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      - a. "A Contemporary Approach to a Real Estate Appraisal Report", Marriot Hotel, Milwaukee, March 9-10, 1979: Includes brochure and miscellaneous lecture notes

#### A CONTEMPORARY APPROACH TO A REAL ESTATE APPRAISAL REPORT

Continuing Education Institute
March 9-10, 1979
Marriott Hotel, Milwaukee

Presented by

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- I. A fundamental premise of real estate appraisal is the concept of highest and best use, a premise that views land as a commodity and potential uses for highest profit not necessarily the socially desirable uses.
  - A. The term highest and best use presumes the individual appraiser knows better than society what is best by implication although in fact it boils down to what is the most profitable use which is legal, in demand and within the suitability option of the physical site.
  - B. However, appraisal literature is showing considerable call for redefinition of highest and best use concepts. Consider such key items as:
    - 1. "Highest and Best Use," William Crouch, The Appraisal Journal, April 1966, pp. 166-176. (Appraiser must prove effective demand and reasonable probability of political permission to use the site.)
    - 2. "Highest and Best Use Fact or Fancy," Paul Wendt, The Appraisal Journal, April 1972, pp. 165-174. (Wendt makes the case very well that the opinion of highest and best use must consider so many cash flow variables on an after tax basis that the conclusions must vary with investor type just as judgments and analytical skill must vary by appraiser.)
    - 3. "The Importance of the Highest & Best Use Analysis," Paul Tischler, The Real Estate Appraiser, May-June 1972. (Tischler argues that proposed use must not only consider highest income to owner but also external costs and economic costs and impact.)
  - C. On a little broader base, the Rockefeller Land Use Commission noted a growing public consensus that land use was central to both environmental balance and social equity and therefore subject to public control first and private development second.
  - D. The definition of fair market value assumes that the buyer is knowledgeable as to all the uses to which it may be put and yet today we are in transition from viewing land as a commodity to land as a public resource.
    - 1. But the law has always defined private options to use and benefit as those rights which are not preempted by the public since the constitution reserves:
      - a. First claim on productivity the real estate tax
      - b. First prerogative on use decisions the police power
      - c. Compensation in cash only for entrenched private rights eminent domain
    - 2. Court cases in Wisconsin have held that the land owner does not have inherent right to develop marsh land to the damage of the general public by upsetting the natural environment...

... nothing this court has said or held in prior cases indicates that destroying the natural character of a swamp or a wetland so as to make that location available for human habitation is a reasonable us of that land when the new use, although of a more economical value to the owner, causes a harm to the general public. ... While loss of value is to be considered in determining whether a restriction is a constructive taking, value based upon changing character of the land at the expense of harm to public rights is not an essential factor or controlling. The Land belongs to the people... a little of it to those dead... some to those living... but most of it belongs to those yet to be born..." Just vs. Marinette, 56 Wis 2d 7.

- 3. Wisconsin courts have held that the owner and the appraiser have constructive notice of soils and suitability for septic tank since the Soil Conservation Service is available in the courthouse, same as the Register of Deeds.
- E. Recognition of the fact that profit maximization must be limited by concerns for physical environment and community priorities for land use has resulted in redefinition of the most basic concept in appraisal; i.e. highest and best use, in the authorized terminology handbook sponsored by the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers. Compare the 1971 definition with that for 1975:

Highest and best use concept -

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

P. 57, Real Estate Appraisal Principles and Terminology, Second Edition, Society of Real Estate Appriasers 1971.

"Highest and Dest Use: That reasonable and probable use that will support the highest present value, as defined, as of the effective date of the appraisal. Alternatively, that use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and which results in highest land value. The definition immediately above applies specifically to the highest and best use of land. It is to be recognized that in cases where a site has existing improvements on it, the highest and best use may very well be determined to

be different from the existing use. The existing use will continue, however, unless and until land value in its highest and best use exceeds the total value of the property in its existing use. Implied within these definitions is recognition of the contribution of that specific use to community environment or to community development goals in addition to wealth maximization of individual property owners. Also implied is that the determination of highest and best use results from the appraisers judgment and analytical skill, i.e., that the determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value) another appropriate term to reflect highest and best use would be most probable use. In the context of investment value an alternative term would be most profitable use." Real Estate Appraisal Terminology, Edited by Byrl II. Boyce, Ph.D. SRPA, Ballinger Publishing Co., Cambridge, Mass. 1975

- F. The purchase of a piece of real estate today involves the acceptance of a great many assumptions about the future. Those who take care to validate these assumptions in a period of transition as to public land use control tend to have the most successful investment.
  - 1. Business decisions today make explicit recognition of their assumptions and the need to act under conditions of uncertainty.
  - 2. Business risk is the difference between assumptions about the future and realizations, the proforma budget and the end of the year income statement.
  - 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.
  - Reconciliation involves financial impact analysis on "who pays" and "who benefits" - thus the rash of debate on how to do impact studies.
  - 3. The most probable use will be something less than the most fitting use depending on topical constraints imposed by current political factors, the state of real estate technology, and short term solvency pressures on consumer, producer, or public agency.
  - 4. Most probable use means that an appraisal is first a feasibility study of alternative uses for a site in search of a user, an investor, and in need of public consent.
- H. No matter what the field, a decision model must be considered in light of how it fits the following constraints:
  - 1. The question to be answered
  - 2. The facts available
  - 3. The theory

- 4. Credibility with the decision maker
  - 5. Facility of the analyst
- 6. Cost benefit ratio of method

- 11. Uncertainty, fixed point values, and central tendency.
  - A. Definition of Market Value: "The highest price estimated in terms of money which a property will bring if exposed for sale in the open market, allowing a reasonable time to find a purchaser who buys with knowledge of all the uses to which it is adapted and for which it is capable of being used." The Appraisal of Real Estate, Sixth Edition, American Institute of Real Estate Appraisers, 155 E. Superior Street, Chicago, Illinois 60611, page 25.
    - 1. Competitive market conditions
    - 2. An informed buyer and seller
    - 3. No undue pressure on either party
    - 4. "Rational" or prudent economic behavior by both buyer and seller
    - 5. A reasonable turnover period
    - 6. Payment consistent with the standards of behavior of the market
    - Market Value looks at the transaction from the point of view of the buyer
  - B. It should be noted that there is an equal balance between the uses to which it may be put and the viewpoint of the buyer. The element of uncertainty is carefully hedged by a statement of limiting conditions:
    - 1. To hedge the appraisal conclusion with a variety of limiting conditions at a time when the variables for consideration are increasing, is to produce a value conclusion that is almost fictitious.
    - 2. Since the concept of limiting conditions must be used sparingly lest the appraiser support consistency rather than accuracy, better methods must be found to introduce some tolerance for the conditions of uncertainty which surround the appraisal estimate.
    - 3. Given all the variables, a more logical appraisal format is required, at the very least.
  - C. There may be many questions a client wishes answered, decisions which are the purpose of the appraisal. The appraiser always avoids his clients problem by stating "the purpose of this appraisal is to determine fair market value," thereby redefining the clients problem to the one question the appraiser is prepared to answer.
    - 1. Given all the different applications of an appraisal and the need to broaden the market for appraisal services a more flexible appraisal format is required.
    - 2. Given all the assumptions under conditions of uncertainty, there is great need to dimension the appraisal answer with the range of alternative transaction prices which might occur.
  - D. Purpose is a critical issue when appraising for the seller isn't it your function to predict the most probable sales price even if the market depends on dummies and doctors? On the other hand the mortgage lender may be more concerned with income value in terms of cash available to pay off the loan once the dummies have been burned and foreclosed.
  - E. As a basic premise for reorganization, it can be assumed that the function of the appraisal report is to reflect the clients purposes for which he needs an appraisal:
    - 1. For the mortgage lender, the issue is the liquidating value or probability of future cash returns being adequate to repay the loan, interest, and cost and the distribution of profit centers over time

- to maintain repayment incentive to the borrower.
- 2. For the courts eminent domain or assessment appeal, the statement of function leads to the definition of value as the juridictional market value.
- 3. A report for a would-be buyer or seller might lead to the definition of value as investment market value.
- 4. For most cases the appraiser would seek to determine the most probable selling price.
- F. Investment market value is a term coined by Mack Hodges for the present value of future income receipts, considering a specific set of assumptions about the after tax cash flow of property and requires some general description of the investment standards and tax status of buyers interested in a specific type of property, specifically income-investment property.
- G. Investment value, which requires some detail about motivations of a probable or specific buyer, is a special case of the broader concept of "most probable sales price" (Vp). This approach makes the point conclusion explicitly a statement of the central tendency (mode, mean, or median) around which a transaction price is likely to fall. Thus it generally supplies a valuation as a range of prices within which a transaction would most likely occur, similar to but not necessarily a concept of statistical standard error.
- H. Most probable selling price is derivative of the theoretical work of Prof. Richard U. Ratcliff.
  - 1. The quotable definition: "The most probable price is that selling price which is most likely to emerge from a transaction involving the subject property if it were to be exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type."
  - See his article "Is There a 'New School' of Appraisal Thought?", <u>The Appraisal Journal</u>, October 1975.
  - 3. For the full theory: <u>Valuation for Real Estate Decisions</u>, R. U. Ratcliff, available from Democrat Press, P.O. Box 984, Santa Cruz, California 95060.
- III. The logic of the approach not only makes economic sense but leads to a superior outline for writing and reading an appraisal report. It gives the appraiser more freedom to use whichever technique seem appropriate but deny the appraiser the escape of convenient limiting assumptions and of the perfect market-prudent investor fictions of classic appraisal.
  - A. The purpose of the appraisal (assessment, mortgage loan, insurance, etc.) leads to a selection of a value definition.
  - B. Detailed analysis of the property lead to a statement about most probable productive use.
  - C. Most probable use leads to inference about the most probably buyer-type, his motivation, and economic logic.
  - D. Comparability becomes a matter of analyzing a buyer-type rather than only a physical piece of nearby real estate. Buyer-type leads to a choice of valuation for appraisal method. In Ratcliff the basic approaches are:

- 1. Preferred method is to infer buyer behavior from actual market transactions.
- 2. In the absence of adequate market data, the method requires simulation of probably buyer investment analysis or enterprise budgeting.
- 3. Note that one or more of the three approaches may be used or some other technique may be utilized. For the next two days we are going to be looking at ways of analyzing productivity, or simulating investment productivity of agricultural property.
- 4. Buyer type may be a class of buyers, the property owner next door, or a particular investor with a strong preference for property attributes identified. Past market actions can provide evidence that buyers are not fully informed and that prices are being set by ignorance but it is still probable price.
- E. The relationship of the report format to the choice of methods can be better understood by moving through a report outline provided in Exhibit 1.
  - 1. It is useful to note that this general appraisal report form is very similar to that of a feasibility analysis of a specific site. An appraisal is a special case of the feasibility problem of a site in search of a use which has a market and a customer.
  - 2. The report provides equal balance between the physical attributes of the site and the investment assumptions of typical buyers.
  - 3. It forces the appraiser to be explicit about what he means in terms of property management, farm management, tree management, recreational property management or whatever. It requires the appraiser to have some professional ability to identify a program for utilization of the land.

#### CONTEMPORARY REAL ESTATE APPRAISAL SEMINAR

## Concept of Most Probable Buyer Type/Most Probable Price

- Ratcliff Theory would place as much emphasis on behavior of prospective buyers or investors as on the operating behavior and characteristics of a property. Appraisal is trying to predict how people, buyer and seller, will behave in the future, converting a decision to a mutually acceptable price.
  - A. Each party is operating under certain assumptions and constraints:
    - Buyers assume they will have to pay no less than some specific price, that others are bidding for the property, that they cannot afford to pay more than a certain amount of income for shelter or business location, or that a desired use requires a specific set of attributes.
    - Sellers assume buyers see the property in the same way they
      do, that the property has some inherent value and utility,
      and that its just a matter of time before some fish can be
      found to pay the asking price.
  - B. The definition of value selected by the appraiser also assumes certain motivations for buyer and seller which typically are a matter of convenience for the appraiser but often a significant source of error in the prediction of price. While the wording on fair market value differs slightly, the following conditions are always assumed to prevail:
    - 1. Competitive market conditions.
    - 2. An informed buyer and seller.
    - 3. No undue pressure on either party.
    - 4. "Rational" or prudent economic behavior by both buyer and seiler.
    - 5. A reasonable turnover period.
    - 6. Payment consistent with the standards of behavior of the market.
    - 7. Market Value looks at the transaction from the point of view of the buyer.
  - C. However, a buyer is integrating and comparing a property more to a personal set of needs than to a property alternative which is only roughly similar to another in function and potential.
    - I. For example, a commercial office building developer seeks a site with a minimum number of construction problems, an optimum shape, and maximum rental value. On the other hand, the committee buying a home office site for an insurance company or bank will emphasize visibility and location at the expense of almost any development cost and despite any reduction in rental value for re-use.
    - 2. A young couple may buy an old house because it is run down and in need of renovation in order that the initial cost is low and the opportunity for creating equity is greatest, while the seller is selling because of irritation with the fit of the structure to his lifestyle or because he has reached the end of his lifecycle in that location.

- 3. One man's floor is another man's ceiling.
- 4. Therefore, the eventual sales price at which two parties will agree is arranged within a zone of expectations and requirements reflecting the assumptions of each party. Indeed some transactions are designed so that the final price is determined later based on whose assumptions prove to be more correct in a speculative situation.
- D. Both buyer and seller enter negotiations with a subjective value expectation (Vs) which is a constraint in bargaining for the property.
  - 1. "The actual selling price will usually represent a compromise between what the buyer would have paid if necessary and what the seller would have taken as a last resort." p. 13, Ratcliff.
  - 2. Therefore, the appraisal must take more than just the buyer viewpoint of the transaction or the appraisal will not be of a value that reaches the minimum the seller can or would accept.
- E. This leads then to the concept of a transaction zone around a point which is the central tendency of bargaining, a point we call most probable price. Notice the assumptions of most probable price may be somewhat more acceptable in terms of pragmatic realism than those of fair market value.
  - 1. Subjective value (Vs) is a figure with which buyers and sellers enter the market as a constraint in the bargaining. The actual selling price will represent a compromise between what the buyer would have paid if necessary and what the seller would have taken as a last resort.
  - 2. In residential work, where there are many sales, the transaction zone may be defined statistically as the standard deviation of the estimate.
  - 3. The possible variance or error in the estimate of probable sales price may be intuitive by the appraiser.
  - 4. The zone may be defined by the logic of bargaining positions. The seller wants to cover his debt and broker fees; the buyer assumes a certain value in a new use less remodeling costs, less a cushion for unexpected costs and profit.
  - 5. In the cast of investment properties, sensitivity analysis may define the range of alternative outcomes.
  - 6. There may be certain conditions which cannot be known by the appraiser but which would change his estimate as to what the buyer or seller would accept; the appraiser may define the transaction zone as the range between optimistic and pessimistic impacts of external events.
- F. The important function of the transaction zone is to alert the reader of the report:
  - 1. To the fact that an appraisal value is not a certainty but a prediction of a future hypothetical business event.
  - Present value is the purchase of a set of assumptions about the future and therefore value depends on which set of assumptions the buyer and seller "buy."
  - 3. The reliability of a prediction is important in using probable price as a benchmark for a decision; reliability is less important in assessment than in investment, conservatism more important in lending than in equity investment, etc.

### II. The Two Basic Methods of Appraisal

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

- A. Given reliable information on past market behavior, the preferred method of appraisal is to process the data, statistically if possible, to derive a prediction of future price behavior under given conditions and with means for estimating the reliability of the prediction.
  - 1. Statistical prediction if possible.
  - 2. Statistical rules for definition of a data set at the least.
- B. Should market data be unavailable or inconclusive, the appraiser is forced to resort to the second method of appraisal, namely the construction of a real estate market model of factors which reflect his understanding of how buyers and sellers might behave.
  - The income approach and the cost approach are submodels of how an investor is supposed to behave.
  - 2. After tax investment models are another submodel of market behavior, but while these may measure demand from the buyer's viewpoint, it may not measure the minimum price expected by the seller who also has a tax model to consider. In using the second approach, the appraiser must be very careful to indicate price on the supply side representing minimum expectations (Vs) of the seller.

# CONTEMPORARY REAL ESTATE FINANCIAL ANALYSIS Presented by Continuing Education Institute

Instructor: Professor James A. Graaskamp, CRE, SREA University of Wisconsin, School of Business

### 1. Basic Concepts and Definitions

- A. Real estate is a tangible product defined as artificially delineated space with a fourth dimension of time referenced to a fixed point on the face of the earth.
  - 1. Real estate is a space-time unit, room per night, apartment per month, square foot per year, tennis court hours, or a condominium for two weeks in January at a ski slope.
  - 2. To the space-time abstraction can be added special attributes to house some form of activity.
  - 3. Improvements from survey market to city layouts to structures define space.
  - 4. Legal contracts and precedents define time.
  - 5. Rights of use are defined by public values, court opinions.
  - 6. Private rights to use are those which remain after the public has exercised its rights to control, to tax, or to condemn.
- B. A real estate project is cash cycle business enterprise which combines a space-time product with certain types of management services to meet the needs of a specific user. It is the process of converting space-time needs to money-time dimensions in a cash economy.
  - 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.
  - 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.

Related notes, but from different lecture - some pages missing -

- 7.330 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% gross margin. Anything done after that is justified by its constribution to "room-night" sales or its reduction of average cost to capture a customer per "room-night."
- 7.340 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 sq. ft., per frame at a bowling alley or per tennis court hour, or per hour of ice time.
- 7.350 Sometimes the prospect is identified by who really signs the check for a particular type of real estate.
  - 7.351 The salesman or the management paying his travel costs
  - 7.352 The doctor or the clinic
  - 7.353 The district manager or the corporate real estate manager
  - 7.354 The ticket buyer or the promoter
  - 7.355 The bowling league, team business manager, travel agency tour guide
- 7.360 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.
  - 7.361 A reverse directory or criss-cross telephone book
  - 7.362 Building directories of comparables
  - 7.363 Mailing lists of specialty publications
  - 7.364 License number spotting
  - 7.365 Guest registers
  - 7.366 Charge account mailing addresses
- 7.400 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.
  - 7.410 Unlike most consumer markets, the number of prospects is always low; think small!
    - 7.411 Real estate is a series of micro-markets.

      A 24-unit building with one, two, three bedroom units has at least three sub-markets.
    - 7.412 A 24-unit building is a \$500,000 enterprise with a \$75,000 gross sales potential from only 24 customers!

- 7.420 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.
  - 7.421 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 bankrupcy namely price cutting.
  - 7.422 Comparison shopping should not only identify the physical characteristics of the product and price but the nature of the promotion effort as well.
  - 7.423 Promotion comparison should consider pedestrian and vehicle approaches, model location, furnishings, and sales people.
  - 7.424 Review of the promotion campaign should reveal whom the competitors believe to be their prospect.
- 7.430 A survey of users, is designed to reveal or to identify the competitive differential attributes which would provide that monopoly element required of every successful project.
  - 7.431 A second product of consumer survey is the ability to develop locally relevant ratios which permit disaggregation of market data into market segments and the conversion of potential numbers of people into potential dollar sales over time.
  - 7.432 Survey questions to create ratios require previous construction of a market model hypothesis.

### 7.500 Introduction to Prospect Survey

While a survey analysis appears to be a group of questions, in fact the real product is a table of data unavailable from any other source. The analyst should begin with a written mock-up of the final report logic and the specific tables which lead to a conclusion.

- 7.510 With a preliminary hypothesis as to the prospect, survey questions may be intended to provide:
  - 7.511 Key ratios necessary for segmentation of market data already broken down by trade area, demographics, employment, etc.
  - 7.512 Key indicators of anxieties or preferences or tradeoffs of the prospect.

- 7.513 Key indicators of the anxieties or preferences of non-prospects who feel a vested interest in the impact or have a significant part in the purchase process. (For example the members of the Public liousing Authority have a different set of needs than the ultimate user, but the product is "bought" by the Board).
- 7.520 Consider the elderly housing market chart in Exhibit 11. Notice that the ratios required for market segmentation follow a logical reduction pattern. The analyst has made several working assumptions namely that his market is over 65 and overwhelmingly from Dane County because these assumptions are both reasonable and conform to break-out points in the raw data.
- 7.530 The ratio sought by the survey follow a precise reduction pattern:
  - 7.531 How many will consider moving?
  - 7.532 Of those, how many would consider staying in town?
  - 7.533 Of those, how many would consider an apartment?
  - 7.534 Of those remaining who would consider an apartment in town, how many would consider a specific location?
  - . 7.535 Notice the reduction process defines a subset of the elderly market a micro-market.
- 7.540 Each of these ratios suggests a specific calculation or perhaps a short table of statistics. The specific title on the table of data and its sub-columns should be written before the questions are drafted and the collection of data begun. Notice the research begins with careful definition of the questions to be answered. All answers become relevant and all unnecessary questions are avoided. These types of questions depend on knowing the precise character of secondary data available to which the ratios must be applied in the systematic model devised for the problem.
  - 7.541 Confine vocabulary to basic 1000 words; avoid lingo.
  - 7.542 Structure questions to permit check-off, or branching to set up subsets. (See Exhibit 16)
    - 7.543 Always test the questionnaire on half a dozen prospects or friends to reveal misunderstandings before using on the market.
    - 7.544 Questions may take different formats. (See Exhibit #14)

- 7.550 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. Hevertheless, a little common sense can generate considerable useful information on the competitive edge.
  - 7.551 Probe for dissatisfaction with existing space or life style.
  - 7.552 Probe for anxieties about uncontrollable trends and events.
  - 7.553 Probe for desired social structure ties, real or imagined.
- 7.560 The real estate analyst can choose between systematic telephone interviews, direct mail questionnaires, and personal interviews in depth.
  - 7.561 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. Rifled to a 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. (See Exhibit 15)
  - 7.562 A telephone survey is also useful to disaggregate census data or to estimate market penetration of a competitor (such as a retail store) into an area.
  - 7.563 Direct mail questionnaires may cost from 5¢ 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. Consider the following types of questions:
  - 7.564 The double barreled question occurs when two or more questions are combined in one so that the answer is always ambiguous as to the significance of each item but often occurs in the effort to shorten an interview or a question.
    - . Would you be at all uneasy if people of a different religion or race were to move in next to your home?
    - As you see it, what are some of the good points and the bad points of the present Governor of this state?

PROJECT	MASS	/SCALE	Misc
1 16 -75 -1	11/23		11/250.

THE FOLLOWING QUESTIONS WILL PROVIDE US WITH INFORMATION AS TO WHAT YOU FEEL IS ESSENTIAL IN A HIGH RISE BUILDING FOR THE ELDERLY. WHILE WE REALIZE THAT SOME PEOPLE DO NOT LIKE HIGH RISE STRUCTURES IT IS ESSENTIAL THAT WE FIND OUT HOW WE CAN BEST DESIGN SUCH A BUILDING TO MINIMIZE THE IRRITATIONS AND MAXIMIZE THE BENEFITS TO THE RESIDENTS.

_	IT IS ESSENTIAL THAT WE FIND OUT HOW WE CAN BEST DESIGN SUCH A BUILDING TO MINIMIZE THE IRRITATIONS AND MAXIMIZE THE BENEFITS TO THE RESIDENTS.
	If you had to live in a high rise building:
24.	Would you prefer:  A six story building with 16 apartments and neighbors on each floor or/  A ten story building with 10 apartments and neighbors on each floor
25.	Would you prefer:  A six story building with less open space outside or/ A ten story building with more open space outdoors
26.	Would you prefer:  a large laundry room with adjacent bathrooms on one floor or/ smaller laundry facilities (one washer and dryer) on each floor
27.	Would you prefer:  small lounges on each floor or/ a larger main lounge
28.	Would you prefer:  An enclosed roof top sun deck or/ a larger patio area outdoors
ADDITIONAL COMMENTS	ARE THERE ANY ADDITIONAL SUGGESTIONS YOU WOULD LIKE TO MAKE?  More exits in case of fire

- 7.565 Sensitive questions on family income should be asked at the end of the interview while the opening questions should be of more general interest. When a question about income is asked the response should permit some degree of obliqueness by the respondent.
  - The respondent can select a range of income or perhaps enter the answer with a letter A, B, etc. in place of a dollar amount.
  - . If socio-economic questions are generally short and direct, they are a welcome contrast to the time consuming and thought provoking questions which preceded them.
- 7.566 Contingency questions are those which are asked or skipped depending on the respondent's answer to a preceding question. The survey should be as simple to follow as a well designed road map for an interviewer or a respondent. For example:

#### EXHIBIT #16

(112) Generally speaking, in politics do you usually think of yourself as a Republican, a Democrat, an Independent, or what?

/Independent/ /Other/ /No pref./ /Republican/ /Democrat/ (112a) Would you say that you (112c) In general, do you consider are a strong or not so yourself closer to the Republican strong (Republican; or to the Democratic party? Democrat)? /Strong/ /Not so strong/ /Rep./ /Dem./ /Neither/ /No pref/ (112b) Was there ever a time (112d) Was there ever a time when you when you thought of thought of yourself as a yourself as closer to Republican or Democrat? to the other party? /Yes/ /No/ /yes/ /No/

- 7.568 Personal interviews in depth permit questions using photographs with colors and styles. Expensive and time consuming, it assumes precious qualification of the interviewee as a typical prospect.
- 7.570 Processing of surveys can involve simple tallies or counts, simple subdividing of responses into subcategories, or preferably organization of the questionnaire to permit key punching or cross tabbing or statistical analysis by computer processing. The problem of identification requires:
  - 7.571 Coding by colored paper, colored return envelope, stamp on self-addressed stamped envelope to reflect geographic area, building address, type of respondent, original mailing list source, etc. Careful organization before mailing solves most processing problems.
  - 7.572 Beware of code numbers if you promised anonymity; give them the option of identifying the respondent, etc.
  - 7.573 Always identify yourself as an analyst (but not the project or the client), providing a phone number or an address where the interviewee can find you. It will generate both presale prospect lists and some primary unexpected political participation by others.

# 7.600 Telephone Survey to Improve Bidding Position on Turn-Key Elderly Housing Project

As a simple illustration of the relationship of consumer need to pre-architectural programs, consider the survey approach for a turnkey, 160-unit elderly housing project, solicited by the City of Madison Housing and Redevelopment Authority for a specific urban renewal site. Developers were to compete on both cost and sensitivity of design with an oral presentation to the Board in addition to submission of bid materials.

- 7.610 The packet of bid instructions included:
  - 7.611 Identification of the 116,549 sq. ft. site (with views of lake, park, and hospital)
  - 7.612 Restriction of access to one side of site, and inclusion of 53 parking stalls, and a drive through portachere.

- 7.613 A statement that the proposed structure be in harmony with existing buildings.
- 7.614 Limit of 160 units in three distinct structures inter-connected by an enclosed weatherized corridor system for elderly housing.
- 7.615 Specification of three structures consist of a one-story building housing 10-15% of total units; a three-story with 25-35% of total units; and a high rise with the remaining 60-70% of the total units.
- 7.616 Provision of extensive community, recreation, management and maintenance spaces with explicit instructions as to the location and relationship of the latter two space groups.
- 7.617 Design in accord with HUD Minimum Property Standards.
- 7.618 Time between solicitation and presentation was four weeks.
- 7.620 Joint venture proposal was to include experienced design/construction firm from out-of-town, the local broker/developer for financing and community relations, and a team of two graduate students in real estate. After organization of their joint venture three and one half weeks remained; designer required two weeks to prepare materials; estimator two days, etc. and specification and development of a pre-architectural program had to be completed in eight days.
  - 7.621 Four days allocated to data collection and survey design; four days allocated to analysis and development of design program.
  - 7.622 Market researchers read relevant secondary literature (such as Housing the Elderly, Central Mortgage and Housing Corporation of Canada, Second Edition, July 1972, Printed in Canada; or Design of Housing for the Elderly:

    A checklist, by Marie C. McGuire, NAHRO 1972; items found in The Built Environment For the Elderly and the Handicapped, a bibliography,

    U. D. Department of Housing & Urban Development, Library and Information Division, June 1971).
  - 7.623 Researchers visited several Madison projects, obtained floor plans, and visited with managers to make a subjective analysis of the relative success or misfit design elements in existing housing.
- 7.630 During same two day period architect/engineers reviewed information packet and site constraints; then met with market researchers to generate the following basic research questions.

- 7.631 What are the physical limitations of the prospective residents requiring special features?
- 7.632 What is the prior living experience of the resident, to minimize disruption of life style through design sensitivity?
- 7.633 What unit mix would be appropriate?
- 7.634 How is unit mix allocated between three required structures?
- 7.635 What should be basic unit size?
- 7.636 How should space within each unit be allocated?
- 7.637 What functions and design features should be included in community spaces?
- 7.638 Are there other wants, needs and anxieties of users unmet by existing Madison elderly housing projects?
- 7.640 To answer these questions the survey design required specification of survey measurement devices and identification of a respondent group.
  - 7.641 Given the experience of the researchers, their preliminary research to brief themselves, and a two-day time limit, they chose to do a non-probability judgment sample.
  - 7.642 Time schedule required a telephone survey technique with a random sample of residents in elderly housing units in Madison.
  - 7.650 Sampling criteria required:
    - 7.651 Sample be representative of the population of interest
    - 7.652 Persons selected must be able to respond with relevance and validity to the survey
    - 7.653 Population from which sample would be drawn had to be experienced in type of unit to be researched
  - 7.660 In response to these criteria:
    - 7.661 It was reasoned that most likely there would be homogeneity of demand characteristics between present occupants of public elderly housing in Madison and prospective occupants on Housing Authority waiting lists.
    - 7.662 Literature search indicated that continuity theory (habit, pattern, life style) control elderly so that occupant of present comparable units would best be able to relate to design questions and project their future needs and desires relative to their own units and experience.

- 7.663 A need survey could have been made of Housing Authority management, building managers, or HUD underwriters but developer felt that the best responding group would be the elderly themselves.
- 7.670 The interview sampling plan consisted of:
  - 7.671 Identification of Madison public housing units for the elderly by street address
  - 7.672 Identification of present occupants by name in existing units from current reverse telephone directory.
  - 7.673 Random sample of residents named and available by phone (potential bias)
- 7.680 Survey results were to be keypunched and analyzed on a cross tabulation program at the UW School of Business Computer Center to reveal how different persons in different types of units might have differed in their responses.
  - 7.681 For speed, keypunching was to be done directly from completed questionnaire form
  - 7.682 Usable forms were required to have answers to all relevant questions
  - 7.683 Ultimately there were 99 usable responses from a total population of 268 apartment units in the Madison elderly housing program.
    - 7.684 Two persons completed these responses in two twelve hour working days; computer analysis took one day.
- 7.690 Sample questionnaire provided in Exhibit 15
  - 7.691 Telephone survey very poor technique for measuring attitudes of elderly
  - 7.692 More valid than group meetings conducted by Housing Authority where residents are intimidated by landlord, size of group, or dominant extroverts
  - 7.693 Personal interview more time consuming and more valuable
  - 7.694 Interviews should be conducted in respondent own unit to position questions against current experience and to permit demonstration with more ease than verbal articulation.
  - 7.695 Exhibit 15 should be viewed as demonstrating how standardization is imposed on telephone survey techniques
    - 7.696 Interviewers were women

- 7.700 The questionnaire was intended to generate a brief consumer profile, identify possible significant and subtle dissatisfactions with unit design, and permit some open-end questions to explore areas not anticipated by researchers.
  - $\gamma$  7.710 The consumer profile of the typical occupant:
    - 7.711 Was female (83%)
    - 7.712 Had previously rented a housing unit (82%) with 91% having paid less than \$175 per month and 60% had paid less than \$100, indicating most found the public housing unit better in quality and lower in price (\$50-\$60 per month)
    - 7.713 Long waiting periods before admittance to public housing generally made them most grateful and non-critical.
    - 7.714 Almost all had known low density low rise residential environments over their lifetimes.
  - $\dot{\psi}$  7.720 For space allocation and features the survey revealed:
    - 7.721 Satisfaction of present site with living room larger than bedroom, etc.
    - 7.722 99% preferred bathroom to open into bedroom
    - 7.723 Open-end question revealed majority wanted outside window from kitchen
    - 7.724 Desire for indoor walking-exercise area without steps
    - 7.725 Desire for lounges tied to indoor passages and with views of action centers
    - 7.726 Desire for outside space defended from intrusion by strangers, kids, etc.
    - 7.727 Desire for community craft and recreation facilities which were not isolated by stairs, windowless walls, or outside walkways (as was the case in Madison projects).
    - 7.728 Anxiety about high rise among many due to fire hazard dependence on elevators or lifetime unfamiliarity with high rises.
    - 7.729 Preferred more units per floor in low rise to exclusiveness of high rise floor but would take anything they could get.
  - 7.730 The theory on aging elderly behavior patterns also contributed to design constraints, for example, the disengagement theory indicates the elderly gradually lose the energy to maintain a great variety of social contacts, etc., a tendency which leads to isolation and increased depression due to lonliness.
    - 7.731 Physical design must provide a variety of choices as to their withdrawal from the street, the total project, a small group of neighbors, or their own room.

- 7.732 At the same time heterogeneity of unit mix avoids clustering all handicapped, all married, etc. in one particular zone to give everyone a variety of social contacts.
- 7.733 Circulation patterns can be designed to encourage random meetings without forcing social involvement.
- 7.734 Visual elements which are depressants such as views of cemeteries, hospitals, nursing homes, etc. should be avoided.
- 7.740 With the initial design constraint inputs, the designers worked up a tentative plan which proved to exceed the desired cost estimate at which point estimators, market analysts, and designers met in an all-day session to hammer out final trade-offs. A 165-unit project was the result as described in Exhibits 17, 18, 19 and 20.
  - 7.741 Project had second lowest total cost (\$3,397,380 or \$26,000 per unit) of the ten proposals submitted.
  - 7.742 Project was turned down by renewal board because they did not like contractors reputation for economy and thought the exterior was less attractive than conventional tower.
  - 7.743 Experience is typical of real estate that is designed to please the investor rather than the ultimate user, particularly when the investor has not properly defined the context in sufficient detail to judge the fit of any proposal submitted.

Pelated notes, but from another original -9-

 Moreover, he may be using the consultant to double check another source of information and therefore expects a consultant to begin from scratch as a way of confirming the original source.

 Nevertheless, the feasibility analyst must eventually extract from the client, preferably in writing, an agreement as to what the stated objectives of the study are and the input which will be provided by others than the analyst.

3. This step will probably only be accomplished after the consultant has come to a better understanding of the real problems faced by the client.

## V. What is the Problem as Understood by the Consultant?

The problem as perceived by the client almost always must be converted into a sequence of problems as understood by the consultant. The perceived question of "How much should I pay for the land," may come to be understood as "Why do I need to invest in land"?

- A. The feasibility analyst should be the devil's disciple for in order to define what needs doing, he must first discover what has been done, what assumptions have been made, and whether those who made the assumptions knew what they were doing.
  - 1. A useful technique is to reverse the question or the alternative in order to have better perspective on the assumed area of solution. If asked to organize a non-profit partnership to create a counseling facility, approach the problem as how to dissolve a partnership of non-profit contributors. If asked the feasibility of restaurant expansion, investigate the possibility of reducing the size of the kitchen instead.
  - 2. To gain perspective, one creative think system (Synectics) recommends conversion of the familiar to the strange and the strange to the familiar by analogy. Thus any multi-user real estate becomes analagous to a retailing model while any single user real estate decision becomes an industrial location model.
  - 3. Statement of the problem as a "compressed conflict" by describing it in two words which appear to be mutually exclusive or contradictory may be useful in understanding a problem. For example, customer control as "channeled freedom" or land use control has "fixed state of flux" can then lead to discovery of more remote analogies. Analogies serve as reiliminary models suggesting opportunity areas for a solution.

- B. In search of the real problem as opposed to the initial problem perceived by the client, the analyst should retreat to some basic classification and task identification checklists. First there are only three alternative feasibility situations:
  - A site or a project owned by a specific client in search of a market.
  - An identified market segment or use in search of the site and project to be provided by a specific client.
  - A specific client desiring to search for an opportunity in real estate enterprise.
- C. Next the analyst must know the viewpoint of the audience for his report, written or oral, because the elements considered important by a mortgage lender may be significantly different than those of a general partner or those of a limited partner or those of a large tenant.
- D. Since there are so many facets to the context of a real 'estate project and measurement of its success, not to mention the assumptions on which the determination of feasibility depends, it is important to have the client agree on what elements of feasibility are to be provided by which expert or analyst.
  - 1. Analyst should be an expert on experts
  - 2. It is useful to include a standard checklist of components with a letter or proposal as that checklist later becomes the really significant portion of the statement of limiting conditions (hold harmless agreements) which are part of the final report. A sample of one such checklist is provided in Exhibit 2.
- E. With a review of which elements are to be provided by which experts it then becomes possible to assist the client in choosing which report title or titles are properly the responsibility of the real estate analyst. (See 1.360)
- F. With definition of the report expected and the information to be provided by others, the analyst can prepare a budget and a schedule for staging the report so that he and the client can begin to establish priorities both in time and money available for research to define the feasibility assignment on which the analyst is to proceed.
- G. Despite the necessity of defining the assignment in light of the clients problem, it is necessary for the analyst to recall that he is to remain an independent analyst an advocate of his own opinion:
  - 1. There is a difference between a justified feasibility opinion about the total project and the more limited feasibility of justifying a mortgage loan from a credit source not generally known for its analytical ability.

# EXHIBIT 2 Feasibility Assignment and Accountability Worksheet XYZ Appraisal Company xxx Street Anywhere U.S.A.

Name of Client				
λs	signment 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)

- 2. The analyst must be careful not to be a subcontractor to an architect, engineer, or other service organization where he cannot make his own report directly to the client, critical of his professional associates as it may be. It is recommended that the feasibility analyst as a generalist have a primary contract with his client.
- H. Correctly defining the context in all its basic dimensions requires a generalist; an appraiser is a generalist. A feasibility study produces a set of parameters, a set of predesigned or preoperational specifications within which a program proposal should work. The analyst and his client should always remember that the second stage of the feasibility study will be confirmation of the feasibility assumptions and parameters by technical analysis and planning by the specialists.
- 1. An appraisal is a forecast of productivity of a property relative to the needs of a certain buyer group and a prediction of the price at which it would sell to the most probable buyer.
  - 1. Anticipation of an economic behavior by the buyer leads to the highest price he would be willing to pay.
  - 2. Anticipation of the behavior of the seller leads to an estimate of the least he would be willing to accept.
  - 3. Analysis of the influence of outside factors affecting price supply and demand leads to an estimate central tendency between buyer and seller maximum.
  - 4. The upper and lower ranges specify a transaction zone within which a most probable price will occur. The most probable sales price does not need to be at the center of the zone nor do the alternatives need to follow a normal distribution curve. The zone and the distribution most typically are statements of verbal probability.
- J. An appraisal is therefore a feasibility study of alternative courses of action and these alternatives are matched to the most probable user/investment group to be seeking such a property opportunity at that time.

The appraisal process as a feasibility study lends itself to the following logical process;

- What is the problem for which the appraisal is to serve as a benchmark?
- 2. Which definition of value would best serve the decision process?
- 3. What does an inventory of site attributes reveal as to the positive and negative contributions of the site to alternative uses?
- 4. What does an inventory of improvement attributes existing on the site reveal as to the positive and negative contributions of the improvements to alternative uses?