641.	4134.	3683.	1726.	-232.
\$ 3.50	20250.	18626.	18142.	14033.	13925.
\$ 3.67	30184.	28482.	27973.	25762.	23551.
\$ 3.75	34859.	33119.	32600.	30341.	28081.
\$ 4.00	49467.	47612.	47058.	44648.	42238.

BREAKEVEN RENTAL RATES

VACANCY ALLOWANCE

	3.00 PCT	3.77 PCT	4.00 PCT	5.00 PCT	6.00 PCT
RENTAL RATES ANNUAL \$/SQ FT	-----	-----	-----	-----	-----
	3.15	3.18	3.19	3.22	3.25

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS		PAGE	2 OF 12
SITE :	255698. SQUARE FEET	DATE	3-11- 79
BUILDING :	60242. SQUARE FEET	BLDG	1
EFFICIENCY:	100.00 PCT(60242. SQ FT)		
LOAN RATIO:	75.00 PCT OF \$ 1766571.		
LOAN :	\$ 1324929.		
EQUITY :	\$ 441643.		
FINANCING :	27. YEARS 9.625 PCT		
VACANCY :	3.77 PCT OF LEASEABLE		
OTR INCOME:	\$ 0. ANNUALLY	RUN	1

ANNUAL CASH FLOWS

ANNUAL EXPENSE RATES PER SQ FT

	\$ 0.70	\$ 0.77	\$ 0.80	\$ 0.90	\$ 1.00
	-----	-----	-----	-----	-----
RENTAL RATES					
ANNUAL \$/SQ FT					
\$ 3.25	8351.	4134.	2326.	-3698.	-9722.
\$ 3.50	22843.	18626.	16819.	10795.	4771.
\$ 3.67	32698.	28482.	26674.	20650.	14626.
\$ 3.75	37336.	33119.	31312.	25288.	19264.
\$ 4.00	51829.	47612.	45805.	39780.	33756.

BREAKEVEN RENTAL RATES

ANNUAL EXPENSE RATES PER SQ FT

	\$ 0.70	\$ 0.77	\$ 0.80	\$ 0.90	\$ 1.00
	-----	-----	-----	-----	-----
RENTAL RATES					
ANNUAL \$/SQ FT					
	3.11	3.18	3.21	3.31	3.42

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE	3 OF 12
SITE : 255698. SQUARE FEET	DATE	3-11- 79
BUILDING : 60242. SQUARE FEET	BLDG	1
EFFICIENCY: 100.00 PCT(60242. SQ FT)		
LOAN RATIO: 75.00 PCT OF \$ 1766571.		
LOAN : \$ 1324929.		
EQUITY : \$ 441643.		
VACANCY : 3.77 PCT OF LEASEABLE		
OTR INCOME: \$ 0. ANNUALLY	RUN	1
EXPENSES : \$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

RENTAL RATES
ANNUAL \$/SQ FT

	-----	-----	-----	-----	-----
\$ 3.25	4134.	2716.	-135.	-453.	3109.
\$ 3.50	18626.	17208.	14358.	14039.	17601.
\$ 3.67	28482.	27063.	24213.	23894.	27456.
\$ 3.75	33119.	31701.	28851.	28532.	32094.
\$ 4.00	47612.	46194.	43343.	43025.	46587.

BREAKEVEN RENTAL RATES

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

RENTAL RATES
ANNUAL \$/SQ FT

-----	-----	-----	-----	-----
3.18	3.20	3.25	3.26	3.20

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS

PAGE 4 OF 12

SITE :	255698. SQUARE FEET	DATE	3-11- 79
BUILDING :	60242. SQUARE FEET	BLDG	1
LOAN RATIO:	75.00 PCT OF \$ 1766571.		
LOAN :	\$ 1324929.		
EQUITY :	\$ 441643.		
FINANCING :	27. YEARS 9.625 PCT		
VACANCY :	3.77 PCT OF LEASEABLE		
OTR INCOME:	\$ 0. ANNUALLY	RUN	1
EXPENSES :	\$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

BUILDING EFFICIENCY (PCT OF GROSS)

99.60 PCT 100.00 PCT 102.92 PCT 106.24 PCT 109.56 PCT
LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

RENTAL RATES
ANNUAL \$/SQ FT

\$ 3.25	17708.	12993.	3563.	4134.	8278.
\$ 3.50	33586.	28390.	17998.	18626.	23194.
\$ 3.67	44383.	38860.	27813.	28482.	33336.
\$ 3.75	49464.	43787.	32432.	33119.	38109.
\$ 4.00	65342.	59184.	46867.	47612.	53025.

BREAKEVEN RENTAL RATES

BUILDING EFFICIENCY (PCT OF GROSS)

99.60 PCT 100.00 PCT 102.92 PCT 106.24 PCT 109.56 PCT
LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

RENTAL RATES
ANNUAL \$/SQ FT

2.97	3.04	3.19	3.18	3.11
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PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE	5 OF 12
SITE : 255698. SQUARE FEET	DATE	3-11-79
BUILDING : 60242. SQUARE FEET	BLDG	1
EFFICIENCY: 100.00 PCT(60242. SQ FT)		
FINANCING : 27. YEARS 9.625 PCT		
VACANCY : 3.77 PCT OF LEASEABLE		
QTR INCOME: \$ 0. ANNUALLY	RUN	1
EXPENSES : \$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

LOAN TO COST RATIO

	70.00 PCT	72.00 PCT	75.00 PCT	78.00 PCT	80.00 PCT
RENTAL RATES ANNUAL \$/SQ FT	-----	-----	-----	-----	-----
\$ 3.25	13326.	9649.	4134.	-1382.	-5059.
\$ 3.50	27819.	24142.	18626.	13111.	9434.
\$ 3.67	37674.	33997.	28482.	22966.	19289.
\$ 3.75	42312.	38635.	33119.	27604.	23927.
\$ 4.00	56804.	53127.	47612.	42096.	38420.

BREAKEVEN RENTAL RATES

LOAN TO COST RATIO

	70.00 PCT	72.00 PCT	75.00 PCT	78.00 PCT	80.00 PCT
RENTAL RATES ANNUAL \$/SQ FT	-----	-----	-----	-----	-----
	3.02	3.08	3.18	3.27	3.34

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS		PAGE	6 OF 12
SITE :	255698. SQUARE FEET	DATE	3-11- 79
BUILDING :	60242. SQUARE FEET	BLDG	1
EFFICIENCY:	100.00 PCT(60242. SQ FT)		
LOAN RATIO:	75.00 PCT OF \$ 1766571.		
LOAN :	\$ 1324929.		
EQUITY :	\$ 441643.		
REVENUE :	\$ 3.67 PER SQ FT		
OTR INCOME:	\$ 0. ANNUALLY	RUN	1
EXPENSES :	\$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

VACANCY RATES

	-----	-----	-----	-----	-----
3.00 PCT	30184.	28766.	25915.	25597.	29159.
3.77 PCT	28482.	27063.	24213.	23894.	27456.
4.00 PCT	27973.	26555.	23704.	23386.	26948.
5.00 PCT	25762.	24344.	21494.	21175.	24737.
6.00 PCT	23551.	22133.	19283.	18964.	22526.

BREAKEVEN RENTAL RATES

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

VACANCY RATES

	-----	-----	-----	-----	-----
3.00 PCT	3.15	3.18	3.23	3.23	3.17
3.77 PCT	3.18	3.20	3.25	3.26	3.20
4.00 PCT	3.19	3.21	3.26	3.27	3.20
5.00 PCT	3.22	3.24	3.29	3.30	3.24
6.00 PCT	3.25	3.29	3.33	3.34	3.27

EXHIBIT 5 (Continued)

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE 7 OF 12
SITE : 255698. SQUARE FEET	DATE 3-11- 79
BUILDING : 40242. SQUARE FEET	BLDG 1
EFFICIENCY: 100.00 PCT(40242. SQ FT)	
LOAN RATIO: 75.00 PCT OF \$ 1766571.	
LOAN : \$ 1324929.	
EQUITY : \$ 441643.	
REVENUE : \$ 3.67 PER SQ FT	
VACANCY : 3.77 PCT OF LEASEABLE	
QTR INCOME: \$ 0. ANNUALLY	RUN 1

ANNUAL CASH FLOWS

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

EXPENSE RATES
ANNUAL \$/SQ FT

\$ 0.70	32698.	31280.	28430.	28111.	31673.
\$ 0.77	28482.	27063.	24213.	23894.	27456.
\$ 0.80	26674.	25256.	22406.	22087.	25649.
\$ 0.90	20650.	19232.	16381.	16063.	19625.
\$ 1.00	14626.	13208.	10357.	10039.	13601.

BREAKEVEN RENTAL RATES

FINANCING PARAMETERS

27. YEARS	27. YEARS	27. YEARS	30. YEARS	25. YEARS
9.62 PCT	9.75 PCT	10.00 PCT	10.25 PCT	9.50 PCT

EXPENSE RATES
ANNUAL \$/SQ FT

\$ 0.70	3.11	3.13	3.18	3.19	3.12
\$ 0.77	3.18	3.20	3.25	3.26	3.20
\$ 0.80	3.21	3.23	3.28	3.29	3.23
\$ 0.90	3.31	3.34	3.39	3.39	3.33
\$ 1.00	3.42	3.44	3.49	3.50	3.44

FED FORM CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE	8 OF 12
SITE : 255698. SQUARE FEET	DATE	3-11- 79
BUILDING : 60242. SQUARE FEET	BLDG	1
LOAN RATIO: 75.00 PCT OF \$ 1746571.		
LOAN : \$ 1324929.		
EQUITY : \$ 441643.		
FINANCING : 27. YEARS 9.625 PCT		
REVENUE : \$ 3.67 PER SQ FT		
VACANCY : 3.77 PCT OF LEASEABLE		
QTR INCOME: \$ 0. ANNUALLY	RUN	1

ANNUAL CASH FLOWS

BUILDING EFFICIENCY (PCT OF GROSS)

99.60 PCT 100.00 PCT 102.92 PCT 106.24 PCT 109.56 PCT
LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

EXPENSE RATES
ANNUAL \$/SQ FT

\$ 0.70	49003.	43340.	32013.	32698.	37676.
\$ 0.77	44383.	38860.	27813.	28482.	33336.
\$ 0.80	42403.	36940.	26013.	26674.	31476.
\$ 0.90	35803.	30540.	20013.	20650.	25276.
\$ 1.00	29203.	24140.	14013.	14626.	19076.

BREAKEVEN RENTAL RATES

BUILDING EFFICIENCY (PCT OF GROSS)

99.60 PCT 100.00 PCT 102.92 PCT 106.24 PCT 109.56 PCT
LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

EXPENSE RATES
ANNUAL \$/SQ FT

\$ 0.70	2.90	2.97	3.12	3.11	3.04
\$ 0.77	2.97	3.04	3.19	3.18	3.11
\$ 0.80	3.00	3.07	3.22	3.21	3.14
\$ 0.90	3.11	3.17	3.32	3.31	3.25
\$ 1.00	3.21	3.28	3.43	3.42	3.35

EXHIBIT 5 (Continued)
PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE	9 OF 12
SITE : 255698. SQUARE FEET	DATE	3-11- 79
BUILDING : 60242. SQUARE FEET	BLDG	1
EFFICIENCY: 100.00 PCT(60242. SQ FT)		
FINANCING : 27. YEARS 9.625 PCT		
REVENUE : \$ 3.67 PER SQ FT		
VACANCY : 3.77 PCT OF LEASEABLE		
QTR INCOME: \$ 0. ANNUALLY	RUN	1

ANNUAL CASH FLOWS

LOAN TO COST RATIO

	70.00 PCT	72.00 PCT	75.00 PCT	78.00 PCT	80.00 PCT
EXPENSE RATES ANNUAL \$/SQ FT					
\$ 0.70	41891.	38214.	32698.	27183.	23506.
\$ 0.77	37674.	33997.	28482.	22966.	19289.
\$ 0.80	35867.	32190.	26674.	21159.	17482.
\$ 0.90	29842.	26165.	20650.	15135.	11458.
\$ 1.00	23818.	20141.	14626.	9110.	5434.

BREAKEVEN RENTAL RATES

LOAN TO COST RATIO

	70.00 PCT	72.00 PCT	75.00 PCT	78.00 PCT	80.00 PCT
EXPENSE RATES ANNUAL \$/SQ FT					
\$ 0.70	2.95	3.01	3.11	3.20	3.26
\$ 0.77	3.02	3.08	3.18	3.27	3.34
\$ 0.80	3.05	3.11	3.21	3.31	3.37
\$ 0.90	3.16	3.22	3.31	3.41	3.47
\$ 1.00	3.26	3.32	3.42	3.51	3.58

EXHIBIT 5 (Continued)

PRO FORMA CASH FLOW TABLE

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS		PAGE	10 OF 12
SITE :	255698. SQUARE FEET	DATE	3-11- 79
BUILDING :	60242. SQUARE FEET	BLDG	1
EFFICIENCY:	100.00 PCT(60242. SQ FT)		
REVENUE :	\$ 3.67 PER SQ FT		
VACANCY :	3.77 PCT OF LEASEABLE		
QTR INCOME:	\$ 0. ANNUALLY	RUN	1
EXPENSES :	\$ 0.77 PER SQ FT		

ANNUAL CASH FLOWS

LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

FINANCING

27.YR 9.62PCT	37674.	33997.	28482.	22966.	19289.
27.YR 9.75PCT	36350.	32636.	27063.	21491.	17777.
27.YR 10.00PCT	33690.	29899.	24213.	18527.	14736.
30.YR 10.25PCT	33393.	29593.	23894.	18195.	14396.
25.YR 9.50PCT	36717.	33013.	27456.	21900.	18196.

BREAKEVEN RENTAL RATES

LOAN TO COST RATIO

70.00 PCT 72.00 PCT 75.00 PCT 78.00 PCT 80.00 PCT

FINANCING

27.YR 9.62 PCT	3.02	3.08	3.18	3.27	3.34
27.YR 9.75 PCT	3.04	3.11	3.20	3.30	3.36
27.YR 10.00 PCT	3.09	3.15	3.25	3.35	3.42
30.YR 10.25 PCT	3.09	3.16	3.26	3.36	3.42
25.YR 9.50 PCT	3.04	3.10	3.20	3.29	3.36

EXHIBIT 5 (Continued)
SENSITIVITY TABLE

33

SHOPPING CENTER CASE STUDY

FIXED PARAMETERS	PAGE 11 OF 12
SITE : 255698. SQUARE FEET	DATE 3-11- 79
BUILDING : 60242. SQUARE FEET	BLDG 1
EFFICIENCY: 100.00 PCT OF GROSS	
LOAN RATIO: 75.00 PCT OF \$ 1766571.	
EQUITY : \$ 441643.	
FINANCING : 27. YEARS 9.625 PCT	
REVENUE : \$ 3.67 PER SQ FT	
VACANCY : 3.77 PCT OF LEASEABLE	
PARK/OTHER: \$ 0. ANNUALLY	RUN 1
EXPENSES : \$ 0.77 PER SQ FT	
CONSTRUCTION AND LAND COST 1766571.	
CONSTRUCTION INTERIM RATE 10.000 PCT	
CONSTRUCTION PERIOD 8 MONTHS	
LAND INTERIM RATE IS 0. PCT	

EFFECT OF SELECTED CHANGES IN PARAMETERS

PARAMETER CHANGE	INCREASE IN CASH FLOW	EFFECT ON CONSTRUCTION
DECREASE CONSTRUCTION COST \$ 100,000	\$ 11050.	\$ -106179.
DECREASE CONSTRUCTION \$ 1.00 PER SQ FT	6657.	-63964.
INCREASE CONSTRUCTION PERIOD 1 MONTH	-1198.	11511.
DECREASE CONST AND LAND INTERIM 1 PCT	590.	-5673.
DECREASE TOTAL LAND COST BY \$ 332407.	34594.	
INCREASE BUILDING EFFICIENCY 1 PCT	1664.	
INCREASE RENTAL RATE \$.10 PER SQ FT	5797.	
DECREASE VACANCY RATE 1PCT	2211.	
DECREASE OPERATING RATE \$.10 PER SQ FT	6024.	
DECREASE PERMANENT RATE .25PCT	2821.	
DECREASE PERMANENT LOAN TERM BY 1 YEAR	-1136.	
DECREASE PERMANENT LOAN TERM BY 5 YEARS	-7252.	
DECREASE THE LOAN RATIO BY 5 PERCENT	9192.	

EQUIVALENT EFFECT TO YIELD

A \$ 5000. INCREASE IN ANNUAL CASH FLOW

DECREASE CONSTRUCTION COSTS BY \$	45249.
DECREASE CONSTRUCTION COST BY \$ 0.75 PER SQ FT	
DECREASE LAND COST (NO INTERIM) BY \$	48045.
DECREASE CONSTRUCTION PERIOD BY	4.2 MONTHS
DECREASE INTERIM INTEREST BY	8.47 PCT
INCREASE BUILDING EFFICIENCY BY	3.01 PCT
INCREASE RENT RATE BY \$	0.09 PER SQ FT
DECREASE VACANCY BY	2.26 PCT
DECREASE EXPENSE RATE BY \$	0.08 PER SQ FT
DECREASE PERMANENT RATE BY	0.44 PCT
INCREASE PERMANENT LOAN TERM BY	3.4 YEARS
DECREASE LOAN RATIO BY	2.7 PERCENT

EXHIBIT 6

V A L T E S T

A DEMONSTRATION PACKET

PREPARED BY
LANDMARK RESEARCH, INC.,
MADISON, WISCONSIN

PREPARED FOR
THE REAL ESTATE ANALYSTS NORTHSTAR USERS GROUP

SEPTEMBER 24 AND 25, 1982
COSTA MESA, CALIFORNIA

VALTEST

DEMONSTRATION 1

INPUT ASSUMPTIONS

1. ENTER PROJECT NAME ? J
 2. ENTER PROJECTION PERIOD ? 5
 3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? N
TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER 0
N.O.I. YEAR 1? 5000
N.O.I. YEAR 2? 5000
N.O.I. YEAR 3? 6000
N.O.I. YEAR 4? 6000
N.O.I. YEAR 5? 7000
 4. ACQUISITION COST: ? 50000
 5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N? Y
MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? .8, .12, 25, 12
 6. ENTER RATIO OF IMP #1/TOTAL VALUE. LIFE OF IMP #1? .8, 15
IS THERE A SECOND IMPROVEMENT? Y OR N? N
 7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 2
ENTER D.B. %: ? 175
IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ? N
IS PROPERTY RESIDENTIAL? Y OR N? Y
 8. IS OWNER A TAXABLE CORPORATION? Y OR N ? Y
CORPORATE FEDERAL ORDINARY TAX RATE COULD BE :
17% - 46% (1978 LAW, EFFECTIVE 1979)
16% - 46% (1981 LAW, EFFECTIVE 1982)
15% - 46% (1981 LAW, EFFECTIVE 1983 & THEREAFTER)
MAXIMUM CORPORATE CAPITAL GAIN ALTERNATIVE TAX RATE IS 28%

(PLUS STATE RATE)
- ENTER:
- 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
? .46, .46
 9. RESALE PRICE (NET OF SALE COSTS) ? 60000
 10. IS THERE LENDER PARTICIPATION ? N
 11. ENTER OWNER'S AFTER TAX REINVESTMENT RATE (2/?) ? 9
 12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUNDS (%) ? 9

EXHIBIT 6 (Continued)
DEMONSTRATION 1 (Cont.)

AFTER TAX CASH FLOW PROJECTION

J
DATE 9/14/82

DATA SUMMARY

ACQUISITION COST:	\$50,000.	MTG. AMT.:	\$40,000.
NOI 1ST YR:	\$5,000.	MTG. INT.:	12%
ORG. EQUITY:	\$10,000.	MTG. TERM:	25. YRS
CTD 1ST YEAR:	\$-55.	DEBT SERVICE 1ST YEAR:	\$5,055.
		MTG. CONST.:	.1263869
IMP. #1 VALUE:	\$40,000.	IMP. #1 LIFE:	15.
INC. TX RATE:	46%		
SALE YR RATE:	46%	OWNER:	CORPORATION

DEPRECIATION IMPROVEMENT #1 : 175% D.B.
RESIDENTIAL PROPERTY

LENDER PARTICIPATION: CASH THROW-OFF: NONE REVERSIO-: NONE

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS PROVIDED BY JEAN ARE PROPER OR THAT THE CURRENT TAX ESTIMATES USED IN THIS PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES. NO ESTIMATE HAS BEEN MADE OF MINIMUM PREFERENCE TAX. CAPITAL LOSSES IN YEAR OF SALE ARE TREATED AS ORDINARY LOSSES (SECTION 1231 PROPERTY) AND ARE CREDITED AGAINST TAXES PAID AT THE ORDINARY RATE AT THE TIME OF SALE. FOR THE PURPOSE OF THE MODIFIED INTERNAL RATE OF RETURN (M.I.R.R.) CALCULATION, NEGATIVE CASH IN ANY ONE PERIOD IS COVERED BY A CONTRIBUTION FROM EQUITY IN THAT PERIOD

YEAR	NOI	MTG INT & LENDERS %	TAX DEP	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1.	5000.	4785.	4667.	-4453.	-2049.	1994.
2.	5000.	4751.	4122.	-3874.	-1783.	1728.
3.	6000.	4713.	3641.	-2355.	-1084.	2029.
4.	6000.	4669.	3216.	-1887.	-869.	1814.
5.	7000.	4620.	2641.	-462.	-214.	2159.
	<u>\$29000.</u>	<u>\$23539.</u>	<u>\$18488.</u>	<u>\$-13031.</u>	<u>\$-5999.</u>	<u>\$9722.</u>

EXHIBIT 6 (Continued)

DEMONSTRATION 1 (Cont.)

RESALE PRICE:	\$60,000.	1ST YR B4 TAX EQ DIV:	-.5548%
LESS MORTGAGE BALANCE:	\$38,261.	AUG DEBT COVER RATIO:	1.1473
PROCEEDS BEFORE TAXES:	\$21,739.		
LESS LENDER'S %:	\$0.		
NET SALES PROCEEDS			
BEFORE TAXES:	\$21,739.		

=====

RESALE PRICE:	\$60,000.
LESS LENDER'S %:	\$0.
NET RESALE PRICE:	\$60,000.
LESS BASIS:	\$31,512.
TOTAL GAIN:	\$28,488.
EXCESS DEPRECIATION:	\$5,155.
CAPITAL GAIN:	\$23,333.
ORDINARY GAIN:	\$5,155.

=====

TAX ON ORDINARY GAIN:	\$2,371.
TAX ON CAPITAL GAIN:	\$6,533.
PLUS MORTGAGE BAL:	\$38,261.
TOTAL DEDUCTIONS FROM	
NET RESALE PRICE:	\$47,166.

=====

NET SALES PROCEEDS	
AFTER TAX:	\$12,834.

=====

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$60,000.
 THE MODIFIED I.R.R. BEFORE TAXES IS 20.6487% AND AFTER TAXES IS 19.5605%
 ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9%, AND OPPORTUNITY COST OF 9%

DEMONSTRATION 1 (Cont.)

MORTGAGE ANALYSIS

J

YEAR	NOI	MORT INT.	MORT AMORT	DEBT SERV	DCR	MTG. BAL.
1.	5000.	4785.	270.	5055.	.989	39730.
2.	5000.	4751.	304.	5055.	.989	39426.
3.	6000.	4713.	343.	5055.	1.187	39083.
4.	6000.	4669.	386.	5055.	1.187	38697.
5.	7000.	4620.	435.	5055.	1.385	38261.
AVG	\$5,800.				1.147	

DISTRIBUTION OF CASH THROW-OFF

J

YEAR	CASH THROW-OFF TOTAL	CASH THROW-OFF TO EQUITY	CASH BONUS TO LENDER
1.	-55.	-55.	0.
2.	-55.	-55.	0.
3.	945.	945.	0.
4.	945.	945.	0.
5.	1945.	1945.	0.
	----- 3723.	----- 3723.	----- 0.

RESALE PRICE:	\$60,000.
LESS MORTGAGE BALANCE:	\$38,261.
PROCEEDS BEFORE TAXES:	\$21,739.
LESS LENDER'S %:	\$0.
NET SALES PROCEEDS BEFORE TAXES:	\$21,739.

=====

CASH THROW-OFF = 0% REVERSION = 0%

DEMONSTRATION 1 (Cont.)

DEPRECIATION SCHEDULE

J

IMPROVEMENT # 1

175% D.B.

RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	4666.7	2666.7	2000.0	35333.3
2.	4122.2	2666.7	1455.6	31211.1
3.	3641.3	2666.7	974.6	27569.8
4.	3216.5	2666.7	549.8	24353.3
5.	2841.2	2666.7	174.6	21512.1

	=====	=====	=====
TOTAL	18487.9	13333.3	5154.6

EQUITY ANALYSIS

J

BEFORE TAX EQUITY DIVIDEND

YR	NOI	YR END EQUITY	AMOUNT	CASH RETURN	
				ORG EQ	CUR EQ
1.	\$5,000.	\$10,325.	\$-55.	-.0055	-.0054
2.	5,000.	10,685.	-55.	-.0055	-.0052
3.	6,000.	11,028.	945.	.0945	.0856
4.	6,000.	11,414.	945.	.0945	.0827
5.	7,000.	11,850.	1,945.	.1945	.1641

ORIGINAL EQUITY: \$ 10000

VALTEST

DEMONSTRATION 2

INPUT ASSUMPTIONS

1. ENTER PROJECT NAME ? CARDINAL-2
2. ENTER PROJECTION PERIOD ? 5
3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? N
TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER 0
N.O.I. YEAR 1? 81745
N.O.I. YEAR 2? 81920
N.O.I. YEAR 3? 98910
N.O.I. YEAR 4? 108800
N.O.I. YEAR 5? 119680
4. ACQUISITION COST: ? 1007000
5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N?Y
MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? 647000. .15236, 30, 12
6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? .149, 15
IS THERE A SECOND IMPROVEMENT? Y OR N? Y
ENTER RATIO OF IMP #2/TOTAL VALUE, LIFE OF IMP #2? .781, 15
ENTER REHABILITATION TAX CREDIT FOR IMP #2: 196625
IS STRUCTURE A CERTIFIED HISTORICAL LANDMARK? Y OR N?Y
7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 1
DEPRECIATION METHOD, IMPROVEMENT #2 ? 1
IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ?N
IS PROPERTY RESIDENTIAL? Y OR N? Y
8. IS OWNER A TAXABLE CORPORATION? Y OR N ?N
THE MAXIMUM FEDERAL INDIVIDUAL ORDINARY RATE COULD BE:
70% (PRE-1981 LAW)
50% (1981 LAW, EFFECTIVE 1982)

(PLUS STATE RATE)

ENTER:

- 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
? .5, .5
9. RESALE PRICE (NET OF SALE COSTS) ? 1258750
10. IS THERE LENDER PARTICIPATION ?N
11. ENTER OWNER'S AFTER TAX REINVESTMENT RATE (X)? 11
12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUNDS (X)? 11

EXHIBIT 6 (Continued)

DEMONSTRATION 2 (Cont.)

AFTER TAX CASH FLOW PROJECTION
 CARDINAL-2
 DATE 9/14/82

DATA SUMMARY

ACQUISTN COST: \$1,007,000. MTG. AMT.: \$647,000.
 NOI 1ST YR: \$81,745. MTG. INT.: 15.236%
 ORG. EQUITY: \$360,000. MTG. TERM: 30. YRS
 CTO 1ST YEAR: \$-17,893. DEBT SERVICE 1ST YEAR: \$99,638.
 MTG. CONST.: .15400037
 IMP. #1 VALUE: \$150,043. IMP. #1 LIFE: 15.
 IMP. #2 VALUE: \$786,467. IMP. #2 LIFE: 15.
 INC. TX RATE: 50%
 SALE YR RATE: 50% OWNER: INDIVIDUAL

DEPRECIATION IMPROVEMENT #1 : STRAIGHT LINE
 DEPRECIATION IMPROVEMENT #2 : STRAIGHT LINE
 RESIDENTIAL PROPERTY
 CERTIFIED HISTORICAL STRUCTURE
 LENDER PARTICIPATION: CASH THROW-OFF: NONE REVERSION: NONE

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS PROVIDED BY JEAN
 ARE PROPER OR THAT THE CURRENT TAX ESTIMATES USED IN THIS
 PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES. NO ESTIMATE
 HAS BEEN MADE OF MINIMUM PREFERENCE TAX. CAPITAL LOSSES IN YEAR OF
 SALE ARE TREATED AS ORDINARY LOSSES (SECTION 1231 PROPERTY) AND
 ARE CREDITED AGAINST TAXES PAID AT THE
 ORDINARY RATE AT THE TIME OF SALE.
 FOR THE PURPOSE OF THE MODIFIED INTERNAL RATE OF RETURN (M.I.R.R.)
 CALCULATION, NEGATIVE CASH IN ANY ONE PERIOD IS COVERED
 BY A CONTRIBUTION FROM EQUITY IN THAT PERIOD

YEAR	NOI	MTG INT & LENDERS %	TAX DEP	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1.	81745.	98500.	62434.	-79190.	-236221.	218328.
2.	81920.	98313.	62434.	-78828.	-39415.	21697.
3.	98910.	98097.	62434.	-61622.	-30812.	30084.
4.	108800.	97845.	62434.	-51480.	-25741.	34903.
5.	119680.	97552.	62434.	-40307.	-20154.	40198.
	-----	-----	-----	-----	-----	-----
	\$491055.	\$490307.	\$312170.	\$-311427.	\$-352343.	\$345207.

NOTE: 1ST YEAR'S TAX REDUCED BY \$196,625. FOR TAX CREDIT (IMP #2)

EXHIBIT 6 (Continued)

DEMONSTRATION 2 (Cont.)

RESALE PRICE:	\$1,258,750.	1ST YR B4 TAX EQ DIV:	-4.9703%
LESS MORTGAGE BALANCE:	\$639,115.	AVG DEBT COVER RATIO:	.9857
PROCEEDS BEFORE TAXES:	\$619,635.		
LESS LENDER'S %:	\$0.		
NET SALES PROCEEDS			
BEFORE TAXES:	\$619,635.		
	=====		

RESALE PRICE:	\$1,258,750.
LESS LENDER'S %:	\$0.
NET RESALE PRICE:	\$1,258,750.
LESS BASIS:	\$694,830.
TOTAL GAIN:	\$563,920.
EXCESS DEPRECIATION:	\$0.
CAPITAL GAIN:	\$563,920.
ORDINARY GAIN:	\$0.
	=====

TAX ON ORDINARY GAIN:	\$0.
TAX ON CAPITAL GAIN:	\$112,784.
PLUS MORTGAGE BAL:	\$639,115.
TOTAL DEDUCTIONS FROM	
NET RESALE PRICE:	\$751,899.
	=====

NET SALES PROCEEDS	
AFTER TAX:	\$506,851.
	=====

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$1,258,750.
 THE MODIFIED I.R.R. BEFORE TAXES IS 10.5005% AND AFTER TAXES IS 22.2744%
 ASSUMING AN AFTER TAX REINVESTMENT RATE OF 11%, AND OPPORTUNITY COST OF 11%

DEMONSTRATION 2 (Cont.)

DISTRIBUTION OF CASH THROW-OFF
CARDINAL-2

YEAR	CASH THROW-OFF TOTAL	CASH THROW-OFF TO EQUITY	CASH BONUS TO LENDER
1.	-17893.	-17893.	0.
2.	-17718.	-17718.	0.
3.	-728.	-728.	0.
4.	9162.	9162.	0.
5.	20042.	20042.	0.
	-----	-----	-----
	-7136.	-7136.	0.

RESALE PRICE: \$1,258,750.
 LESS MORTGAGE BALANCE: \$639,115.
 PROCEEDS BEFORE TAXES: \$619,635.
 LESS LENDER'S %: \$0.
 NET SALES PROCEEDS
 BEFORE TAXES: \$619,635.
 =====

CASH THROW-OFF = 0% REVERSION = 0%

MORTGAGE ANALYSIS
CARDINAL-2

YEAR	NOI	MORT INT.	MORT AMORT	DEBT SERV	DCF	MTC. BAL.
1.	81745.	98500.	1139.	99638.	.820	645861.
2.	81920.	98313.	1325.	99638.	.822	644537.
3.	98910.	98097.	1541.	99638.	.993	642995.
4.	108900.	97845.	1793.	99638.	1.092	641202.
5.	119680.	97552.	2086.	99638.	1.201	639115.
AVG	\$96,211.				.965	

EQUITY ANALYSIS
CARDINAL-2

BEFORE TAX EQUITY DIVIDEND

YR	NOI	YR END EQUITY	AMOUNT	CASH RETURN ORG EQ	CUR EQ
1.	\$81,745.	\$379,032.	\$-17,893.	-.0497	-.0472
2.	81,920.	398,075.	-17,718.	-.0492	-.0445
3.	98,910.	400,345.	-728.	-.0020	-.0018
4.	108,800.	402,138.	9,162.	.0254	.0228
5.	119,680.	404,224.	20,042.	.0557	.0496

ORIGINAL EQUITY: \$ 360000

EXHIBIT 6 (Continued)

DEMONSTRATION 2 (Cont.)

DEPRECIATION SCHEDULE

CARDINAL-2

IMPROVEMENT # 1

STRAIGHT LINE

RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	10002.9	10002.9	.0	140040.1
2.	10002.9	10002.9	.0	130037.3
3.	10002.9	10002.9	.0	120034.4
4.	10002.9	10002.9	.0	110031.5
5.	10002.9	10002.9	.0	100028.7
	-----	-----	-----	
SUB-TOTAL	50014.3	50014.3	.0	

DEPRECIATION SCHEDULE

CARDINAL-2

IMPROVEMENT # 2

STRAIGHT LINE

RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	EXCESS DEP	BALANCE
1.	52431.1	52431.1	.0	734035.9
2.	52431.1	52431.1	.0	681604.7
3.	52431.1	52431.1	.0	629173.6
4.	52431.1	52431.1	.0	576742.5
5.	52431.1	52431.1	.0	524311.3
	-----	-----	-----	
SUB-TOTAL	262155.7	262155.7	.0	
	=====	=====	=====	
TOTAL	312170.0	312170.0	.0	

V A L T E S T - DEMONSTRATION 3

45

INPUT ASSUMPTIONS

1. ENTER PROJECT NAME ? SELL AT LOSS TEST
2. ENTER PROJECTION PERIOD ? 5
3. DO YOU WANT TO ENTER EFFECTIVE GROSS REVENUE INSTEAD OF NOI? Y
TO REPEAT PREVIOUS YEAR'S NOI/EGR FOR BAL OF PROJECTION ENTER 0

EFFECTIVE GROSS REVENUE YEAR 1? 13800
 EFFECTIVE GROSS REVENUE YEAR 2? 14210
 EFFECTIVE GROSS REVENUE YEAR 3? 1000
 EFFECTIVE GROSS REVENUE YEAR 4? 15080
 EFFECTIVE GROSS REVENUE YEAR 5? 15530

VAR OP EXPENSE (%) YEAR 1? 6
 VAR OP EXPENSE (%) YEAR 2? 5
 VAR OP EXPENSE (%) YEAR 3? 0

FIXED OP EXPENSE YEAR 1? 3700
 FIXED OP EXPENSE YEAR 2? 3920
 FIXED OP EXPENSE YEAR 3? 4160
 FIXED OP EXPENSE YEAR 4? 4410
 FIXED OP EXPENSE YEAR 5? 4670

4. ACQUISITION COST: ? 66000 .
5. DO YOU WANT TO USE STANDARD FINANCING? Y OR N? Y
MTG. RATIO OR AMOUNT, INT., TERM, NO PAY/YR ? 49500, .18, 25, 12
6. ENTER RATIO OF IMP #1/TOTAL VALUE, LIFE OF IMP #1? .25, 15
IS THERE A SECOND IMPROVEMENT? Y OR N? Y
ENTER RATIO OF IMP #2/TOTAL VALUE, LIFE OF IMP #2? .55, 15
ENTER REHABILITATION TAX CREDIT FOR IMP #2: 9075
IS STRUCTURE A CERTIFIED HISTORICAL LANDMARK? Y OR N? Y *
7. DEPRECIATION METHOD, IMPROVEMENT #1 ? 2
ENTER D.B. X: ? 175*
DEPRECIATION METHOD, IMPROVEMENT #2 ? 2
ENTER D.B. X: ? 175*
IS PROPERTY SUBSIDIZED HOUSING ? Y OR N ? N
IS PROPERTY RESIDENTIAL? Y OR N? N
8. IS OWNER A TAXABLE CORPORATION? Y OR N ? Y
CORPORATE FEDERAL ORDINARY TAX RATE COULD BE :
 17% - 46% (1978 LAW, EFFECTIVE 1979)
 16% - 46% (1981 LAW, EFFECTIVE 1982)
 15% - 46% (1981 LAW, EFFECTIVE 1983 & THEREAFTER)
 MAXIMUM CORPORATE CAPITAL GAIN ALTERNATIVE TAX RATE IS 26%

***For Illustrative
Purposes Only**

(PLUS STATE RATE)

ENTER:

- 1) EFFECTIVE ORDINARY RATE 2) EFFECTIVE ORDINARY RATE (YEAR OF SALE)
? .4, .4
9. RESALE PRICE (NET OF SALE COSTS) ? 60000
10. IS THERE LENDER PARTICIPATION ?
ENTER CASH THRO-OFF (%), PROCEEDS RECAPITULATE (%): 5, 5
11. ENTER OWNER'S AFTER TAX REINVESTMENT RATE (%): 9
12. ENTER OWNER'S AFTER TAX OPPORTUNITY COST OF EQUITY FUND (%): 9

FILE = SALTEST4

LANDMARK RESEARCH, INC.

DEMONSTRATION 3 (Cont.)

AFTER TAX CASH FLOW PROJECTION
 SELL AT LOSS TEST
 DATE 9/14/82

DATA SUMMARY

ACQUISITION COST: \$66,000. MTG. AMT.: \$49,500.
 NOI 1ST YR: \$9,272. MTG. INT.: 18%
 GRG. EQUITY: \$16,500. MTG. TERM: 25. YRS
 CTD 1ST YEAR: \$258. DEBT SERVICE 1ST YEAR: \$9,014.
 MTG. CONST.: .1820916
 IMP. #1 VALUE: \$16,500. IMP. #1 LIFE: 15.
 IMP. #2 VALUE: \$36,300. IMP. #2 LIFE: 15.
 INC. TX RATE: 40%
 SALE YR RATE: 40% OWNER: CORPORATION

DEPRECIATION IMPROVEMENT #1 : 175% D.B.
 DEPRECIATION IMPROVEMENT #2 : 175% D.B.
 NON-RESIDENTIAL PROPERTY
 CERTIFIED HISTORICAL STRUCTURE
 LENDER PARTICIPATION: CASH THROW-OFF: 5% REVERSION: 5%

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS PROVIDED BY JEAN
 ARE PROPER OR THAT THE CURRENT TAX ESTIMATES USED IN THIS
 PROJECTION WILL BE ACCEPTABLE TO TAXING AUTHORITIES. NO ESTIMATE
 HAS BEEN MADE OF MINIMUM PREFERENCE TAX. CAPITAL LOSSES IN YEAR OF
 SALE ARE TREATED AS ORDINARY LOSSES (SECTION 1231 PROPERTY) AND
 ARE CREDITED AGAINST TAXES PAID AT THE
 ORDINARY RATE AT THE TIME OF SALE.
 FOR THE PURPOSE OF THE MODIFIED INTERNAL RATE OF RETURN (M.I.R.R.)
 CALCULATION, NEGATIVE CASH IN ANY ONE PERIOD IS COVERED
 BY A CONTRIBUTION FROM EQUITY IN THAT PERIOD

YEAR	NOI	MTG INT & LENDERS %	TAX DEF	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1.	9272.	8914.	6160.	-5803.	-11397.	11643.
2.	9580.	8907.	5441.	-4770.	-1909.	2447.
3.	-3210.	8853.	4807.	-16870.	-6749.	-5475.
4.	9916.	8866.	4246.	-3197.	-1280.	2137.
5.	10084.	8837.	3750.	-2505.	-1003.	2019.
	\$35641.	\$44377.	\$24404.	\$-33145.	\$-22338.	\$12771.

NOTE: 1ST YEAR S TAX REDUCED BY \$9,075. FOR TAX CREDIT (IMP #2)

DEMONSTRATION 3 (Cont.)

RESALE PRICE: \$60,000.
 LESS MORTGAGE BALANCE: \$48,670.
 PROCEEDS BEFORE TAXES: \$11,330.
 LESS LENDER'S %: \$567.
 NET SALES PROCEEDS
 BEFORE TAXES: \$10,764.
 =====

1ST YR 84 TAX EQ DIV: 1.4881%
 AVG DEBT COVER RATIO: .7908
 AVG DEFAULT RATIO: 1.1581

RESALE PRICE: \$60,000.
 LESS LENDER'S %: \$567.
 NET RESALE PRICE: \$59,433.
 LESS BASIS: \$41,596.
 TOTAL GAIN: \$17,838.
 TAX DEPRECIATION: \$24,404.
 CAPITAL GAIN: \$0.
 ORDINARY GAIN: \$17,838.
 =====

TAX ON ORDINARY GAIN: \$7,135.
 TAX ON CAPITAL GAIN: \$0.
 PLUS MORTGAGE BAL: \$48,670.
 TOTAL DEDUCTIONS FROM
 NET RESALE PRICE: \$55,805.
 =====

NET SALES PROCEEDS
 AFTER TAX: \$3,629.
 =====

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR \$60,000.
 THE MODIFIED I.R.R. BEFORE TAXES IS -12.4777% AND AFTER TAXES IS 5.4951%
 ASSUMING AN AFTER TAX REINVESTMENT RATE OF 9% AND OPPORTUNITY COST OF 9%

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

DISTRIBUTION OF CASH THROW-OFF
SELL AT LOSS TEST

YEAR	CASH THROW-OFF TOTAL	CASH THROW-OFF TO EQUITY	CASH BONUS TO LENDER
1.	258.	246.	12.
2.	566.	538.	28.
3.	-12224.	-12224.	0.
4.	962.	857.	45.
5.	1070.	1016.	53.
	-----	-----	-----
	-9427.	-9567.	140.

RESALE PRICE: \$60,000.
 LESS MORTGAGE BALANCE: \$48,670.
 PROCEEDS BEFORE TAXES: \$11,330.
 LESS LENDER'S %: \$567.
 NET SALES PROCEEDS
 BEFORE TAXES: \$10,764.
 =====

CASH THROW-OFF = 5% REVERSION = 5%

EQUITY ANALYSIS
SELL AT LOSS TEST

BEFORE TAX EQUITY DIVIDEND					
YR	NCI	YR END EQUITY	AMOUNT	CASH RETURN	
				ORG EQ	CUR EQ
1.	\$9,272.	\$16,613.	\$246.	.0149	.0145
2.	9,580.	16,747.	538.	.0326	.0321
3.	-3,210.	29,131.	-12,224.	-.7408	-.4196
4.	9,916.	29,324.	857.	.0520	.0292
5.	10,084.	29,554.	1,016.	.0616	.0344

ORIGINAL EQUITY: \$ 14500

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

MORTGAGE ANALYSIS
SELL AT LOSS TEST

YEAR	NOI	MORT INT.	MORT AMORT	DEBT SERV	DCR	MTG. BAL.	DEFAULT RATIO
1.	9272.	8901.	113.	9014.	1.029	49387.	.981
2.	9590.	8679.	135.	9014.	1.063	49253.	.960
3.	-3210.	8253.	161.	9014.	-.356	49092.	13.224
4.	9916.	8221.	192.	9014.	1.100	48900.	.940
5.	10064.	8784.	230.	9014.	1.119	48670.	.931
Avg	\$7,126.				.791		1.158

REVENUE AND EXPENSE REPORT
SELL AT LOSS TEST
DATE 9/14/82

YEAR	EFF GROSS REV	% RATE	% VAR OP	\$ FIXED OP	NOI
1.	\$13,800.	6.2	\$528.	\$3,700.	\$9,272.
2.	\$14,210.	5.2	\$711.	\$3,920.	\$9,580.
3.	\$1,000.	5.2	\$50.	\$4,160.	\$-3,210.
4.	\$15,080.	5.2	\$754.	\$4,410.	\$9,916.
5.	\$15,530.	5.2	\$777.	\$4,670.	\$10,064.
	-----		-----	-----	-----
	\$59,620.		\$3,119.	\$20,860.	\$35,641.

EXHIBIT 6 (Continued)

DEMONSTRATION 3 (Cont.)

DEPRECIATION SCHEDULE
 SELL AT LOSS TEST
 IMPROVEMENT # 1
 175% D.B.
 NON-RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	TAX DEP	BALANCE
1.	1925.0	1100.0	1925.0	14575.0
2.	1700.4	1100.0	1700.4	12874.6
3.	1502.0	1100.0	1502.0	11372.5
4.	1326.8	1100.0	1326.8	10045.8
5.	1172.0	1100.0	1172.0	8873.7
	-----	-----	-----	
SUB-TOTAL	7626.3	5500.0	7626.3	

DEPRECIATION SCHEDULE
 SELL AT LOSS TEST
 IMPROVEMENT # 2
 175% D.B.
 NON-RESIDENTIAL

YEAR	TAX DEP.	S.L. DEP.	TAX DEP	BALANCE
1.	4235.0	2420.0	4235.0	32055.0
2.	3740.9	2420.0	3740.9	28324.1
3.	3304.5	2420.0	3304.5	25019.6
4.	2919.0	2420.0	2919.0	22100.7
5.	2578.4	2420.0	2578.4	19522.2
	-----	-----	-----	
SUB-TOTAL	16777.8	12100.0	16777.8	
	=====	=====	=====	
TOTAL	24404.0	17600.0	24404.0	

REAL ESTATE FEASIBILITY

Presented By

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

SIXTH HOUR

REAL ESTATE MARKETING REDEFINED

I. BASIC CONCEPTS AND MODELS

- A. In a price economy cash solvency begins with cash revenue which in turn requires a consumer willing to spend in his own self-interest. Real estate project cash flows, growth in investment value, and all related premises of leverage, arbitrage, etc., presume some level of monopoly to avoid competition and exploit spatial inertia.
- B. Free enterprise is the art of creating your own monopoly, at least partial protection against price competition, and sharing a limited level of demand at a particular point in time.
 - 1. For products, monopoly requires at least one element of control in terms of raw material, location and political entitlement, relevant design, unique service, control of distribution channels, or good timing.
 - 2. For services, monopoly requires control of the customer through behavioral conditioning, or inertia of the consumer to a change in habit.
 - 3. Real estate is a combination of product and service, and therefore real estate monopoly has the greatest number of options to exploit.
 - 4. The long lead time required to change supply to meet demand creates unique opportunity for monopoly to be created by decision-making finesse from the politics of location, timing of financing and delivery, and forecasting of demographic shifts and changing consumer preference.
 - 5. Marketing research involves any investigation which permits focusing of a real estate project on very selected segments of consumers with a unique product requirement (market gap) at a particular point in time and location when supply alternatives are limited (market window).

C. Segmentation in terms of consumer group, product, service and timing to achieve monopoly has traditionally divided market research into the following general functions:

1. Market studies are of the aggregate, uncontrollable variables and forces in longer time series within which the real estate enterprise must find opportunities.
2. Merchandising studies are primary research of controllable variables in abbreviated time series which the real estate enterprise can best manipulate within the sea of uncontrollable variables to capture opportunities.
3. Promotion studies are fundamentally concerned with methods of communication, image, and persuasion prior to and at the point of sale. The subject area ranges from advertising themes to the social codes implied by design and materials to the logos and media of advertisement and public relations.
4. The contemporary view, in contradiction to traditional divisions of responsibility, recognizes that these areas of expertise and research must interact at the initial start of feasibility analysis to define a hypothesis for a project in a synergistic rather than linear fashion. Projects have implicit premises or hypotheses which need to become explicit and subject to testing immediately to avoid false starts and wasted research:
 - a. An office building for the Roosevelt Street Station
 - b. A golf course for the Cayman Islands
 - c. Elderly housing in the peaceful countryside
5. The initial marketing premises, hypotheses or assumptions of the project define what is termed "strategic positioning" (Water Tower Place concept). Strategic positioning generally relates to uncontrollable external variables to be exploited or neutralized. Tactical positioning has to do with implementation of the strategy through adjustment of controllable variables. Positioning starts with a "P" because the ultimate market research products are

concerned with:

- a. Premise of market gap
- b. Profile of prospect requirements
- c. Proportion of population meeting prospect profile
- d. Proportion of supply provided each period (absorption rate)
- e. Penetration required into prospect profile (capture rate)
- f. Product and service standards (competitive standard)
- g. Product and service differentiation (competitive edge)
- h. Product and service pricing (elasticity of revenue and economies of scale)
- i. Pace and phasing of production
- j. Profile of political power segments within permit process
- k. Psychology of the transactional decision to spend or vote
- l. Potential performance of project management enterprise in designing and executing the market program

D. Collective users operate politically to protect their perception of a real estate decision impact on their cash revenues, expenses, and future net worth. For purposes of favorably influencing the voting transaction (which can occur explicitly or implicitly) it is necessary to understand the political options available to various segments of collective consumers with a presumed vested interest in an enterprise decision.

1. Contiguous property owners
2. Organized neighborhood - tenant associations
3. Constituencies sharing common interests, such as age, school children, religion, professions, etc.
4. Community power structure and media bias.
5. Formal political district boards and councils
6. Public agencies regulating community infrastructure
7. Public agencies regulating financial institutions

E. Most feasibility cases require the analyst to create his own models with which to structure the data available and the data which must be researched.

1. Remember, models organize the analyst, the report, and the client.
 - a. Models explain what you are going to do.
 - b. Models make relationships and key assumptions explicit.
 - c. Models permit clients to understand logic of conclusions and to test their own set of assumptions.
2. A market research model should be careful to recognize:
 - a. What are the questions?
 - b. What data is available - which is relevant?
 - c. What theory is available to focus data on the questions?
 - d. How will the results be communicated?
 - e. What are the abilities of the analyst?
 - f. What is the cost/benefit ratio between the model method and the question?
3. Market data models use aggregate data, secondary information, the easy to acquire data from census tracts, traffic counts, building permits, and so on. It is useful to scale the size of the market potential of the opportunity area, but by itself aggregate market data is relatively unimportant to the success of most projects.
 - a. Absorption rates apply to aggregate market data to determine the total size or amount of market activity in terms of how many lots were sold, how many apartments in a rental rage were newly rented, or how many square feet of leased office space were occupied.
4. Merchandising data models are generally primary information generated by the analyst about specific competitive projects and specific user groups which will permit an estimate of what percentage of the opportunity group can be captured for a specific project.
 - a. Capture rates are the product of merchandise research and are the ratio of the total opportunity potential which might be secured for a project or must be secured to achieve

financial goals. The capture rate will reflect a careful judgment of product mix, amenities, pricing, and timing.

5. A flowchart of the market research process is provided in Exhibit 1.

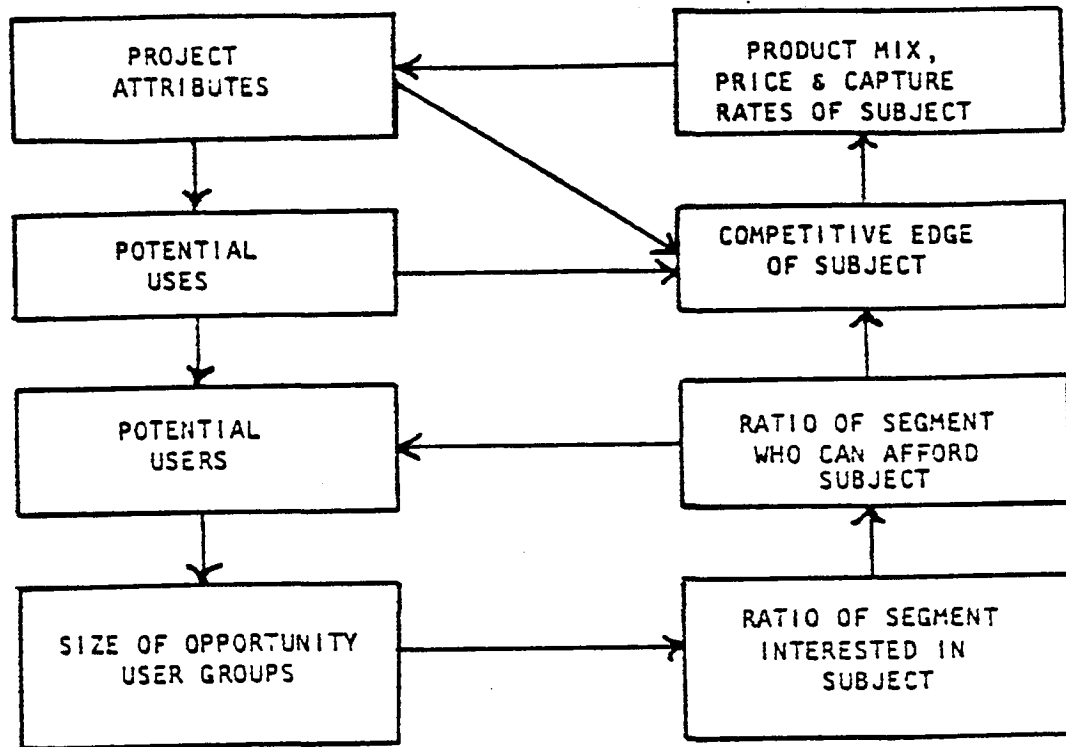
F. Alternative purposes of primary market research

1. To establish ratios for disaggregation of secondary data to focus on specific subsets or segments of the market (to scale market opportunity).
2. To profile consumer demographics, motivations, and dissatisfactions in comparable projects.
3. To profile fears of segments of collective users within a political coalition.
4. To survey professionals who serve ultimate consumers to identify trends in terms of office layouts, technical support systems required, financing, or motivations for future use conversions.
5. To generate a definition of the competitive standard for comparable projects.
6. To discover the competitive edge in terms of site/product/service/advertising to insulate project from direct price comparison shopping and competition.

G. Recognition of real estate as a subcomponent within a larger physical and behavioral system.

1. To contribute to the efficiency of the activity housed.
2. To contribute to the security of the establishment housed.
3. To reduce anxiety and stress of occupants housed.
4. To enhance the public and self-image of the occupant.

EXHIBIT 1
SEGMENTATION LOGIC TREE



- H. Focusing on monopolistic merchandising targets.
 - 1. Correctly recognizing the space-time product.
 - 2. Correctly identifying who signs the check.
 - 3. Correctly discovering what motivates the signature.
 - 4. Providing acceptable justification for signing the check.
 - 5. Phasing the project to fit the pace of the target group.
- I. Exhibit 2 provides an example of aggregate market analysis which began with a client premise for building professional office space in Anchorage in an office park over a ten-year span. The aggregate model consisted of an economic model for Alaska with alternative scenarios for economic development and the resulting changes in employment for different regions by SIC Code. The next problem was defining the market in Anchorage by location and SIC Code.
- J. Aggregate tenant movements can define both scale of annual market demand and geographic range of market search. (Milwaukee case.)
- K. Consider Exhibit 3 as a simple market model to define the size of an opportunity area in a selected county for elderly persons requiring residential care units.
 - 1. Note that primary survey research is needed to create ratios with which to disaggregate secondary market data (i.e., census statistics).
 - 2. Notice use of graphics to communicate complex process and data, ala Hayes.

EXHIBIT 2

8

EXAMPLE OF AGGREGATE MARKET DATA OF
OFFICE SPACE USERS IN ANCHORAGE

Table 9 (continued)

Tenant Category by Location

Building Name	ID #	SIC Code	General Category
<u>Northeast Quadrant</u>			
Teamster Mall	34	4722	Transportation Services
		5812	Eating & Drinking
		5912	Miscellaneous Retail
		5999	" " "
		6033	Banking
		8021	Health Services
		8091	Health Services
		8111	Legal Services
		2 * 8631	Membership Org
Alyeska	36	1623	Heavy C
<u>Southeast Quadrant</u>			
Geneva Woods	2	11	
Lake Otis			
Medical Center			
			ces
			"
			"
			Social Services
			Miscellaneous Retail
		8011	Health Services
		8021	" " "
		8049	" " "
	2 *	8070	" " "
		8081	" " "
		8321	Social Services
	18	5912	Miscellaneous Retail
Professional		42 *	8011 Health Services
Center			8049 " " "
			8070 " " "
			8081 " " "

Balance of data withheld to protect proprietary investment.

Table 10 summarizes the location of these 600 businesses by the four major geographic areas.

Table 10
Tenant Classification by Area

SIC Category	CBD	Midtown Corridor	Lk. Otis District	Northeast Quarter	Total	Sub- Total	% of Total
09 Fishing	2	0	0	0	2	2	.5%
Subtotal	2	0	0	0			
% of Subtotal	100%	0%	0%	0%			
13 Oil & Gas Extract.	1	5	0	0	6	7	1%
14 Mining	0	1	0	0	1		
Subtotal	1	6	0	0			
% of Subtotal	14%	86%	0%	0%			
Gen. Construction	0	4	1	0	5	9	2%
Construction	0	3	0	1	4		
Subtotal	0	7	1	1			
% of Subtotal	0%	78%	11%	11%			
	0	2	0	0	2	5	1%
	0	3	0	0	3		
	0	5	0	0			
		100%	0%	0%			
34 Fab.			0	0	1	4	1%
35 Machine			0	0	3		
Subtotal			0	0			
% of Subtotal							
42 Truck & Warehsng.				0	1	18	3%
44 Water Transport.	1			0	1		
45 Air Transportation	0				3		
46 Pipelines	1				1		
47 Transport. Services	1	1			3		
48 Communication	0	4					
49 Gas Services	0	3					
Subtotal	3	12	2				
% of Subtotal	17%	67%	11%				
50 Whsle - Durable	1	3	0				
51 Whsle - Nondurable	1	13	0	0			
Subtotal	9	16	0	0			
% of Subtotal	36%	64%	0%	0%			
58 Eating & Drinking	4	3	0	1	8		
59 Misc. Retail	1	0	4	2	7		
Subtotal	5	3	4	3			
% of Subtotal	33%	20%	27%	20%			

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Table 10 (continued)
 Tenant Classification by Area

SIC Category	CBD	Midtown Corridor	Lk. Otis District	Northeast Quarter	Total	Sub- Total	% of Total
60 Banking	6	6	0	1	13	109	18%
61 Credit Agencies	1	3	2	0	6		
62 Securities & Finance	2	2	2				

Balance of data withheld to protect proprietary investment.

Source: Bill Mundy & Associates, Inc.

¹Includes petroleum companies, such as ARCO, SOHIO.

²Includes Alaskan Native organizations.

Table 10 shows that there is a definite association between type of business and geographic location. For example, the preponderance of legal and business services as well as public administration offices are located in the CBD. Insurance, real estate, and some business services are located in the Midtown Corridor. The Lake Otis District contains the majority of medical and dental offices, primarily because of its proximity to Providence Hospital. The Northeast Quarter is dominated by two organizations: Alyeska and the Teamsters Union.

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Tenant Interviews

Of the 600 tenants identified, 138 or 23% were interviewed to determine the number of employees, net rentable area, amount of time in the location, and previous location. The random sample of 23% was obtained by requesting an interview with every fourth tenant in each building.

The tenant sample and the total tenant population were compared on the frequency distribution of two variables: location by the four geographic areas and SIC classification. The distributions were tested by calculating the chi-square statistic. No significant difference between the sample and the population was found at a 95% confidence level. Table 11 shows these frequency distributions.

Table 11

Comparison of Tenant Sample and Population

Variable	Population		Sample	
	Observed	Expected	Observed	Expected
<u>SIC Classification</u>				
Fishing	2	2.4	1	.6
Mining	7	6.4	1	1.6
Construction	9	7.2	0	1.8
Manufacturing	9	9.6	3	2.4
Transportation & Utilities	18	16.8	3	4.2
Wholesale Trade	25	24.8	6	6.2
Retail Trade	15	14.4	3	3.6
Finance, Insurance, Real Estate	109	118.4	39	29.6
Service	324	316.6	72	79.2
Public Administration	34	35.2	10	8.8
<u>Geographic Location</u>				
CBD	180	186.6	50	43.1
Midtown Corridor	252	257.7	65	59.3
Lake Otis	157	144.7	21	33.4
N.E. Quarter	11	10.6	2	2.4

Source: Bill Mundy & Associates

Based on this analysis, it seems that the random sample was fairly representative of the total population. With that in mind, we examined the characteristics of the tenant sample, as shown in Table 12.

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New vs. Existing Businesses

	New Businesses	Existing Businesses
Number of Respondents	29	109
Mean Number of Employees*	7.5	20.1
Mean Square Footage	2,919	5,004
Mean Years in Location	2.9	2.9
Mean Square Feet per Employee	300	323

Source: Bill Mundy & Associates, Inc.

*Significantly different at $p \leq .05$.

Tenants by Location

Because the data showed a tendency for different types of businesses, particularly services, to locate in different areas (i.e., legal services in the Central Business District and medical services near Providence Hospital), the tenants were compared on the basis of their location. As Table 14 shows, there were no significant differences among the tenants of the four geographic locations in their use of the office space at a 95% confidence level.

Table 14

Tenants by Geographic Location

Present Location	CBD	Midtown	Lake Otis	Northeast
Number of Respondents	50	65	21	2
Mean Number of Employees	21.0	16.5	8.2	5.0
Mean Square Footage	7,910	5,346	2,705	N/A
Mean Years in Location	3.2	2.5	3.7	2.8
Mean S. F. per Employee	384	272	274	N/A

Source: Bill Mundy & Associates, Inc.

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Another variable we examined was the relationship between present and previous location to see if the tenant movement reflected the change in the centroid of office space discussed earlier. We were interested to see if the tenants of these new buildings primarily were new businesses or if they were tenants moving out of the CBD to other locations. Table 15 shows the results of this comparison. Once again, the sample from the Northeast Quarter is too small to draw valid comparisons.

Of businesses located within the Central Business District, slightly less than half (45%) moved to another location within that area. The same number moved to the Midtown Corridor (45%), while the remainder went to the Lake Otis District (8%) or the Northeast Quarter (2%). On the other hand, new businesses and businesses locating from outside Anchorage tended to choose a location outside the Central Business District (62%). Only three businesses from the Midtown Corridor and none from the Lake Otis District moved into the Central Business District. These patterns tend to support the figure showing the movement of the centroid of office space over time. There is a definite trend for businesses, both new and existing, to choose a location away from the Central Business District. This decision might be made because of the amenities of the non-CBD location such as adequate parking or because of the greater availability of space.

Table 15
Change in Location

	<u>Present Location</u>									
	CBD		Midtown		Lake Otis		NE Quarter		Total	
<u>Previous Location</u>										
New Business	11	38%	13	45%	4	14%	1	3%	29	
Outside Anchorage	3	25%	8	67%	1	8%	0	0%	12	
CBD	24	45%	24	45%	4	8%	1	2%	53	
Midtown Corridor	3	18%	10	59%	4	24%	0	0%	17	
Lk. Otis District	0	0%	0	0%	6	100%	0	0%	6	
Northeast Quarter	0	0%	0	0%	0	0%	0	0%	0	
No Response	9	43%	10	48%	2	10%	0	0%	21	
Total	50	36%	65	47%	21	15%	2	1%	138	

Source: Bill Mundy & Associates

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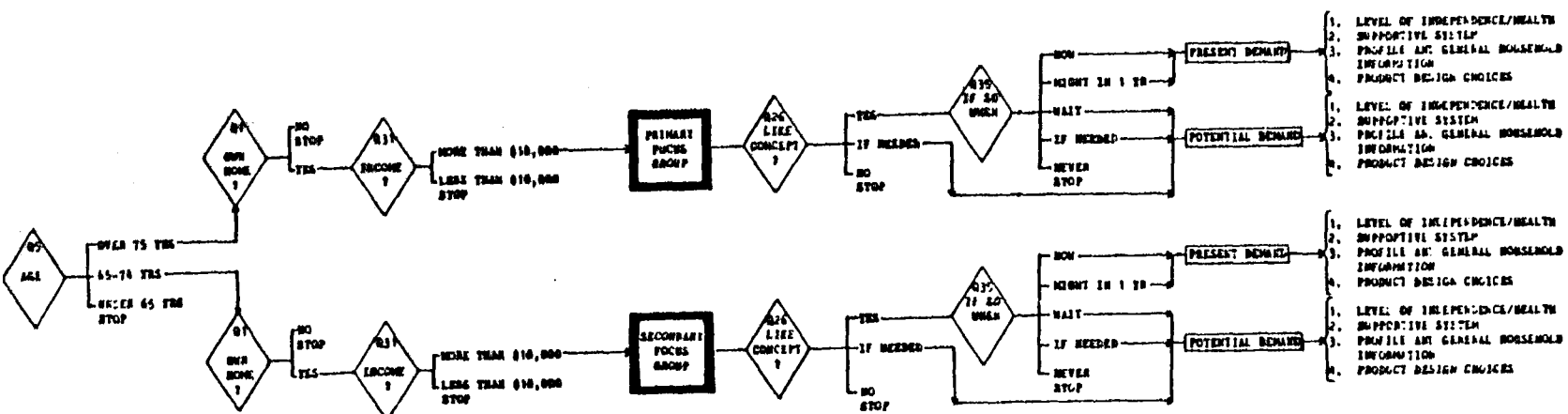
900 Seattie Tower Building • Seattle, Washington 98101 • (206) 623-2935

All tenants in the buildings inventoried were classified by a 4-digit SIC code and analyzed by location. We found a definted tendency for business types to concentrate in particular geographic areas. There is a heavy concentration of public administration and legal services in the CBD, of finance, insurance, and real estate in the Midtown Corridor, and medical and dental services in the Lake Otis District.

Twenty-three percent of the tenants were randomly sampled about their use of their office space, including net rentable area, number of employees, time in location, and previous location. We found a high percentage of new businesses (21%). The mean number of employees was 16.5, the mean net rentable area 6,140 s.f., the mean time at the location 2.9 years, and the mean number of square feet per employee 315.

This supply analysis gives a detailed picture of the characteristics of the Class A office space in Anchorage at this time as well as changes in use and location of that space over the past seven years.

FLOW CHART OF LOGICAL STEPS TO
ESTIMATE PRESENT AND POTENTIAL EFFECTIVE DEMAND



SCREENS USED TO SUBSET MOST PROBABLE USERS
OF PROPOSED RETIREMENT CENTER

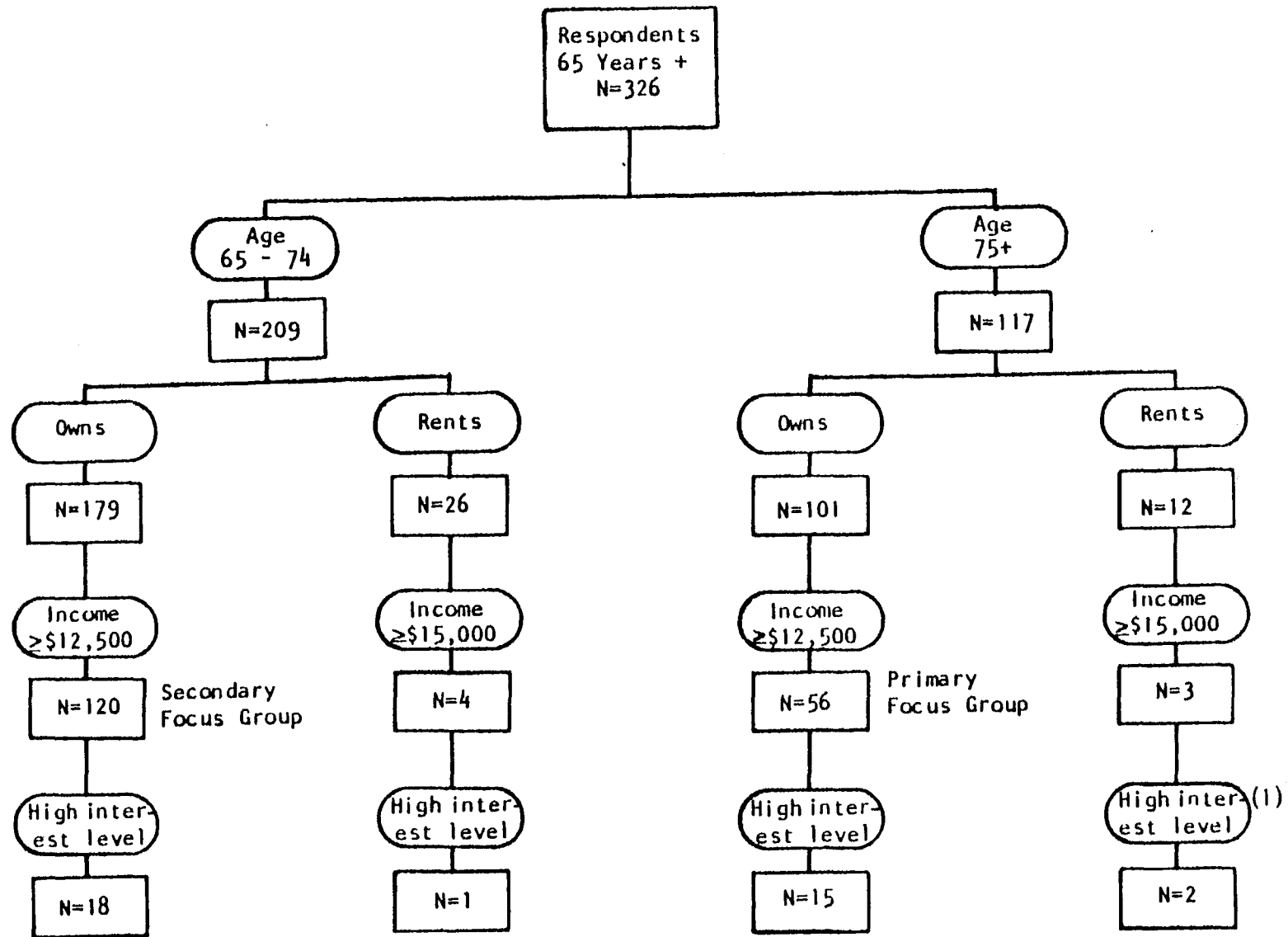


EXHIBIT 3 (Continued)

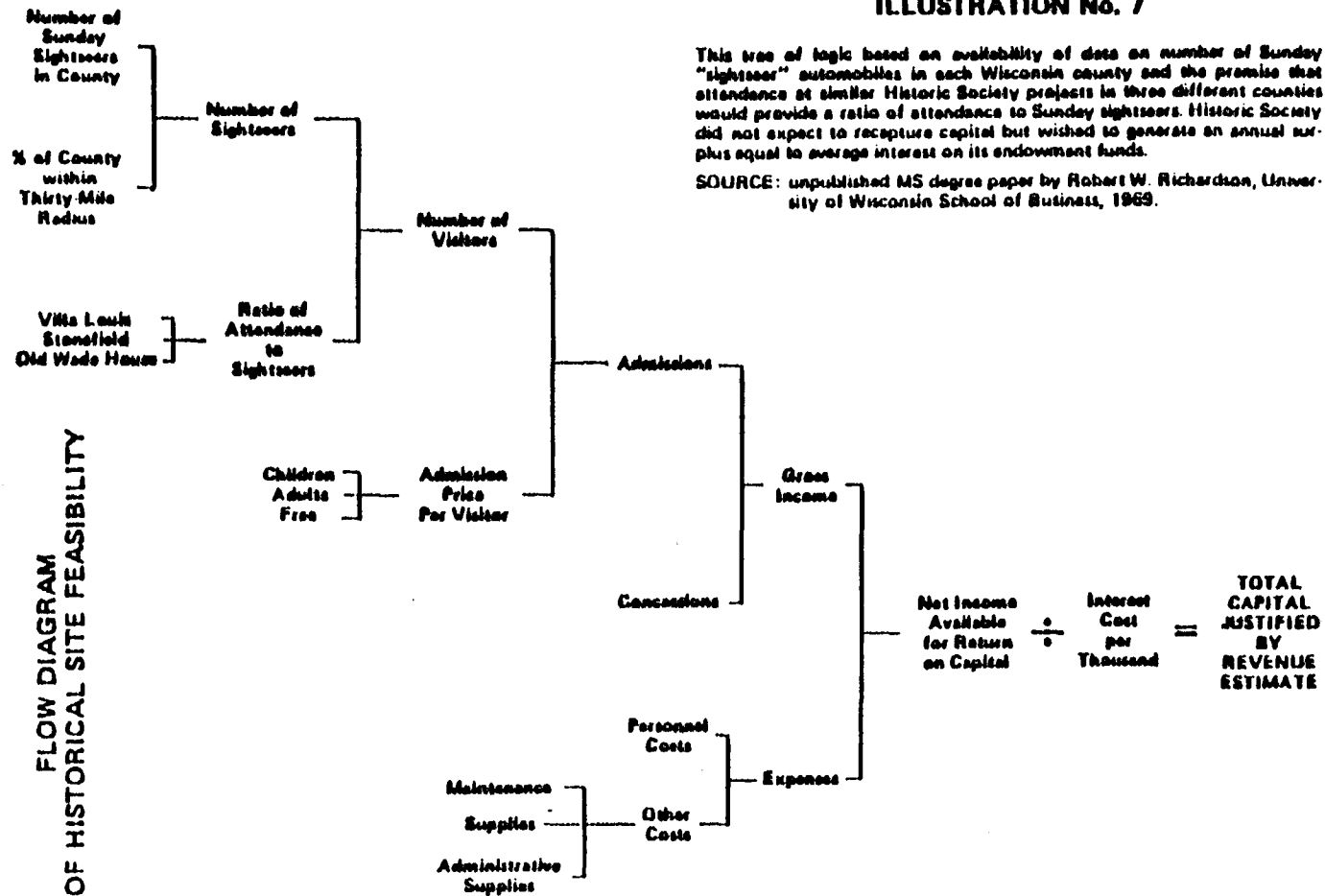
- (1) High degree of interest in project is defined as those who answered Question #47 with a 1, 2, or 3 response. These respondents are interpreted as having serious interest now or interest in a year or so. See questionnaire in Appendix for exact wording of the question.

II. MARKET MODELS

Market data provides a measure of potential scale of a market opportunity; the most important aspect of market analysis is forecasting the degree of market penetration or capture rate of specific development.

- A. To reduce aggregate market data to a merchandising hypothesis, the first clue to segmentation may be found in correctly understanding the essence of buyer motivation or of the activity to be housed.
 1. Retailing is a break point for goods (a warehouse grocery), or a service industry, or a theater using lighting, staging, and mood to reinforce a role played by the buyer.
 2. A restaurant may be to provide a quick food break (high turnover, pedestrian flow, conditioned ordering), or to provide recreational entertainment and consumption of an evening, or to provide a staging for business, social, or publicity roles.
 3. A motel for transients, for resorts, or for terminal traffic uses all of its facilities and location to sell a "room-night" of occupancy because that is an 80 percent gross margin. Anything done after that is justified by its contribution to "room-night" sales or its reduction of average cost to capture a customer per "room-night".
 4. The revenue unit may be related to the method of measuring profit of the project in question such as per acre, per camper pad, per event, per front foot of shoreline, per stool or table, etc., not to mention square feet, per frame at a bowling alley, or per tennis court hours, or per hour of ice time.
 5. Sometimes the prospect is identified by who really signs the check for a particular type of real estate.
 - a. The salesman or the management paying his travel costs
 - b. The doctor or the clinic
 - c. The district manager or the corporate real estate manager

- d. The ticket buyer or the promoter
 - e. The bowling league, team business manager, travel agency tour guide
- 6. The market segment may be defined initially by the source for a prospective user list - people who share a common address, hobby, professional specialty or some other identifier.
 - a. A reverse directory or criss-cross telephone book
 - b. Building directories of comparables
 - c. Mailing lists of specialty publications
 - d. License number spotting
 - e. Guest registers
 - f. Charge account mailing addresses
- B. The objective of these approaches, revenue unit, the decision maker, the prospect list source, is to segment the user market to a specific and relatively small group of potential customers who can be surveyed to generate original and relevant information about their space needs and motivations. Unlike most consumer markets, the number of prospects is always low; think small!
 - 1. Real estate is a series of micro-markets. A 24-unit building with one, two, and three bedroom units has at least three sub-markets.
 - 2. A 24-unit building is a \$500,000 enterprise with a \$75,000 gross sales potential from only 24 customers!
- C.. Consider alternatives for segmentation of macro market models in Exhibit 4 using a branch diagram and definitions of detached family housing unit consumers in Exhibit 5.
- D. The ratio sought by the survey follow a precise reduction pattern:
 - 1. How many will consider moving?
 - 2. Of those, how many would consider staying in town?
 - 3. Of those, how many would consider an apartment?
 - 4. Of those remaining, who would consider an apartment in town, how many would consider a specific location?



Source: James A. Graaskamp. A Guide to Feasibility Analysis, (Society of Real Estate Appraisers, 1972), p.40.

5. Notice the reduction process defines a subset of the elderly market - a micro-market.
- E. Before constructing a questionnaire, construct the model for which data is required and the tables with which data will be displayed. The specific title on the table of data, its subcolumns, and any series of computations should be blocked out before survey questions are drafted and data collection has begun.
1. Always test the questionnaire on prospects presumed to be representative of the mailing list and experts in the subject area to reveal misunderstandings and omissions.
 2. Confine vocabulary to basic 1,000 words; avoid trade lingo or technical terms and concepts which are not defined.
 3. Structure questions to permit branching, omission of subsets, and clear choices.
 4. Stress discovery of requirements rather than preferences when dealing with subset breakpoints. (See Exhibit 6.)
- F. The second type of question is generally attempting to measure either anxieties or preferences. Both are dangerous survey areas for amateurs as well as professionals and it is often cheaper to subcontract these particular functions to consumer research specialists. Nevertheless, a little common sense can generate considerable useful information on the competitive edge.
1. Probe for dissatisfaction with existing space or lifestyle.
 2. Probe for anxieties about uncontrollable trends and events.
 3. Probe for desired social structure ties, real or imagined.
 4. Dimension strength of preference by cash cost.
 5. Conjoint measurements and other parametric statistics are being used to rank preferences with good results.

Simple Survey Formats for Classification of Subsets & Measurement of Preference

I'd like to ask you a few questions about the place you lived just before you moved into this apartment.

5. About how many years did you live in your former home?

- ☐ less than 1 year ☐ 10 to 15 years
☐ 1 year - L.T. 2 years ☐ more than 15 years. _____
☐ 2 to L.T. 5 years
☐ 5 to L.T. 10 years

6. Did you live in a house or in an apartment building just before your move here?

☐ house
☐ apartment ☐ other. _____
 About how many apartments, including yours were there in the building?
☐ L.T. 4 ☐ 17 to 24
☐ 4 to 8 ☐ 24 to 32
☐ 9 to 16 ☐ more than 32
 About how much rent did you pay per month, including utilities but not telephone? \$ _____
☐ L.T. \$50 ☐ \$100 to L.T. \$125
☐ \$50 to L.T. \$75 ☐ \$125 to \$150
☐ \$75 to L.T. \$100 ☐ more than \$150
 Did you own or rent the house?
☐ own
☐ rent
 Did you rent a room, a flat or floor, or entire house?
☐ room ☐ flat/floor ☐ entire
 About how much rent did you pay per month, including utilities but not telephone? \$ _____
☐ L.T. \$50 ☐ \$100 to L.T. \$125
☐ \$50 to L.T. \$75 ☐ \$125 to \$150
☐ \$75 to L.T. \$100 ☐ more than \$150

Now I'd like to ask you some general questions about your decision to move to this apartment.

7. How did you first find out about them?

- ☐ family ☐ newspaper
☐ friends ☐ radio
☐ church ☐ television
☐ Housing Authority ☐ other, _____

26. How important are the following items to you?

	Very Important	Somewhat Important	Indifferent	Somewhat Unimportant	Not Important
Private Balconies or patios	()	()	()	()	()
Laundry facilities in each building	()	()	()	()	()
Washer/dryer connection in your apartment	()	()	()	()	()
Extra storage space	()	()	()	()	()
More than 1 bath	()	()	()	()	()
Carpeted stairways & hallways in common areas of apt. bldg. (Areas shared by all residents)	()	()	()	()	()
Master T.V. Antenna System	()	()	()	()	()
Children's day care center and/or nursery school nearby	()	()	()	()	()

14. What type of building features would you prefer in the layout of the condominium unit? (choose only one of each of the following sets of alternatives)

- () Two bedrooms with larger living area or/
- () Three bedrooms
- _____
- () Three bedrooms, or/
- () Four bedrooms, or/
- () Large master bedroom and two 4-bed bunk rooms
- _____
- () Two-story living room with inside balcony, or/
- () Living room with beamed cathedral ceiling
- _____
- () Full dining room, or
- () Dining "L" plus family-sized kitchen
- _____
- () Sundeck balcony for living room or/
- () Outdoor patio at ground level
- _____
- () Walk-in closets in each room or/
- () Large work room plus laundry room in each unit & standard closets
- _____
- () One car garage attached to unit or/
- () Two car garage in group parking complex, or/
- () Carport and lower price
- _____
- () Central air conditioning or/
- () Woodburning masonry fireplace or/
- () Gas-log fireplace and window air conditioning unit
- _____
- () Contemporary natural decor with wood and rock materials, or/
- () Maintenance-free modern masonry and aluminum exteriors, or/
- () Well styled colonial detailing
- _____
- () Extensive outside landscaping, or/
- () More floor space in each room

- G. For primary data from prospective consumers or customers in the recent past, the real estate analyst can utilize a broad number of techniques, including telephone interviews, direct mail questionnaires, focus groups, and personal interviews. The key to choice is time available, the budget per question answered, and the visual elements of the questions to be addressed, as well as the need for interactive feedback.
1. A telephone survey is useful to disaggregate census data or to estimate market penetration of a competitor (such as a retail store) into an area. The telephone interview may be less expensive per question and fastest, but is limited in the type and amount of questions which can be asked.
 - a. Random computerized dialing permits large number, wide geographic samples on narrow topics.
 - b. Rifled to a specific project known to the analyst, it tells much about the user profile for a good comparable without having to ask about the product which the analyst can inspect for himself.
 2. Direct mail questionnaires may cost from \$0.05 to \$3 or more for each successful question; they take at least a week to prepare and test and perhaps three weeks before cutoff of additional responses. The type of question is broader and can be graphic such as alternative site maps and simple floor plans; response depends on careful construction of the mailing list, a very time consuming process. (See Exhibit 7.)
 3. The focus group or design panel is quickly becoming a popular tool for fine tuning residential and suburban office project plans, as well as specialty retail tenant mixes. Once a tenant profile or set of psychographics has been determined, a panel representing a cross section of people meeting these profiles is assembled. Ten or fifteen persons are brought together at a convenient location for half a day or more, rewarded with lunch and the ego trip of interacting with a proposed development concept. It has been applied successfully to:

F *FEASIBILITY* **R** *RESEARCH* **G** *GROUP*

CONSUMER MARKET RESEARCH FOR DECISION MAKERS

JOHN A. RASMUSSEN
Research Coordinator

MARCH, 1981
MILWAUKEE, WISCONSIN
APARTMENT AND CONDOMINIUM SURVEY

DEAR RESIDENT:

YOU CAN HELP PLAN NEW CONDOMINIUM APARTMENTS. WHILE YOU MAY NOT HAVE EVEN THOUGHT ABOUT A NEW HOME, YOUR INPUT IS NEEDED TO IDENTIFY THE HOUSING NEEDS AND PREFERENCES OF MILWAUKEE RESIDENTS.

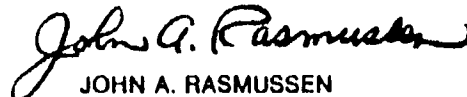
THIS SURVEY IS BEING CONDUCTED BY FEASIBILITY RESEARCH GROUP, LTD., AN INDEPENDENT MARKET RESEARCH FIRM.

PLEASE FILL OUT THE ENCLOSED QUESTIONNAIRE AND RETURN IT IN THE POSTAGE-PAID ENVELOPE. THIS WILL ASSIST LOCAL HOUSING DEVELOPERS PLAN NEW HOUSING IN RESPONSE TO RESIDENT NEEDS AND PREFERENCES.

YOUR REPLY TO THE SURVEY IS CONFIDENTIAL. THE CODE NUMBER IS USED ONLY TO HELP US REMIND PEOPLE WHO HAVE NOT RETURNED THE SURVEY. NOT EVERY HOUSEHOLD IS SURVEYED SO EACH RESPONSE IS IMPORTANT.

PLEASE RETURN YOUR SURVEY IN THE POSTAGE PAID ENVELOPE AS SOON AS POSSIBLE.

VERY TRULY YOURS,



JOHN A. RASMUSSEN
RESEARCH COORDINATOR

YOUR OPINION COUNTS

EXHIBIT 7

INFORMATION ABOUT PRESENT RESIDENCE

1. Which of the following best describes your current residence?

.1 <input type="checkbox"/> Single family residence	.4 <input type="checkbox"/> Apartment (without elevator)
.2 <input type="checkbox"/> Condominium	.5 <input type="checkbox"/> Duplex
.3 <input type="checkbox"/> Apartment (with elevator)	.6 <input type="checkbox"/> Other, please specify _____

2. In Which area of Greater Milwaukee do you currently live?

.1 <input type="checkbox"/> Downtown	.4 <input type="checkbox"/> Whitefish Bay
.2 <input type="checkbox"/> Eastside	.5 <input type="checkbox"/> Fox Point
.3 <input type="checkbox"/> Shorewood	.6 <input type="checkbox"/> Other, please specify _____

3. How long have you lived in your current residence?

.1 <input type="checkbox"/> Less than 1 year	.4 <input type="checkbox"/> 5—10 years
.2 <input type="checkbox"/> 1—3 years	.5 <input type="checkbox"/> over 10 years
.3 <input type="checkbox"/> 3—5 years	

4. Do you rent/own your current residence?

.1 <input type="checkbox"/> Rent	.2 <input type="checkbox"/> Own	.3 <input type="checkbox"/> Neither rent nor own.
----------------------------------	---------------------------------	---

5. Please indicate the number of rooms in your current residence.

.1 Living Room <input type="checkbox"/> Yes <input type="checkbox"/> No
.2 Combination living/sleeping <input type="checkbox"/> Yes <input type="checkbox"/> No (Studio)
.3 Den/Study <input type="checkbox"/> Yes <input type="checkbox"/> No
.4 Formal Dining Room <input type="checkbox"/> Yes <input type="checkbox"/> No
.5 Dining area in Living Room <input type="checkbox"/> Yes <input type="checkbox"/> No
.6 Breakfast area in Kitchen <input type="checkbox"/> Yes <input type="checkbox"/> No
.7 Baths <input type="checkbox"/> 1 <input type="checkbox"/> 1½ <input type="checkbox"/> 2 <input type="checkbox"/> 2½ <input type="checkbox"/> 3 <input type="checkbox"/> other _____
.8 Bedrooms <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> other _____
.9 Laundry <input type="checkbox"/> Basement <input type="checkbox"/> Same floor as unit <input type="checkbox"/> In your unit
.10 Balcony <input type="checkbox"/> Yes <input type="checkbox"/> No

6. How many parking spaces do you current have?

.1 <input type="checkbox"/> 1 inside garage	.4 <input type="checkbox"/> 2 outside lot
.2 <input type="checkbox"/> 2 inside garage	.5 <input type="checkbox"/> street parking
.3 <input type="checkbox"/> 1 outside lot	.6 <input type="checkbox"/> Do not own car

7. Do you rent/own your parking space?

.1 <input type="checkbox"/> Rent	.2 <input type="checkbox"/> Own	.3 <input type="checkbox"/> Neither rent nor own.
----------------------------------	---------------------------------	---

8. If you own your residence what is its current value

.1 <input type="checkbox"/> Under \$50,000
.2 <input type="checkbox"/> \$50,000—\$75,000
.3 <input type="checkbox"/> \$75,001—\$100,000
.4 <input type="checkbox"/> Over \$100,000
.5 <input type="checkbox"/> Don't know
.6 <input type="checkbox"/> Not applicable

INFORMATION ABOUT PREVIOUS RESIDENCE

- Which best describes your previous residence?
- | | |
|---|--|
| .1 <input type="checkbox"/> Single family | .4 <input type="checkbox"/> Apartment (without elevator) |
| .2 <input type="checkbox"/> Condominium | .5 <input type="checkbox"/> Duplex |
| .3 <input type="checkbox"/> Apartment (with elevator) | .6 <input type="checkbox"/> Other, please specify _____ |
-
10. Please indicate the city and zip code of your previous residence?

.1 City _____	.2 Zip Code _____
---------------	-------------------

 11. Did you rent or own your previous residence?

.1 <input type="checkbox"/> Rent	.2 <input type="checkbox"/> Own	.3 <input type="checkbox"/> Neither rent nor own.
----------------------------------	---------------------------------	---

INFORMATION ABOUT FUTURE RESIDENCE

12. How long do you expect to live in your current residence before you make a move?

.1 <input type="checkbox"/> Less than 1 year
.2 <input type="checkbox"/> 1—3 years
.3 <input type="checkbox"/> 3—5 years
.4 <input type="checkbox"/> 5—10 years
.5 <input type="checkbox"/> Over 10 years
.6 <input type="checkbox"/> Don't know

13. What do you foresee will be the major reason for leaving your current residence?

.1 <input type="checkbox"/> Job Transfer	.7 <input type="checkbox"/> Transportation Costs
.2 <input type="checkbox"/> Divorce/Marriage	.8 <input type="checkbox"/> Increase in family size
.3 <input type="checkbox"/> Purchase benefits	.9 <input type="checkbox"/> Decrease in family size
.4 <input type="checkbox"/> Larger home	.10 <input type="checkbox"/> Will never leave
.5 <input type="checkbox"/> Smaller home	.11 <input type="checkbox"/> Other, please specify _____
.6 <input type="checkbox"/> Location	

14. Please rank the following of housing in order of preference for your next residence. (1 most preferred, 3 least preferred)

- .1 ____ Single Family
- .2 ____ Condominium
- .3 ____ Rented Apartment

15. Please indicate the number of rooms you would prefer in your next residence.

- .1 Living Room ☐ Yes ☐ No
- .2 Combination living/sleeping ☐ Yes ☐ No (Studio)
- .3 Den/Study ☐ Yes ☐ No
- .4 Formal Dining Room ☐ Yes ☐ No
- .5 Dining area in Living Room ☐ Yes ☐ No
- .6 Breakfast area in Kitchen ☐ Yes ☐ No
- .7 Baths ☐ 1 ☐ 1½ ☐ 2 ☐ 2½ ☐ 3 ☐ other _____
- .8 Bedrooms ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ other _____
- .9 Laundry ☐ Basement ☐ Same floor as unit ☐ in your unit
- .10 Balcony ☐ Yes ☐ No

PROPOSED HOUSING

16. Several developers are currently selling or planning to build new condominium homes on the east side and near the downtown area of Milwaukee. Please indicate whether you have heard about or visited the sales offices of the following condominium homes.

	Heard About	Visited Sales office
.1 The Atrium (State and Van Buren Adjacent to Juneau Village Shops)	<input type="checkbox"/>	<input type="checkbox"/>
.2 Cathedral Place (Kilborn and Van Buren)	<input type="checkbox"/>	<input type="checkbox"/>
.3 Diamond Towers (Prospect opposite Prospect Towers)	<input type="checkbox"/>	<input type="checkbox"/>
.4 Lafayette Place (Prospect at Lafayette)	<input type="checkbox"/>	<input type="checkbox"/>
.5 L'Hermitage (Juneau at Jefferson)	<input type="checkbox"/>	<input type="checkbox"/>
.6 Other, please specify (Name and Location)		
Name _____	<input type="checkbox"/>	<input type="checkbox"/>
Location _____	<input type="checkbox"/>	<input type="checkbox"/>

17. Please indicate your preference for each of the follow condominium concepts.

	Most Prefer	Somewhat Prefer	Neutral Opinion	Somewhat Dislike	Most Dislike	No Opinion
.1 The Atrium — 14 story building — 172 condominium homes — 10 to 14 homes per floor — open center atrium 14 stories high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.2 Cathedral Place — 28 story building — 324 condominium homes — 8 to 16 homes per floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.3 Diamond Towers on Prospect — 21 story building — 112 condominium homes — 4 to 6 homes per floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.4 Lafayette Place — 15 story building — 62 condominium homes — 4 to 6 homes per floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.5 L'Hermitage — Two-3 story buildings — 48 total condominium homes — 8 homes per floor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

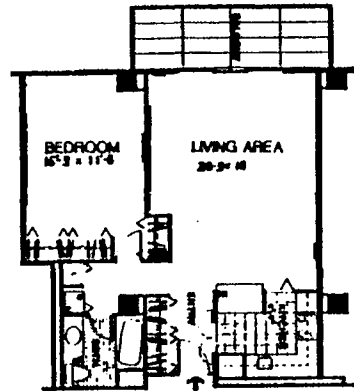
18. For your future housing, which location appeals to you most?
Please refer to location map on back page.

	Most Prefer	Somewhat Prefer	Neutral Opinion	Somewhat Dislike	Most Dislike	No Opinion
.1 Site 1—The Atrium (N. Van Buren, E. State St.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.2 Site 2—Cathedral Place (N. Van Buren, E. State and Kilbourn)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.3 Site 3—Diamond Towers Prospect Ave.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.4 Site 4—Lafayette (Prospect) and Lafayette)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.5 Site 5—L'Hermitage (Juneau, Jefferson, Jackson area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.6 —None of the above, I prefer _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

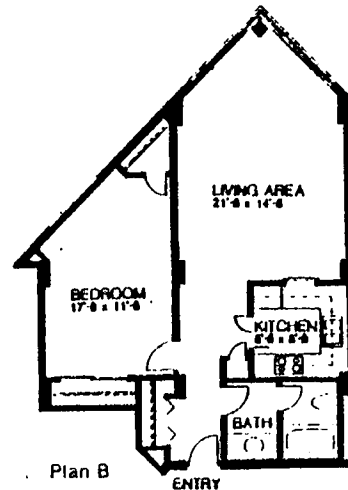
FUTURE HOUSING FLOOR PLAN PREFERENCE

19. The floor plans shown below represent plans for two proposed Milwaukee apartment condominium homes. Please review the plans and answer the two questions at the bottom of this page.

PLAN A — One Bedroom
One Bath
Inside Unit
775 sq. ft.



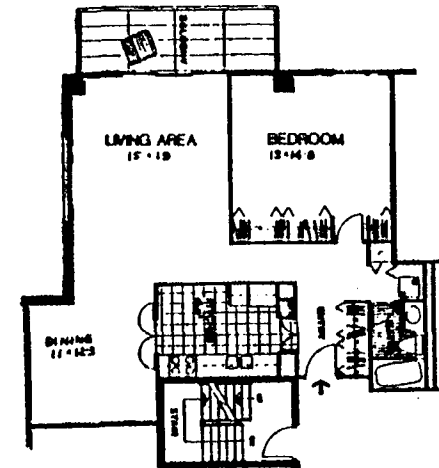
PLAN B — One Bedroom
One Bath
Corner Unit
775 sq. ft.



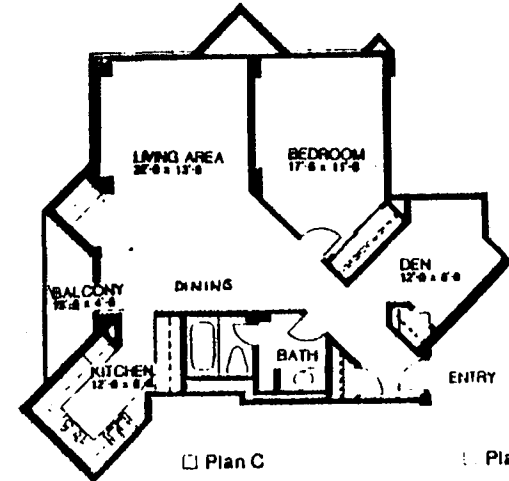
1. Which plan do you prefer? ☐ Plan A ☐ Plan B
Comments _____
2. Which plan would you expect to sell for the highest price?
☐ Plan A ☐ Plan B

20. The following two floor plans represent larger size one bedroom plans. Please review the plans and answer the questions at the bottom of this page.

PLAN C — One bedroom
One Bath
Corner Unit
Dining Room
950 sq. ft.



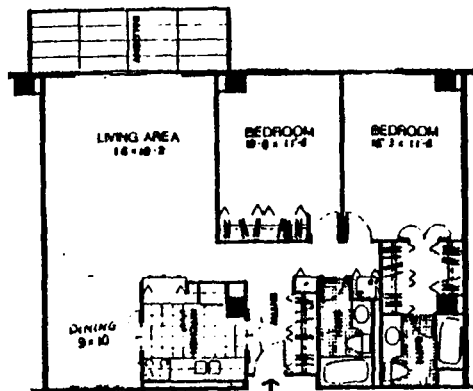
PLAN D — One Bedroom
One Bath
Corner Unit
Den
935 sq. ft.



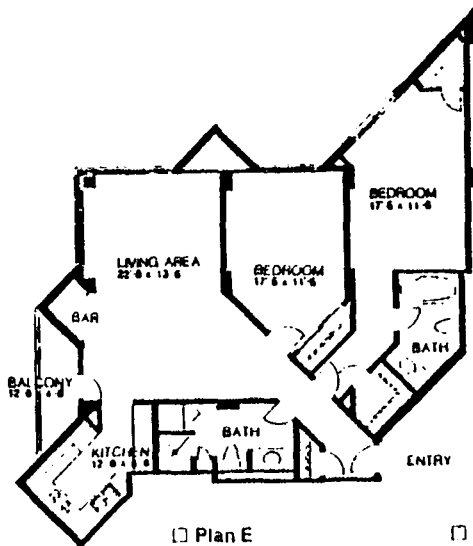
1. Which plan do you prefer? ☐ Plan C ☐ Plan D
Comments _____
2. Which plan would you expect to sell for the highest price?
☐ Plan C ☐ Plan D

21. Please review the plans and answer the questions at the bottom of this page.

PLAN E — Two bedrooms
Two Baths
Inside Unit
1160 sq. ft.



PLAN F — Two Bedrooms
Two Baths
Corner Unit
1195 sq. ft.



.1 Which plan do you prefer?

Comments _____

.2 Which plan would you expect to sell for the highest price?

☐ Plan E

☐ Plan F

22. What type of parking do you prefer for your future residence?

- .1 ☐ Inside (basement) garage parking
- .2 ☐ Outside lot parking
- .3 ☐ Street parking
- .4 ☐ Do not need parking

23. Do you prefer to rent or own your parking space?

- .1 ☐ Prefer to own parking space
- .2 ☐ Prefer to rent
- .3 ☐ Neither

24. How many parking spaces do you or your household require?

.1 _____

HOUSING AMENITIES

25. How important are the following considerations in selecting an apartment or condominium home?

	Very Important	Somewhat Important	Not Important
.1 Quality housing in neighborhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.2 Privacy from noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.3 View of Lake Michigan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.4 View of Downtown Skyline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.5 Quality of exterior construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.6 Quality of interior finish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.7 Health Club in Building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.8 Indoor Pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.9 Amount of storage space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.10 Laundry area in apartment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.11 Private Balcony	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.12 Safety sprinklers on all floors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.13 Door man (24 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.14 Security entrance with T.V. monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.15 Triple glazed windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.16 Semi-automatic car wash in garage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.17 Other, please specify _____			

EXHIBIT 7 (Continued)

INFORMATION ABOUT FUTURE RESIDENCE

26. What is the maximum monthly rent/mortgage (including property taxes if mortgage) that you would pay for your preferred housing type?
- | | | |
|---|---|---|
| .1 <input type="checkbox"/> Up to \$250/month | .4 <input type="checkbox"/> \$651—\$850 | .7 <input type="checkbox"/> \$1251—\$1450 |
| .2 <input type="checkbox"/> \$251—\$450 | .5 <input type="checkbox"/> \$851—\$1050 | .8 <input type="checkbox"/> Over \$1450 |
| .3 <input type="checkbox"/> \$451—\$650 | .6 <input type="checkbox"/> \$1051—\$1250 | .9 <input type="checkbox"/> Don't know |

27. If the cost of construction for your ideal residence is more than you are willing to pay, what would you give up?

- | | |
|---|--|
| .1 <input type="checkbox"/> Quality of construction | .5 <input type="checkbox"/> Central Air Conditioning |
| .2 <input type="checkbox"/> Room Size | .6 <input type="checkbox"/> Wet Bar |
| .3 <input type="checkbox"/> Amount of exterior open space | .7 <input type="checkbox"/> Dining Room |
| .4 <input type="checkbox"/> Garage Space | .8 <input type="checkbox"/> Kitchen eating area |
| .10 <input type="checkbox"/> Other, please specify _____ | .9 <input type="checkbox"/> View of Lake Michigan |

28. Have you ever considered buying an condominium apartment?

- .1 ☐ Yes, I/we bought an existing condominium
 .2 ☐ Yes, I/we considered buying a new condominium home
 .3 ☐ Yes, I/we considered buying an existing apartment
 .4 ☐ No, I/we prefer to rent

Comments _____

BACKGROUND INFORMATION

29. Please answer the following about the Head of Household:

- .1 Age: ☐ Under 25 ☐ 25—29 ☐ 30—34 ☐ 35—44
 ☐ 45—54 ☐ 55—64 ☐ Over 65
 .2 Sex: ☐ Female ☐ Male
 .3 Schooling Completed: ☐ 8th grade or less ☐ Some high school
 ☐ High school diploma ☐ Some college ☐ College diploma ☐ Advanced degree
 .4 Marital Status: ☐ Single, never married
 ☐ Divorced, separated, or widowed ☐ Married

30. Please indicate the zip code where you (and your spouse) presently work:

Your

Spouse

Zip Code

Not Applicable

[]

[]

31. Do you have children? ☐ Yes ☐ No. If yes, how many children now live in your residence?

- .1 ☐ One ☐ Two ☐ Three ☐ Four ☐ Five ☐ None ☐ Other _____
 .2 What are the ages of the children living in your residence?

32. In which category does your total annual household income fall?

- | | |
|---|--|
| .1 <input type="checkbox"/> \$0—\$9,999 | .5 <input type="checkbox"/> \$40,000—49,999 |
| .2 <input type="checkbox"/> \$10,000—\$19,999 | .6 <input type="checkbox"/> \$50,000—59,999 |
| .3 <input type="checkbox"/> \$20,000—29,999 | .7 <input type="checkbox"/> \$60,000—69,999 |
| .4 <input type="checkbox"/> \$30,000—39,999 | .8 <input type="checkbox"/> \$70,000 or higher |

How many individuals contribute to this income?

- .1 ☐ One .2 ☐ Two .3 ☐ Three .4 ☐ Other _____

COMMENTS: _____

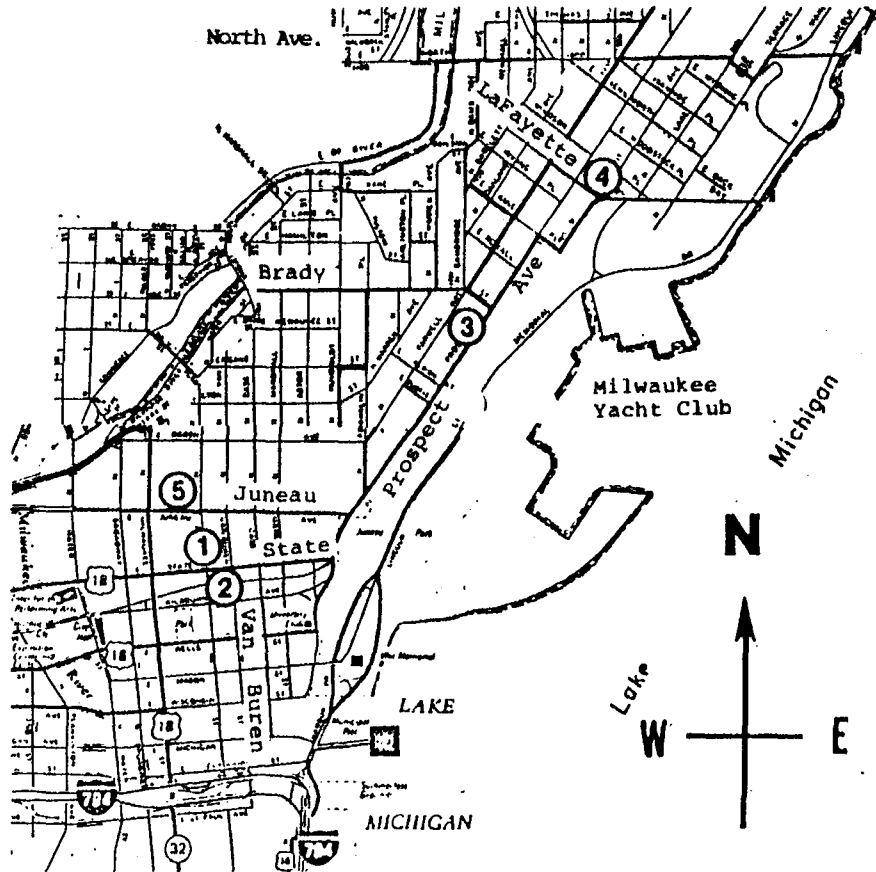
THANK YOU FOR YOUR HELP!

Please return your survey in the postage paid envelope, as soon as possible.

Feasibility Research Group
 527 E. Liberty St. Suite 208
 Ann Arbor, Michigan 48104

EXHIBIT 7 (Continued)

18. For your future housing, which location appeals to you most?
Please refer to location map below and answer question 18 on page 5.



- a. Location analysis
- b. Interior layouts
- c. Site planning and exterior design
- d. Neighborhood political profiling

Such a panel must be carefully anticipated with a set of graphics and program tasks and chaired by a sensitive moderator to control the pace, suppress the dominant personalities, and draw out the reticent. Proceedings should be taped and involve short spurts of written recording of opinions and responses. It may involve site visitation or competitive project shopping.

- 4. Personal interviews were once the most intensive, far ranging in scope, and expensive and have been replaced in part by panel studies. They remain important for:

- a. Structured collection of social measurement data
- b. Exploratory testing of project hypotheses with centers of influence
- c. Co-opting and controlling the stage for political input

- H. A survey of existing properties and alternatives available to a selected market segment defines only the competitive standard - namely the minimum product and price necessary to be in the market.

- 1. Comparison shopping further identifies where there may be gaps in the supply of alternatives, a market opportunity gap, or where the oversupply is so significant as to portend the last competitive alternative before bankruptcy - namely price cutting.
- 2. Comparison shopping should not only identify the physical characteristics of the product and price, but the nature of the promotion effort as well.
- 3. Promotion comparison should consider pedestrian and vehicle approaches, model location, furnishings, and sales people.
- 4. Review of the promotion campaign should reveal whom the competitors believe to be their prospect.

III. GENERALIZED FORMAT OF MERCHANDISING REPORT SUMMARY

Cash flows ultimately depend on sales or rental revenues and further refinements of the frontdoor-backdoor approaches depend on establishing an explicit set of assumptions about the geographical market area, the user segment within that market area, and so on. All you buy in a real estate investment is a set of assumptions about the market. Therefore, the analyst should provide and identify a marketing assumption checklist for the reader:

A. Definition of geographic and demographic market

1. Primary trade area to be served
2. Profile of prospects by current location, status, income, etc., in primary carefully segmented area
3. Secondary trade area to be served
4. Profile of prospects by current location, status, income, etc., in secondary carefully segmented area

B. Definition of principal competitors

1. Existing supply
2. Prospective supply with timeline advantage
3. Competitive standard package of project features
4. Unique features of successful competitors
5. Probable cause of unsuccessful competitors
6. Merchandising appeals of competitors
7. Definition of market penetration and competitive gap

C. Establishment of merchandising strategy logic

1. Competition
 - a. Standard product
 - b. Price and quality
 - c. Competitive edge opportunity
2. Positioning strategy
 - a. Sales themes
 - b. Name and byline
 - c. Site and unit features
 - d. Strong sales points

3. Construction and architecture

- a. Sales area
- b. Models
- c. Entrance and signs
- d. Project amenities
- e. Roads and paving
- f. Site plan
- g. Construction schedule

D. Definition of prospect target for subject property

- 1. Recommendations on site location
- 2. Recommendations on site linkages and dynamics
- 3. Recommendations on building types and numbers
- 4. Recommendations on basic unit features
- 5. Recommendations on basic unit options
- 6. Recommendations on level of quality
- 7. Recommendations on basic price targets

E. Structuring the feasibility report

Ultimately the budget established for analysis and the need to communicate the findings represent a severe constraint on the feasibility process. Priorities and critical assumptions necessary to achieve the desired outcome must be separated from the great mass of detail and presented tersely.

- 1. Format of the report should rely on three elements:
 - a. An executive summary which tersely identifies alternative courses of action and recommendations as to how client can make the choice.
 - b. A basic reference document which includes all the detail analysis.
 - c. A collection of reports by contributing professionals incorporated by reference.
- 2. To be terse the executive summary should depend on:
 - a. Simple charts of choices of alternative outcomes
 - b. Simple flow charts
 - c. Specific criteria used to measure "likelihood of success"

3. Statement of limiting conditions should first begin with a definition of the word "feasible": (as per Institute of Appraisal Terminology Handbook), and then state that it was the purpose of the study to define the context of the situation and the parameters within which a solution might be found to fit the major constraints with a reasonable likelihood of success. It should carefully point out that the generalist has made a series of explicit assumptions which may, nevertheless, need confirmation by a more detailed study best done by specialists. The statement of limiting conditions should further emphasize the constraints and objectives placed on the study by identifying who:

- a. Defined the constraints
- b. Defined success
- c. Provided the data and assumptions
- d. Permitted key assumptions to remain untested for economy or speed
- e. Accepted assumptions of conditions of uncertainty
- f. Assembled proforma financial statements and projections
- g. Executed feasibility confirmation of key assumptions with aid of specialists
- h. Placed limitations on use and confidentiality