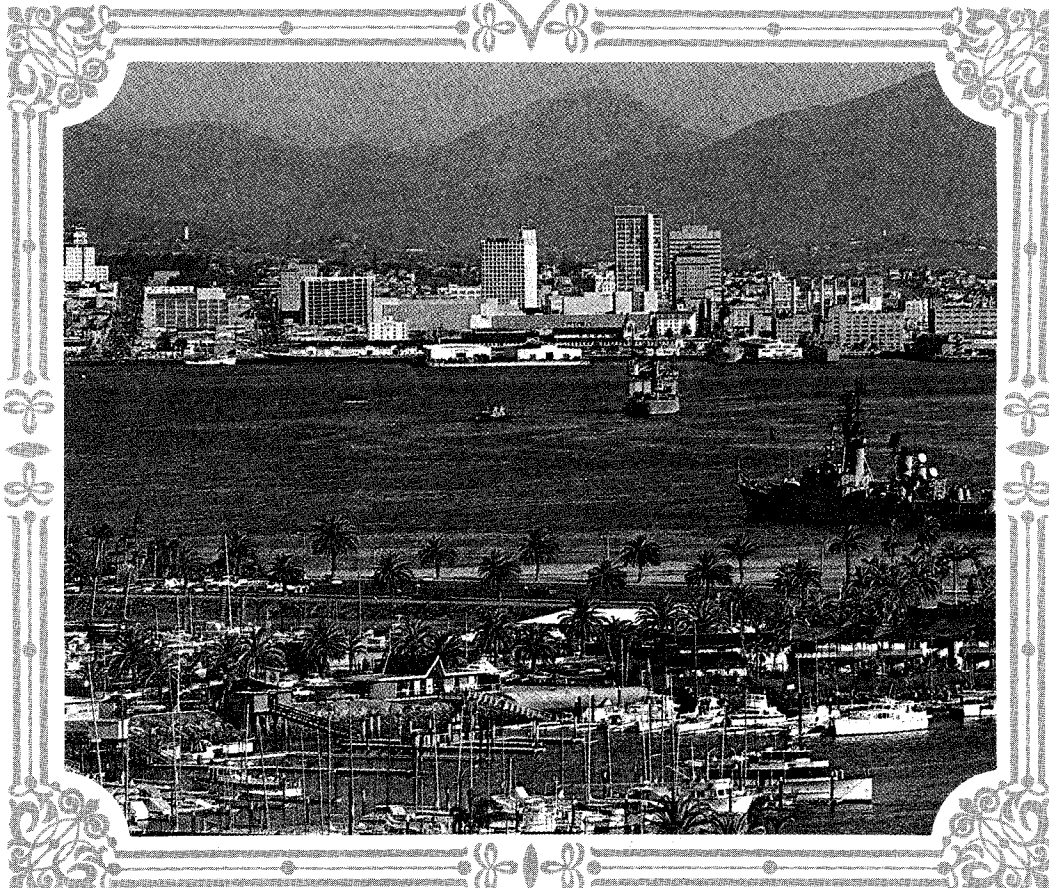


PROCEEDINGS

ELEVENTH ANNUAL NATIONAL SEMINAR
AMERICAN RIGHT OF WAY ASSOCIATION



“RIGHT OF WAY AT THE CROSSROADS”



JUNE 14-18, 1965 / SAN DIEGO, CALIFORNIA

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1964 - 1965

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General Session — Monday, June 14, 1965

Our Tomorrow!

By C. S. Stackpole, Managing Director, American Gas Association, New York, New York

C. S. STACKPOLE

Managing Director, American Gas Association, New York.

Bachelor of Philosophy: Brown University. Vice President, Airtemp Division of Chrysler Corporation and Williams Division of Eureka-Williams.

I am more than delighted to be here today to talk with you very important people whose tasks revolve around the needs and expansions of our today, and concern themselves also with the expanding requirements of our tomorrow. Would that I could predict, among other things, that your and our affairs of tomorrow would be far less complex, confusing and challenging than they are today. Rather, I predict that we are in the "Kindergarten" of rules and regulations and prescribed procedures.

In my own Association we face this kind of future with the guidance of two top level groups known by the acronyms of SCERA and COPA. The first is the Special Committee of Executives for Regulatory Affairs. The latter is the Committee of Executives for Public Affairs. Both committees continue to function effectively in their respective areas — doing much to steer our industry's meanderings through the morass of regulations. Their work, in the form of suggestions and recommendations, has been more than welcome at government regulatory levels.

I plan to devote my space and time to things of the future, which will involve you and my people, among others, along with comparisons of matters of interest today.

We here today, whether our concern is with rights of way, highways, airports, utilities including pipelines and transmission arteries, a more beautiful America or other interests, work toward one goal — helping to make possible the ultimate supplying of commodities and services which the people of our country want, should have, must have, in order to enjoy what all of us have come to regard as the necessities of life. The question we could always well ask ourselves, before any proposal is made effective is — does it serve the public interest? Continuing, close liaison among all who are directly responsible for the creation, construction and maintenance of our splendid highways and byways and those other agencies concerned with the use of these highways for a variety of public purposes, is most important for the public and economic good.

Our aim should be to continue our coordinated efforts to help furnish the best possible service to the public at the lowest possible cost.

Now, in terms of "Our Tomorrow," let's first look at the people area. Estimates of our country's population by the year 2000 — a mere 35 years away — are indicated to be anywhere from three hundred million to double our 190 million total today according to whose prediction you have the most faith in.

Now to look at the "hardware" areas for a bit. In my own industry our gathering, transmission and distribution lines total about 750,000 miles. If my multiplication is correct this is enough mileage to run three pipelines to the moon. 'Tis rumored that there is gas up there and I like to say if there is we'll be up there digging it. Certainly Astronauts McDivitt and White gloriously and glamorously have brought the feasibility of landing there closer to reality.

By 1970 we expect to have added the equivalent of another pipeline to the moon — about a quarter of a million miles more.

In addition to gas pipelines the oil industry indicates its present mileage of pipelines, by 1970, will have increased from the present 205,000 miles to 230,000 miles.

So gas and oil-wise you men of Rights of Way are going to be busily occupied in your Tomorrow.

It is always of interest to us to keep track of our biggest competitor's tomorrow too. Ex-President Bouldin of E.E.I. in a Security Analyst speech in 1964 spoke on an 8 billion dollar program to build 100,000 miles of additional backbone transmission lines by 1970. You men of electricity know what this can mean in terms of additional local distribution lines over and underground. Suffice for me to say the mileage in that area will be tremendous too.

Let's look at the Federal Interstate Highway Program, for a moment. It is expected that by 1972 the 41,000 mile system will

be completed. It will then be serving everyone of our cities of 50,000 or more people. Just in case you suspect that our highways are already crowded, hear this. By 1975, the system which actually will comprise little more than 1% of the total road and street mileage in our country, will carry 285 billion vehicle miles which is only 25% of the one trillion one hundred and 65 billion miles of travel estimated for that year.

Just for interest and to add to the work cut out for some of you let's look at what the Corps of Engineers is indicating regarding land and flood control. In '57 flood damage was about 700 million dollars and by 1980 could reach 960 millions if no additional control projects are undertaken.

One of the methods receiving the greatest attention is "regulation of flood plain use." This requires legislative powers to control the development of flood plains so that extensive damage will *not* be suffered. Special zoning is needed to allow only parks and special "flood proof" buildings.

In 1960 the authorized flood control program consisted of over 900 projects totaling 8.8 billion dollars. Flood control projects are to be expanded in the "tomorrows" particularly reservoirs for storage of floodwaters.

All of you are familiar with the prodigious Urban Renewal projects going on today with many more indicated for tomorrow. Both private and public money and interests are involved. In cities like New Haven and Hartford, Connecticut, Baltimore, Maryland and Norfolk, Virginia there are examples, not only of splendid renewal of the downtowns land and building locales, but perfect examples of beneficial results in the areas of increased tax revenues. In Hartford the yearly tax revenue in the downtown Plaza involved was \$90,000 annually pre-renewal. Post-renewal it becomes one million two hundred thousand dollars. In New Haven, its renewal program has already increased that city's taxes \$450,000 annually and when the entire project is completed the tax return will be \$1,500,000 extra per year — or about a 10% return on the city's investment.

Baltimore's Charles Center is already returning an increase in tax revenues of over \$200,000 a year and upon completion of the project the increase will be \$1,500,000, a 15% return on investment.

In Norfolk, the 30% of the land developed by private enterprise now pays the city 2 and one half times the taxes originally collected from the entire 123 acres. 70% of the land is devoted to essential public uses.

I'm sure many of you have read "The Federal Bulldozer" by Martin Anderson, a critically controversial book. It would have pleased Henry L. Mencken, whose philosophy was "Stir men's minds and you will have done all you can do!" This book has surely stirred the minds of men interested in Urban Renewal. Chairman Albert M. Cole of "Action" sensibly commented about Renewal Activities, in my opinion, when he said, "Private Enterprise has repeatedly demonstrated a remarkable capacity for upgrading our housing and developing important facilities for industry and commerce. But Private Enterprise cannot always handle, unassisted, the costly and complex job of acquiring and clearing a slum site large enough to create an entire new neighborhood."

As an association should only do for its members what they cannot do for themselves — so say I that government — should do for the people only what the people cannot do for themselves.

Inside your cities the hue and cry, regarding the very vital need for more and better traffic arteries, become louder daily and rightly so. With 95 million cars and trucks to be running around tomorrow, in 1972, the need is as clear as crystal. Pressure will continue to mount for new intra and inter urban streets, roads and parking areas. Mass transit systems including possible high-speed rail service between Metropolitan areas — first of this type of project is planned for Washington to New York to Boston — that well known, so called Megalopolis area of tomorrow. San Francisco's Bay area is already embarked on plans for a rapid transit system to be completed in 1971 at a cost of 1 billion.

*It will be 75 miles long, and includes provisions for vehicles, track, electric distribution and propulsion, tunnels, tubes, subways, aerial structures, automatic train control, passenger stations and automatic self-service fare collection.

It will be the nation's first completely new rapid

transit system in 40 years.

Trains will travel 80 mph top speed, averaging 50 mph, cars will be very light weight and operate on special wide gauge track. They will be quiet and comfortable.

Major construction segments include:

a) An 18,000 feet Trans-Bay Tube running 125 feet below sea level between San Francisco and Oakland.

b) A Berkeley Hills Tunnel (3 miles long) through the Berkeley Hills east of Oakland.

790 million dollars of the 1 billion will go toward acquisition of rights-of-way, engineering and construction, exclusive of the Trans-Bay Tube.

People are moving toward the West and Southwest as well as the South. California will add nearly 5 million people in the next 8 years with Florida adding upwards of 2 million in the same period. Other states of concern to you men in the future because of the growing needs for your services due to zooming populations, among other things, are Arizona, Nevada, Colorado and Utah. Great population growth cities will include Los Angeles, Long Beach, San Diego, Miami, Houston, Denver, Washington, D. C., Dallas, Cleveland, Atlanta, Pittsburgh, Portland, Seattle, Milwaukee, Chicago, Detroit, Toledo and San Francisco.

Let me conclude with a bit of "Fantasia."

Here I'll return to something familiar to my industry — pipelines — and briefly mention a dream of today that could become a reality tomorrow — and remember the song said, "If you don't have a dream how ya gonna have a dream come true?" The title of these concluding remarks could be "pipelines for People In Our Tomorrow!"

Grants have been set up at Rensselaer Polytechnic Institute to study the feasibility of transporting people and material via pipelines.

Visionary concepts provide for passenger carrying vehicles hurtling through a network of pipelines at speeds up to 2,000 mph.

Experiments show that a vehicle can propel itself by transfer from front-to-rear of the air that fills the pipe.

These high speeds could not be obtained by a "land" vehicle

because of the need for external support for anything but straight line travel.

We all know the "Pneumatic Tube" systems of transporting mail from one part of the city to the other, and from one part of an office or store to the other. This, of course, is where the idea originated to transport people the same way. However, fundamental propulsion mechanics are quite different.

It is doubtful if this system would ever be feasible for inter-continental travel. The high cost of under sea tunnel construction is a deterrent. Besides travel refinements and improvements could eliminate any need.

Imagine — downtown New York to downtown San Diego via high speed pipeline in 1½ hours!

It would be fast, efficient, safe and would relieve congestion on our already overcrowded highways.

With this type of transportation, population could "thin-out" — new residential areas would tend to spring up near entrances to the systems.

Next step in development of this system is the construction of a 3 mile test pipeline (3 feet in diameter) at a cost of approximately \$1,000,000.

Preliminary studies carried on by the Research Council of Alberta, Canada indicate that transportation of solids in pipelines by the use of capsules is also feasible.

So much for a brief "looksee" at some of our tomorrow. Technological advances beyond the dreams of any of us will evolve in ever increasing numbers to the benefit and everlasting amazement of all mankind. In so many facets, as a result of this progress, you men here will play an ever increasingly important part. Certainly you'll agree that "Our Tomorrow," is not for little men with little minds. It is not for men without vision who fear progress. It is not for timid men.

Rather, tomorrow is for men who dare to have great expectations, and who, with the help and courage of all the people for and with whom they strive — will also have the courage, the persistence, the wisdom and the patience to transform those expectations into realities.

You of Right of Way and my own industry among others, deserve the devotion and dedication of each one of us to help in preparing for these ends.

Economic Trends Affecting Real Estate

By Dr. Edward H. Barker, School of Business, University of Southern California

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Members and Guests of the Eleventh Annual American Right of Way Association:

The topic of "Economic Trends affecting Real Estate" places me in a position of attempting to explain the game of baseball to a group of experts. It is difficult to know where to start, let alone where to conclude. Nevertheless, the task is at hand and I am structuring the treatment of this subject in such a manner that I trust you will forgive me if "I don't know who's on first."

This discussion this morning will be treated in the following chronological order: 1) a brief recapitulation of some of the important fundamentals of land economics; 2) the economic characteristics of the real estate market; 3) property values; and 4) economics and real estate.

I. A BRIEF RECAPITULATION OF SOME OF THE IMPORTANT FUNDAMENTALS OF LAND ECONOMICS

No discussion of real estate can occur without recognition of the fact that behind it lies the fundamentals of land economics. It

is not the purpose of our discussion that it become a capsule course on Land Economics, but a quick recapitulation of some of its fundamentals will direct your thinking to the topic at hand. With this in mind, this brief review will be approached as follows: 1) "land" as an economic concept; 2) land-use capacity; 3) the theory of highest and best use; 4) supply of land for economic use; 5) economic rent and contract rent; and 6) conclusions.

"Land" as an economic concept. While land may be viewed from a legal, political, social and geographical approach, our approach this morning is economic.

1. *General definition.* Land may be regarded as "the sum total of the natural and man-made resources over which possession of the earth's surface gives control." This definition obviously includes not only the land surface of the earth but also the water, ice, and the air. Building sites, fertility of soil, and so on are all a part of it.

2. *Specific concept-approaches.* Land may be viewed as *space*. As space, it is fixed in quantity, cannot be increased in amount, and is indestructible. Land may be viewed as *nature*. As nature, land is viewed by its access to sunlight, rainfall, wind, and the like, recognizing that although man can change and modify land it is only to an extremely limited extent. As a *factor of production*, it is thought of as a nature-given source for food, fibers, and so on.

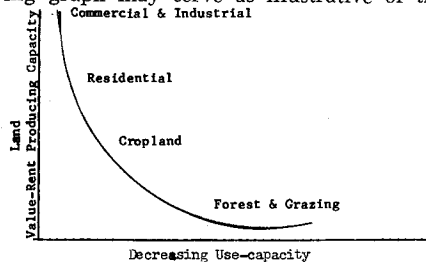
The remaining four concept-approaches to "land" are ones with which we are more vitally concerned than the previous three. Land may be viewed as a consumption good. As such it has value as an economic good in its own right (parks, residential property, etc.) and not as a factor of production. As a *situation*, land is viewed as relating to a market or to its physical features (a beach). All of us in this room view land as *property*. The concept of land as property is most important because it has repercussions and influences on our attitude toward the use of land. Land as *capital* is important to us also. As capital, land and

capital (money or goods) are similar.

Thus, you can see that "land" from an economic viewpoint is a many-sided thing. This leads us to the next fundamental of land economics, namely, "land-use capacity."

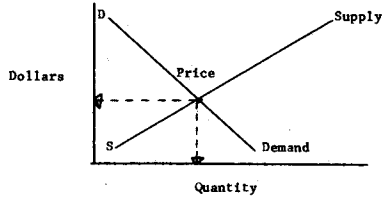
Land-use capacity. Land-use capacity is definable as the ability of a parcel of land to yield a revenue above the costs involved in using it, or net return. It is obvious to all of us that the higher the net return of a parcel of land the greater its market value. This concept is applied in one important way, to a comparison with other parcels. Of course, this comparison to be of usefulness assumes a given land-use, granting that uses of land change over a period of time. Assuming a given use, it follows sequentially that another important concept is the theory of highest and best use.

The theory of the highest and best use. It almost goes without saying that many parcels of land can be utilized in more than one manner. In economic theory, each parcel of land is assumed to be utilized in that manner which yields the highest return. The following graph may serve as illustrative of this theory:

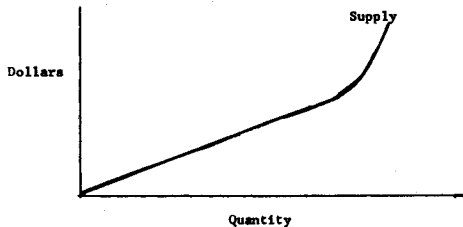


The determination of the highest and best use may not comply with the previous graph, for even though the typical method of measuring use is in dollar terms, it is possible that some less tangible use may be deemed the highest and the best. A park, for example, in the heart of the central business district of a city may be construed in this manner even though there is no direct monetary yield from this social use.

Supply of land for economic use. The traditional economic approach to the supply of land for economic use rests upon two fundamental postulates. The first, as illustrated by the following graph is the well-known interaction of supply, demand, and price.



Yet, economics recognizes that unlike most other commodities the supply of land is, to all intents and purposes, fixed. Hence, it is equally appropriate to view the supply of land with the following graph:



Thus, in conclusion, land's peculiar characteristic of being fixed in supply causes some specialized problems concerning its use, the value of each unit, and so on. These problems rise, of course, from the factors which impinge on its supply. There are, for example, natural limits to the supply of land, including sunlight, precipitation, soil conditions, topography, and the like. Institutional factors, including government, law, public opinion, and custom, have tremendous influences on its supply through the creation of zoning, building codes, and acreage controls. Finally, the economics of its use (supply) on the basis of marginal utility (the best first, marginal last thesis) affects the supply of it.

Economic rent and contract rent. This marginal utility thesis concerning the supply of land leads to the need to quickly review economic rent and contract rent. Contract rent is the actual payment made (in monetary terms) for the use of a given parcel of land, while economic rent is the surplus of income above the cost (supply price) it requires to bring a parcel into use. All of us

here realize that each parcel of land varies as to its income-producing, or rent-paying, capacity. Location of the parcel, difference in fertility, and use to which it can be put, are three basic factors affecting this rent-paying capacity.

Directly relating to this rent-paying capacity is the concept of value. In the long run, economic rent and contract rent tend to move in the same direction, even though the changes in supply and demand conditions in the short run may not give that impression due to disparities between the two. Thus, value in the long run is related to economic rent and this is of vital importance.

Conclusions. This all-too-brief recapitulation of some of the important fundamentals of land economics has emphasized the significant fact that land has some peculiarities which creates a special field of economics. Recognition of these peculiarities is important since they must be considered when determining the value of and proper use of each parcel of land. With this thought in mind, let us turn our attention to a discussion of the economic characteristics of the real estate market.

II. ECONOMIC CHARACTERISTICS OF THE REAL ESTATE MARKET

The appraising of parcels of land is a sophisticated art today, if done by a professional. As an advanced art, it utilizes techniques and practices based upon the economic characteristics of the real estate market. These underlying characteristics need mentioning since they affect the very practices in which you people engage.

Fixity of location. Not only is each parcel of land fixed in site location but each parcel is different, either in its improved or unimproved state. Due to fixity of location, the market for land parcels is more limited than for most other commodities, and real estate developments, due to this fixity of location, are affected adversely or favorably by economic, social, and political forces. Fixity of location is a unique characteristic of land.

Durability. A second important characteristic of land is its durability. Unlike most other commodities land is indestructible in the physical sense. True, its use may change due to many reasons, but its durability over time is also a unique feature.

Large economic units. Land, as a commodity, is characterized by large economic units. Acquisition by firms or individuals involves a considerable outlay of capital. Consequently, the turnover ratio of a given parcel of land is usually considerably less than most other commodities, especially those which are non-durable in nature.

Interdependence of private and public property. Of no news to any of you, land's ownership is divided into public and private. The utilization of each ownership type affects the other as to value, amount available at any given period of time, and so on.

Inflexibility of supply. Inflexibility of supply has been treated previously in our discussion so only mention of it at this time is needed to recognize its importance.

Demand. The demand for land is influenced by several vital characteristics of the population. Included among these are the level of income, the source of it, the age of the household head, and the size of the household. Time precludes elaboration of these characteristics, but it should be indicated that as these change they have decided influence upon the demand for land.

Financing. The real estate market is affected drastically by the financing capabilities of the economy. Ease of financing the acquisition and improvement of land has a stimulating effect upon demand, while restrictive financial conditions tend to have a dampening effect.

Present and future income. Not only does the level of current income influence the real estate market but the anticipation of future income greatly influences it. Since World War II the optimistic attitude of the American public towards future levels of income has had an exhilarating influence on the real estate market.

Conclusion. The real estate market is influenced by many economic dynamic factors which are constantly impinging upon it. The amplitude and directional influence of each upon the market is, of course, conjectural. The net result of these factors determines the value of property. With this in mind let us turn our attention for a moment to the subject of "property values."

III. PROPERTY VALUES

The value of land (property) is an elusive topic. Many times the fundamental principles and forces determining it are overlooked. Therefore, at the expense of being redundant and elementary, this section of our discussion will treat the subject accordingly.

Nature of property. Property to have value must be comprised of three basic elements: 1) scarcity; 2) usefulness; and 3)

futurity of use. If it does not have all three of these, it does not have value. Based upon them, there are certain principles that follow.

Principle of supply and demand. Having previously discussed this particular principle, it is necessary to simply note that demand is unlimited in the social sense even though it is limited in the economic sense.

Principle of change. The principle of change is inevitable insofar as determination of property values. Property should be viewed as always in a state of transition, and, as all of you know only too well, the view of its future use is of underlying importance in estimating its value.

Principle of substitution. The determination of the value of property is based upon the principle of substitution. It assumes that the value of property is calculated on the least costly parcel whose utility is substantially identical. This involves three basic approaches, which are: 1) the value of one parcel tends to be equal to its equally desirable substitute parcel; 2) the price (cost) of the parcel should not be more than that of the substitute property; and 3) the price (investment) required should be the same as the amount necessary to acquire equally desirable net income return.

Principle of highest and best use. Another important principle is the highest and use thesis. Property has a tendency to be valued over a period of time at its highest and best use.

Principle of balance. One of the fundamental principles is that of balance. This principle concerns itself with a natural law, and, when applied to appraising, states that value is created and maintained in proportion to the equilibrium which is attained and maintained in the amount and location of necessary uses of real estate. It is possible at any given time for disequilibrium to be present but over the long run this principle of balance is always operative.

Principle of increasing and decreasing returns. A very active principle affecting the value of property is that of increasing and decreasing returns. Stated in very simple terms, it means the more the inputs into a parcel of land the greater the return, but eventually after a certain number of inputs have occurred a point is reached at which each additional unit of input will yield decreasing returns.

Principle of surplus productivity. The determination of property values is based upon the thesis of surplus productivity, which means in essence the net income yield from a parcel of land after all costs have been covered. Time does not permit an extension of this principle but suffice it to say that this one is of extreme importance.

Other principles. There are a considerable other number of important principles which help explain and determine property values. Included among them are such ones as: 1) the principle of competition; 2) the principle of conformity; and 3) the principle of anticipation.

These principles explain how property values are created and remain established on the one hand, and how they change on the other. Let us turn our thoughts for a moment to economics of our economy in general and the real estate market.

IV. ECONOMICS AND REAL ESTATE

So far we have treated the subject of real estate in a vacuum. It now becomes time to relate it to the economics of our country and what the future holds.

Economic growth. Appraisal of real estate is done, among other reasons, for the present and future use of our population.

We assume that our economy will continue to exist and, hopefully, that it will continue to grow. Economic growth is influenced by a host of forces including population characteristics, natural resources, savings and investment, institutional changes, technological change, and changes in consumers' tastes and habits. As these dynamic forces exert their influence upon our economy, real estate (land) is directly affected. As national policies are focused currently upon economic growth, it argues for a continuing favorable influence upon the real estate market. This does not mean, of course, that at any given time there will not be a temporary setback, but it is an assurance of continuing stability on property values over the long run. It is difficult to forecast how much and when the values may increase — probably you can forecast that better than I. A general increase seems more logical, though, than a decline.

The future. Why should one make the previous statements about the future? Most forecasters seem to feel optimistic about our future, even though there is a variance among them as to the amplitude and over-all effects. For sake of reference, therefore, allow me to present a forecast, and I trust you will note the emphasis on the fact that it is "a forecast" rather than "the forecast."

1) *Population.* It is estimated that our population will continue to expand so that by 1972 there will be 23 million more of us, most of whom will reside in urban areas. Furthermore, there will be a continuing trend of the total population toward the city so that almost three-quarters of it will be so located. This means that the rural areas of our country are destined to become even less populated, especially in the central portions of it. These trends will have their impact on both urban and rural land values.

2) *G.N.P. and income.* Gross National Product will reach \$950 billion by 1972, thus causing personal household incomes to increase from an average of \$6,600.00 per annum to \$9,500.00

3) *Highways and automobiles.* Automobile sales will reach eleven million annually, or a total of eighty million on the road, by 1972. This fifty per cent increase will necessitate the rapid construction of 41,000 miles of new, federal interstate highways between now and then.

4) *Strip cities.* The first three forecasted trends will create and influence another — the continuing development and increasing number of strip cities during the next seven years. The Washington-New York-Boston strip will increase by three million to a total of 38 million, while the San Diego-Los Angeles-San Francisco area will increase by four million to a 18 million total. Other strips will increase in relatively proportional amounts, with the Milwaukee-Chicago strip projected to increase by one million to a 10½ million total.

5) *States.* Not only will strip cities increase, but certain states, especially those west of the Mississippi river, will experience huge relative gains. Arizona will show a 33% increase followed by a 30% increase for Florida. California will be third in gains with a 27% increase while Nevada and New Mexico will follow with gains of 25% and 24% respectively.

This means that Americans will become more and more dependent upon sophisticated "social assets," such as art centers, freeways, and so on. Use of land for these activities will become increasingly in demand. As we move in this forecasted direction the need of more economical and efficient land use becomes apparent. The role of the appraiser will become increasingly important. As an important segment of the real estate appraisal profession, the role that you people will play is all important. The future preservation and use of our lands is partially in your hands — I feel confident you will treat it accordingly.

The Art of Negotiations from Owners' Viewpoint

By James Focht, Attorney

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The art of negotiating from the owners' standpoint — I have interpreted the topic as an invitation to discuss negotiating not really from the point of view of the owner, but rather from the viewpoint of the owner's attorney. Frequently my viewpoint may differ from the viewpoint of my client, the owner. In fact, I spend more time negotiating with my own clients than with the opposition. They are either trying to negotiate me down in my fee or I am trying to negotiate them down in their ideas of the value of their property so we can get the cases settled. I suppose the real art is in not letting your client know in your first interview with him how far wrong his idea of value is or else he will think you are suffering from stupidity or timidity or both and promptly go out and secure another lawyer who is more understanding of his problem.

However, there is some negotiating between the property owner's attorney and the condemning agency. We have occasional meetings where the agency's representative explains to us how sorry he is to tell us that their independent fee appraiser has come in with an appraisal lower than the staff appraiser so the earlier offer is withdrawn. This is, of course, helpful because it gives me more ammunition to use in negotiating with my own client. Now I can go to him and tell him, "Look here, now you're really going to have to *hire* that appraiser," the appraiser whose name I have been casually mentioning in my discussions with the agency.

Negotiation in the common sense of the word implies a bargaining process, a give and take between the parties leading ultimately to a price agreeable to both — such as happens when you buy a serape across the border in Tijuana. In condemnation the opportunity for negotiating in that sense presents unusual problems. Negotiation with some agencies means the making of an offer by the agency and if it is not accepted negotiations are over. This may be related to statutory or constitutional limitations on spending public funds.

Utilities on the other hand may follow a flexible procedure in negotiations. They may continue to actively negotiate in the give and take sense of the word up to the eleventh hour. In such cases the attorney can be most helpful in continuing to furnish the utility with additional information and data to justify his clients asking price.

So a cardinal requirement on the negotiating attorney's part is that he have some knowledge of the negotiating policy of the agency with which he is dealing.

Any discussion of negotiations should include two major areas: First, what matters must the negotiating attorney consider; second, what does he do about it.

A basic consideration in my own role as the owner's attorney, I am an advocate of his position, and properly so. It is my sworn duty to do the best I can for him within the ethical framework of the law. In eminent domain my role as an advocate takes on particular significance. The attorney is the person who must advise the client whether to settle or go to court and in the latter event he must champion his cause in court. He is the one person who must bear most of the responsibility to insure that a property owner will not suffer through inability to cope with the sheer magnitude and power of the condemning agency. I view my role as a real challenge to help in the protection of the basic rights of property ownership, which are among the most important of the constitutional guarantees.

You gentlemen are largely the representatives of agencies that do the condemning. I am on the other side of the fence. Some of you, over the course of the years, may have developed a slightly jaundiced attitude toward the property owner as a species. He may appear to you to be the epitome of naked greed and lust for gold unmatched since the days of the buccaneers. And, as for the attorneys who represent the owners — well listen to this little gem. It is from an article entitled "Procedure in Eminent Domain" in Volume 11, Mercer Law Review, Page 256:

"Attorneys specializing in condemnation claims have a vested interest in maintaining the present confusion in condemnation procedure. This disorder operates to separate eminent domain from the rest of the law, leaving the specialist in control of a highly lucrative field. Another strong preference of this type of attorney is to have compensation determined by a tribunal believed to be both generous and inconsistent in fixing awards. Generosity is considered important because their legal fees are contingent upon the size of the award, inconsistency is significant because it encourages landowners to retain counsel to fight for higher compensation."

What a character! He was probably the same fellow who was passing through a lonely country cemetery and noted this inscription on a marker: "Here lies John Jones, a lawyer and an honest man." He was heard to exclaim, "My God, they've buried two people in the same grave."

But don't be too quick to nod your heads in agreement. You ought to read what this same writer had to say about appraisers.

Incidentally I have noticed in a number of articles in the Appraisal Journal, written by prominent members of the appraisal profession, an undercurrent of hostility toward lawyers. It may stem from lack of recognition of the fact that the lawyer is dedicated by his oath to champion his client's cause — by legal and ethical means, yes, but the quality of advocacy, which is so repugnant to the ethical fee appraiser whose hallmark is objec-

tivity, is a high virtue, not a vice, in the case of the lawyer. I wish this basic distinction could be viewed with more tolerant recognition.

A fundamental requirement in negotiating from the owner's standpoint is an understanding on the owner's part that for his attorney to effectively represent him he must be willing if necessary to go to court. There is a popular belief that is rather widely held that a citizen cannot prevail in a legal dispute with the government. The old saying is, "You can't beat City Hall." We see this in clients who come to us and say, "The offer they made is too low. See what you can do to get a better settlement out of court. But I don't want to go to court against the government." Unless this attitude can be changed the lawyer is better off not to take the case. You have no real bargaining power when you know your client is unwilling to go to court if necessary to contest the government's position.

So a prime consideration from the standpoint of the owner's attorney is the understanding that if the owner's position has merit we will fight it out in court. Without this understanding with the client, and the condemnor knowing this fact, our role as a negotiator is virtually useless.

Probably the major concern of the negotiating attorney is whether he should or should not advise his client that in the dramatic four words of the TV program "The Price Is Right." If we go to court and the jury tells us by its verdict that we should have settled, normally the lawyer must bear the blame. He probably permitted himself to become oversold on his own client's case. So a requirement that ranks high on the list of the Ten Commandments of the negotiating lawyer is that he temper enthusiasm with judgment and experience in making the final decision whether to settle or try. He must take a cold, hard look at the cards before he plays the hand.

You gentlemen who represent condemning agencies have many advantages — advantages of timing, resources, experience, availability of appraisers, apprehension of property owners over incurring legal expense, the problem of the lengthy trial faced by the owner and his attorney — to mention just a few of your advantages.

We on behalf of the owner have by comparison few advantages. Our principal advantage is this — the fact that experience has demonstrated that juries will from time to time say that the condemnor's position is incorrect. We have the knowledge that if in a given case the material with which we have to work is sufficient, as we analyze it, it will be given proper consideration by the jury.

Once in a while we get some special help in the form of a client who is, to use the attorneys' vernacular, "jury bait" such as the little old white-haired widow I represented last year who had several of her little bungalow court units taken for the Cross-town Freeway. She bravely managed to keep from breaking down as she explained to the jury that she hadn't been able to keep the place looking so good since she lost the help of her only son who was killed in the war.

That doesn't happen very often. Generally my clients have less appeal — such as the Beverly Hills syndicate whom my opponent kept referring to during the trial in a sinister tone as "The Syndicate," as though my clients were members of the Detroit Purple gang instead of high-class businessmen who were trying to pump money into the San Diego economy. Of course sometimes the breaks come in the other direction, such as in trials before one of our judges, Judge Sherry, now retired, who used to refer to the State Highway attorneys as "The Highwayman."

One other little helper the property owner may have working in his corner is public opinion. Condemnation is growing at a rapid pace and will no doubt continue to do so. They are tearing down and rebuilding interchanges thought to be adequate for years ahead when built only a few years ago. I am advised that the dramatic rise in automotive stocks in the last several years was largely the result of the fact that the bumper crop of war babies reached the automobile buying age. The all-time high for births in the U.S. was during 1957. That crop will be hitting the road in a few years. Condemnation acquisitions are not likely to lessen and so I feel that the public image of the condemnor is important. Every time the condemnor can successfully conclude a negotiation its public relations have advanced a step forward, and every time negotiations break down they may have moved a step backward. People whose land falls in the path of condemnation now constitute a wide segment of the population. Any cross section has its share of eccentrics, greedy profiteers, and unreasonable individuals. But the property owner who feels that he is

being bludgeoned by the sheer weight and power of the agency is a bitter man. Selecting a jury several years ago my friend Dick Rypinski, the attorney representing the State, asked a prospective juror the routine question, "Have you ever been involved in a condemnation proceeding?" He replied, "I am involved in a confiscation proceeding at the present time." He sounded like a pretty good juror to me. Needless to say Dick didn't think so and exercised a challenge on the juror.

I have mentioned a few of the matters the attorney for the property owner may consider in negotiating. What about the mechanics of negotiation? What can he do?

Ideally the first negotiation between the agency and the owner would take place in the office of the owner's attorney. Of course this is seldom the case. Generally the attorney's services are sought only after the negotiations between the agency and the owner have broken down. In fact, they may have gone up in smoke. I had one client who chased the negotiator off his property with a shotgun. Looking back on the offer I don't blame him. Anyway I am sure many a door has been slammed in the negotiator's face. Few agency negotiators have the advantages possessed by the most successful negotiator in San Diego County. This is Sister Mary Eucharis, the administrative head of Mercy Hospital. When the hospital has to acquire property she obtains an appraisal from a qualified appraiser. Then she calls on the owner in the company of several other Sisters of the Order in their robes and shows the owner the appraisal and then offers the price in the appraisal plus ten percent. It hasn't failed yet.

Most owners when they come to my office for the first time are saying things about the agency negotiator that don't sound like "Hail Marys." My first step is generally to permit the owner to let off steam for a while so that he will be more receptive to my suggestions. If it is obvious that there has been a basic factual mistake or misunderstanding on the part of the agency I do my best to persuade the agency to take a second look. I try not to incur expense on the part of the owner until I am convinced that both the owner and the agency are starting from the same factual premises. Sometimes negotiations have broken down because the owner has held back information such as his records of rents received. I attempt to persuade him that it is to his own best interest to supply the true facts to the agency. In a fair share of cases I promote a settlement without incurring much expense. Sometimes an owner will go to an attorney not because he feels the price offered by the agency was unfair, but simply because he wants to talk to someone about it before he takes the final step and signs on the dotted line.

Generally however the owner's idea of value or severance damage and the offer made by the agency before the owner comes to my office are irreconcilable, at least at that time. So the obvious next step is to consider an appraiser. Generally I can secure a preliminary appraisal from a qualified appraiser at a modest charge so we will know early whether the offer seems adequate.

I must also give consideration to the agency involved. If the agency's offer was based upon a staff appraisal I must give consideration to the fact that there will be another appraisal from an outside fee appraiser that may be either higher or lower and if the second appraisal is substantially lower a trial probably is inevitable. Sooner or later we will reach a point in most cases where the agency's independent appraisal has been completed and so has the owners. What happens from then on depends to a major extent on the agency we are dealing with.

The U.S. Government in this area will continue negotiations right up to and during trial. Possibly this is due to the practice of Judge Carter, our Federal District Judge in San Diego. He requires the appraisals to be submitted to him for his confidential review, not for exchange between the parties. If he believes settlement looks possible he will lift up the owner's attorney and the Government's attorney each by the scruff of the neck, figuratively, and shake each one back and forth until they settle the case, which they usually do.

But generally I don't have the assistance of Judge Carter in negotiating. For example, how can I negotiate if the governmental agency takes the position that it can't pay more than its appraisal because that would be an unlawful disbursement of public funds. There may be some area left for negotiation involving matters other than money. I have been able to conclude some cases by arranging for the purchase of the improvements for relocation elsewhere. Sometimes negotiations can be fruitful which pertain to the character of the improvements, for example, negotiations over whether or not they are part of the realty.

But usually if you are dealing with an agency that tells you

it won't pay more than its appraisal, and that appraisal is poles apart from your own appraiser's opinion, unless you can prevail upon the agency to secure an additional appraisal an impasse is reached that can only be resolved in court.

In this connection an interesting comparison may be drawn with the other field of civil trial practice in which the jury trial is still extensively used. That is in the personal injury field. A large part of my practice is in that field where I am generally on the other side of the fence representing the party that is trying to hold on to its money, the insurance company. In the personal injury field successful negotiation is the heart and soul of the insurance company's ability to maintain an acceptable loss ratio. It is an everyday occurrence to reach a settlement where there's irreconcilable difference of opinion among medical experts on the two sides.

So I feel justified in asking this question: When thoroughly qualified appraisers representing the two sides in a condemnation case are apart in their opinions, must we say there is no room for negotiation? Appraising is not an exact science. Any pressure toward conformity to the end that ideally all appraisals by qualified men would be in the same range seems to me to be a step backward. There are too many areas in appraising that involve judgment factors. You can't regiment the thinking of intelligent men any more than the Spanish Inquisition could.

So long as we have ethical appraisers we are going to have differences of opinion as to value and damages. Lack of some means of compromising that difference short of a full blown jury trial may have, I respectfully submit, some long range potential effects. Judicial reform, traditionally sluggish, has been gathering steam for some years. I happen to be one who believes that use of the jury trial in civil cases in most fields has a limited life expectancy, that we will follow the lead, as we have historically in the past in legal matters, of England where the use of the jury in civil cases is virtually extinct. I suggest as a distinct possibility that the overtaking of our courts with an increasing load of condemnation cases, long, tedious cases at best, will hasten the elimination of the jury in that field. I am sure many of you are from jurisdictions where juries are not used in condemnation cases, at least not without first having a determination by a commission.

This is a controversial subject. I have a high regard for the jury system, if it can be maintained without its benefits being outweighed by its burdens. Generally juries are composed of practical men and women accustomed to thinking for themselves and capable of forming sound conclusions. But sometimes when I consider the plight of the poor juror in a prolonged condemnation case who is exposed for the first time to complicated formulas of market value, general and special benefits, land residual studies and the like, and is then instructed to return a true verdict, I am reminded of the plumber who wrote to a research bureau pointing out that he had been using hydrochloric acid to clean out sewer pipes and inquiring whether or not there was any possible harm in doing this. His letter was turned over to a bureau scientist who wrote as follows: "The efficacy of hydrochloric acid is indisputable, but the corrosive residue is incompatible with metallic permanence." The research bureau soon received a letter from the plumber thanking them for the information approving this procedure. This time the plumber's letter was handed to another scientist who wrote: "We cannot assume responsibility for the production of toxic and noxious residue and suggest you use an alternative procedure." Again the plumber thanked them for approval. Finally the bureau—now thoroughly alarmed about the condition of the city's sewers—called in a third scientist who wrote simply: "Don't use hydrochloric acid. It eats hell out of pipes." Unfortunately I'm afraid there are more plumbers than scientists on juries.

Finally a matter for consideration by the attorney in negotiating is whether he should, in demonstrating the strength of his position, willingly disclose what he relies upon, or on the other hand should he, for tactical reasons, be wary of exposing his hand. Normally I don't have much concern about exposing my hand. The owner, with the burden of proof, must put on his case first, so the condemnor will know all about it anyhow by the time it goes ahead with its case. Generally speaking I am an advocate of showing the opposition your strength.

In conclusion — do lawyers have a role in negotiating? In the words of Alexander Pope's lament, "Lo, the poor Indian." The poor Indians sold Manhattan Island for \$24.00. Why? Obviously because they didn't have a lawyer negotiating for them. Now they hire lawyers and receive millions of dollars for a few blocks of sandy desert in Palm Springs. On this happy note I conclude with warm thanks to you all for this opportunity.

The Art of Negotiation from Public Agency Viewpoint

By Rudolf Hess, Chief R/W Agent, California State Division of Highways

RUDOLF HESS

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In preparing this commentary, I have reviewed the presentations delivered to this organization at its annual national seminars over the past ten years on the subject of Negotiation.

Each speaker has been a skilled negotiator; the degree of skill has been such that he has been selected from within the ranks of an organization of negotiators to present his views.

It must be, then, that over these years we have had a continuous thirst for information, guidance, or inspiration from those whom we feel have been successful in the area that is all important to the acquisition of right of way.

In the articles from these ten years, there exists a predominant thread of similarity.

It seems that each speaker has been searching for a touchstone which we might use to test the validity of the concepts which form the basis for our philosophy in negotiations, or even simpler than that, he has been attempting to devise a talisman upon which could be engraved the magic words which would guide the negotiator through the enumerable pitfalls in securing private property rights for a public activity.

In this constant drive for simplification, there appears a selection of words, all of which are similar, all of which are applicable and all of which are an over-simplification of a most complicated and variable activity.

One person states Negotiation can be summed up in three phrases: (1) A straight forward approach; (2) Honesty; (3) Understanding. Another speaker states, Negotiation can be summed up in three words: (1) Modesty; (2) Courtesy (3) Patience.

Some combination of these magic words nearly always appears as a conclusion to a presentation which is generally saturated with rules, tips, techniques, gimmicks and devices on how to go about completing a transaction.

This recurring emphasis on the rules of good salesmanship and the principles of public relations were discussed and were part of the text of the presentation on Negotiation at our first annual seminar by our founder Frank Balfour.

Rather than wait until the termination of my presentation before coming up with my favored selection of three guiding words, let me put them all in at this time. First, the group with which you are all familiar and which have guided the Boy Scouts through many successful years:

HELPFUL	LOYAL	COURTEOUS	TRUSTWORTHY
FRIENDLY	KIND	CHEERFUL	OBEDIENT
REVERENT	CLEAN	BRAVE	THRIFTY

and most important of all, the motto of the Boy Scouts — "Be Prepared."

If you feel the public agency philosophy of property acquisition does not lie within the Boy Scout law and motto, may I offer to you the 4-Way Test of Rotary International:

1. Is it the truth?
2. Is it fair to all concerned?
3. Will it build good will and better friendship?
4. Will it be beneficial to all concerned?

Back to my assigned subject —

THE ART OF NEGOTIATION FROM PUBLIC AGENCY VIEWPOINT

Note — none of these phrases say anything about "Art,"

whatever that is, nor "Negotiation," whatever that is. All, however, speak volumes for "Public Agency."

The mere notion that a public agency is involved in the acquisition of any private property right limits the popular concept of Negotiation.

Any notion of gain on one side and loss on the other is invalid.

Where Negotiations is conceived to describe the activity wherein the participants attempt to reconcile divergent opinions to achieve some conclusion acceptable and fair to both parties, this concept is acceptable to a public agency.

But the traditional concept of the *Negotiator* is not acceptable. He seeks to obtain a product, commodity or service for his own, or a client's, use and benefit, and he seeks to obtain it at the least, or most advantageous, cost. To be successful, the *Negotiator* must be competitive.

He must approach the Negotiation with a will to win — to win an advantage.

The so-called *Negotiator* for a public agency does not enjoy this luxury.

The concept of a competitive *Negotiator* is not acceptable to a public agency.

It is axiomatic that the governing bodies who perform Public Works at the request, and for the benefit, of the people they represent cannot tolerate any consequent exposure to personal loss by any portion of the people they represent.

The function of the *Acquisition Agent* for a public agency is to achieve balance through the *negation* of both personal loss and personal gain — to assure "just compensation." The Right of Way Manual of the California Division of Highways states:

"The fundamental policy in the land acquisition function of the Division of Highways is that all procedures shall be directed to assure that a property owner will receive just compensation."

It must be redundant and trite to continuously reiterate that the representative for a public agency must perform with a "dual allegiance" — that he must represent both public agency and property owner.

But perhaps it is necessary to continuously reaffirm that the successful representative of a public agency must *selfishly* guard the interest of both parties. And to assist him in his task, perhaps the time has arrived when the term "Negotiator" should be abandoned.

The term "Negotiator" burdens the right of way agent with the facade of the warrior — without any of the armor.

The representatives, or agents, of a public agency are not negotiators in the accepted or traditional sense. In fact, many public agencies label them with different names. In some organizations they are called "Buyers," in others, they are called "Right of Way Consultants." Wherever the public agency is equally concerned with its service and the recipients of that service, then Negotiations in the usual connotation do not exist.

Negotiation, from the viewpoint of a public agency, is a means of conveying to the property owner the extent of money and services which constitute just compensation.

The subject today, however, seems to stress, or ask about, "the art of" or, "how do we get the deed signed?" The ideals of the public agency have to be transformed from words to deeds — deeds which involve a relationship with people — people who are individual, disparate and unique. Some are knowledgeable in real property transfers, others are not. Most, however, are inherently suspicious of an organization, public or otherwise, which must have *their* property.

You, the participants of this seminar, represent the most influential body in the United States on right of way matters. You, the men charged with this responsibility, know *that*: as large as your combined right of way expenditures loom in Public Works programs, it is not as important as the effect of the purchase of these required properties on the individuals who must be displaced; it is axiomatic that Public Works cannot be successfully achieved without the acceptance of such works by the public; acceptance is obtained by the delivery of a final product which satisfies the public demand and desire. These are the criteria I am sure underlies your every effort.

However, public acceptance may be lost prior to delivery of the final product. It may be lost by the manner in which it was

achieved. It can certainly be lost if our acquisition practices don't result in achieving just compensation. In this sense, the acquisition of right of way is an Achilles heel.

Let me illustrate, with data pertinent to my own organization. The 9000 separate and individual transactions concluded each year by California's right of way agents must be consummated in such a fashion that the Department leaves at least 9000 individuals (perhaps, in actuality, three times this number) who have a feeling of respect for the policy and procedures of the Department. It is not necessary that we always agree, and where money is concerned disagreement is normal. It is necessary that the means by which agreement is finally reached be respected.

We feel we are not serving the public if one person is left with the impression he has not been dealt with fairly and equitably.

Is it an art to accomplish just compensation? Is it "Negotiation"?

Perhaps it is a great deal more than fits within the confines of the "Art of Negotiations."

It means a dedication to the concept of just compensation.

A concept that embraces not only a monetary payment, predicated on the "highest price," but *time*.

Time is a most vital element of just compensation, and the element most frequently overlooked. It is basic that a property owner needs *time* to adjust to his involuntary removal from familiar surroundings; that he needs *time* to consider and evaluate the public agency's offer; that he needs *time* to find suitable alternate accommodations. Money cannot easily be substituted for time although many public agencies do attempt this substitution by various means. In our opinion, adequate time is absolutely necessary as an element of just compensation.

We also consider that relocation assistance, when needed, is a necessary component in the just compensation concept. An ability, and a willingness, to assist affected property owners and tenants through the sometimes difficult transition period is an obligation which must be borne by the agency which initiated the involuntary transaction.

We believe that, given a basic philosophy based on strict moral and ethical principles, (1) payment which adheres to the letter and spirit of the law, (2) service, (3) time, and (4) relocation assistance, assist in reaching the goal of just compensation.

How then can we achieve acceptance of an ideal in an atmosphere which has historically accepted the bargaining process as an inherent part of the transfer of real estate?

Will acceptance be secured by establishing a set of rules?

Is acceptance achieved through guidelines to technique?

Many honest efforts have been responsible for sets of rules to aid the right of way agent in conveying to the property owner our efforts to achieve just compensation.

These time honored rules sometimes appear to be a list of characteristics commonly possessed by individuals who are usually successful in their relationships with people.

Distill in any way you wish such admonitions as: (1) plan your interview and anticipate the property owners fears, objections, lack of interest and be prepared to assure him on all points; or, (2) be neat-appearing, courteous, etc. And what do you get? The code of ethics of the American Right of Way Association.

The Code of Ethics tells us how to deal with people. The Code of Ethics is incorporated, complete, in the Right of Way Manual of the California Division of Highways. It is the basic policy of many public agencies. It is the "Art" in dealing with people, in acquiring their property for public use. The Code of Ethics is complete in itself — nothing else is actually needed. Many of the tips and rules we have heard at previous seminars are simply elaborations of the Code of Ethics — a refinement of a simple and ideal statement of conduct.

The Code of Ethics is an interesting document. It not only provides a standard and ideal of conduct, but it features the goal of such conduct. For example, it doesn't say, merely, "be honest in dealing with people — for the sake of honesty." It says "show . . . honesty and courtesy, in order to merit a reputation for high quality of service and fair dealing."

When I began this discussion I said that the art of Negotiation from the viewpoint of a public agency is usually summed up in three phrases. I will not forego this formula which has prevailed over so many years for I also have discussed two points of a magic talisman: The Code of Ethics and Just Compensation. The third I have kept till last: Dedication.

At the Fourth Annual National Seminar held at San Francisco in 1958, a member of a panel discussing "Modern Salesmanship as Applied to Right of Way Negotiations" in describing the right of way transaction as requiring "fanatic" dedication, noted: "Briefly, I think that it can be said that right of way acquisition involves the most difficult and complex type of salesmanship in reverse, which is convincing a property owner to sell something he doesn't want to sell for a use he ostensibly is not interested in, at a price which he does not appear to be satisfied with.

If true, I can only conclude that the Right of Way Agent working for the public agency must achieve success solely on the basis of a Fanatic Dedication — he has absolutely nothing else working for him. Just Fanatic Dedication, The Code of Ethics and Just Compensation.

Public Relations Sectional Conference — Tuesday, June 14, 1965

The Public Relations of Liaison

By Raymond H. Mulligan, Chairman, National Public Relations Committee

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It may be somewhat elementary, but often it is a very good idea to start with a definition or two. My assignment is to talk about the relationship between Public Relations and Liaison — and how the public relations function can assist the liaison function — and it is interesting to see how closely related these two concepts seem to be when you examine a definition of each.

Public relations is that deliberate function of management which seeks to relate and interpret a company's policies and activities to the broad community in which the corporation exists. Now when we break that definition down a bit, and look at what is involved, we note several points. First, public relations, our definition points out, is a function of *management* — a concern of those at the very top of a company's operations. Second, it is the purpose of public relations to *relate the company's activities to its community*. And by community, we mean, of course, to relate a company's activities to those of *other companies* operating in the community as well as to the property owners and the farmers and the business men and all the other groups that comprise

the community. Third, our definition of public relations had one more important word — *to interpret* — to relate and *to interpret* — a company's policies and activities to the broad community which the company serves. So, now we see that to practice public relations means to decide to do things which *are related to the best interests* of the community, and *to interpret* what we do so that the community understands what the company is about, what its policies and intentions are, what its products and services are.

Well, now, it becomes clear that the successful company is going to be that company whose policies and activities are in the best interests of the community — that is, are desirable and constructive and useful — and then, the successful company must *interpret* those activities, so that the community — understands and has a base of information upon which to fairly evaluate and properly appreciate what you are doing.

Now, up to this point, all of this has had to do with the definition of public relations. But, hasn't what I have been saying sounded almost exactly like a definition and discussion of the *liaison* function?

Let's look at a definition of liaison. We'll pass hurriedly over the first one you find in the dictionary and we come to the second somewhat more appropriate one, which defines liaison as — "intercommunication established and maintained between parts of an armed force to insure mutual understanding, unity of action, and especially prompt and effective support by artillery and air units."

Now, if we translate the military jargon — where the term seems to have first come into use — we see that liaison means seeing to it that various entities perform with a degree of coordination and unity in their activities, to the end that the best interests of all entities — or in other words, the community as a whole — are served, and *this is most likely to happen* when there is *communication* that insures mutual understanding.

I think, when we stop to consider how similar our two definitions seem to be, it becomes apparent that good liaison between companies in the right-of-way field will most likely result when principles of good public relations are used. We have agreed, the first of these public relations principles says a company prospers when it serves the public welfare — *meaning the welfare of other legitimate companies and of the community as a whole* — as well as its own, and, secondly, a company must practice good communication so that other companies, and the community as a whole, understand what it is doing.

Thus, we can agree that whenever a man from the highway department is willing to sit down with engineers from the pipeline, the telephone and the electric companies, the highway man is going to contribute to the well being of his highway program — and to the well being of the community — *because he is contributing to the well being of the pipeline, the telephone and the electric companies* — and the degree or value of that contribution to the well being of each entity will depend upon the timeliness and the completeness of the communication — the exchange of ideas and information — that takes place at the meeting. Thus it is that liaison functions.

While each man properly strives to obtain the best results for his own operation that he can — the long range, really important values will come if the best interests of the public and the community concerned are properly served. For, as we all know, it is the general public which pays the bills and ultimately determines by means of the vote which bond issues are approved or defeated, and how legislatures and regulatory bodies are to be directed and controlled.

The medical profession tells us that the hours of sleep before midnight are of more value than those afterward. With liaison operations those conducted before construction commences are of tremendous importance when compared with those originating afterward. There is little doubt but that the latter are practically valueless.

The current project of the National Liaison Committee in raising a fund to produce a motion picture bringing out the functions of liaison is a tool of the Committee in a Public Relations aspect. This picture will be shown to various members of committees of the Association and undoubtedly to members in attendance at Chapter luncheons and various seminars. It will be shown to the executive level of companies having members in ARWA and to other companies wherein we seek to obtain members. Finally, it will be used in actual liaison meetings. In all these exhibitions, the Committee will be using Public Relations.

The American Telephone and Telegraph Company as early as 1958 issued instructions to its operating companies and has continued to recommend procedures, as to liaison.

In 1959 the Bureau of Public Roads created a new position in regional offices, Utilities Engineer. This Engineer was given Liaison functions. In 1962 the Bureau created the office of Right-of-Way and Location. This office has a responsibility for liaison between state highway departments and utilities and works closely with the Regional Utility Engineers.

States, counties and cities in various areas have set up similar posts and Texas has created a Utility Training School.

The creation of these posts evidences a growing need for ex-

pansion of public relations activities in all the fields involved — Liaison, Utilities, Highways and Pipelines.

These examples show what some of the agencies are doing to enable their representatives to get together with other agencies, early enough to conquer problems. It enables them to overcome the conflicts and obstructions before plans have been crystallized. This is Public Relations!

In many — if not most — cases of public improvements or utility construction projects, opposition is based on ignorance. When there is a communication of information, false notions can be dispelled by facts.

A particularly sound public relations objective is achieved when liaison results in a saving for a public agency by reason of the cooperation of a utility. That's serving the public interest — and serving the public interest in the long run serves the utility.

Liaison and public relations have something else in common, in addition to the things pointed out in the definitions at the beginning of this talk. They both begin at home — in our own staffs. Liaison between the departments of your company — communications within the company — between employees — all the way down the line. If we can't achieve understanding and awareness of what one department is doing by other departments in the same company — how do you expect to attain communication and liaison between two companies — or between a company and a governmental agency. May I say "Mutual Cooperation"?

The same rules apply: what is in the best interests of one department should be in the best interests of the company and communication must occur; let all your employees know what is going on, and why and how.

Good liaison means good conduct plus good communication, at home and in the field.

An excellent article on how to commence the Liaison effort was done by C. R. Johnson of Mountain States Telephone Company. It appeared in the April 1965 issue of our magazine "Right of Way" as "Liaison in Arizona." Many of you have read it and I don't want to bore you with repetition. However, he summarizes what they have accomplished under Communications, Advance Planning, Participation, Lead Time, Notice of Change in Plans, Joint Conference, Notice of Advertising Bids and Liaison Procedures. All of these are public relations.

Some purists have criticized certain terms frequently used in liaison — "advance planning" and "mutual cooperation" — as being redundant. They point out that if it is "planning" it must be mutual. I feel that the terms are correct, however, because they get emphasis, in the one case from the word "advance" and in the other from the word "mutual."

You could well say that what is intended by the term "advance planning" is "planning well in advance of the commencement of construction." The idea we try to get across is to get far enough ahead so as to be able to work out the problems without engaging in a crash program.

Many people have a one-way street conception of "cooperation." How many times have you heard, "I don't get his cooperation"? Does the fact that he doesn't get, arise because he doesn't give? Adding the word "mutual" emphasizes to each participant that he must give as well as get, "cooperation."

The proper function of liaison produces an effect like the playing of a championship athletic team. The individual skills are meshed into a smoothly operating group.

In closing — Liaison and Public Relations are both abstract concepts. Trying to explain one in terms of the other is like wrapping up a ball of oxygen gas in a sheet of nitrogen gas. Maybe Sam Houston should have called on a Chemical Engineer to give this talk.

Publicizing an AR/WA Meeting

H. Carl Cline, Chief Field Agent, Land and Real Estate Department, Equitable Gas Company, Clarksburg, West Virginia

H. CARL CLINE

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The American Right of Way Association is 31 years old and is a recognized healthy, growing professional organization. Yet there are areas within our domain where the AR/WA, its purposes, its people, and its activities are unknown to the general public.

Growth, recognition, and understanding can be accomplished by the tried and true processes of personal face-to-face contacts and such procedures are good, solid, and lasting. But I believe that these aims can be promoted faster by supplementing personal contacts with an active public relations program.

In developing our topic, let's first get some basic definitions: Webster defines "Public as — "of or pertaining to the people." He defines "Relations" as — "mutual or reciprocal interests."

He defines "Publicity" as — "public attention."

Thus we can easily define "Public Relations" as — "the establishment of mutual or reciprocal interests with the people." This is our goal and "Publicity"—getting public attention—is an important starting point in eventually reaching this goal successfully.

Publicity for a professional organization such as ours does not happen by itself. Newsmen do not parade to our doors asking who we are and what we are doing and what we hope to do. No, my friends, the only publicity that just happens is the negative or bad kind — the crimes, disasters, and associated mishaps. To call attention to our good side requires skill, imagination, ingenuity, perseverance, and plain old-fashioned common sense.

Publicizing an AR/WA meeting properly requires some thought and organization and should not be approached as a hit-or-miss proposition.

In order to gain favorable attention we must do something, say something, or lay plans to do or talk about something and then attempt to relate these actions to public interest or curiosity. In other words, we should disseminate news—interesting things about our organization, our people, our projects, and what they are doing. Thus, firstly, we must have something to report to the people.

Every reporter can tell you basic necessities of a new story — who, what, when, where, why, and how. And these basics are equally as important today as on the day they were first recognized and defined. These basics give the facts, but a bold statement of fact is not necessarily interesting reading. Here is where the good reporter or feature writer uses his ingenuity, broad vocabulary, and style to advantage by polishing and glamorizing the basic facts into interesting reading. So, secondly, we should report in interesting form.

Last, but not least, we must determine the news media to be used in disseminating our information. Once, the quickest way to spread the news was to telephone, telegraph, or tell-a-woman. But now we are blessed with newspapers, magazines, radio, and television — all vehicles which are capable and desirous of disseminating our news while it is still news. News gathering has grown and communications facilities have so speeded up that we are able almost instantaneously to be informed of what is happening all over our world. Two great wire services — The Associated Press and the United Press International — cover the world for America and feed news speedily to most of the newspapers, radio stations, and television stations of this great country of ours.

Are these news media available to AR/WA? Yes, indeed they are. All these media are willing to cooperate with us in disseminating our news, provided that we have real news (not mere propaganda), that we furnish it to them in workable form easily adaptable to their format, and that we do not offend with partiality. Quite frankly, friendly acquaintance with news editors (what I like to call establishment of personal prestige) is of more help in getting access to news media than anything else I know. First-name relationships pay off in publicity work just as much as in our organization and in our everyday work. So now let us get down to the mechanics of publicizing an AR/WA meeting.

First — we have news — want to tell the people who is having a meeting, who will participate, where it will be held, and when it will be held, why we are having it, and how it will be done.

Second—we determine that we have available as news media: the area daily newspapers, radio, and TV stations. We know already or must find out what their news editors can use in the way of news stories and/or pictures. If pictures can be used, we must find out if the media furnishes its own photographer, engraving, etc., and if there is any charge for this service.

With these basic patterns in mind, let's take a look at how a meeting of West Virginia Chapter 21 held in Clarksburg was publicized:

At a luncheon meeting some six weeks before the date of the Chapter's spring meeting, I met with the program committee appointed by President Jim Wallace to set up the meeting. Dates, times, place, and tentative speakers were selected, subject to later confirmation and I was asked to handle publicity, which had been sadly lacking in previous meeting at various locations in the State.

Approximately ten days later our program dates, times, place, speakers and topics were confirmed to the Chapter officers for advance notice to all members through use of the membership mailing list. Through the other committee members, the speakers — a local historian, a gas company leaseholder, two State Road Commission attorneys, a psychologist, and a Navy Commander — were contacted and requested to furnish me with short biographical background information synopses and, if possible, late glossy

photographs or newspaper engravings.

Upon receipt of these items, I had in my hands the facts and equipment needed for an advance publicity plan.

Two weeks prior to the spring meeting date, I contacted the editors of both local daily newspapers and found that they would give us front-page coverage on the combined Sunday edition prior to the meeting and could use fresh stories daily throughout the following week and that pictures would be featured provided that we furnished the engravings. The evening editor agreed to use a 3-column cut of our dinner meeting along with suitable story.

After this contact with the editors, I secured at AR/WA cost 1-column engravings of those speakers who had not previously furnished me engravings and I arranged with a commercial photographer to attend the dinner meeting as my guest and take photographs at my direction which were to be processed and engraved and delivered to the evening editor prior to news deadline on Friday.

I then contacted the News Editor of our local TV station in regard to news and picture coverage. The TV editor agreed to pick up our advance story from their news service wire and asked for a special story on the dinner meeting to which they were assigning their newsreel cameraman.

Ten days before the meeting, I wrote and had mimeographed the advance story to be released on the Sunday prior to the spring meeting. Copies were provided to Sunday editors of all of the State's newspapers, to the two wire services, and to the two area TV stations. The release announced the details of the various sessions of the spring meeting and included information about the founding of the AR/WA, the composition of Chapter 21, and a statement of the purpose of AR/WA.

This release was used by all the Sunday editions with very little cutting. The wire services processed a shortened story to all subscribers. The TV stations and radio stations statewide included the wire service version of the story in their Sunday and Monday newscasts.

Starting on Monday, I fed to the two local daily papers biographical feature stories on our speakers to be used one each day as indicated by the date of the release. Engravings on hand were furnished with the stories. I also fed one release to a Fairmont daily on one of our main speakers from Fairmont and likewise with one of our main speakers from Charleston. All of these stories were used — mostly as written.

Thus ended the advance publicity phase and I could sit back and relax a couple of days before the spring meeting began.

Prior to the dinner session of the spring meeting on Thursday evening, I prepared in advance releases to the local dailies and for the TV station as promised. With a few minor changes I was able to hand these out to the newsmen immediately after the close of the dinner session.

Recalling that dinner session reminds me that I was just a little busy, since I doubled at the dinner as both publicity agent and Master of Ceremonies. But we got our publicity photographs posed, the speakers introduced, and the stories handed out without mishap and everyone had an enjoyable time.

Our rotund TV newsreel cameraman, Milton Furner, of WBOY-TV, Clarksburg, enjoyed the social hour, ate heartily, and clicked off nearly three minutes of good news film of the dinner session, which newsman Pete Lyman showed on his 11:00 o'clock Thursday night newscast along with his reading of the prepared news release. The film and news release also were used on the early Friday evening newscast on the same station. Many of our members attending the meeting were quite agreeably surprised at seeing themselves on television one hour after the session ended.

Some of the comments made to the program committee members the next day by several prominent local people were to the effect that they didn't know there was such an organization as AR/WA until they saw us on television and read about us in the papers. In Publicity there is no magic, no mystery, the ingredients are:

1. Newsworthy people and happenings.
2. Organizing and planning.
3. Glamorize and dress up your news.
4. Make the personal contacts with newsmen.

I have attached herewith some copies of news releases used as well as copies of news clips from various papers which your Public Relations Committee may wish to put on display or otherwise make available for your inspection.

Ours may not have been the utmost way — but we got results that could be seen and evaluated. Why doesn't your Chapter give it the old college try next time? Thank you.

Public Relations Is Everybody's Job

By Carroll R. West, Vice President, Title Insurance and Trust Company, Los Angeles

CARROLL R. WEST

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One of the things that I remember best from my first "elocution class," as it was called those many years ago, was being told that a speaker should never apologize to an audience. Since that time I have read and heard the same admonition many times. So I am going to start by breaking all the rules in the book because I know how to lose an audience at any time. Poultry men tell me they demand that their hens lay one egg every day. I do it differently — I usually prepare for about four days and then I lay a really big one.

Now for my first apology, I know very little about the right of way business. I've had the opportunity to work with some of you occasionally in the past on some problems and we've had the privilege of doing business with many of you for many years. But, I have never negotiated for an easement, or the purchase of land for right of way. As for our appraiser friends, I have never participated in the appraisal of a piece of property for right of way purposes. So you see, I am really an "expert away from home."

My second apology concerns the title of my talk. In the printed program it reads "Public Relations is Everybody's Job." The reason for this is that some months ago your section chairman wrote me and asked for a title. He cannot be blamed if I gave him the wrong one because he had to get it in the program. However, once I started on this I found that the title should have been "Everybody's job is people." So what we are going to try to do is mix a little of both and see what we come up with.

During the next 20 to 25 minutes, perhaps we can take a new look at the philosophy of public relations, define its objectives, and outline the many possibilities and some functions of public relations.

What is the objective of public relations? Obviously, the objective of public relations is to help establish reputation for an enterprise. How do we establish reputation? First and foremost, of course, is quality products and good services. In today's economy, people demand better automobiles, better refrigerators, better medical service, better goods and services in all fields. But it takes more than that.

Paul Garrett, who retired as vice president of General Motors, puts it this way, "It is not enough to do a good job, you must let the people know about it."

Fleishman, defined it this way, "The best reputation can be obtained through an algebraic equation, X plus Y equals Z. The X stands for good performance, the Y quantity is public recognition of your good job. Combine the two and a good reputation results."

Benjamin Fairless, who started out at the bottom rung of the ladder and who retired as chairman of the board of United States Steel Corporation said, "In this great competitive world, public favor is a blessing which cannot be bought—it can only be earned."

What is this nebulous term "public relations?" There are so many definitions (all too many) relating to the skills required in the use of media, research, mass marketing, psychology and so on. Later, I will give you a short definition that I feel is clear, all encompassing and to the point. But first, may I tell you what public relations means to me.

Over a hundred years ago, the noted American naturalist and philosopher, *Henry David Thoreau* wrote, "If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away."

Public relations means to me a different drummer — a different cadence — because it encompasses many vocations, because it cuts across every segment of an organizations activities. So frequently it is faced with a clear delineation of the difference between patience and procrastination — between integrity and opportunism.

Public relations means to me the opportunity and the responsibility to "sell" our private capitalistic system and freedom of the professions, both internally and externally.

Public relations means to me the opportunity and the responsibility to uphold, to fight for, if necessary, high standards of ethics and quality of products or services in the organization which we represent.

Public relations means to me the opportunity and the responsibility to participate in policy making decisions — to put out the public relations fires before they are started.

Public relations means to me the opportunity and the responsibility to learn, to continue to study, not only the techniques of public relations but also the broad fields of business administration, industrial relations, economics and human relations. (More about this later on.)

Public relations means to me the opportunity and the responsibility to participate in civic and community affairs — to give unselfishly of ones self in worthwhile endeavors.

Public relations means to me the job that is never done, for it is made up of ideas — ideas mean work and if our work is ever caught up or completed, it means that we have ceased to function effectively, public relations wise.

Now I believe that all of these points can be wrapped up in the definition developed by the editors of PUBLIC RELATIONS NEWS: "Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and executes a program of action to earn public understanding and acceptance." I particularly like that last phrase, "to earn public understanding and acceptance."

So much for the philosophy of what public relations is — perhaps we should now take the negative side for a moment and talk about what public relations is *not*. Public relations is not the old time, long outmoded press agent. Good relations with the press are important but it is not press agency. Public relations is not a sugar coating on a bitter pill — trying to make things appear that which they are not. Public relations is not the lobbyist of the stripe that has been exposed in some state and federal investigations. Good relations with local, state and federal officials is important, but it is not the "five percenter." Public relations is not the use of the powerful tools of public relations to serve ignoble end. Public relations is no veneer to cover faulty performance. That is like putting on a clean shirt over dirty underwear — it improves the appearance but not the smell.

Now then we have covered some of the facets of what public relations is and is not, I would ask that you keep one basic principle in mind during the balance of this discussion. No company or organization or enterprise of any kind can choose whether it is going to engage in public relations or not. The day it opens its doors, it starts to have relations with the public. The question then is not "will it engage in public relations?" but rather, "will it develop a sound, constructive and well planned program that will result in its having good relations with the public."

Since there is not enough time to cover all of the techniques of the so-called "tools" of public relations, we will cover only one area — one that I believe is of the greatest importance to those of you assembled here.

Stanley B. Allyn, who started work peddling papers, worked his way through school, and became president of the National Cash Register Company said: "Today, the most useful person in the world is the man or woman who knows how to get along with other people. Human relations is the most important science in the broad curriculum of living." So, in the balance of the time allotted to me, I would like to discuss human relations and human behavior. To help prove Mr. Allyn's point on the importance of human relations, I will give you the results of three surveys.

Some years ago the *Carnegie Institute of Technology* conducted a survey of some five thousand business men and business women who had achieved great success. This was a carefully conducted survey to determine what factor was most responsible for the success of each of these people. The tabulation of the results of this survey showed that 85% of their success was due to superior ability to get along with people, whereas, only the remaining 15% was due to superior knowledge.

Dr. Daniel Starch of the well known Starch Surveys analyzed 50 lower executives and compared them with 50 top executives. The average top executives earned 20 times as much as the aver-

age lower executives. The top executives rated 87% on ability to handle people while the lower ones rated only 23%.

H. Chandler Hunt, the veteran business educator, in a survey of office workers found that only 24% of employees were held back from promotion because they did not know the details of the next higher job. Those that were not promoted, (76%) had glaring weaknesses in their human relationships, both inside and outside the organization.

So, while we are emphasizing the science of human relations outside our organizations, I hope there will be some ideas that will apply inside as well. Ideas that will have some bearing on your future and mine.

Before we get down to specifics in human behavior and human relations, I would like to recall one sentence from a letter written by *George Washington* to *General Phillip Schuyler*. General Schuyler was much distressed about the attitude of the colonists whose freedom he was fighting to gain, but also upon whom he was dependent for sustenance and maintenance of his army. General Washington wrote: "We must make the best of mankind as they are, since we cannot have them as we wish."

Perhaps too, we should remember a little prayer — a prayer I might add that has meant a great deal to me. I first read it in a book written by *Dr. Walter Alvarez*, formerly of the Mayo Clinic. In his book "How to Live With Your Nerves," Dr. Alvarez wrote "Lord give me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference."

In the science of human relationships perhaps we, too, can develop better understanding of the people with whom we deal, and perhaps we can learn to accept the things about others that we cannot change.

Now to get down to specifics. Some years ago I was privileged to attend a series of lectures by a nationally-known sales psychologist. In his first lecture he stated that all customers or clients — all people — can be classified into six distinct types. He pointed out that within each category, people might vary like shades in a color wheel — more pronounced or less pronounced — but that there are six general types. It gave me a terrific shock because I realized that I, too, am a customer — a customer of a lot of people. But he made his point stick and I came to fully realize that all of us fall into one of six categories.

We're going to study each type individually to try to understand what makes him or her tick — why they are as they are. More important, we are going to try to find the key to each individual type — the key to their friendship and loyalty. During this discussion, I suggest that we remember that all human behavior is, basically, the result of three important factors: (1) Heredity, (2) Environment, and (3) Health — either physical or mental.

Before we analyze our six types of people and look for the key to their friendship and loyalty, let us indulge in some fantasy. Let us imagine that instead of being appraisers, right of way negotiators, lawyers and title insurers, we are going to engage in a new type of business. We have been granted a franchise for some type of product or service in a given geographical area. We have no salary, no drawing account — we are dependent entirely upon business and repeat business from people. We have to make calls and we have to make sales. We have a good product or a good service but it is in a field that is highly competitive. Let us now start, out and meet some people — both men and women — or, perhaps I should say, "let's look in the mirror."

THE SILENT TYPE: Recognize this fellow? He's the silent type. Well, I recognize him because I just looked in the mirror. I'm one of those birds and we're the worst kind of customers. Here's why. We never complain or argue with those who sell us goods or services. If we are not satisfied we just don't go back — and the supplier never knows why. He never realizes that he has lost a customer until it is too late. Why are we as we are? Time will not permit going into all of the possibilities as to why "The silent type." But let's look at some possibilities. Heredity? It could be that this fellow comes from the historically, silent stock of New England. It could be that his parents were of the silent type — that there was little or no conversation around the home so he never got into the habit of talking. Environment? Perhaps it could be that his parents were strict and rigid in their discipline — it could be that they believed and demanded that "children should be seen and not heard." Health? Yes, perhaps this individual is not well and the effort to talk is just too much. He does not want to complain — he just doesn't want to say anything. Those are just some of the possibilities as to why he is as he is.

Now what is the *key* to this customer's friendship and loyalty? Because he is one of the most dangerous types, — since you never know that he has been lost until it is too late, the *key* will have to be pretty broad in its nature. The *key* to this person is *enthusiasm* and *good service* — with perhaps a bit more emphasis upon *enthusiasm*. The silent type dislikes indifference for he feels that if his business is not wanted, he will take it elsewhere. Usually, he is not particularly angry about it — he just quietly moves along to the competitor. However, if the service is too poor, he will move on and it is not likely that he will return. Yes, the *key* to the continued patronage of the silent type is *enthusiasm* and *service*. With this *key*, successfully applied, the silent type will be one of the most intensely loyal customers.

THE GOOD-NATURED TYPE: Here's the type we all like and admire — the good-natured type. She came from an average family — her days were carefree and she enjoyed life to the fullest. She probably isn't bothered too much with the spark of ambition — the intense desire to get ahead — she more or less takes things as they come. Her health is good, she's full of vitality, she enjoys her friends and disregards her enemies. Naturally, she has few of them. If she is married, her husband probably looks upon her as the good-natured girl he married—*always a girl*.

But let's analyze this type and heed a bit of warning. By virtue of her very good nature, she will be good natured with our competitors as well as with us. If a competitor telephones or drops in and asks for just an order or two, she will, in her good-natured way say, "Sure." And if by some chance we fail to respond to her good nature, or, to give her the kind of service she expects, she will turn on us with a vengeance. Now, what is the *key* to the good-natured type?

The *key* to the good-natured type is *cheerfulness*, *appreciation* and *good service*. She will respond to your enthusiasm but she *expects* appreciation for her patronage. Since she is good natured, she *expects* good service. If she does not receive it, she will "good-naturedly" turn to our competitor. If you haven't heard from her for a day or two, by all means call her — she *expects* it.

THE PRICE-MINDED TYPE: Many of you have visited market places in other parts of the world. You have noted that there is no set price for any goods or services. The price for which a product or service is sold depends upon the ability of the buyer to barter and upon the resistance of the seller to sell at a lower figure. It is all a part of a game. It is possible that our price-minded type is, through heredity, origin or environment, not too long removed from this way of life. It is possible, too, that our price-minded type grew up in poverty, where pennies were the difference between survival or starvation. Whatever the reason may be, there is a *key* to the personality of the price-minded man or woman.

That *key* is explanation. The price-minded type is usually quite understanding if they know *why* a product or a service is priced at a certain figure. Let me give you an example. Not long ago a prominent man telephoned me and said that he was selling his home which he had purchased only three months before. He was furnished a title insurance policy and he wanted to know why he had to furnish a policy to the purchaser, when so little time had elapsed and nothing had happened to the property. Although I was busy, I took a few minutes to explain that the major part of the cost of a title insurance policy went into the maintenance of our plant. I explained how the complete history of every inch of land in Los Angeles County, from the present back to the day that California became a state, was recorded on our books. I told him something of the thousands of happenings that affect property in Los Angeles County every day and how we record those happenings even though we may never have a title order on many of the parcels of land. When I had finished, he said simply and with conviction, "I thoroughly understand, I do not see how you can provide title insurance at so low a figure." Yes, *explanation* is the *key* to the price-minded type.

THE TIMID TYPE: Of all the types, here is the one that probably requires more understanding than all others. Heredity and environment can have much to do with timidity. But there are other causes. It could be fear — fear of people, fear of loneliness, fear of being unappreciated or unwanted, appearance, fear of life or fear of death. If I were to generalize about the timid type, I would say that mental health usually is the problem of this type. Whatever the cause may be, there is a *key* to the personality of the timid type.

The *key* is *sincerity*, *tolerance* and *understanding*. By being calm and sincere with the timid type, we will help to increase his or her confidence. By being tolerant, we will not be impatient

and we will take the time to use the *key* to this personality. By so doing, we can win and keep the friendship of the timid type — they will be intensely loyal to us and to our company.

THE SELF-IMPORTANT TYPE: Here is one we meet most every day. Chances are, he is suffering from an almost unbelievable inferiority complex. The complex could be caused by many things. It could be background, race or religion. It could be that he or she "made it fast and made it the hard way." It could be that they "pulled themselves up by their own bootstraps," against seemingly unsurmountable odds. Whatever the underlying causes, this type usually has a subconscious and impelling desire for your esteem — to bolster their faltering ego. Of all the types, I believe that the self-important type deserves sympathy more than censure. And, it seems to me that there is a simple *key* to his or her personality.

The *key* — *enthusiasm, praise and appreciation*. Indifference to the self-important type is like a pitcher of ice water thrown in his face. He expects enthusiasm and appreciation at all times. By praise, I do not mean what is commonly known as "blarney." By praise, I mean the use of the powerful medium of compliments, — intelligent compliments that are carefully selected and timed. This fellow is no dummy — although he may not recognize his own subconscious behavior, he will be quick to sense the sincerity or insincerity of your compliments. By successfully using the *key* to the self-important type, we will win and keep them indefinitely. If satisfied, they are usually the best walking and talking advertisements of all. They will tell any and all about the virtues of you and your company.

THE ARGUMENTIVE TYPE: Here is the one that invariably calls about a quarter of five. That person usually calls when we are at our busiest and lets us have it with "both barrels" — at a hundred sixty words per minute. Unquestionably, this type, in the extreme, is the unhappiest person in the world. We may think that she doesn't like us, but, I assure you, she likes herself even less. She is filled with frustrations, either past or present, and she just has to take it out on someone. Since she cannot take it out on her boss or her customers, she does the next best thing and takes it out on the suppliers. This person too, needs under-

standing — a very deep understanding and intelligent use of the *key* that will unlock the door to friendship and loyalty. There is a very simple *key* to this type.

The *key* is to *keep calm and be a good listener*. Any lack of courtesy or loss of temper with the argumentive type will only add fuel to the fire. If we remember our little prayer and keep our serenity and listen, we can unlock the door to lasting friendship. Simple, courteous phrases like "you may be right," "we appreciate your bringing this to our attention," or "thank you for telling me — we will do our best" — those are the phrases that will help to put out the fires of argument. It's trite and it's old, but it's true that "no one ever won an argument and kept a customer."

Our time is up and we have only scratched the surface in analyzing the reasons behind the behavior of people. We have discussed a few of the keys to the six types of people — there are many more. I believe it can be summed up in the words of *William J. Reilly*. In his book *SUCCESSFUL HUMAN RELATIONS*, Mr. Reilly wrote, "Once you've opened a person's mind by putting yourself in his place and helping him to be right, you are certain to win his confidence, if, of course, you show him that you are thinking in terms of his interest as well as your own, and that you are eager to serve his interest."

The important thing to remember in human relations is that people like to be treated as individuals. It is an easy course to follow if we will always remember to ask ourselves these questions: "Do we really follow the Golden Rule; do we treat others as we would like to be treated?"

Charles Roth, put it this way, "If you want to have fine human relations, your attitude towards others will have to be right."

Now we return to reality. We're not a salesman with a franchise. We're right of way men and some of us are title men but we, too, are dependent upon people — their likes and dislikes — their good qualities and bad qualities. If, in our dealings with people, we are attentive, courteous, fair, honest, well-mannered, and zealous in our respective responsibilities, we will be practicing good human relations. It will be effective public relations.

Thank you for your attention.

The Right of Way Division's Public Image

By James V. Hyde, Jr., Director, Division of Right of Way Acquisition & Titles, New Jersey State Highway Department

JAMES V. HYDE, JR.

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Gentlemen:

Those of us actually engaged in the day to day problems of right of way acquisition have long recognized that no other phase of a highway department's overall activities has such potential for creating an unfavorable image in the minds of the people.

The very objective of right of way acquisition requires that we take property away from the persons who own it, and in many instances it is property they do not wish to give up, even if they are paid a fair price.

It must be recognized at the outset that the problem of persuading people to part with their homes and businesses, without causing them to regard us as monsters, is indeed a thorny one.

In the nation's more congested urban areas, such as in the State of New Jersey which I represent, we have lived with this situation for some years and can only say it is increasing every day, with no choice except to concentrate acquisitions in the very heart of our most densely populated areas. For example, estimates indicate that in one city alone 23,000 persons will be relocated by our current acquisition program. While to those of you in the more sparsely settled areas this may perhaps today still be only a potential problem, it can be safely predicted that you will find it to be a very active and current one before many more years have passed.

As regards a good public image, much can be said about public relations devices, such as brochures, public hearings, special meetings, letters to owners, courtesy on the part of the negotiators, etc. Certainly these are all extremely necessary and we need to utilize them more than we are doing now. However, it just cannot be ignored that the most severe public relations problems are created for the highly sensitive area of right of way acquisitions whenever a highway department is not adequately staffed and equipped so that it can do its right of way acquisition job properly. By this I mean having the experienced personnel, the funds, and adequate lead time scheduling with which to acquire property well in advance of the time it is needed, so that the problems of determining just compensation, conducting negotiations and providing the relocation advisory assistance now required by law are minimal. Lack of the ability to do this, resulting in a series of crash programs to acquire and clear rights-of-way almost overnight so as to conform with construction schedules, will inevitably create an image for a highway department of the worst possible kind, and one which it is extremely difficult to erase.

On the basis of the foregoing, it can be seen that the essential first step in developing a proper public relations program for right of way acquisition is to convince our "bosses" — the highway commission, the chief executive of the State, the legislature, and even the individual taxpayers — that their Highway Right of Way Division must be provided with the wherewithal to accomplish its job properly. This cannot be achieved through mere propaganda, or what some of us term "baloney." It depends upon proper evaluation of work loads and use of the more sophisticated and up-to-date methods of documenting and justifying budget requests and lead time requirements. Yet how many of those of us present who are Right of Way administrators have, even today, complete factual data as to reasonable work loads, efficient production rates and lead time needs.

We in New Jersey have taken the modern business methods approach seriously and are moving into new budget techniques, critical-path methods, overall machines records and parcel status

retrieval systems, and have even established a new industrial engineering research unit created to develop overall highway work performance standards.

With these methods, not only do we hope to reduce our everyday work problems but we are now able to factually support lead time requirements and employee needs. It is interesting to note that although in our Right of Way Division we have increased production 600% since 1956, the number of employees has increased only slightly over 100%.

We have factual support to demonstrate what is a reasonable per employee work load and knowing that we will still have to increase production by a further minimum of at least 300% to meet the 1972 interstate schedules, we can present our budget requests on a supported basis of projection.

While all of this may sound dry and far removed from any Madison Avenue public relations techniques concerning a Right of Way Division's public image, we must face up to realities. Public criticism will inevitably penetrate any "paper curtain" or barrage of press releases not supported by performance, and performance depends on a staff with the wherewithal to absorb the work load. In highway planning, it simply cannot be ignored that Right of Way acquisition time is one area that cannot be cut. Home owners and tenants cannot be wired to computers or put on overtime. They simply must be given a reasonable time to relocate or public dissatisfaction will be the result.

No Right of Way Division's "image" will be satisfactory until crash acquisition programs become the exception rather than the rule. *That is why I emphasize the urgency of making the initial public relations effort to get the organization and proper lead time to do the job.*

Public confidence in the State's Right of Way Division is the most important ingredient in the development of a good image. In the development of public confidence, public information methods complement but do not replace an effective Right of Way organization.

In the New Jersey Highway Department, once right of way plans are transmitted to us the public information machinery of the Right of Way Division swings into action. Letters are sent to all property owners telling them that their property will be affected, informing them of estimated timetables and asking their help in allowing the appraisers to inspect their properties inside and out. Detailed brochures accompany these letters, informing the owners of the right of way acquisition steps from appraisal through negotiations and final payment. Coincident with these initial letters to owners, a press release is issued indicating the general location of the project, number of properties affected, the project's ultimate benefit to the state-wide highway user, etc.

During Right of Way preliminary appraisal investigation which follows the letters to record owners, a complete census of tenant occupancies is made and prior to the institution of negotiations, all tenants are sent informative letters concerning the right of way acquisition steps that will affect their occupancy and of the relocation advisory assistance and moving relocation plans for which they may be eligible.

Now comes the difficult part — negotiators must approach property owners, often people deeply attached to their present

homes, and persuade them to agree to the value established by the State as the fair market value and to vacate as promptly as possible. This is a task calling for diplomacy of a high level and the only way to achieve proper relations with the public in this endeavor is through continual training of the personnel involved, with greater emphasis upon the need for tact and courtesy.

In our State, it has happened in the past that the Highway Department was required to proceed with construction while negotiations, sometimes concurrent with condemnation proceedings, were underway on either entirely vacant land or vacant segments of occupied property.

Of course, the classic example is where a highway widening knocks 10 feet off a front yard. This is another danger point where an extremely poor image is created unless great care is exercised. If the contractor rips out bushes and knocks down mail boxes without prior discussion with the owner, or if the bulldozers suddenly show up without advance warning, then "the fat is in the fire."

To cover this critical area, we have arranged for "pre-construction conferences" at or near the site of every new construction project. Engineering, right of way and public information personnel attend these meetings. The complete terms of the contract plans are displayed. The contractor outlines his schedule and, as a final follow up, in every instance where final agreement has not been reached regarding acquisition of a vacant segment of property, the owner receives a personal visit from a representative of the contractor as well as the Highway Department to explain exactly what will happen and when. These meetings have been very well attended, and have eased much of the friction which formerly faced our construction forces.

In any line of work, one always encounters from time to time the individual who just will not listen to reason under any circumstances. The best that can be done when this happens is to suffer patiently. However, most people do understand the need for highways and cooperate just as long as they are assured that the Highway Department is not trying to "short change" them, and is not acting in either an arbitrary or capricious manner.

One of the worst approaches from the standpoint of public relations, at least as far as we have learned the "facts of life" in New Jersey is concerned, is to draw a cloak of mystery over the reasons for our actions, or to tell the property owner that we are doing so and so because "that's just the way it is done." Patient explanation may be time consuming and even irritating to the person who has to do the explaining, but it pays off in the end.

In summary, it can be stated that right of way acquisition is a sensitive area with great potential for creating an unfavorable image in the minds of people.

Public confidence is the most precious commodity that a Right of Way Division can have. Public confidence can be achieved where right of way is acquired through an orderly process by a competent staff, supplemented by a public relations program geared to keep the public fully informed as to both their rights under the law and the ultimate overall benefits to be derived on completion of the highway project which affects their property.

A Neighbor To All

By Wayman B. Flynn, Texas Electric Service Co., Fort Worth, Texas

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I was very pleased when I was asked to outline some of the procedures and practices regarding the area of land management. Many members of our organization direct their attention only to the acquisition of land rights and feel the story ends, and the right-of-way man's job is over, when the land owner signs the deed or easement or otherland-rights document. For many right-of-way people, the story does end at that point. So, my remarks today will be to emphasize the importance of land management from the standpoint of maintaining all of the rights acquired in the initial negotiations and maintaining favorable and friendly relations with those people who have retained some legal or im-

plied right to the land on which rights have been transferred to others. The time consuming and difficult task of acquiring these rights is appreciated by all those persons assigned to such a task, and certainly those of us whose primary duty is land management are cognizant of, and have an appreciation for, the work done in land rights acquisition. But land management work never ends. There is no signing of an agreement which allows a land management man to say — "The job is done — I can forget it."

The experience gained in land management for the purpose of this discussion is derived from the rights maintained in the metropolitan area of Fort Worth, Texas. These land rights were acquired by the Texas Electric Service Company for high-voltage transmission line rights-of-way and high voltage substation sites. The metropolitan area covers approximately 900 square miles with a population of approximately 1,000,000 people. The total land in rights-of-ways amounts to 7000 acres with 3000 acres owned in fee. These rights-of-way for lines vary in width from fifty feet to two hundred feet with some easement property described only as a center line of the transmission line.

For a number of years, if at all possible, Texas Electric Service Company has, as have many other companies, purchased in fee the land for rights-of-way and substation sites in this metropolitan area. It is only by outright purchase of the land that the desired degree of control can be maintained for initial and future land use. The long range planning necessary in the electric utility industry necessitates acquisition of land rights which will allow addition of electric facilities to the rights-of-way. Often times, easements limit the number of poles or towers. The expansion of the electric facilities on these rights-of-way require another negotiation with the land owner. Also many of these easements, those acquired a number of years ago, did not sufficiently limit the use of the land for other purposes, consequently structures were built under the line which limited expansion, hampered maintenance work and in some instances created hazardous conditions. So outright ownership of the right-of-way is the first step toward maintaining full control and lessens, but by no means ends, the work of the land management man.

In this metropolitan area the rights-of-way are located in residential areas, commercial and industrial districts, and in rural and semi-rural areas. The urban developments in this metropolitan area, like so many cities, have encompassed many acres of rights-of-way which were once pasture land or cultivated fields. These rights-of-way, now, instead of being open land, are adjacent to homes and commercial establishments. Where this rapid urban expansion is in the proximity of easement rights-of-way, developer often include the right-of-way as part of front or back yards of homes, and in some cases, have constructed houses on the right-of-way under the high voltage line. In some instances, in the case of older easements, it was difficult to convince the developer that buildings should not be placed under or near the high voltage lines. This is particularly troublesome where the easement did not specify an area of land but only designated a centerline description. The urban development, outside the limits of the main city, has in many instances become a political subdivision with its own city government. This brings the fee-owned right-of-way within the corporate limits of the community and subject to the restrictions applying to land use and maintenance. Also the long narrow right-of-way at times presents a barrier which must be crossed by streets, water, sewer, and gas lines. In some instances, planners consider the right-of-way, not as a barrier, but as a clear, open avenue for the express purpose of installing these other utility facilities or in some cases, an open drainage ditch. This requires some advance knowledge of the proposed project to prevent such unauthorized useages. Once the project is underway the contractors usually view the right-of-way as a storage area for building materials, construction equipment, a repository for spoil dirt, scrap lumber and refuse, or perhaps a source of fill dirt. Here the land management man's ingenuity must be utilized to minimize acts that will be detrimental, either permanently or temporarily, to the company's use of the land. At the time of planning and building, the requests for the use of the right-of-way, as well as the unauthorized use must be investigated carefully and judiciously. It is the seemingly small incidents that mushroom into the complex problems if ignored or forgotten. When a developer of an urban complex intends to construct an "all electric" development he sometimes feels that company right-of-way can be utilized as he chooses because the "all electric" feature of his project is advantageous to the company. Resolving this type of situation often try one's good judgment, patience, and tact. Requests for useage of the rights-of-way and substation grounds are many and varied. Permission to construct water wells, garages, driveways, parking lots, swimming pools, air raid shelters, playgrounds, dog kennels, and horse stables are only a few of the many.

When the development is completed, the new home owners adjacent to the right-of-way have varying ideas about the land. Some wish to include that portion of company right-of-way adjacent to their property as part of their yard, for a garden, a place to park their boat or camping trailer, a place for the children to play, or perhaps an additional access route for their automobile to their garage or back yard. Still others desire to cultivate an orchard of fruit trees or fast-growing shade trees on the right-of-way to enhance their back yard, while still others do not have any use for the property and in fact, think it should not be there. It is these people that feel the right-of-way should be maintained in the same manner as their front lawn, even though they may use the tract as a disposal for their junk, grass and shrub cuttings, and many other types of refuse. This is very evident on Monday morning, after the homeowner has worked in his yard all week-

end, and he calls to express his indignation about the condition of the right-of-way.

The commercial establishment owner in the development views the right-of-way in a business-like manner. He visualizes the right-of-way as additional parking space for his customers or as an additional access to his place of business. He may consider the steel tower or pole a deterrent to his business and request that it be moved.

Rights-of-way adjacent to churches, schools, lodge buildings, civic organizations, city parks and other establishments are looked upon as additional parking areas or access routes to the establishments.

The children in the area look at the right-of-way as a playground and modify it accordingly. A piece of chicken-wire fence stretched between the poles of an H-frame type structure or on the braces of a steel tower makes an excellent back-stop for the youthful baseball player. The poles have been used to hold a basket ball backboard, one corner of a club house, or a place to test their father's axe, hatchet, or saw. The area also makes an excellent place to dig a fox hole or cave which usually finds favor with this parents, since this saves much wear and tear on the back yard. Of course, these excavations do not enhance the job of right-of-way maintenance and must be cleared away before any mowing can be done. These type situations are difficult to trace and even more difficult to resolve since there are usually a number of neighborhood children involved.

The rights-of-way adjacent to well-traveled streets are attractive to many other parties. Seasonal fruit stands on the back of trucks are easily parked and can be doing a thriving business between patrol inspections. Many types of transient uses have been requested of the rights-of-way. All types of storage, both commercial and residential, crop up from time to time. These include farm machinery, wrecked cars, boats, lumber, stolen safes, and a dead horse.

The use of the company's rights-of-way by others makes the land management man acquire professional status in public and customer relations. In the instance where the use of the land is requested he must know what use of the land will, or will not, affect the company's superior use of the property. He must be able to determine that if the request is granted whether or not necessary discontinuance of the use because of company useage will cause a hardship on the party by depriving him of the land upon which his use might become vital to his business. He must have some knowledge of the company's long range planning so he can handle requests from the standpoint of the future use of the land. He must be able to say no to requests in such a manner as to maintain harmony between the petitioner and the company, realizing in all probability, that a customer of the company is involved. He must be able to determine the value of the land if there is to be a charge for its use. He must foresee and consider the feelings of the surrounding neighborhood when granting permission for a particular useage. The zoning laws and regulations must be familiar to one in the field of land management. The details of a previous company transaction must be known, for instance, what conditions and reservations were made at the time of purchase of the property. Often times the seller of the right-of-way feels he has retained some rights to the land not outlined in the deed. The land management person must determine if the use of the property will create additional maintenance for his company. This is particularly true where the request concerns a drainage ditch or if the use of the land will cause a drainage problem to others in the vicinity.

In many instances, the use of the land eliminates maintenance since the party using the land, in the course of their using it, will maintain the property. This is particularly true where the use of the land is for lawns and gardens or where surfaced parking areas are constructed.

By judiciously handling requests for use of rights-of-way, a land management man can maintain and improve customer and public relations and at the same time eliminate some work his company must do to maintain the property in a manner acceptable to the community.

One thing must remain paramount to those of us charged with the custodial responsibility of company lands and that is that these properties were acquired at great expense to the company and we are delegated to keep them intact and useable for the purposes for which they were purchased, however, this does not mean that a utility should desire nor can it afford to have its rights-of-way act as barriers to good orderly community growth and development.

Requests for use of the fee-owned land are granted by the use of leases and easements. A farming and grazing instrument is used for agricultural purposes and a commercial lease form is used for most instances other than agricultural uses. Liability insurance coverage is required on all commercial agreements covering both the Lessee and the company from claims of third parties. An easement is granted when municipalities or individuals request permission to construct a street, pipeline, or some

other permanent type construction on or under the right-of-way. These requests are scrutinized carefully to see if they might interfere with existing facilities or future utilization of the property.

A company must have a management sensitive to the problems and conditions associated with land management and reflect full consideration for the opinion of others, if that company is to maintain a reputation as a good neighbor to all.

Land Economic Study Sectional Conference

Electric Transmission Line Studies

By Robert E. Alleman, Supervising Property Appraiser, Southern California Edison Company

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I. INTRODUCTION

Today we live in a world of science. The order of the day is Research and Development, using electronic computers. If you purchased your electronic computer last year, it's obsolete today. If you don't have a computer at all, you are operating in the horse and buggy era. However, we are not here to discuss electronic computers. We are here to talk about Electric Transmission Line Studies, as they relate to the acquisition of rights of way.

Much as I hate to admit it, I believe that in some respects we are still in the horse and buggy era in the Right of Way appraisal field. The appraiser is still relying primarily on his own judgment in certain areas, even though it appears that factual data is available that could eliminate any guesswork.

All of the amazing scientific developments of the past few years don't seem to help the appraiser or the negotiator one single bit. Or is it possible that we haven't been taking advantage of some of the scientific tools available to us?

This brings us down to specific problems and possible solutions. The No. 1 problem continually plaguing those involved in the appraisal and negotiation for purchase of any kind of right of way is the determination of severance damages. Probably 75% of all condemnation cases result from disagreement over severance damages.

It is true that many types of damage can be accurately appraised by the "cost to cure" method. Such items as the cost of extending a road or water line across a right of way, relocating a building or fence, can be determined quite accurately. The cost thus found is actually the measure of the damage to the remainder property.

However, there is a damage — either real or imaginary — commonly referred to as Proximity Damage — which causes the appraiser and the negotiator no end of trouble. This damage is usually associated with electric transmission lines and is based on the assumption that the transmission line structures are so unsightly and the hazard so great that no one in his right mind would consider using the land adjacent to a transmission line. The extent and degree of the zone of damage varies according to the imagination of those asserting to the damage.

When this problem arises, the property owner sticks out his chin and says his land is ruined, and he may be perfectly honest and sincere in his belief. The negotiator then sticks out his chin and says no, it's not so. The resulting stalemate is often settled in a court of law and, during the entire procedure, it's very unlikely that either side will present anything more than opinion to prove its case.

Also, how about the easement value? How much real evidence is ever presented to justify the value placed on an easement?

II. JUST WHAT IS A LAND ECONOMIC STUDY?

Now, to get back to this scientific age in which we live, there must be some way of measuring this severance damage and easement value. Electric transmission lines of various types have been in existence for more than 50 years. There are many thousands of miles of transmission line rights of way in the United States, crossing every type of land imaginable. It's obvious to me that market data evidence of the effect of transmission lines on adjacent properties is available and can be documented. Research of this type is referred to as a Land Economic Study.

III. EXAMPLES

My earliest recollection of anything resembling a Land Economic Study goes back about 15 years. During 1950, the Southern California Edison Company had photographs taken, both from the air and ground, of some of the residential development that existed adjacent to transmission lines in the vicinity of the City of Los Angeles. The areas photographed were primarily developed to new or nearly new expensive homes, occupied by high-income bracket people. A few middle income bracket areas were also included.

The photographs, developed to 8 x 10 size, were placed in booklet form, together with area maps and tract maps. Street names were printed on the photos. In some cases, the street address of a house was shown. On the back of each photo was printed the date, the name of the transmission line, and the area. The booklet contained no other written information.

The idea was to show this booklet as evidence that transmission lines are not detrimental to residential properties.

While this booklet offers no evidence whatsoever concerning the effect of transmission lines on land values, I believe it can have a terrific psychological effect on anyone who has just made the flat statement that a transmission line will ruin his property. He may be tempted to argue that the homes shown were built where they are because the owners were able to purchase the land adjacent to the transmission line for a nominal amount. However, this is a rather absurd statement to make about the owner of a \$50,000 to \$100,000 home.

This type of study is easy and relatively inexpensive to make. It is easy to review. There is nothing to read or study and most people like to look at photographs.

About the same time that this booklet was being prepared, I became aware that the Department of Water and Power of the City of Los Angeles had also made a study. Contact with Mr. H. William Grane, then Manager of the Right of Way Department for the Department of Water and Power, revealed that they had indeed made a study. Mr. Grane very kindly permitted me to borrow a copy of the Department's study. It consisted of a book more than 4 inches thick and containing nearly 600 pages.

This study involved a compilation of opinions and factual data, gathered over a period of years beginning in 1936 and continuing up to 1944. The study was made by some of the top appraisers of that time — namely, George L. Schmuts, Charles B. Shattuck, Tom Mason, George F. Coffin, and Cloice D. Carll. All of these men were members of the American Institute of Real Estate Appraisers.

The study also contains the results of radio interference tests, performed by Dr. Lee De Forest, an eminent scientist. The study covered eight major transmission line rights of way in the vicinity of the City of Los Angeles. It documents the sales of 4,143 lots, both improved and unimproved, interviews with 644 property owners, 83 real estate brokers and 50 bankers and savings and loan officials. In addition, 99 pages are devoted to radio interference tests. The study contains area maps, plat maps of subdivisions and numerous photographs.

The Department of Water and Power of the City of Los Angeles also had a second study prepared by Tom Mason and Cloice Carll in 1950. This was a 75-page study entitled, "Market Sales of Acreage Properties with and without Electric Transmission Line Rights of Ways Imposed Thereon." It contains verified market data on 26 acreage parcels encumbered by electric transmission lines and 39 acreage parcels located in the same areas and more or less comparable, but unencumbered. Each sale was verified and written up as an item of market data and included comments from the buyer and/or seller. A plat map of each property was included, showing the location of the right of way

if the property was encumbered, and the improvements or other pertinent details of the property. An area map was also included in the report. No photographs were included, probably because of the large sizes of the properties, which ran up to 640 acres.

From the standpoint of documented facts for use in court by an appraiser, I believe these studies by the Department of Water and Power far surpass any other efforts made along these lines.

For years I have been directing appraisers interested in this subject to the Department's studies.

Now these studies were definitely not designed for use as hand out material for the general public. However, during 1961 I received a copy of an 8-page brochure, prepared by Charles W. Layton of the Detroit Edison Company, which was designed for distribution to property owners and others. This was a very attractive pamphlet entitled "Subdivision Values Unaffected By Tower Lines." It was set up as a case history of one residential subdivision of 227 lots on land encumbered by two steel tower 120kv transmission lines, forming a T at the property. There was a transmission line along one side of the property and a second tap line passing through the property. The study contained a very brief write-up of one and one-quarter pages, five photographs showing the property from raw land to nearly completed subdivision, and one page containing a land plat and a tabulation of house and lot sales price and mortgage loan value. All sales took place in 1960. This study is about as simple and direct as it is possible to get and yet it conveys the message.

In 1964 Mr. Layton and the Detroit Edison Company followed up this study with a 21 page brochure covering both the first subdivision as well as a second 25-lot subdivision developed adjacent thereto. Bearing the same title and in an attractive cover, this later study contains 12 excellent photographs, three pages of land plats and sales data tabulations, and a very minimum of written material.

It is my understanding that this brochure was very well received when over 150 copies were distributed at a joint S.R.A. and M.A.I. meeting in Michigan during the latter part of 1964. Mr. Layton, in case any of you present do not know, is Vice Chairman for Overhead Utilities on our National Land Economic Studies Committee.

During early 1963, the Southern California Edison Company felt that a start should be made in this area. Accordingly, one of our younger staff appraisers was assigned the job of making such a study. This was to be done on a spare-time basis and not to interfere with any major projects that might come along. We wanted to come up with a small, easy to read and easily understood brochure that could be reproduced inexpensively. We proposed to distribute these brochures to our Right of Way people, to independent appraisers, property owners, or to anyone else interested in the problem. The message conveyed was to be obvious to anyone. In other words, we weren't trying to produce an epic document that would have to be studied in detail in order to be understood.

In Los Angeles and Orange Counties at that time, there were no problems in finding properties to study. Actually, the problem was to pick three or four out of hundreds. Rather than spending days field inspecting miles of right of way, we relied on past experience and general knowledge to pick three areas that might be suitable. A field inspection of the areas resulted in the selection of four recent residential subdivisions containing a total of 255 lots.

Actually we did have an ulterior motive for picking those particular areas. In each case we already had in the house one or more appraisals containing all the verified market data sales of raw acreage for each area. These were appraisals that had been made for other purposes. Included in this market data were the purchases by the developers of the acreage parcels that later became the four subject subdivisions. We knew, from these previous appraisal, the developers paid the going rate for the land.

At first we intended to include the market data for acreage sales, but later decided that this would not lend itself to a simple report. The final study for the sake of simplicity pertains to the original sales of the new subdivision homes. Four factors for comparison were used: (1) the sales price (2) the time required to sell (3) the loan value and (4) the assessed value. We did include a statement from the developer of each subdivision that he had paid the going rate for the acreage.

The cheapest and easiest way to get the data on the original sales of homes in any subdivision is to go directly to the developer. In our situation, the developers cooperated 100%, giving us all the data we needed except the assessed values. Our Record Searchers picked up the assessed values from the court house rec-

ords over a period of time, as they worked on other jobs.

One other very important item was obtained from the developers. That was the model or plan number for the various homes. Three of these subdivisions had more than one design of home, which resulted in a variation of sales prices within the subdivision.

Next we obtained land plats of each subdivision and aerial photos of each area. These were reduced to letter size and the subject properties were outlined in color on the aerials.

Tabulation sheets were prepared for each subdivision, showing lot number, model number of home, date sold, whether or not lot was adjacent to the transmission line, the assessed value for the land, the assessed value for improvements, sales price, and the amount of the trust deed or mortgage.

A small graph was prepared for each subdivision, plotting the percentage of total lots sold against time. A dotted line was used to represent the lots adjacent to the transmission line and a solid line represented those lots not adjacent to the line. Below each graph was a very brief explanation. Our finished study, containing 47 pages, had a hard cover, a title page, a table of contents, a very brief introduction, and a map of Los Angeles and Orange Counties with the locations of the four study properties indicated. This was followed by a section on each of the four subdivisions consisting of a brief description of the subdivision and surrounding area, plus a description of the transmission line right of way and the electrical facilities thereon. Then came the aerial photograph, the land plat, the graph and the tabulation sheet. In order to keep the cost down, we did not include any photographs other than the aerials. However, additional photographs probably would have improved this study.

All typing was double spaced and the written data was held to a minimum. This study can be completely reviewed in five minutes even by a slow reader, and we believe he will get the message.

In 1963, in connection with several pending condemnation trials involving upwards of \$250,000, we felt justified in asking one of the independent appraisers involved in these trials to make a detailed study of the effects of electric transmission lines on adjacent property. Our pending condemnation trials involved the acquisition of a 145-foot-wide right of way for one 220kv steel tower line and one 66kv steel tower line.

In the same county, within a distance of eight to twelve miles from the properties involved in the condemnations, was an existing right of way varying in width from 155 to 220 feet, on which were located one 220kv steel tower line and one 66kv steel tower line with space remaining for one future 220kv steel tower line. Also within this same area were rights of way for a double circuit 66kv steel tower line and a 66kv wood pole line. These various transmission lines had been constructed more than eight years previously, when the entire area was farm land devoted to citrus and row crops. During the next eight years, subdividers moved in, so that at the time of the study, there were numerous subdivisions in the area. Development had commenced at the westerly side of the area and had moved eastward. The 220kv right of way extended in a more or less northeast/southwest direction, thus passing through lands in all stages of development.

In 1963, the area was only approximately 50% developed and there was an extensive market for raw acreage for residential tract development. The transmission lines traversed both developed and undeveloped lands. From a research point of view, we felt that we had an excellent situation because, within a relatively small area, there existed every stage of residential development from farm land to resales of occupied homes.

The 220kv right of way traversed level land. The steel tower 66kv right of way crossed hilly land and went diagonally through a large subdivision of expensive view homes. The wood pole 66kv right of way crossed low, rolling land developed to very expensive, estate-type homes on 2½ to 10 acre sites. Some of these homes were worth more than \$200,000.

We furnished the appraiser with maps showing the locations of these transmission lines and requested him to make a study of the effects of these lines on adjacent residential property. We suggested that he investigate the purchase of the farm land by the developer, the sales of finished new homes, and the time required to make the sales. Beyond these instructions he was on his own. He was told that he might be asked to testify in court as to his findings.

The result of this request was an 80-page report covering in detail every aspect of the problem. The appraiser investigated and reported on the growth pattern of the area, zoning, development

problems of various properties, financing, and the reasoning employed by people purchasing homes in the area. The original owners of the farm land, the developers, the mortgage loan people and the home purchasers were all interviewed. The results were well documented with photographs, plat maps, graphs and tabulations. The data on sales of new homes took into account the design plan of the home as well as the financing.

One very interesting thing turned up in this investigation, which I do not believe has occurred to anyone before. On one property the transmission line right of way served as a buffer strip between residential and commercial development. Because of the right of way bisecting a property, the owner was able to obtain a commercial zoning for the land on one side of the right of way. If the right of way had not crossed this property, thus serving as a buffer strip, the Planning Commission would have required the entire property to be developed residentially.

The primary purpose of this study was to obtain factual data for use in a condemnation trial. The report contains a great amount of detail which does not lend itself to a quick review by anyone. It is not the type of report you would want to hand out indiscriminately. First of all, duplicates of the original copy cost approximately \$20.00 each. Secondly, the average person not well informed in real estate and appraisal practice terminology would probably get lost in the details. And last but not least, it takes considerable time to review a report of this kind.

We believe this type of study is excellent to hand to an appraiser who has never made such a study, for his review and as a guide in aerial photographs in addition to an aerial photograph on the center of the front cover. The narrative portion of the report is tied in through a numbering system to each photograph. The result is a detailed study that is almost painless for the reader to digest. And, after all, what good is any study if you can't get people to read and understand it?

Mr. Manley's study gives some very interesting data on the effective use of land Economic Studies to justify the route selection for an electric transmission line that may be opposed by a municipality or a large group of property owners. This is an area of great potential use for these studies.

During February of 1964, we received a very professional appearing booklet from Herbert H. Smith Associates of West Trenton, New Jersey. Members of this group are consultants in community planning, urban renewal, market analysis, and economic research.

The twenty-one page study, entitled "Economic Impact of Electric Transmission Facilities," was prepared by Herbert H. Smith Associates for the New Jersey Power and Light Company and the Jersey Central Power and Light Company. Actually this 21 page booklet covering six case studies, is only a portion of a larger study which covered 28 specific development sites. In my opinion, this booklet represents the ultimate for the type of study prepared for random distribution to property owners and representatives of municipal or county governments.

It is beautifully illustrated with photographs carefully taken to show both the type of development and the transmission line facilities. It contains simple land plats showing very clearly the relationship of the properties under study to the transmission line right of way. The sale price is marked on each lot.

The written material is very brief and to the point. A small amount of color was used in the printing process to make the booklet even more attractive.

On the last page of this booklet is a brief paragraph titled, "Conclusion," which reads as follows: "The case studies presented in this report, representative of over seventy similar case studies undertaken, clearly demonstrate that electric transmission facilities do not have any measurable impact upon the value of adjacent properties, whether they be residential, commercial, or industrial. The investigations which led to these conclusions included examinations of properties located throughout the entire service area of New Jersey Power and Light Company and Jersey Central Power and Light Company and included a wide variety of forms and values of residential units. While the sales of properties in a number of these case studies did not provide sufficient evidence upon which to draw conclusions, over two-thirds of the case studies did provide such evidence. In every case, the value of properties immediately adjacent to the electric transmission facility maintained comparable values to identical properties which were removed from the transmission line. The consistent indication in such a large number of case studies can only lead one to the conclusion that electric transmission lines have no effect upon the value of adjacent property."

These Studies that I have just described are the only ones that I have run across in 18 years of right of way work. There may have been others, of course, but I think it's safe to say that we haven't done all we could in this area.

In reviewing the reasons that justify spending money for a Land Economic Study, it appears that there may be some different basic requirements for such a study, depending upon its proposed use.

For example, a study of a several-mile-long section of an existing transmission line, prepared for use in court testimony, may be too detailed and voluminous to hand to a property owner for review. It may require the services of the appraiser who made the study in order to explain it.

The type of Study to be handed to a property owner should cover not more than two or three carefully selected properties. I do not mean selected because they give the answer we are looking for but selected because they are easy to document.

As we all know, some properties are easy to appraise and some are extremely difficult to appraise. The same thing applies to a Land Economic Study.

However, to go to court with a Study that only covers two or three selected properties may imply that a Study on other properties would give different results.

There is also the item of cost. The Study prepared for court use may contain 80 or more pages and be rather costly to duplicate. This would make it too expensive to hand out at random.

Land Economic Studies, as we see them, should present only facts. No opinions should be included. It is therefore extremely important that the data be presented clearly, concisely, and as briefly as possible, so that the reader doesn't have to struggle to form his own opinion.

The answer should stand out like a sore thumb. You might say that some knowledge of the advertising business is required to prepare a study that will be effective.

If you have limited funds to spend on a Land Economic Study, and I believe we are all in this category, you must, of necessity, be very selective. In the case of the Southern California Edison Company, most of our acquisitions for major transmission line rights of way involve land with some potential for residential development. Also, owners of this type of land are the most concerned about the effects of a transmission line on their remainder lands. We therefore felt that our first Studies should be on residential properties.

In Southern California we have land that is ready for immediate residential subdivision; land that is being purchased by large developers for use five to ten years from now; and land which projected growth patterns indicate will be used for residential development in ten to twenty years.

In the first category, the type of development — that is, lot size, street layout, price range of home, etc. — is already known. In the second category, a large percentage of land owners have master plans for development. In the last category, it is difficult, if not impossible, to predict what the eventual development may be.

In Southern California we find people buying large parcels of land, ranging in size from 100 to 3,000 acres, strictly for speculation. The typical speculator is much more concerned with terms than he is with total price. Favorable financing, such as 10% down, interest only for several years, plus potential appreciation in land value, make possible big returns on equity for the speculator, even though the so-called purchase price may be over market at the time. I say so-called purchase price because the low down payments are more representative of an option to purchase.

The whole deal is a gamble. The speculator is not a user. I believe that either due to ignorance or otherwise, his attitude toward a transmission line right of way is entirely different from that of a subdivider. We cannot do much about the "otherwise" except file a condemnation action. The ignorance, however, can be combatted with a well documented Study, presenting the facts. We owe it to the speculator to furnish him with proof that his investment will not be damaged by our right of way.

It would appear that the maximum damage would occur to land ready for immediate development with the least damage occurring to land with a remote time of development. If our studies show no damage to land available for immediate residential development, it would seem that we have also answered the same question for land not yet ready for development.

Those factors which appear to be controlling for residential subdivision are (1) price paid for the raw acreage by the sub-

divider; (2) sale price of the completed house and lot; (3) time required to sell; and (4) the amount of the loan that can be obtained. Now bear in mind that we are not trying to measure any additional development costs with which the subdivider may have been faced. A competent civil engineer can very quickly tell you the cost of any extra grading, street work or loss of lots due to the physical location of the right of way and the transmission structures.

Large subdivisions must be studied in order that a comparison can be made between homes located adjacent to a transmission line right of way and similar homes located some distance away.

In analyzing time of sale, we must take into account the fact that large tracts are usually built and sold in units. Considerable time may lapse between first and last sales. Economic conditions could change during the time it takes to sell the entire subdivision. There may be changes in architectural design and price range of the homes during the sales period.

If there are too many variables of this type, the Study will lose some of its effectiveness, because of the adjustments and explanations required.

The ideal situation would call for a large tract of homes of one architectural style and one price range, all constructed and sold by one sales organization within a relatively short period of time. Any departure from this ideal situation calls for adjustments which tend to weaken the Study. Also, the problem then becomes too complicated for easy understanding. Remember, we believe that the answer should be self-evident from the facts presented. We want the person reviewing the Study to be able to form his own opinion.

IV. WHO NEEDS SUCH A STUDY:

In justifying the expense of a Land Economic Study, one of the big questions to be answered is Just Who Needs Such a Study?

How about the Staff Appraiser? No matter how many years of experience he has, he can still benefit from factual data. Management depends upon the Staff Appraiser for accurate reports and for accurate review of independent appraisals. Why not provide the Staff Appraiser with a good tool?

How about Management itself? Management is responsible for establishing the negotiating price. Why not provide Management with more facts to aid in decision making?

How about the property owner? In most cases, he has absolutely no Prior experience with a right of way. It's only natural that he will believe the worst. Property owners today are much more sophisticated than they were twenty years ago. They know all about future development plans for their areas. Most of them are thinking in terms of future development of their own property. Don't we have an obligation to furnish the property owner with factual data concerning the effects of a right of way on the future development of his property?

How about the Right of Way Agent who is out on the firing line? He certainly needs factual data that cannot be disputed.

Then there is the attorney who handles the condemnation cases. Why not provide him with some factual data and exhibits to present as evidence in place of opinion?

Last, but not least, is the independent appraiser. We do not like to ever be in the position of trying to influence an independent appraiser. However, we see nothing wrong in furnishing him with factual data, or asking him to make his own Land Economic Study.

On condemnation cases for which we hire independent appraisers who have never made a Study, we sometimes send such appraisers a copy of a previous study.

All you are asking the appraiser to do is to acquire factual data. It is absolutely essential that the appraiser be armed with factual data when appearing in court as an expert witness. Unsubstantiated opinions don't stack up too well against facts. I know at least two appraisers whose opinions changed drastically after making such a study.

Then there are the independent appraisers who, for one reason or another, have not been directly exposed to Land Economic Studies. I believe some effort should be made to inform this group because some time in the future they may be called upon to make a right of way appraisal. One way to inform this group is to arrange for an appraiser who has made such a study to give a talk at one of the appraisers' meetings or conferences.

V. CONCLUDING REMARKS

I believe that so far we have only scratched the surface in the field of Land Economic Studies. To do the job right will require considerable effort on the part of all right of way people. It will require a selling job to convince management that money should be spent for this purpose. Those organizations that have made studies and have achieved some degree of success in their use can certainly help by spreading the good word around.

The Impact of Natural Gas Transmission Pipe Line Rights of Way on Land Values

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I should like to preface my remarks regarding the impact of natural gas transmission pipe line rights of way on land values with some of my "not qualifications" —

First, I am *not* an appraiser; I am *not* a real estate developer, *nor* a consultant or associated with consultants in economic research, market analysis, urban renewal or community planning.

My experience limits my "expertness" to the fields of Right of Way Negotiation, Damage and Administration involving a natural gas transmission pipe line company.

Perhaps, because of this limitation, some of the thoughts and/or facts brought out today may be of some value to you.

Due, in part, to my aforementioned "not qualifications," I should, through necessity, revise the title or heading of my remarks from "The Impact of Natural Gas Transmission Pipe Line Rights of Way on Land Values" to only "The Impact of Natural Gas Transmission Pipe Line Rights of Way on Land" — and by that we shall deal with the effect or impact of natural gas pipe lines on various general types of land uses and leave the conclusions, as to specific values and economics, for each of you to arrive at on the basis of your individual experience and "not qualifications."

After considerable thought, it was decided a discussion of the four general types of land encountered in connection with a

cross-country natural gas transmission pipe line would be of more interest to a group such as we have here today rather than a cold recitation of dollar values and the specific economics having to do with specific lots, within a specific subdivision, planned around and possibly overlaying a specific pipe line and all being within a specific part of the country. In view of this, we shall briefly discuss the effect or impact of a natural gas transmission pipe line upon those lands divided into general categories and identified as — I. Ranch or Range Lands; II. Speculative Range Land Enterprises; III. Agricultural Lands; and IV. Housing Subdivision Land.

TYPE I — RANCH OR RANGE LANDS

The type of land use we are referring to here is the large ranching operation utilizing the land exclusively for the raising of livestock. Those items having a bearing upon the impact of a pipe line on this type land as follows:

First, remember the pipe line is buried underground to a depth usually in excess of 2½ feet. The initial construction of the pipe line results in a temporary inconvenience and also in a loss of grass. It is customary to affect a damage settlement covering these items. This temporary loss has no bearing on the impact of the pipe line upon the land use when you consider the pipe line will be there for 30 years, 50 years or even longer. It is this long range — overall effect we should strive to determine. Also consider a pipe line is a silent installation; it does not bother, interrupt or interfere with the varied operations carried on over the pipe line. The operation of the pipe line by the transmission company is, for the most part, confined to periodic inspection and occasional maintenance which are accomplished with little or no interference to the ranching operation.

One phase of a pipe line company's work which actually aids in ranching is the construction of what we call patrol or maintenance roads. These are merely dirt roads along and adjacent to the pipe line which are used in patrolling and/or maintaining the pipe line.

It is a well known fact that large ranches are divided into several separate pastures, some of which are a considerable distance from the ranch headquarters. It is indeed rare that a rancher does not find it advantageous to use the pipe line road as access to outlying pastures or as a convenient means of passage from one pasture to another. The rancher has no expense as regards the maintenance of the road and his use of it certainly reduces his expenses for repairs to his pick-ups and other vehicles used in connection with his ranching operations.

To expedite the passage of pipe line maintenance vehicles, as well as the rancher's equipment, it is obviously necessary to install gates in those fences crossed by the rights of way. To protect the rancher from unwanted guests (rustlers, hunters, picnickers, lovers, etc.), it is customary that the pipe line company place chains and padlocks on all gates and give the rancher a duplicate key.

It is my conclusion the value of a ranch unit is not adversely affected by the existence of a pipe line. In all probability the related benefits, such as use of the patrol roads and the possibility of being able to obtain, by purchase, a continuous supply of natural gas from the pipe line, for use at ranch headquarters for cooking, heating and as fuel for pumping water wells, would actually be an asset to such ranch unit.

TYPE II — SPECULATIVE RANGE LAND ENTERPRISES

Here I have reference to the wide open spaces or more aptly — the wide open *speculative* spaces. In the last few years there have been many speculative land promotion sales in the Western United States. Some of these promoters are legitimate and have an honest desire to benefit the community in which they operate. Others leave a lot to be desired in the way of advertising their properties and in the manner in which they represent — and often *misrepresent* — the facts. Both types seem to have a liking for those areas having natural gas and/or electric transmission facilities. This is only logical when you realize some states, in an effort to protect their citizens, require any lands being offered for residential purposes to have utilities and public roads available prior to permitting the advertising of those lands within the state. In order to conform to this requirement or should I say get around it, these developers subdivide lands adjacent to or through which natural gas or electric transmission lines extend and thus fill the requirement of having utilities in the area. The maintenance roads, located upon the pipe, power or telephone line rights of way are represented to be the required "public roads" and thus they have the essentials of a good — but quite misleading — advertisement. We all can pity the unsuspecting elderly couple who purchase such land for retirement purposes, but there are some who buy such land with the speculative nature of their long term purchase well known to them. It is their thought that 10 or 20 years from purchase date, the land might be in demand for another use such as industrial. With this in mind they want and purchase larger areas in very close proximity to the natural gas transmission facilities.

The conclusion drawn here is that whether honest or not, promotions of western range lands into tracts of ½, 1, 5 or 10 acres are aided and sometimes entirely dependent upon the existence of natural gas transmission pipe lines. I know from personal knowledge that one of the larger companies dealing in such speculative land development has located 5 of its 6 multi-thousand acre projects on lands through which the facilities of our Company extend. Now to state unequivocally that such development is predicated solely upon the existence of a natural gas transmission pipe line, I cannot do. There are, however, many thousands of acres of similar lands located adjacent to these developments which were available at the same price. This would indeed seem to lend to the conclusion that the promotion of ranch lands for speculative subdivision purposes is at least in part contingent upon the existence of natural gas and/or electric transmission lines and their related facilities.

TYPE III — AGRICULTURAL LAND

In many of the farming areas where pipe lines have been constructed, there is no evidence on the surface to indicate the existence of the underground facilities. It is in fact, sometimes difficult for the maintenance personnel of pipe line companies to locate their pipe lines.

This is due, in part, to construction practices which have been

adopted so as to do the least possible damage to the farming areas. In this connection, I am speaking of such things as double ditching, which is the replacing of the soil in the same part of the ditch from which it was taken — that is, the top soil put back on the top portion; of water settling the ditch to insure that the back-filled ditch will not settle at a later date and cause the farmer trouble; and of non-interference during irrigation by providing water cross-overs to fields on both sides of the right of way. It is obvious the pipe line will be buried to a depth where no interference with plowing or other farming activities will occur.

In addition to these "non-interference" methods employed by the pipe line company, the farmer can often take advantage of natural gas as a fuel for his irrigation pumps and save many dollars in fuel costs.

It is my opinion we have here a situation which is similar to that previously discussed with respect to ranch lands. That is, once installed, natural gas pipe lines have no adverse effect on the operation or value of a farming unit and if such farm makes use of irrigation, then the availability of natural gas must certainly enhance the value of the unit.

TYPE IV — HOUSING SUBDIVISION LAND

Since the end of World War II the population explosion and the population shift has swept the entire western part of the United States. It has created new markets, new industries and new demands for housing. It is through this last category — housing — that problems have emerged affecting not only the natural gas industry, but other utility companies as well. The main problem I speak of is that of the sudden encroachment of seemingly innumerable subdivisions over and around natural gas transmission pipe lines.

Main natural gas transmission pipe lines are usually constructed so as to skirt the boundaries of cities, towns or other concentrated communities. They must be close enough, however, to provide economical service to these areas. The continuous building programs prevalent in practically every area in our Western States has resulted in, for the most part, an orderly extension of the residential areas together with shopping centers, streets, utilities, schools and all of the other facilities we have come to expect of real estate developers. These developers and the pipe line companies have come to realize the necessity for proper liaison in order to work out the mutual problems confronting both. We in the Right of Way profession spend a lot of time talking about "lead time." If a developer will give himself adequate lead time and request the assistance of the pipe line company in helping him design a plan for the development of his land with the least interference to the pipe line, he will often be able to obtain maximum utilization of the area. In many cases the presence of the pipe line will result in a previously unplanned enhancement. The placing of a pipe line within a median not only allows the pipe line company adequate space to work on its line should it become necessary, but also results in the establishment of a boulevard which gives a neighborhood a more elegant appearance. Obviously such an enhancement would command an increase more than adequate to offset the value of the extra width of the street.

I am certain most of you would agree the foregoing would be the ideal situation, however, you would more readily agree it is not being followed in the majority of cases. You and I both know there are instances where the right of way, due to alignment or for other reasons, results in an area of very limited co-use extending through a subdivision. It is the opinion of some people that there would be a reluctance on the part of the public to buy a lot abutting such area and also that the price would have to be reduced to induce purchase. I personally disagree with such opinion and would remind you of the old song entitled, "For Every Man There's a Woman" as a correlary to the yet unwritten song which will be entitled, "For Every Man There's a Lot." One person's dislikes are another man's likes. One person would not want the lot next to the open area consisting of a pipe line right of way, while another person would jump at a chance to pay the price of one lot and by so doing gain the privacy afforded by the right of way which is located between him and his neighbor and also possibly the use of such area as a croquet course or similar use.

Subdivisions planned with little or no liaison with utility companies usually produce a multitude of problems and bad feelings. If no advance planning is made prior to laying out the subdivision, trouble and delay may be encountered in initial construction of the streets, curbs and sewer lines as they may be in conflict with the underground pipe line. Also if arrangements are not properly made any maintenance work that is necessary to

the pipe line must be made in areas such as backyards or in streets where rather extensive damage is done to the developed area. Naturally someone stands the cost of such damages.

The conclusion drawn here is that proper liaison between the developer and the pipe line company will very likely result in the harmonious settlement of problems resulting from the existence

of a pipe line without appreciable loss of value to the developer.

I have now conveyed to you my thought regarding the impact on the four general types of land. I sincerely hope my statements are not all accepted "carte blanche" by you, and that you will now express your opinions and relate your experiences in this regard so that we all might have the benefit of several ideas rather than only those of the members of the panel.

Research Techniques for Private Utility Studies

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Introduction

A popular song of a few years back had a refrain which went: "It ain't what you do, it's the way that you do it; that's what gets results." In the case of utility impact studies, however, *both* what you do *and* how you do it matter. Therefore, even though the topic of this discussion centers on the "how" of research, the questions of "what" and "why" cannot be overlooked.

Technique Based on Purpose

Indeed, the purpose of the research will generally influence the technique that is appropriate. The objective indicates what is to be done, and then the state of the arts in research activity indicates how best this can be accomplished. Beyond this shaping of technique by the objectives, there are limitations or restraints put on any research undertaking based on the amount of time available to do the work, the personnel involved (both their numbers and their abilities), the availability of data in the company's files, and of course money.

Applications to Other Problems

Research technique and methodology therefore depend on the nature of the problem to be solved, the uses to which the results are to be put, and the state of the arts at the time of the research. These remarks are based on a combination of experience in an electric utility impact study in Connecticut, a sewer impact study in Connecticut, several years of activity in appraisal research and (perhaps most important) a detailed investigation into the current literature on utility right-of-way impact studies. A major argument in this presentation is that some such background is absolutely essential in carrying out research into a market impact of utility rights of way.

Although the focus of this discussion is on tower lines, by which we mean overhead electric transmission lines of at least 69 KV capacity, the basic principles and techniques *are* applicable to other utility right of way impact studies. There will be some variation in the content of specific questions that may be asked, but the fundamentals are exactly the same.

Research vs. Fact-Finding

As a final introductory comment, it is important to note that the discussion will center on research, and not mere fact-finding or data-gathering. Research consists of testing hypotheses and gathering information within a framework of theory. The theory, among its other important functions, indicates what information will be necessary to do the most effective job in the research. The framework of theory involved in this instance is partly the result of deductive logic and partly the result of inductive analysis from the research findings of others. The term "theory" is not

simply a label to justify or to rationalize a specific, given conclusion, no matter how attractive or desirable that conclusion may be for the sponsor.

A major argument here is that theory can be the most important single basis for efficient and useful research. By indicating what is or should be important, and what can or should be ignored, a good framework of value theory in the field of real estate will make utility impact research substantially more efficient.

An Illustration: Questionnaire Construction

For example, the research on which much of this discussion is based utilized a series of questionnaires to obtain a great deal of field information. Analysis of the activity in many real estate markets led to the inevitable conclusion that the *attitudes* of home owners, home buyers and home sellers were extremely important in influencing the sales prices of houses both within and outside the area of impact of tower lines and their rights of way. Accordingly, a considerable amount of time was devoted to the development of a questionnaire asking what were considered to be the right sort of questions. These included efforts to find out "why" as well as "what." In addition, there was a built-in check against information obtained from other sources. The questions included in this home owner questionnaire are indicated in Exhibit 1.

On the basis that attitudes of participants in the real estate market who might influence individual home purchasers or sellers are also important, questionnaires were sent to an appropriate cross-section of Realtors, appraisers, bankers, builder-developers and tax assessors. While the results are probably not as definitive as might be hoped, a good representation of the state of the market emerges. Once again, questions were asked involving "why" as well as factual questions of "what" is done. Exhibits 2-6 show the questions asked of each of these groups.

It is easy to argue with the attitudes themselves, if one does not believe that they are based on fact. Nevertheless, the existence of these attitudes is a fact. Their influence on market decisions, and hence on market values and prices, is certainly supported by the entire body of appraisal theory and analysis.

This is simply one example of the distinction between research and "fact finding." If the results of the research are to provide a basis for appropriate corrective action, they must go considerably beyond a mere tabulation of readily-ascertained fact.

Purpose and Uses of Tower Line Impact Studies

An impact study seeks to identify and measure the effect (if any) of proximity of tower line rights of way on the value of adjacent residential properties, as well as on the future development of impacted acreage for residential purposes. A "tower line" is an overhead transmission with at least 69 KV capacity. The actual structures may be steel towers or wooden H-frames.

Why study this effect? The first major purpose is to find out whether there *is* any negative impact. It cannot be assumed in advance, given the present state of know evidence. If there is any effect, then the problem is to find out what form it takes, and under what conditions it is most likely to occur. Finally, what can be done to reduce or minimize this effect in the future?

This is not an abstract problem. It has application and meaning to operating companies. Its resolution can save money, and possibly avoid controversy. A utility company can also discover (or decide) when it makes no sense to fight. The whole approach is based on the idea that costs can be minimized, or at least reduced, when good information is available. Therefore, the findings can and will be applied to influence decisions and policy. Businessmen usually make better decisions when they do have the facts because there is less waste of effort or of resources.

Uses of Findings

There are three important uses of the results of these studies: in preventive law; in actual litigation (testimony and cross-examination); and in providing guides to staff or fee appraisers.

The preventive law application lies in forestalling unreasonable local development regulations based on the premise that proximity to a tower line automatically or "naturally" reduces value. In litigation, which is the test during an actual trial when damages to impacted property or to a remainder are claimed as the basis for larger amounts of compensation, the central issue is the value loss (or damages) suffered by the remainder. The advisory or advance guidance function applies to assistance given to appraisers, negotiators and attorneys.

Applicability of Findings

In every instance, the applicability of the research depends on the completeness and the reliability of the work done. If it has been done properly, there is a high degree of transferability of findings from one study (or a series of studies) to another. This, after all, is the concept that underlies all Land Economic Studies. These Land Economic Studies, in turn, are simply applications of the Market Data or Sales Comparison approach in appraising to large numbers of cases.

Advantages of Land Economic Impact Studies

Land Economic Studies, properly applied, have one major advantage over the Market Data or Sales Comparison approach as it is normally employed: the large numbers of observations involved permit legitimate application of statistical analysis and generalization. Still, the Principle of Substitution remains the basis for this approach.

From properly conceived and executed Land Economic Studies, or Before-and-After studies, one can appropriately generalize about the market and its trends. The analysis does not become mired in the details or minutiae of comparability of one property to another. Rather there is comparability of one *situation* to another.

Need For Full Coverage

If statistical analysis is to be valid, however, and transferability to be supported by professional researchers (not just apologists for or employees of a private utility, who may be regarded as having a vested interest in the results), there must be full and complete data coverage. First of all, statistical theory requires it, as already noted.

Secondly, there must be a good research design. In an area of analysis where controversy still exists and where results are far from universally accepted, the usefulness of *any* study depends on its acceptance by others. Therefore, the research must cover as many possible aspects of the problem as good practice demands.

The coverage must encompass the various kinds of cases or situations that theory, and preliminary investigations of new areas, indicate are appropriate and meaningful. The test of similarity or comparability applies at the physical (property characteristics), economic (market characteristics) and legal (rights being appraised) levels.

Data Accuracy

Beyond this, the data must be carefully verified. Facts must be checked and re-checked. If doubt can be cast on one small item that represents a factual error — especially from omission or incompleteness — then doubt may be spread over the whole analysis.

All record data must be accurate. Field checks are mandatory (not limited by time or money, but by the ability at the start to inspect). There must be personal verification of facts. The accuracy of all computations and calculations has to be carefully checked. There should be a system of internal checks in the research design itself.

Adequacy of Resources

Similar discussions of this problem in over 40 other studies that have been carefully studied contain this recurring theme: Don't skimp. The budget should be more than minimal. The staff should have the proper skills. There should be sufficient staff. The research should cover the problem from all angles (e.g. photograph the rights of way being studied from inspection helicopters; study the properties in the field as well as on records).

Finally, there must be a reasonable and realistic time schedule. Hurried work can be as erroneous or skimpy as work with an insufficient staff. The stakes are too high, after all, to justify "saving" a few thousand dollars on the research.

Continuing Research

Actually, if it is to be valuable to the company at all, and if the company ever plans any new lines or expansion of existing rights of way, then research should be a *continuing* process. This will considerably enhance the availability of good and current data. A good data file is ready to cope with immediate problems as they crop up. Even a minimal study will require three to four

months with a good full-time staff. Continuing work is therefore necessary to keep the findings useful and applicable as the market changes. This is simply good economics in protecting a significant investment.

Data Gathering

The data program must also be carefully designed so that different people at different times and in different places (not necessarily specially skilled or trained, and certainly not too closely supervised) can gather necessary data in a consistent, comparable way. To be appropriate and economical, this should be capable of being carried out by staff personnel. This does not refer to the analysis or the conclusions, or to the research design, but simply to the gathering, verification and tabulation of data.

Need for Objectivity

With obviously differing viewpoints involved, the findings of any impact study to be presented by a utility company to be as free from the taint of bias as is possible. This means that outside, independent research personnel must be employed. Otherwise, the whole study may well be suspect.

Use of Outsiders

The "outsiders" used may be appraisers, economic consultants, and/or university research personnel. Their selection depends on the availability of necessary skills. They must be independent and free to seek answers wherever the market leads. The results should be published. There is a difference between honoring confidentiality and suppressing evidence.

Once the basic problem and its scope are outlined, the less participation by the sponsor in the research — save only providing personnel for data-gathering and information from company records — the more likely the results are to be regarded as acceptable by others.

Background Analysis

Since the criteria of efficiency and of full coverage call for a research project that is "best" to cover the problem at hand, it is imperative that a search of the existing literature be carried out. Reported studies in this area are sparse, and much good work that has been done has not been given wide circulation. Nevertheless, we managed to find over 30 applicable studies, as well as an additional dozen related articles, by dint of extensive and intensive inquiry. It took some six weeks and a considerable amount of tenacity in following leads to develop this bibliography.

In addition, our inquiries led to a number of statements in letters as well as several personal interviews that provided further insights. This approach to the work of others offers information about such things as:

- How the problem might reasonably be attacked;
- What techniques of analysis seem to make most sense;
- What data appear to be readily available, and where and how they might be obtained;
- What difficulties may be encountered, and possibly avoided by being anticipated;
- What findings have emerged, and what patterns they take;
- What working hypotheses make most sense in present case.

The new study adds little or nothing if it is "just another" Before-and-After analysis. It should build upon and improve upon previous work. Generalization and applicability are broadened when factors *suggested* in earlier studies can subsequently be *tested*.

Valuation Theory

The appropriate methodology to be applied in a given situation cannot be considered independently of the substance of the problem. In this instance, if there are any damages accruing to the remainder, they are best measured by Market Value Before and After the Taking. This involves the application of appraisal theory.

Appraising involves estimating Market Value of a given pattern of rights in realty as of a given date. First, therefore, Market Value as a concept must be agreed upon. In particular, it must be distinguished from one individual Sales Price or Market Price, and from "Value" to the affected property owner.

The existence of a market, and of market judgments, is the critical point here. It is *not* necessary for a property adjacent to, or otherwise affected by, a tower line to appeal to *all* potential purchasers for a market for the property to exist. The individual owner need not like it, either.

Measurable Difference

The question is also not whether there is *any* difference between two properties or two groups of properties: one near or affected by the tower line and the other not so affected. Of course, there is a difference. No two pieces of real estate (improved or unimproved) are exactly alike. The real question is this: Is the

difference sufficient to be reflected in sales price or *any other measure* that goes into the concept of Market Value. Moreover, is this reflection systematic and widespread enough for generalization?

Market Value

Sales price or transfer price is only *one* ingredient in the concept of Market Value, as Exhibit 7 clearly shows. This brings out one defect in most previous studies that have been reported to date. Their almost universal conclusion that the impact on remainders is so slight as to be negligible may well be correct. However, they concentrate almost exclusively on sales price. Questions of time or timing, rates of market absorption, control area (market levels) and discounting of the future are for the most part ignored.

Market valuation, whatever the mechanical measurement approach employed, requires close comparability or competitiveness among properties for proper application of the Principle of Substitution. Therefore, careful attention must be paid to the physical characteristics of the properties being compared, the market conditions under which they sold, the terms of the transactions (financing, down payments, etc.), and the rights being appraised.

Market Value also requires that buyers and sellers be fully informed and act rationally (i.e., in terms of the economic facts of the market place), and not on the basis of emotion, personal prejudice or fear of the future.

Value may also be represented as the present worth of anticipated future returns. With land suitable for development but not yet developed, impact is often appropriately measured through any change in the number or type of lots that may be developed. Here we must consider what a hypothetical "typical" informed purchaser-investor would do: obtain expert advice on the most effective layout of the land.

Control Areas

Since we are dealing with Market Value, an indication of what the market is and is doing constitutes an important ingredient in the analysis. Control areas are therefore most important. How can any market impact that may legitimately be ascribed to the existence or intrusion of a tower line be identified and measured, unless the experience of otherwise identical properties on the same market at the same time is recorded and analyzed?

Indeed, this type of approach is also required in identifying the boundaries of the area of impact. How far distant from a tower line or from a right of way is any measurable impact felt? For proposed developments on acreage traversed or abutted by a tower line right of way, this issue can be most significant.

Research Design

In seeking to estimate market value before and after the taking, applicable theory indicates what data are meaningful and therefore required. Time does not permit discussion of these measures, but many are listed here as a guide to what should be carefully considered for inclusion in the research:

- Sales price before and after acquisition or widening of right of way;
- Sales price before and after construction of towers within the right of way;
- Sales price of lots, of acreage, of improved properties;
- Changes in sales price over time (resales of same properties);
- Sales prices and changes in sales prices of properties traversed by, abutted by, and at varying distances from both the towers and the right of way;
- Sales prices when visual impact is present and when absent (towers screened);
- Timing of sales within new developments, of new developments, of construction within new developments;
- Absorption periods of lots, new houses or existing houses on properties traversed by, abutted by, and at varying distances from towers and from rights of way;
- Variations in improvements on properties at varying distances from towers and from rights of way;
- Variations in size of lots at varying distances from towers and from rights of way;
- Variations by width of right of way, height of towers, type of construction.

In other words, the research seeks to identify the kinds of influence that may occur, and by whom it will be felt. The research should be designed so that there are internal checks of facts as well as checks against findings in other studies. The issue is basically whether there is any systematic, predictable pattern of measurable impact on residential properties that can definitely be

associated with proximity to tower line rights of way. As indicated earlier, the more comprehensive the coverage, the wider the applicability of the findings.

Attitude Analysis

All of this analysis has been oriented toward the discoverable facts of the market place. While such information is basic to any impact or land economic study, it covers only part of the problem. The other and equally important part consists of the attitude and reactions of participants in the residential real estate market toward tower line rights of way. It really does not matter that they may be uninformed or inaccurate judgments, at variance with the "facts" of the market. Buyers and sellers base their actions on their expectations and anticipations. If fear is a widespread influence, whether justified or not, it will affect value adversely.

These attitudes must be *market* attitudes, and *not* the specific views of any individual property owner, or potential purchaser. Moreover, the attitudes and convictions of real estate brokers, appraisers, lenders and builder-developers tend to create the market environment in which buyers and sellers operate. So they influence principals in real estate transactions, and hence values. This is why we conducted a mail questionnaire survey of builders, appraisers, Realtors, and lenders — as well as home owners — in the Connecticut study to develop consensus views.

There are, in brief, many separate and separable (at least for analytical purposes) parts of Before-and-After analysis in tower line right of way impact studies. In setting up the research, a major task is to differentiate them clearly and carefully, and then to cover each appropriately. As already indicated, statistical analysis and generalization become feasible as the volume of data generated and subjected to analysis increases.

Hypotheses

Any research project involves testing of working hypotheses. These are more meaningful and more likely to result in useful findings when they are based on previous research, coupled with substantive knowledge of the problem. If the results are to be applied in attempts to settle highly controversial, hotly debated issues (such as is the case with tower line impact studies), a further dimension is added. It is more defensible, and more likely to lead to convincing results, to start with hypotheses that do not assume that one's own wishes or desires will be fully realized.

In other words, for best results in impact studies, do *not* hypothesize that there is *no* impact. Rather, assume that an impact exists and try to measure it from every reasonable angle. If the answer in each instance approximates zero, fine. But the desire to achieve a given result can so bias the research design and the research itself that the whole project may well be questionable, and hence a waste of time and effort.

The results of previous studies, including our Connecticut research, really tend toward a broad generalization that "It All Depends." The issue then becomes: "On What?" Detailed breakdown of the problem into the kinds of questions already enumerated should yield the proper guides to the answer.

In particular, hypotheses that attitudes *do* influence value, but that they may be at variance with other facts of the market, would appear to elicit the maximum usable information, *provided* the research design is really based on testing these hypotheses.

From already completed studies, other generalizations or views to test include:

- The nature of rights to be acquired influences the reaction of property owners significantly;
- Tax assessment policies have a greater impact than does the actual taking;
- Visual impact is a greater influence on value than is physical proximity;
- Fear (or negative anticipation) is a positive force that must be carefully overcome with detailed factual information;
- Selling price is much less likely to vary than is lot size, absorption period, or timing of sales;
- Proximate or "impacted" land and lots are developed last;
- Negative market influences exerted by lenders, brokers and appraisers are greatest from those with little or no actual experience with properties adjacent to tower lines;
- The impact on traversed or abutted residential properties depends on how valuable — or scarce — residential land happens to be.

Handling of Data

In addition to the kinds of data to be assembled, and the manner in which these data should be gathered, one must also consider the proper handling of the data. How best can they be manipulated to yield the most meaningful results? An easy answer

is to run them through a computer. But this actually tells us nothing unless we consider once again the research design and the framework within which the data are to be analyzed. In other words, what is to be added to, subtracted from, multiplied by, or divided by what? And why?

Comparability

How do the data gathered fit in with those employed in other studies? Techniques cannot be lifted from other analyses unless both the problem and the data are comparable. This requires careful identification of rights to be acquired, as well as the properties and market conditions being compared.

The delineation and use of control areas to provide an indication of the nature of the market — either at a given point in time or over time — is extremely important. This provides the basis for measuring whatever difference can be attributed to the tower line. If subdivisions traversed or abutted by the right of way are large enough, built-in controls as well as tests of many sub-hypotheses are provided.

Verification of guides or leads from the public records is a necessary ingredient in preparing the data for analysis. This provides for physical inspection while interviewing the property owner or developer.

Analysis of the data, other than simple tabulation, must be carried out by (or under the supervision of) the outside consultants. Staff personnel can and should provide as much assistance as possible, but only in providing information to the independent analyst.

On questionnaire surveys, 100% returns are not necessary for good and meaningful results to be derived, provided the sample is large enough. Staff personnel should also go over all the questionnaire or interview returns at some point because they contain valuable leads to sources of difficulty with individual property owners: e.g., noise (humming), unsightliness, fear of "leakage" and the like. From this source, corrective or explanatory measures may be identified and programs instituted before serious problems develop.

The analysis may compare sales prices of the same property over time. It may compare sales of different but similar properties at a given period, as in the case of a new subdivision. It may compare sales of different but similar properties over time. This last is the easiest information to obtain, and the least reliable. It requires more generalization and more averaging. Several hundred observations are required before any meaningful and defensible conclusions can be drawn.

Summary Observations

Analysis of the market is basic and absolutely essential.

Attitudes are important and should be studied; they are facts of the market place.

The study should always build on known results of others.

Objectivity is mandatory.

The analysis can be only as good as the data.

A good theoretical framework, and reasonable working hypotheses, are essential.

Originality, adaptability and sensitivity to the market are necessary.

Field work is required to check claims of residents from questionnaires and to verify record data.

Continuing study is needed to keep studies current, useful, and therefore worth the effort.

Transferability requires the ability to average and to generalize, and hence requires large numbers of observations.

Full reporting or distribution of all findings is required.

The ultimate test of impact studies is acceptability and usability in court, or (preferably) avoidance of the necessity of going to court.

ADDENDUM

Some Additional Findings and Conclusions

While not entirely pertinent to a discussion of impact study techniques and methodology, the following generalizations may shed further light on the proper approach to future studies. They are based on a combination of reading some 30 earlier studies conducted by and for electric companies throughout the United States, plus the results of the University of Connecticut study of 18 subdivisions containing some 2000 houses.

1. The value of most residential properties is not appreciably (or measurably) affected adversely by adjacency to, or intrusion of, overhead electric transmission facilities. Where land for future residential development is involved, damages beyond the value of the actual taking are typically not encountered.

2. Such negative impact as is experienced is more likely to be expressed in terms of restricted use, higher relative tax burden, slower market absorption, later development or less intensive development. This translates to reduced value only when and if future use and/or development is markedly affected.
3. For residential use, considerations of aesthetics and/or living amenities are the most important forces in negative reactions. In particular, visual and auditory impacts appear to be much greater sales or value deterrents than does actual physical proximity to the right of way.
4. Attitudes of those who may, and often do, influence residential property sales are generally much more negative than the facts of the market place would appear to warrant. Realtors, appraisers and lenders do exert considerable influence on potential buyers, and on sellers as well. Interestingly, those who seem to be most convinced of the negative impact or undesirability of the adjacency of tower lines are those who by their own admission choose not to participate in transactions involving "impacted" properties.
5. On the other hand, tax assessor, builders and most affected home owners are reasonably strong in their beliefs that the negative impact on residential values (whether land alone or improved properties) is either negligible or non-existent. The great majority of respondent-owners of homes close to tower lines report general satisfaction with their locations. Moreover, these home owners indicate general willingness to purchase in the same or a similar location should the necessity arise again. Those few who do not agree, however, are particularly emphatic in the intensity, and even bitterness, of their adverse reactions.
6. A clear-cut necessity exists to reconcile the evidence of the market place with the attitudes of many who influence residential real estate transactions. This can conceivably reduce the actual impact by broadening the potential market and making loan funds more readily available for residential transactions, whether transfers of existing houses or development of new houses.
7. The anticipation or fear of an impending, proposed right-of-way change almost invariably results in a greater negative impact on nearby residential property values than does the actual change when it occurs. Moreover, the effect on nearby properties does not worsen with the passage of time or after the erection of structures in the right of way. This emphasizes the responsibility to disseminate impact study findings widely and fully to *all* sources of influence on the decision to purchase impacted properties.
8. All findings of such studies should be fully and publicly reported, if they are to be truly useful in altering the pattern of attitudes and of reactions to impending right of way developments. Moreover, the studies themselves must be designed and carried out to cover *all* aspects of the issue. Only if they appear to be — and are — completely objective and comprehensive in coverage can their acceptance and use legitimately be expected.

EXHIBIT 1

QUESTIONS ASKED OF 840 HOME OWNERS (385 REPLIES):

1. Why did you purchase this particular house?
2. At the time of your purchase, were you aware that there was an electric tower line right of way nearby?

IF YOUR ANSWER TO QUESTION 2 IS "YES":

3. Did the presence of the right of way have any effect on your decision to buy or the price you paid?
 - a. If "yes," please explain.

IF YOUR ANSWER TO QUESTION 2 IS "NO":

4. Would you have bought the house for the same price had you known?
 - a. If not, please explain.
5. Would you buy in this location again if you had the decision to make again?
6. Were houses available in other parts of this development at the time you purchased?
 - a. If "Yes," why did you buy this house?
7. Have you made improvements on the property since you bought it?
 - a. Did the proximity of the tower line influence your decision?
8. Did you encounter any difficulty in obtaining a mortgage?
 - a. If "Yes," why?
9. Were you influenced by a real estate broker, appraiser, or builder in making your decision to purchase this house?
 - a. If "Yes," please explain.

10. Please confirm:
 - a. Date of Purchase
 - b. Purchase Price
 - c. Type of Mortgage
 - d. Amount of Mortgage
 - e. Interest Rate

EXHIBIT 2

QUESTIONS ASKED OF 48 APPRAISERS (26 REPLIES):

1. In your professional judgment, based on whatever experience you may have, does adjacency to (i.e., abutting) an electric tower line right of way have a negative impact on the value of:
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. Developed residential property?
2. Does a tower line traversing or intersecting the property negatively affect the value of:
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. Developed residential property?
3. In the development and subsequent sale of single-family residential properties abutted or traversed by tower line rights of way, is there any negative impact on:
 - a. Price level of houses?
 - b. Rate of market absorption of houses?
 - c. Availability of financing?
 - d. Relative tax burden?
 - e. Timing of development of subdivisions?
4. If a tower line right of way is acquired by the utility company in fee, are there damages to the remainder stemming from the character of the right of way?

PLEASE EXPLAIN YOUR ANSWERS.

EXHIBIT 3

QUESTIONS ASKED OF 197 ASSESSORS (84 REPLIES):

1. Do you ever vary (i.e., reduce) the assessment of residential lots intersected by a tower line right of way?
 - a. Why or why not?
2. Do you ever vary (i.e., reduce) the assessment of residential lots abutted by or just adjacent to a tower line right of way?
 - a. Why or why not?
3. Do you every vary (i.e., reduce) the assessment of acreage suitable for residential development which is intersected by a tower line right of way?
 - a. Why or why not?
4. If your answer to any of the above was "yes," please explain the *basis* for the variation and the *amount* of variation from 100% valuation.
5. Does adjacency to a tower line right of way reduce the value of abutted or intersected residential property?
 - a. Why or why not?
 - b. If your answer was "yes," on what do you base this conclusion.

EXHIBIT 4

QUESTIONS ASKED OF 125 BUILDER-DEVELOPERS (31 REPLIES):

1. Have you ever developed for single-family residences only land abutted by or traversed by an electric tower line right of way?
 - a. If "no," have your purposely avoided such sites? Why?
 2. In planning a single-family residential development, would the presence of a tower line right of way on or abutting the land have an impact on:
 - a. The price offered for the land?
 - b. The price level of the houses to be developed?
 - c. The size of lots?
 - d. The sales price of individual properties?
 - e. The staging of the development?
 - f. The timing of the entire development?
 - g. The anticipated rate of absorption of houses?
 - h. The layout and plan of the development?
 - i. The ability to attract construction financing?
 - j. The ability to attract permanent financing?
 - k. The decision to develop the property at all?
- If your answer to any of the above is "yes," please explain.

EXHIBIT 5

QUESTIONS ASKED OF 146 LENDING INSTITUTIONS (85 REPLIES):

1. Does your institution vary its mortgage/construction loan terms or lending policy if an electric tower line right of way traverses (intersects):
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. New residential developments?
 - d. Existing single-family properties?
2. Does your institution vary its mortgage/construction loan terms or lending policy if an electric tower line right of way abuts?
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. New residential developments?
 - d. Existing single-family properties?
3. Does your institution care whether a tower line right of way abuts or traverses a property for which a loan application is received?
4. If you have answered "yes" to any question above, please explain and specify the *kind* of reaction.
5. Does an adjacent tower line right of way have any negative impact on the value of residential land or existing residences? Please explain.

EXHIBIT 6

QUESTIONS ASKED OF 133 REALTORS (45 REPLIES):

1. In your professional judgment, and based on whatever experience you have, does adjacency to (i.e., abutting) an electric tower line right of way adversely affect the value or sales price of:
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. Developed residential (one-family) properties?
2. Does a tower line right of way intersecting or traversing the land negatively affect the value or sales price of:
 - a. Acreage suitable for residential development?
 - b. Residential lots?
 - c. Developed residential properties?
3. Does a tower line abutting or traversing a developed residential lot have a negative impact on:
 - a. Willingness of buyers to purchase?
 - b. Willingness of prospective tenants to rent?
 - c. Willingness of occupants to remain?
 - d. Rate of market absorption (speed of sale)?
 - e. Availability of mortgage financing?
4. Does a tower line traversing or abutting residential *land* have a negative impact on:
 - a. Price level of housing developed?
 - b. Timing of development (vs. other areas)?
 - c. Availability of construction financing?
5. If your answer to any of the above is "yes," is this impact short-run or long-run? Please explain.

PLEASE EXPLAIN ANY "YES" ANSWERS.

EXHIBIT 7

INGREDIENTS OF MARKET VALUE IMPACT TO BE STUDIED

Selling price
 Timing of sales
 Timing of development
 Speed of absorption
 Property turnover rates
 Availability of financing
 Types of financing
 Sources of financing
 Type of development
 Improvement of properties
 Type of properties
 Quality of improvements
 Size of lots
 Size of improvements
 Assessments
 Market attitudes
 Control areas

Proximity Damages

By Leroy C. Moser, Chief, Right of Way Division, Maryland State Roads Commission

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GENERAL REMARKS

The basic theme of our several presentations on this program is "Land Economic Studies and the Value of Remaining Property." My particular part is a discussion of "Proximity Damages."

"Proximity Damage Studies," of course, are a subdivision of "Land Economic Studies." It took very little serious thought for me to conclude that "Proximity Damage Studies" are not only desirable but essential in the determination of the value of remaining property when this particular form of resulting damage occurs, is suspected or has the possibility of occurring.

Making these studies is nothing more than going to the market, to test the validity of such damages, and the establishment of a yard stick for their measurement. As appraisers, we have not properly fulfilled the requirements of our assignment unless we go to the market for verification of our "after value" in the case of a partial taking involving proximity damages, or, for that matter, any other type of damages. Each time we do this, we are, in effect, making a "Proximity Damage Study." Studying the market is just as important and necessary when appraising the "after value" as it is for the "before value." Too often, however, this is not done and proximity, along with other damages to remaining property is measured merely by an arbitrary personal opinion, unsupported by facts. This research for each individual appraisal is time-consuming for the appraisers. Consequently, non-appraisal "Proximity Damage Studies" can be of considerable aid to the individual appraiser, even if they only provide him with general and basic knowledge on the subject. However, they usually do more than this as they frequently provide examples quite similar to the problem under appraisal and, in some cases, they may provide a usable comparable.

Having quickly concluded that "Proximity Damage Studies" are both desirable and essential, the logical question that occurs is . . . Have a sufficient number of these studies been made and are they continuing to be made in sufficient numbers to provide for the need? Although considerable effort has been expended in the preparation of "Land Economic Studies" covering the broad spectrum of the subject, only a very limited amount of study has been devoted to the specific study of "Proximity Damages" and, consequently, the published reports on this subject are quite limited.

Quite often, "Proximity Damages" are lumped with other damages and no real attempt is made to define and segregate them from other damages. A recent check of the Bureau of Public Roads, National Highway Severance Damage Study Bank, disclosed that, of the 2,037 recorded studies, 294 listed proximity damages as one of the contributing severance damages; however, only 123 dealt strictly with "Proximity Damages" and the other 171 cases lumped severance damage with other damages, such as shape, reduction in size, access restriction, divided property and others.

Great sums of money have been and are continuing to be paid for so-called "Proximity Damages." Considering the magnitude of these expenditures, have we given this subject sufficient individual attention? Have we made sufficient effort to segregate "Proximity Damage" and give it the individual analysis that it should have? Do we generally agree when and under what conditions it will come into being? Do we have a common understanding of what we mean when we say "Proximity Damage?" It is my belief that the answer to most of these questions, if seriously

thought out, would be . . . "No, we probably have not." Direction of effort to a common understanding of the subject, its causes and effects and standards for measurement, to me, is the most important aspect of the subject. If we have a general meeting of minds as to the basic concepts, our studies will be more meaningful and of greater help in individual application. I, therefore, would like to focus my discussion on this objective.

First, I would like to define the phrase PROXIMITY DAMAGE by interpreting its specific meaning in the right of way acquisition field and, in particular, for the purposes of this paper, the highway field.

I suppose that, to most of us in right of way acquisition, the phrase "Proximity Damage" has more or less a definite and uniform meaning; however, to others, and especially to those not associated with right of way acquisition, it no doubt has a different meaning or only approximates the specific definition which we apply to it.

PROXIMITY DEFINITION

The meaning of this phrase to the layman or persons not associated with our work probably would be that obtained from the dictionary. Since the phrase consists of two words, each having a specific meaning, we, of course, must associate the meaning of each of the words to obtain a meaning that results from the combination of the two words.

PROXIMITY, in most dictionaries, will be defined as . . . "the state of being next to, close, or very near," and

DAMAGE will be defined as . . . "a loss due to injury, either to person, property or reputation."

Therefore, the meaning of this phrase to the layman when he associates it with real estate and a particular property probably would be . . . "an injury or loss of value to the subject property due to being next to, near or in close proximity to other property or a structure or activity thereon that is objectionable to the use and enjoyment of the subject property."

The other property and associated objectionable activities could be an airport, race track, sewerage plant, manufacturing plant, railroad, transmission line, highway or any sort of enterprise or activity. In essence, therefore, the layman's definition is not very much different from what we specifically mean in our usage when applying it to real estate in general.

Now, let's examine the definition of "Proximity Damage" from the highway acquisition point of view. As our authority, we will use the American Association of State Highway Officials publication, titled "Acquisition For Right-Of-Way." As a starting point, I would say that most of us, if not all, are aware that "Proximity Damages" are part and parcel of the broader terms "severance damages" and "consequential damages." So, therefore, let's first examine the AASHO definitions of these two phrases.

SEVERANCE DAMAGE is defined as . . . "loss in value of the remainder of a parcel resulting from an acquisition" (and also further elaborated on as) "any element of value* arising out of the relation of the condemned portion to the tract of which it was a part. More specifically, in a partial taking, the diminution of the market value of the remainder area as a result of the severance of the part taken."

CONSEQUENTIAL DAMAGE is defined as . . . "loss in value of a parcel, no portion of which is acquired, resulting from a highway improvement."

Therefore, both "severance damages" and "consequential damages" are all inclusive resulting damages which may accrue to real property, which are not included in the area of the taking but which are caused by the right of way taking and highway construction thereon. The first, "severance damages" may accrue to the remainder of the property, part of which is taken, and are over and above the damages due the owner for that portion of the land actually taken and improvements located thereon; and the second, "consequential damages" may accrue to a property, no part of which is taken.

Both "severance damages" and "consequential damages" may include "proximity damages" if they exist, as well as all other resulting damages that may accrue to remainder property due to such things as adverse effects of roadway cuts, fills, grades, drainage, access limitations, etc.

*The use of the word "value" in the AASHO definition apparently is an error. The writer feels that it should be "damage."

From the same AASHO publication, we find PROXIMITY DAMAGE defined as . . . "A damage to a property arising as a consequence of the nearness or proximity of a highway or other type of construction to the improvements on the property" (and also further described as) "the diminution of the market value of a property as a result of the encroachment and proximity of a highway or other type of construction."

This definition includes damages to land as well as improvements thereon. Although I find no fault with this definition in theory, I would like to raise a point about proximity damages to land. Real estate consists of both land and improvements and, when combined, we, of course, concede that their values merge into a single property value. Under this theory, perhaps, we could rationalize that any damage that results should apply to the unit as a whole and, therefore, would apply to land as well as improvements. In my opinion, however, as a general rule and in a true sense, proximity damages do not normally accrue to land. For it to come into being, except under very special circumstances, there must be a fixed improvement on the land.

A typical example of an exception to the general rule could be residential property, either improved or unimproved, located next to or in close proximity of an airport runway or a sewerage plant which suffers depreciation in value because of the annoying activities on those properties. Under such circumstances, it unquestionably is appropriate to assess these damages, which are a form of proximity damages, against both land and improvements. However, since there is no actual taking in this type of case, these damages fall within the "consequential damage" classification, which is non-compensable under the law in most jurisdictions and which, also, is the law governing "consequential damages" in highway construction and other similar public improvements. Conversely, "proximity damages" are compensable as a general rule of law, in most jurisdictions, only when there is a partial taking and, thus, they fall within the "severance damage" classification.

In the case of highway right of way acquisition and, particularly when a partial taking is involved, it is my opinion that proper analysis will, in most instances, if not all, eliminate "proximity damage" to the land portion of the property. Therefore, in general practice, "proximity damage" is usually considered as applying only to the improvements located on the property.

For purposes of this discussion my definition of PROXIMITY DAMAGE shall be . . . "The diminution in value, if any, of a building or other improvement, due to locating a new highway in close proximity to such improvements or, in the case of an existing highway, widening same so that it encroaches closer to the improvements."

UNDEVELOPED RESIDENTIAL LAND

In coining this limited definition, I am not unmindful of another area of possible damages which are often referred to as proximity damages, associated with undeveloped land. It involves the philosophy that, when a new highway, usually of freeway type, is located through an undeveloped potential residential subdivision tract of land, it will adversely affect the homes that will be built later on the lots backing up to the freeway. It is usually claimed that, to wholly or partially eliminate this alleged adverse affect or at least to off-set buyer resistance, it is necessary to increase the depth of the lots so that the rear yards will be deeper and thus permit the houses to be at a greater distance from the freeway. An extra arbitrary depth of fifty feet is often specified. It is then usually claimed that this fifty feet is lost land, so to speak, for which the owner should be fully compensated.

This type of alleged resulting damage may materialize under certain circumstances; but the philosophy that it always occurs is not only arbitrary but often cannot be supported in fact. The type and value of the homes that will be built and the width of the freeway right of way, in relation to the area thereof used for the traveled way, all have considerable bearing on the validity of such alleged damages. It has been my opinion that the Federal Government, through the VA and FHA, have been responsible, at least in part, for the development of this philosophy. It gained real support as a result of an arbitrary policy followed by these two agencies under which they automatically lowered their mortgage guarantees on homes located on lots abutting freeways unless the rear lot depths were increased by about fifty feet.

Several years ago, when there was an attempt to apply this philosophy to some of our freeway right of way acquisitions, the organization with which I am associated took issue with these two governmental agencies. We were successful in demonstrating the fallacies of this policy. As a result, we have been informed that this policy has been changed by both the VA and FHA in our

area and, if this type of financing is proposed or sought by the developer, and he either files a financing application with, or requests advice from either agency, they first study all the facts and make their decisions on the merits of the case.

It is my observation that these alleged damages, to a great extent, are often imaginary. Seldom do they have much validity, particularly when low or modestly priced homes are involved. However, in the higher priced homes, owners usually put more emphasis on privacy, are willing to pay more for it and, consequently, when the freeway encroachment lessens this privacy, it may and occasionally does have some adverse effect on property values.

To determine if such damages actually accrue to vacant potential residential subdivision tracts, we must study what has actually happened in the market along similar freeways previously constructed, where houses have been built since the construction of the freeway, and there have been a number of resales of these homes since the original sales. In this way, we can test the buyers' reactions as reflected in the market, at both critical periods — first, sales in the original instance during the development period; and, secondly, resales during the shakedown or adjustment period. With this type of research and documentation, we can pretty well eliminate the guessing game. Since the market must be researched in this manner to determine possible damage to vacant land which can materialize only if and when houses are built thereon, and thus the element of proximity comes into play, I suppose this is why we refer to this type of land depreciation as proximity damage. I prefer to call it a property development damage rather than a proximity damage.

In 1960, we, in Maryland, made a detailed study of this subject along a portion of the Baltimore Beltway, encompassing five different residential subdivisions abutting this belt freeway. The study was limited to four tiers of lots adjacent to the freeway. The depths of the lots abutting and backing up to the freeway were generally of about the same dimensions as the lots in the inside tiers. All homes in the several subdivisions constituting the study area were only a few years old and of equal age. The original sales ranged from about \$15,000 to \$17,000, and the resales ranged from about \$16,000 to \$19,000. The study covered a period during which there were rising home costs. To validate our study, we selected for comparison a control area with equal facilities and with homes of similar value and age. This area was removed from any possible influence of the freeway. The study showed that there was no reduction in the original sales price in the homes abutting the freeway as compared to the original sales prices of the homes located on the inside tiers. The study further showed that the resale prices in the study area increased about 10 per cent over the original sales prices; whereas, in the control area, resale prices were up about 11 per cent over original sales prices. These facts, to us, seem to be rather conclusive that there was no apparent built-in depreciation because of proximity to the freeway, at least insofar as homes in the \$15,000 to \$19,000 price range.

A very interesting fact which the study developed was that the homes occupying the lots in the tiers abutting the freeway actually sold, on resale, higher in relation to the original sales than those two and three tiers removed from the freeway, and only slightly less than those four tiers removed. The total sales price variations, based on a tier comparison, was only about 5 per cent. This would seem to indicate that being located next to the freeway right of way is more desirable than being located on the interior of a subdivision.

As I stated, our study was quite convincing, and it seems to label, as rather much a myth, these alleged damages insofar as low and medium priced homes are concerned. Support for our conclusions, in a practical sense, which is more convincing, is the fact that there are now many more similar residential developments along the Baltimore Beltway and literally scores along our other freeways, most of which back up to these facilities, are just as close and, in some cases, closer to the freeways than the homes located in the subdivisions comprising our 1960 study area. Most of these freeways of which I speak have been opened since the Baltimore Beltway study. Many of the subdivisions located along them were planned and constructed simultaneously with the freeway planning and construction, and others were planned and built entirely since the opening of these super highways. Contrary to the old buyer resistance claim, the opposite is taking place . . . these freeways are attracting and acting as a stimulus to residential development.

As most of us, there have been similar studies made through

out the country which support the findings of the Maryland study. In a release some years ago, California reported that, in a study it made of 1,092 homes adjacent to freeways, the evidence showed that there was little or no difference in the selling price of these homes compared to those located away from the direct influence of the freeways. Showing a slightly different result however, is a Michigan study published in 1964 in which it reported that sales prices of homes, both original and resale, in the \$16,000 to \$18,000 range, along one of its expressways, sold about 7.5 per cent lower than those in the subdivision interior. It would appear in this case that the reason for this depreciation is because the lots are small in area and of limited depth, averaging 50 by 110 feet. However, in one of Michigan's earlier studies, it reported that it found that owners and builders of luxury-type homes in the subdivision, which was the subject of that particular study, did not discriminate against the sites adjacent to the expressway, contrary to the average owner's claim that proximity to an expressway depreciates better-type homes. The report of this study did not set forth the depth and size of the lots but, from the data supplied, it would appear that they are of adequate size and depth.

Although quite a number of studies have been made in this special areas of proximity damage, much more must be done by way of additional formal studies and documentations before we can hope to eradicate many misconceptions that still exist and which, in many instances, result in payments for damages that are not justified in fact.

VACANT RESIDENTIAL LOTS

Now let's explore another area of damages to vacant land, often referred to as proximity damages. I refer to unimproved residential building lots and home sites. If such lots or sites are reduced in depth by a highway right of way acquisition, to the extent that their desirability for building purposes is lessened, then damages most certainly will result. However, these damages more properly should be classified as damages due to inadequate lot depth or, perhaps, a combination of depth and area, rather than a proximity damage.

At such time as a lot is improved, if it is sub-standard in depth, rarely, if ever, will the owner be so stupid as to construct a building thereon with less than an adequate set-back, which, if done, would create a built-in proximity damage. Adjustments unquestionably will be made to obtain a proper and adequate set-back. This can and no doubt would be accomplished through any of several possible adjustments, such as locating the dwelling farther back on the lot than normal, even though it will mean a less than average rear yard depth; or adjustments in the plans of the house design to better fit the lot, or by acquiring additional land on the rear of the lot.

A condition under which it may be difficult to apply adjustment factors to eliminate an adequate set-back could be when the lot is located in a partially built-up area, with a physically established building line, such as existing houses on either side. Under such circumstances, it may not be practical or desirable to establish an adequate set-back, which, if accomplished, would put the front of the house back beyond the fronts of the houses on either side. This condition could be more undesirable than an inadequate set-back, especially if the lots are of limited width and existing houses on either side are quite close. Here, damages resulting from reducing the depth of the lot by the highway encroachment, have a greater adverse potential than perhaps under any other circumstances, since at the time a house is constructed thereon, it may be impossible to avoid building in a proximity damage. Even under these circumstances, I still feel that we should classify these damages other than proximity.

HOME TYPES AND VALUES

Heretofore, in my discussion of possible damages to homes because of freeway proximity, I briefly stated that the philosophy which holds that, locating a freeway near or in close proximity to residential development always depreciates values, is based on arbitrary conclusions and often not supported by facts. In that connection, I also stated, that the type and value of the dwellings and the width of the freeway right of way in relation to the portion actually used for the traveled part of the highway, all have considerable bearing on whether or not the highway facility will adversely affect the value of abutting residential properties. All of these factors are equally true along conventional free access and partially controlled access highways.

We are all aware that lower and medium-priced homes are generally located closer to streets and highways than are higher-priced luxury homes, and the market reacts accordingly. It follows that the market will react similarly when an existing high-

way is widened and the right of way and the construction thereon encroaches closer to a dwelling — i.e. proximity damages are less likely to occur when low and medium-priced homes are involved and if they do occur, luxury-type expensive homes are the most susceptible to such depreciation.

ADEQUATE RIGHTS OF WAY

Often, when we are considering proximity damages, we completely disregard the interplay of wider and more adequate rights of way. Today, it is general practice rather than the exception to acquire this type of right of way. Only if the ultimate plans for development of the highway contemplate building the traveled part of the roadway out to the very edge of the right of way, should the right of way be considered as the all-critical encroachment in the determination of possible proximity damages. Extra width in the outer edges of the rights of way, which is acquired primarily for protective buffer strips, should always be considered and given proper weight when considering proximity damages. This factor, more often than not, is either completely ignored or improperly analyzed.

In many instances, today, we deliberately plan for and purchase extra width right of way for buffer space to protect both the highway facility and the adjacent development along the highway. However, even though this is the plan, it is my observation that, more likely than not, it will be disregarded by the appraiser and that, when estimating possible resulting damages, he will put great emphasis on the proximity of the right of way line to any buildings located on the remainder of the property, irrespective of the plan not to use the outer portions of the right of way for highway traffic lanes. Seldom will he make an analysis of this portion of the acquisition problem. If he goes into the matter at all, he usually expresses the philosophy that, regardless of the highway department's present plans and the good intentions of its officials and employees, since the State is taking title to the entire width of the right of way and thus will have full jurisdiction over its use and can change its plans at will, in which event the property owner has no redress, justice dictates a calculation of damages based on the most adverse conditions that could possibly arise, even though the possibility of these things taking place is not very probable and, if so, remote.

Drawing his conclusions from this philosophy, he then usually takes the position that he should consider the nearness of the right of way line to the dwelling as the critical factor, as the basis for his determination of damages, regardless of all other factors.

As conscientious public servants, we most certainly recognize, as one of our prime responsibilities, our duty to see that the individual property owner does not suffer at the expense of the general public. However, serious thought about this subject undoubtedly would lead most of us to the conclusion that, to hold to the philosophy which I described, is not only arbitrary but it often results in unwarranted payments for proximity damages, which, in many cases, will never materialize. It also stymies incentive to plan for and purchase wide rights of way, with built-in buffer protective strips.

BUILDING SET-BACK LINES

Another area that needs more attention in the study of proximity damages, in my opinion, is that of formalized building set-back lines. These, as we are aware, are established distances measured from the front property line, specifying the minimum depth of front yard between the front property line and the front of the dwelling when it is constructed. These set-back regulations are part and parcel of every planned residential community and, today, in some areas, apply even along rural highways. The tendency is to place the planning and control of these regulations in local government; but if government control does not exist, the developer probably will include the set-back lines in his plan of development.

It is recognized that no uniform set-back distance is ideal or appropriate for all conditions. Their determination depends upon many factors; the major of which are type and value of dwellings, type and volume of traffic that uses the street or highway upon which the development fronts, and the width of the right of way and the amount used for traffic flow. Local custom often also has a bearing. A very limited set-back may be accepted in one locality without adverse effect in the market; whereas, in another locality, the same depth may not be accepted as adequate and will adversely reflect in the market. Usually, however, uniformity of set-back in a particular area or subdivision is more important than greater depth.

Generally speaking, greater set-back distances are established along heavily traveled streets and highways than along subdivision

streets which carry only local traffic. The ideal or accepted set-back distance may be 30 or 40 feet for quiet residential streets; whereas, along highways, 50 feet may be considered necessary in most instances and, occasionally, greater distances are considered desirable.

Set-back distances are usually determined by professional land planners; however, the basis for their determination is dictated by the many varying conditions and market acceptance. Therefore, since set-backs are usually the result of employing good planning concepts and are founded on market reactions, no proximity damages should occur as a result of a highway right of way encroachment unless the set-back is reduced below accepted local standards.

If there is a possibility of proximity damages occurring because of a highway right of way encroachment, the first job of the appraiser should be to determine what is the appropriate local established or accepted set-back applicable to the property he is appraising. In making this determination, he should take into consideration the type and value of the subject property, the amount and type of traffic that will use the street or highway, the total width of the right of way and how much is to be used for traffic flow and the prevailing local customs relative to set-back distances.

If the right of way taking reduces the set-back beyond the accepted standard, it does not automatically follow that there will result a proximity damage. This can only be determined by checking locally in the market. Unfortunately, too often, this is not done and, instead, the appraiser resorts to a guessing game and merely pulls a figure out of the air, which is without support other than his opinion.

There is a tendency among some appraisers to conclude that proximity damages result in practically every case when there is a taking from a yard in front of a dwelling, regardless of how much depth will remain between the new right of way line and the front of the dwelling. This practice, of course, has no validity. It should be required in every instance where a proximity damage is assessed, that the appraiser support his findings in the market.

APARTMENTS AND OFFICE BUILDINGS

As I have already emphasized, proximity damage to a dwelling, if it occurs, is caused when the encroachment decreases its desirability and livability as reflected in the market. It results from an intrusion upon the privacy, seclusion and private enjoyment of the home.

In the case of an apartment building, a proximity damage is not as likely to occur as when a private dwelling is involved. If it should occur, however, it would result from the same causes, but the measurement of this damage would be different, or at least would be in a technical sense. An apartment building is an income producing property. The net income derived from rentals is the principal factor in determining its value; whereas, in the case of a private home, it is the amenities that are derived from the comfortable and pleasant living which the home provides, that determines its value.

It would, therefore, naturally follow that, if locating a highway near or perhaps moving an existing highway closer to an apartment house even though it might, at first consideration appear undesirable, there would be no proximity damage unless the closeness of the highway actually would result in a decrease of the income stream . . . i.e. reduction in rents or, perhaps, cause more than normal vacancies. The same principal would also apply for office buildings and others of similar type that depend upon rental income as support for the capital investment in the property.

OTHER COMMERCIAL AND INDUSTRIAL BUILDINGS

Now speaking generally of commercial and industrial buildings; proximity of a highway seldom, if ever, has an adverse effect but, on the contrary, usually is beneficial. The buildings to which I refer include all types used in the manufacture and assembly of products and the merchandising of good and services. In this category are, manufacturing plants, warehouses, wholesale and retail stores, restaurants, gasoline stations, etc.

Locations for both commercial and industrial properties are usually selected because of their proximity to a highway to better facilitate sale or distribution of goods and services, delivery of raw and finished products and for the convenience of customers and employees. However, when a highway is moved so close to this type of building, that it interferes with the efficient operation of the business enterprise conducted on the property there may be a resulting damage. Although these damages are caused

by closer than desired road proximity, if they can be eliminated by adjustments to the facilities, then in a true sense they are not proximity damages. Such damages when they occur are measured by the "Cost To Cure" method and are actually adjustment damages. Example would be . . . replacement of parking or storage areas, relocation of access and all those general adjustments required to restore efficient operation. The guiding principal should be; there can be no proximity damage unless the encroachment increases production costs, decreases sales, and, in general, increases the cost of operation, thereby reducing profits and the income stream derived from the use of the property, provided of course, adjustments are not made which eliminate these factors.

Perhaps I should say something specifically about gasoline service stations since they are involved more frequently in highway acquisitions than most other types of commercial buildings. The encroachment may eliminate a part or all of a service driveway leading into or along a pump island, or it may eliminate some of the pump islands or other facilities. Such encroachments, even though consisting only of a minor taking can be detrimental to efficient and profitable operations. Unless these driveways and pump islands can be and are replaced or adjusted without interference with other required facilities, there can, and usually will result, a reduction in the amount of business and, perhaps, an increase in the cost of operation — all resulting in a reduction in the income stream which will be reflected in the market value of the property.

Corrective measures in the case of severe encroachments into gasoline service stations may require relocation of other on site facilities besides gasoline pump islands, and in some cases, adjustments to, remodeling or moving the service station building back further from the highway. The measure of these damages is determined by the "Cost To Cure" method, however, in applying this method, adjustment allowances should not exceed the value of the property or items being relocated or adjusted and the damage analysis should include proper consideration of the residual value of the remaining property for other commercial uses. Close highway encroachment to gasoline service stations, therefore, even though it is normally more critical than when other types of highway oriented businesses are concerned, involves the same factors of cause and cure that are involved for the other commercial and industrial buildings.

PUBLIC AND SEMI-PUBLIC BUILDINGS

Where public and semi-public buildings are concerned, the construction of a highway close or closer to such buildings may have some adverse effect upon their peaceful and quiet use, but the effect is seldom considered severe, especially when compared to similar proximity to residential buildings.

Churches and schools and, in fact, all types of public buildings are on occasion involved in highway rights of ways acquisition. If a road is brought close to these buildings, it may become objectionable to their efficient and peaceful use. The greatest factor, of course, contributing to the adverse effect, probably would be noise and, in the case of schools, safety. Are these proximity damages? The answer of course is that they are caused by road proximity. Therefore, technically they fall in the proximity class and are a form of proximity damages. However, here we are dealing with buildings that usually have no market value in the accepted meaning of the phrase. Churches of course under very infrequent instances are exceptions. Therefore, since these buildings have no market value, we can have no decrease in value in a technical sense, only a decrease in their efficient use.

Damages to public and semi-public buildings should be gauged and corrected on the basis of the "Cost To Cure." As an example, if a school is involved, the closeness of the road may require a proper fence to protect the children. If a church or public office building is involved, perhaps it may be necessary to make adjustments to screen out or eliminate the noise. Only on this basis do I believe that we are justified in making payments and, in my opinion, rarely should we make an allowance for depreciation of the building unless, of course, the disturbance is so severe that it curtails or stops the activities for which the structure was constructed, and it has to be converted to another lesser use.

RESEARCH THAT HAS BEEN DONE

Proximity damage is real enough, but it has not been placed under a microscope and researched sufficiently so that definite conclusions can be made, and guidelines laid down to treat the problem with authority. Some serious thinking was evidenced by the article of Mac Gardiner, fee appraiser of Baltimore, Maryland which appeared in the April 1957 issue of our National

magazine "Right of Way" and also an article by Ralph C. Bordley, of the Maryland State Roads Commission which was published in the August, 1957 issue of the same magazine. Both of these articles suggested a method and formula to be used as a guide for determining proximity damages to residential buildings. Both, however, emphasized that their methods were only suggested appraisal tools, and one must go to the market for the basis of any finding. I am confident that the intent of both Mr. Gardner and Mr. Bordley was primarily to generate additional, original thinking and to bring proximity damages out into the open for closer scrutiny.

Again in the August 1959 issue of "Right of Way," the subject was reported upon as the "Effect of Right of Way Encroachment on Residential Property," by Clifford K. Johnson, of Minneapolis. Mr. Johnson reached several conclusions that have been evidenced in the market elsewhere:

1. "Proximity damage does not occur, or is substantially less, where the improvement is in the lower or lowest price range."
2. "Where the encroachment does not drastically change uniformity among several properties in the area, proximity damage may not exist, or, if it does, it is less than if only one property is affected."

The Florida State Road Department in cooperation with the United States Bureau of Public Roads, recently completed a unique severance study, part of which involved proximity damages. Unique in that the independent fee appraisers who made the original appraisals for acquisition were called upon to analyze over 2000 sales of remainder parcels. The primary purpose, of course, was to measure the accuracy of the original damage conclusions and this study must surely have been an education for the fee appraisers involved. The overriding conclusion of this report, as stated therein is "It is not intended to imply that severance damage does not occur, but it unquestionably the *abnormal*, rather than the normal, result of land acquisition for highway purposes." By handling the severance study in this manner, I am sure the Florida State Road Department had no difficulty in getting the remaining fee appraisers and highway personnel to study the report. The education of the fee appraiser, in this instance, must have been painless.

Although we may agree with the Florida and other similar studies, it is incumbent upon each right of way organization to prove for itself, by additional studies, in its own particular area, the true effect of right of way acquisition on remainder parcels as evidence produced close to home is much more readily ac-

ceptable.

CONCLUDING REMARKS

To sum up my remarks, I point out that the "Proximity Damage" problem has been with us for sometime now. We haven't done too much to solve it. Too often, we take the easy way out, when we are confronted with it . . . that is, if we suspect that it will occur, we arbitrarily convince ourselves that it does occur and then, just as arbitrarily, pull a figure out of the air for which we have no factual support. If we have not already done so, let's admit that our general knowledge and experience is not enough. Upon doing this, then where do we go? To the "Market," of course, where we always must go to get the best and most reliable information concerning real estate values. In making our studies, let's isolate proximity damages so that our conclusions are valid. To do so, let's select comparable sales that are either devoid of other depreciating factors, such as grade change, drainage and restrictive access or, at least, use only those sales that are susceptible to a segregation of combined different damages. We learn little from studies that treat mixed and varying components as a composite factor.

Every State has created its own bank of comparables from which can be drawn the material for these studies. The study properties are located along the highways that have been improved and much of the supporting title, sales and appraisal data relating to these properties is already in our files. By up-dating and analyzing these remainder parcel sales, we undoubtedly will learn much and I believe we can make a major stride in solving the proximity problem. These studies can serve as substance and support for both our appraisals and a sound acquisition policy. The full value of these studies can only be realized, however, if the information developed by them is given proper dissemination and is actually used by the persons for whose benefit they are made . . . that is, the highway department, administrators, both those exercising policy control and right of way administration, fee appraisers, property owners whose property will be affected, attorneys, courts, local government bodies, civic associations and local Chambers of Commerce.

As a final statement, I would like to re-emphasize that proximity damage cannot be ignored or glossed over by including it with grade damage or other severance damage factors. It must be isolated and researched and then analyzed and weighed, in the light of market reaction. When this has been done, the results must be studied, understood and employed in the field of right of way acquisition; otherwise, unrealistic damage payments for alleged proximity damages will continue.

Standards for Making Remainder Studies

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A remainder property is the property remaining after a part has been acquired for public use. Therefore, a remainder study is the compiling of the factual information about a remainder property that has been sold so that the transaction can be used as a guide in estimating the value of other remainder properties. It is the standards that are to be followed in making such studies that are examined in this discussion.

The study of remainder properties that have been sold is important because these studies are used as a guide to the value of other remainders. Almost every type of acquisition for public use involves the acquiring of parts of properties. Thus, there are remainders after almost every acquisition. Since the valuation of the properties remaining is half of the appraisal problem, the

accuracy of the estimates of total damages is as dependent upon the accuracy of the Fair Market Value estimate of the remainder as it is dependent upon the accuracy of the Fair Market Value estimate of the entire property before any part was acquired.

In making remainder studies, it is first necessary to examine all the remainder properties adjacent to the public improvement being studied. A careful study of the sales price of the remainders that have been sold is required so that they may serve as a guide to the valuation of other remainders. It is also important to learn the reasons why other remainder property may not have sold. The examination of the unsold remainders as well as the remainder properties that have sold will aid the appraiser in estimating the marketability of the various types of remainder properties that he is appraising.

There are six basic steps that must be followed in the analysis of remainder property sales. These steps include the following:

1. Estimate the Fair Market Value of the remainder tract as a part of the whole property before any part was acquired. This is the foundation of the study. It is the starting point. If this is carefully done, then the gain in value or loss in value that the remainder may show when it is sold is believable and may be used in other appraisals. In making this estimate, all applicable valuation approaches must be correctly used.
2. Correlate the value estimate of the remainder as a part of the whole with those made on similar remainder tracts. It is well recognized that it is necessary to correlate the value estimated for one tract with that estimated for the adjoining tract in order to be certain that the valuation of one property is prop-

erly related to the other. This is particularly important with remainder studies. In this correlation process, however, the appraiser must be very careful to be certain that the relationship shown accurately reflects all of the differences between the properties.

3. Secure the sale price of each remainder that has been sold and ascertain the reasons for the sale. This is exactly the same procedure that is followed in the study of any comparable sale. Only a party to the transaction can supply this information. The inquiry must be thorough and searching. There must be no question about the accuracy of the information received.
4. Compare the value of the remainder as a part of the whole before the acquisition with the sale price received from the remainder sold to find the amount of the gain or loss in value. This will clearly demonstrate whether the property has gained or lost value.
5. Measure the change in the real estate market within the influence of the public improvement but outside the area of peculiar damages or special benefits. This is essential because a parcel of real property does not exist in a vacuum. Real estate values in a neighborhood increase or decrease over a period of time. Thus, it is necessary to compare the remainder sale being studied with similar properties that have not received any peculiar damages or special benefits as a result of the acquisition. These properties then tend to serve as a bench mark or guide as to what is actually happening in the real estate market without special benefits of peculiar damage from the acquisition. Changes in the value of such properties include general benefits or general damages as they lie within the influence of the new highway. Since, as a rule, only special benefits or peculiar damages (severance) may be considered in the appraisal of a remainder property, the measure of the increase or decrease in the real estate market near the subject property but yet not receiving either peculiar damages or special benefits is essential to delineate the actual special benefits or peculiar damages that accrue to the property being studied.
6. The last step is to compare the change in the value of the remainder and the change in the real estate market to find the amount of the peculiar damages or the special benefits that are enjoyed by the remainder being studied. Since any general benefits or general damages are already included in the study of nearby sales having neither special benefits or peculiar damages, the increase or decrease that is demonstrated is actually the peculiar damages or special benefits resulting from the acquisition.

An example of such a remainder study that has been properly made should therefore contain, in addition to much other important information, the following:

1. The estimated Fair Market Value of the remainder as a part of the whole before any part was acquired as of the date of acquisition — \$40,000.00
2. The sale price of the remainder two years after the acquisition — \$60,000.00
3. The increase in the real estate market in the area generally influenced by the public improvement during the two years after the acquisition is found to be 20 percent.
4. Therefore, the sale made two years after the acquisition indicates that it would have sold for \$60,000.00 divided by 120% or \$50,000.00 immediately after the acquisition.
5. Therefore, the special benefits enjoyed by the remainder tract immediately after the acquisition are \$50,000.00 — \$40,000.00 or \$10,000.00.

Only remainder studies including this essential analysis, in addition to much other descriptive information, are useful to a professional appraiser in estimating the Fair Market Value of other similar remainders. It is, therefore, strongly recommended that the minimum standards for making a useful remainder study require the following:

1. A complete description of the remainder including at least the following:

- a. A good area map with the remainder drawn on it and the location of the public improvement shown.
 - b. A good neighborhood aerial map with the remainder drawn on it and the location of the public improvement shown.
 - c. A complete narrative description of the remainder with particular attention to the traffic patterns and traffic counts, rights of access and other rights still enjoyed by the remainder property.
2. A complete professional appraisal of the remainder property as a part of the whole before any part was acquired, utilizing all applicable valuation approaches. This appraisal must estimate the Fair Market Value of the remainder as a part of the whole before any part was acquired. The estimate must be correlated with other adjacent properties to be certain that it is in the value pattern.
 3. A complete report on the sale of the remainder including at least the following:
 - a. The confirmed consideration.
 - b. By whom the consideration was confirmed and to whom it was confirmed.
 - c. The reasons for the sale.
 - d. The terms of the sale.
 - e. The use to which the purchaser expects to put the property.
 - f. The changes in the property between the date of the acquisition and the date of the sale.
 - g. The changes in the neighborhood, between the date of the acquisition and the date of the sale.
 4. A careful analysis of the change in the real estate market in the area generally influenced by the public improvement between the date of the acquisition and the date of the sale. This change in the real estate market must include both the effect of the change in the real estate market due to economic influences and the change in the real estate market in this area due to the general benefits or general damages as a result of the public improvement. This change may be properly measured by a study of paired sales or sales of very similar properties at different times and is reported as a percentage gain or loss in value between the date of the acquisition and the date of the remainder sale.
 5. The adjustment of the price at which the remainder sold to the price it would have sold for immediately after the acquisition by dividing the sale price by the percentage change in the real estate market in the area generally influenced by the public improvement either added to or subtracted from the unit one.
 6. The subtracting of the sale price of the remainder adjusted for the change in the real estate market in the area generally influenced by the public improvement from the value of the remainder as a part of the whole before any part was acquired to find the total amount of and all of the special benefits or peculiar damages (severance) enjoyed or suffered by the remainder property.
 7. All of the work in studying remainder sales must be done by men of recognized professional competence in the valuation of real property. As a general rule, this professional competence is probably best indicated by the fact that the person making the remainder study has earned at least one of the professional appraisal designations.

These are, in my considered judgment, the minimum standards for making remainder studies that can be accepted and relied upon by truly professional appraisers. Certainly a professional appraiser must retrace each of the steps in the remainder study in order to make it a part of his own personal knowledge. Unless all of the information he needs is supplied to him so that he can verify it and rely upon it, the study does not perform its proper function.

Properly prepared remainder studies are absolutely essential as a guide to the value of remainders in a well done appraisal. Since the after acquisition value is half of the problem in a partial acquisition, such studies are extremely important. Therefore, I very strongly recommend that such studies be made just as carefully and just as thoroughly as we know how to do them.

The Economic Analysis of Highway-Severed Properties

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Since the inception of the Interstate Highway System, in the mid 1950's, state and federal government agencies have invested millions of dollars in new highway development programs.⁽¹⁾ Two of the main objectives of this expansion and improvement of our national highway system are the satisfaction of the greatly increased demand for highway transportation facilities and the stimulation of regional and national economic growth. In other words, these cooperative development programs are supposed to meet the already growing transportation demands of the local and national economies, and hopefully, will stimulate further economic growth by providing more transportation facilities.

A large percentage of the cost of highway development is derived from the process of real estate acquisition for highway right of ways.⁽¹⁾ The question of what future development will likely occur becomes quite important at this point. Payment for condemned property is usually composed of two parts — payment for that portion of an individual property actually taken, at the "fair market value" of that property as of the date of condemnation, and compensation for the "severance damage" suffered by the remaining portion of the original property. Now, many disputes have arisen over the determination of "just compensation" for severance damages incurred by the condemnee, since it is based on a comparison of the "probable future market value" of the property in question and its present fair market value.

More specifically, any anticipated increase in property value above that which might have occurred in the absence of a new highway is termed a "benefit." Similarly, any anticipated decline in property value that would not have occurred had the new highway improvement not been built is a "damage." In many states, Pennsylvania included, benefits may be offset against damages in arriving at the final amount of severance damage payable.⁽²⁾ The question is then the probability of beneficial or detrimental change in the use and value of property severed by new highway facilities.

Adjustments in land use of property abutting the new highway improvements are expected to have great impact on the economic activity of communities, regions, and the nation. However, relatively little is known about the nature of this land use adjustment, due to the relatively recent development of large highway systems and the lack of objective research endeavors on the subject. For effective economic planning a need exists for study of the economic impact of highways on real estate use and market value.

Three immediate reasons exist for study of changes in the use and market value of real estate abutting new highways. First, there is the question of whether or not just compensation is being made to condemnees. This is a social as well as an economic question. For our society generally defines just compensation as the fair market value of the condemned property plus a payment for severance damage to the remainder portion of the original property. But, has society been making just compensation to the individuals whose property has necessarily been acquired for development of new highways? Only objective, independent study of the market experiences of partially condemned real estate will answer this question.

Secondly, from the viewpoint of state and federal right of way and highway planning officials, there is the concern over rising costs of property acquisition for highway right of ways. A review of highway expansion programs across the nation indicates that even greater costs will be incurred during the next decade. Both federal and state agencies, and the general public, would certainly like to see the lowest possible right of way acquisition cost achieved, within the limits of paying just compensation to all condemnees.

Finally, local, state and national planners are concerned with the economic impact of new highway development on communities and regions in the United States. One phase of their work deals directly with the changes in use and market value of real

estate in those areas in which new highways are constructed.

Now, for all three of these reasons, and many more, academic studies of the impact of new highways on real estate use and market value are necessary. One type of highway economic impact study is an analysis of highway-severed properties. It is this type of economic study which is the topic of this paper.

THE ECONOMIC ANALYSIS OF HIGHWAY-SEVERED PROPERTIES

Before proceeding into any discussion, a brief statement is in order on the topic assigned to me. It was "The Analysis of Severance Damage."

With the kind indulgence of the Land Economic Studies Committee I have chosen to title my remarks, "The Economic Analysis of Highway-Severed Properties." The reason for this is that highway-severed real estate is not necessarily damaged economically. Any study of highway severance damage must consider the benefits of highway construction to severed real estate as well. Along this line, the project, with which I have been associated for the past two years, was named, "An Economic Study of Highway Severance Damage in Pennsylvania." However, after completing a review of the first group of partial-taking cases collected by the Study, our research efforts were informally termed, "The Pennsylvania Severance Study."

In an attempt to relate some of my ideas on the purposes, uses and value of severance studies I will draw on my experiences in Pennsylvania. I am interested in this research from an academic viewpoint, in terms of the application of economic theory to the phenomenon of highway-severed real property. Also, through a more pragmatic approach, I have considered the practical application of severance study research to the entire right-of-way acquisition process.

THE PURPOSE OF SEVERANCE STUDIES

From the number of states now conducting highway severance studies, it seems safe to say that the portion of right of way acquisition costs being allocated to "severance damages" is under some scrutiny.⁽³⁾ At the outset of these studies it should have been apparent that the main purposes of this type of land economic study is the achievement of a fund of objective evidence for use in the entire process of right of way acquisition. At least this is the feeling of the Pennsylvania Severance Study and its sponsors. Questions may be raised concerning the objective basis for appraisal estimates of severance damages, the admissibility of severance study findings into review board and court proceedings, and the presentation of these findings to appraisers, right of way officials, lawyers, the judiciary, and the general public. But, the objective of any severance study should still be objectivity itself.

A FRAMEWORK FOR ECONOMIC ANALYSIS

A major requirement of any research program is a basic analytical framework. In the case of severance studies, what is necessary is a statement of the relationships existing between real property, its characteristics and environment, and its market value.

Real property, as a scarce economic resource is given a "value," or price, by the market structure dealing with its allocation and exchange. Land provides space for economic activity and is subjected to competition between different economic uses and potential users. Most properties are practically available for only one use at any point in time. However, as space becomes more intensively used some properties are the object of competition between several uses simultaneously. And, of course, the market value of these properties is accordingly "bid up" by the prospective buyers in the market.

The demand and supply conditions of the real estate market will determine the use and value of any property in that market. Or, for any given market situation the "quality" of a property determines its economic use and market value. Quality refers to the unique mix of economic, physical, and social characteristics associated with each property. The "unique mix" is due to the "spatial" or "locational" relationships between the property and its economic, social, and physical environment. This spatial network is fixed for each individual land unit, and therefore restricts a property to the supply and demand situation of a fairly limited real estate market. And, in the short run period, any land property has but one optimum economic use and a fairly fixed range of market value.

The introduction of a new transportation facility into any geographic area, that significantly alters the existing spatial net-

work of its real estate units, will in turn change the structure of the local real estate market. Thus given any combination of demand and supply conditions for the local real estate market, the passage of a new limited-access expressway over any property may affect any, or all of the economic, social and physical factors associated with its economic use and market value. Significant variation in any of these factors may yield a change in the property's economic use and market value, depending, of course, on the nature of the functional relationships that exist between real property and its characteristics.

I believe that this conceptual framework points out the need for study of the factors associated with real estate use and market value, in connection with an economic analysis of highway-severed properties. A knowledge of these relationships will allow one to make a more objective estimate of the probable resultant effect on property market value caused by highway severance and construction. And, such relationships can be found only through a systematically organized program of research.

A BANK OF SEVERANCE CASES

The first step in any severance study must be the accumulation of a "bank" of severed property cases. These cases are the basis for more objective appraisals of the "before" and "after" values of new condemned properties. A bank of cases must be organized effectively if it is to provide "truly comparable" cases for use in new condemnation situations. Effective organization of a severance case bank entails the use of objective criteria for comparable case selection. But, what are the criteria for comparability? Obviously there exists a second important phase of severance studies. It is the determination of remainder property characteristics associated with the subsequent economic use and market value of several remainder properties. The need for determining these relationships, and their value to those who use comparable property cases can be seen clearly through the following argument.

In the process of arriving at just compensation for partially-condemned real property for highway right of ways, comparable property situations have traditionally been used as the basis for estimating the "before" and "after" market values of the property. The difference between these two values, "adjusted" for the dissimilarities between the condemned property and its comparable properties, is usually said to be the amount of just compensation due the condemnee. Thus, market sale prices of comparable cases are the basis for just compensation determination. In order for a property to be comparable to another, for value determination purposes, the courts generally agree that their characteristics be similar — not identical. However, the degree of similarity and the criteria for similarity have usually been rather subjectively determined. And, I believe that severance studies can certainly make quite a significant contribution at this stage of the right of way acquisition process. Objectivity in the selection and use of comparable property cases is as important as the cases themselves.

THE VALUE OF STATISTICAL FINDINGS

As I shall indicate shortly, two of the specific objectives of the Pennsylvania Study are aimed at the analysis of factors associated with the market sale prices and severance damages and benefits of severed remainder properties. The results of a pilot study, already completed, and other studies now underway will hopefully yield an objective ordering of the most important property characteristics and their relationships with property market value. Ultimately, "numerical weights" might be derived for each property characteristic. By applying these weights to the "before" value of a remainder property one could make an objective estimate of its "after" value.

The practical application of an equation of this type is probably not very likely on a wide scale in the near future. The traditional appraisal process simply cannot, and should not, be replaced overnight. The "past experience" of an independent appraiser is a valuable asset to him in his business. He must continue to rely on this experience to a certain extent. But, I believe that many of the guidelines or "rules of thumb" used by appraisers, and accepted by the courts, do need some examination.

The statistical findings of highway severance studies can therefore be practically applied to the present condemnation process. Appraisers, right of way officials, and the courts ought to demand a more objective selection and use of comparable property cases. The selection of comparables should be based on a "similarity" of the "most significant" characteristics between the property under consideration and its comparables. After an objective selection of comparables, the appraiser may then use his

fund of past experience to adjust the most probable after value of the remainder for the dissimilarities that exist between the comparables and the subject property. The findings of highway severance studies and the bank of cases provided by the groups responsible for the studies can definitely be another valuable asset of the appraiser, the right of way officer, and the courts. Or, if you prefer, these individuals can supplement their past experience with a good deal of objective evidence.

THE PENNSYLVANIA SEVERANCE SOCIETY

At this time I would like to review the history and accomplishments of the Pennsylvania Severance Study. The Study was initiated in December, 1962, as a joint research effort to be conducted by the Institute for Research on Land and Water Resources, of the Pennsylvania State University, in cooperation with the Pennsylvania State Department of Highways, and the Bureau of Public Roads, of the U.S. Department of Commerce. Four specific research objectives were proposed at that time. They were as follows:

1. To cooperate with the State Department of Highways and the Bureau of Public Roads in the gathering and processings of real estate transfer data as outlined in the *Manual for Highway Severance Damage Studies*, written by the Bureau of Public Roads.
2. To undertake statistical analyses of factors associated with the damages and benefits of partial taking cases for representative areas and regions of the State and for the State as a whole.
3. To undertake statistical analyses of factors affecting the sale prices of remainder parcels before and after highway improvement for representative areas and regions of the State and for the State as a whole.
4. To prepare on a continuing basis releases of information pertaining to changes in the land market situation for areas covered by highway severance studies.

Initially a pilot study of partially-taken properties abutting Interstate Route 83 in York County was conducted. By being confined to a single community area this study was designed to experiment with procedures for data collection, methods of analysis, and reporting of findings. There were approximately 450 properties condemned along a 34 mile section of the new limited-access expressway, of which 355 were partial-taking situations. All information required for completion of the Bureau of Public Roads' "Case Study of Severance Damage" form, and selected additional items were collected for these partial takings. As of September, 1963, a search of the York County deed and tax records showed that 138 remainder properties had been involved in bona fide market sale since their respective condemnation dates.

Since there were so few cases available for this study, only elementary statistical tests were used. Frequency distributions, measures of central tendency, chi-squares, and simple correlation coefficients were derived from the data, with significant findings.

A progress report was prepared and issued to the State Department of Highways and the Bureau of Public Roads in August, 1964. Included in this report were "before" and "after" profiles of the economic uses, appraised land values, and market sale prices of the 138 remainder properties. In addition, the relationships between several selected property characteristics and property use and value changes were discussed.

The study was conducted within the analytical framework previously discussed. Property characteristics such as area, accessible frontage, and amount of improvements to the property were considered. In addition, locational factors such as the remainder property's distance from interchanges, trading centers, and major urban centers were tested. Measures of the social and economic environment of the community were not used in the pilot study, since only one community was included in the study.

The entire population of severed property remainders from York County, 355 cases, was reviewed to determine the impact of Interstate Route 83 on their economic uses, and to ascertain what factors were associated with changes in their uses. The sale population, 138 cases, was examined to determine the nature of changes in their land values. And, an attempt was made to associate several property characteristics with these land value changes. All statistical analyses of this study tested for "simple relationships" between the selected factors and property uses and value changes; only one factor at a time was considered. The desired procedure would involve a test of "multiple relationships," with all factors considered simultaneously. A multiple correlation test was carried out. However, due to the small number of sale cases and the wide variation in the values of the property characteristics tested, no significant findings resulted.

The following statements summarize the significant relationships between several selected factors and changes in the use of the 353 York County remainder properties:

1. The type of land use change occurring after condemnation is associated with distance from the nearest major urban center, York. While 60% of the properties experiencing land use change in the 0 to 2 mile range moved to lower land uses, 100% of the properties experiencing land use change in the 10 to 18 mile range moved to higher land uses. This relationship may reflect the fact that higher uses, such as industrial, commercial, and residential, predominated among the properties within 2 miles of York, while most properties in the 10 to 18 mile range were used for agriculture. And, properties in lower uses tended to move to higher uses when they changed; correspondingly higher uses generally moved to lower uses when they changed.
2. The type of land use change is associated with whether or not a remainder property is located within an interchange right of way. This usually included properties that were located within $\frac{1}{2}$ mile of the center of an interchange. Those properties in this category strongly tended to change to higher uses when their use changed. As the distance between a property and an interchange increased the tendency was for a change to lower uses.
3. The type of land use change is associated with the amount of non-limited access frontage abutting the remainder property. Properties with 100 feet or less of frontage tended to change to lower land uses; properties with approximately 1,000 feet or more changed to higher land uses more than to lower land uses.
4. The type of land use change is associated with the amount of property area remaining after condemnation. Properties with 5 acres or more remaining tended to move to higher land uses; properties with less than 5 acres remaining, particularly those with $\frac{1}{2}$ acre or less, tended to change to lower land uses.
5. The type of land use change is associated with the percentage of property area taken by condemnation. For example, properties with 10 percent or less area taken tended to change to higher uses, and those with 30 percent or more taken tended to change to lower uses.
6. The type of land use change is associated with whether or not property improvements were taken by condemnation. Properties with no improvements before or after condemnation tended to change to higher land uses; properties with improvements before condemnation, that were taken as a result of condemnation, tended to change to lower land uses (usually idle).

These findings are based on a Chi-square test run by the Penn State Computation Center; they were all significant at the 95% confidence level and indicate something of the nature of property use changes. However, further study of a larger group of remainder properties is definitely necessary. As I emphasized earlier, the relationships existing between various property characteristics and real property use are important, since property use is a prime determinant of real estate market value.

Now, in the analysis of remainder property land value changes, the measure of changed used was a "recovery rate." This rate is a ratio between the per acre sale price and the per acre "before value" indicated by the appraisers at the date of condemnation. The following statements summarize the significant relationships between several selected factors and changes in the per acre land value of the 138 York County remainder properties which have sold since condemnation:

1. The land value recovery rate is directly related to the property's distance from the nearest major urban center, York. As the distance between York and the remainder properties increased, the recovery rate increased. This is probably due to the fact that the properties closest to York generally changed to lower uses, while those further away tended to move to higher uses.
2. The land value recovery rate is directly related to the property's distance from the nearest trading center. Remainder properties nearest to trading centers experienced significant decreases in value, while properties further removed had significant increases in value. This is in line with the fact that properties furthest from trading centers tended to change to higher uses.
3. The land value recovery rate is inversely related to the property's distance from the nearest interchange. Remainder properties located at interchanges generally increased in land

value; as the distance between the property and the interchange increased the recovery rates become increasingly lower. These changes corresponded to the fact that properties closest to the interchanges tended to change to higher uses more than those further away.

4. The land value recovery rate is directly related to the use of the property before condemnation. Commercial, industrial, and residential property remainders generally decreased in land value. Agricultural property remainders generally experienced increases in land value.

These findings are based on a Simple Correlation test run by the Penn State Computation Center. They were all significant at the 95% confidence level. Certainly, such statements are not final conclusions. Additional study is required to supplement the work completed in the York County pilot study. Further justification for more study is found by comparing the appraisal estimates of land value changes with the actual changes as indicated by market sale prices of the 138 remainder properties from York County.

Appraisals indicated that on the average 7 remainder properties would increase in land value about 40%, 14 properties would not change in value, and 117 remainders would decline about 25%. Thus the average estimated land value recovery rate was approximately 84% of the value at condemnation. Actually the average value recovery rate was 169% of the value at condemnation, with 66 remainders increasing an average of 196% and 72 decreasing about 48%. This increase in land value was found to be significantly different from the decrease predicted at the date of condemnation, at the 95% confidence level.

In keeping with our stated objectives, the Pennsylvania Study began its continuation phase in the Spring of 1964. Approximately 650 cases were accumulated for partial-taking condemnations along Interstate Routes 70-S 81, and 90, in Washington, Westmoreland, Lackawanna, Susquehanna, and Erie Counties. Some 229 of these remainder properties had bona fide market sales. This enlarged the Pennsylvania "bank" of highway severance cases to a total of 367 cases. Over 300 of the case forms have already been forwarded to the national bank at the Bureau of Public Roads, in Washington, D.C. Copies are also on file at Penn State, and are available for use by the State Department of Highways.

Currently, partial-taking cases are being collected from new limited and non limited — access right of ways in a ten county area surrounding Philadelphia. It has been estimated that about 500 cases with bona fide market sales since condemnation will be gathered from this area by September of this year.

All cases in the Pennsylvania severance bank have been recorded in two ways. The relevant severed property information is first printed onto the Bureau of Public Roads' severance damage form. After copies of the completed forms, along with "before" and "after" property sketches, are sent to Washington, the information is then punched on IBM cards. The use of these cards allows for rapid, efficient analysis of severed properties, as well as an excellent comparable case selection system. Requests for comparable properties can be filled quite rapidly through the use of a card sorting machine, which has been set to select properties that have certain given characteristics.

AN EDUCATIONAL PROGRAM

In addition to collecting a bank of partial-taking cases and examining their characteristics and subsequent market values, severance study groups must make their findings available to all persons involved in the condemnation of real property for highway right of ways. A planned educational program, no matter how simple, is desirable. Several approaches can be used in communicating with right of way, appraisal, legal, and governmental organizations, and the general public. Individual case histories may serve as an introduction to the nature of severance damages and benefits and their impact on remainder parcel market value. These summaries of property characteristics, condemnation appraisals, and subsequent market sales are relatively easy to construct. And, evidently many severance study groups feel that they are quite worthwhile, as indicated by the number of case studies now published.⁽³⁾ The Pennsylvania Study is now preparing several case histories for properties used in special ways. Gas stations, fruit orchards, restaurants, schools, churches and an amusement park are among the uses of the properties being studied.

Another form of report is a "property type" summary which involves a collection of individual case histories of properties all having one common characteristic, such as land use, remainder

type, or type of highway right of way. Included with the case histories is a summary of the other characteristics and market value changes of these properties. Objective generalizations resulting from statistical testing of the cases should also be included. The Pennsylvania Severance Study is now developing two of these reports. The one deals with remainder properties located at interchanges, and the other with landlocked remainders. We feel that this type of report would be most practically used by right of way officials and Fee appraisers in Pennsylvania.

Technical articles, papers, and reports should definitely be prepared and made available to right of way, appraisal, and bar associations for their review and discussion. Specific discussion of the objectives, methods of analysis, results, and implications of findings of severance studies must be included in these reports. An exchange of this type of report between severance study groups will certainly benefit all concerned.

Finally, through a cooperative effort by severance study groups and national, state, and local organizations involved in highway planning and right of way acquisition, the general public must be aware of the true nature of severance damages and benefits. I know, as do many of you, that many people hold a popular misconception that the construction of a new high speed expressway will certainly cause a drop in market value of all those properties it touches. This idea has become quite a thorny public relations problem in some areas of the country. Therefore, severance study findings must be disseminated to the public through our mass media network, if they are to be totally effective.

CONCLUDING REMARKS

In conclusion, I would like to reiterate several points made in this discussion of the economic analysis of highway-severed properties. Three economic questions arise with respect to the acquisition of real estate for new highway right of ways and the subsequent construction of these highways. First, is just compensation being made to the owners of partially condemned real estate? Second, in light of the rising cost of right of way acquisition, is the lowest feasible acquisition cost being achieved by state and federal agencies involved? Finally, what is the economic impact of new highway construction on the surrounding communities. Severance studies are primarily concerned with resolving the first two of these questions.

A Broad Outlook of Land Economic Studies

By A. H. Christian, Right of Way Engineer, Texas Highway Department

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Public reaction to proposed highway and utility installations may be classified as general and special. General concern is expressed by public inquiry as to the effect of the proposed facility on a community, local business, social modes, convenience of travel, recreation and taxes. Special concern is registered by those property owners whose land is to be taken for right of way. They are concerned primarily with the compensation they are to receive for their property and the affect of the new installation on their remaining land. Thus, one individual may have both a general and special interest in the proposed new facility.

To be most effective, land economic studies must be directed towards both general and special interests. To date most of our attention has been directed toward the special application of these studies rather than the general application. We have been concerned in studying the before and after value of a specific property or group of holdings. More attention has been directed toward the special benefits accruing from the highway or utility improvement than the general benefits accruing from the con-

The major task of severance studies must therefore be the accumulation of a fund of objective evidence from which the answers to questions concerning right of way acquisition can be drawn. The provision of some additional objectivity for the right of way acquisition process must be carried out within the bounds of an economic framework — a framework representative of the structure of the real estate market. For, ultimately the determination of just compensation for condemned property, and, in turn, the costs of right of way acquisition, depend upon an estimate of market actions upon remainder portions of condemned property.

Three steps are involved in conducting a severance study; building a bank of information about the characteristics and market experiences of previously severed properties; statistically analyzing the characteristics and market experiences of previously severed properties; statistically analyzing the characteristics and market behavior of these properties; and conveying both the cases and significant findings to appraisers, right of way personnel, lawyers and all others involved in the acquisition of land for highway right of ways.

There will probably never be complete solutions to the problems of highway right of way acquisition, since the real estate market is made up of people, as well as their properties. Any generalizations about the "typical" behavior of individuals with respect to their handling of "unique" properties will at best only approach reality. But, highway severance studies can make significant contributions to the process of land acquisition for highway right of ways, if their work is based on orderly, scientific method.

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struction. This is evident from the fact that the bulk of the work done in land economic studies has been accomplished by the highway departments in their remainder studies research.

According to the latest information which I have received, all but two states are engaged in some form of remainder studies. In Texas we have published 250 individual case studies of remainders which have sold subsequent to right of way acquisition. Our studies have been widely distributed to appraisers and attorneys as well as others interested in the highway department's right of way activity. We do not consider these studies a substitute for the appraiser's investigation of comparable sales and we have been advised by our Attorney General that the studies as such are not admissible in evidence as proof of value. They are permissible when used as comparables after proper investigation and study by the appraisal witness. We have been advised by appraisers that they are helpful to them and several condemnation cases have been settled without resort to jury trial based partially on information obtained from these remainder studies. Interest in these studies is increasing. In April an appraisal seminar was held in Chicago where the subject of appraisal of remainders was discussed. I have been advised that a great deal of interest was shown in the remainder studies published by Texas and some of the other states. Thus I feel that we have come a long way in the past few years in gaining recognition of land economic studies as an aid in the evaluation of right of way; however, this recognition has been relegated somewhat to the special application of land economic studies.

The utility studies which I have seen are basically special interest studies also because they describe the effect of an overhead transmission line on a residential area with particular emphasis on the value of residential property..

If we are to obtain the full value of land economic studies we must work toward the recognition of the general application

of land economic studies as well as the special application. Newton's third law of physics states, "For every action there is an equal and opposite reaction." We who are engaged in acquiring right of way are well aware that our action causes a reaction. Fortunately this reaction is usually favorable; however, on occasion the reaction follows Newton's law and we encounter opposition. This is to be expected to some degree because we cannot please all the people all the time. Nevertheless, the majority of people are reasonable and they are willing to set aside unsupported fears and misconceptions when an adequate explanation supported by facts is given of our intentions. Certainly it behooves us to get the facts relating to the benefits of our proposed installations before the public, Chambers of Commerce, city planning commissions, real estate developers and various commissions and agencies which are concerned with the economic development of a city or area.

Some progress in this regard has been made. The Automotive Safety Foundation published a study in 1964 entitled, "What Freeways Mean to Your City." This publication is well done but it tends to be too general in its application. Texas and some other states have published economic impact studies which describe the economic impact of the Interstate System or other highways on a given city or area. These have both general and special application. At the present time in Texas we have two studies underway which although designed primarily for the so-called special application may have a wider general application. One relates to the effect of right of way acquisition on rural farm and ranch operating units. The objectives of the study are to contrast the before situation and operations with the situation existing after right of way acquisition. Investigation is to be made of the change in farm income caused by decreasing the farm acreage and division of the

unit into separate parcels by the right of way, the change in kind and intensity of land use, the cost of adjustment to new operating procedures and the change in number of operating units, tenure patterns and intensity of operations. Another study is entitled, "Frontage Roads and Economic Development." In this study we are primarily interested in the effect of frontage roads on industrial development along the Interstate System. In pursuing this study we have amassed considerable data relating to the location of industry in Texas and the reasons behind the decisions to locate at a particular site as well as the over-all effect of these decisions. It is apparent that the availability of this data to industrial development boards and city planners will be extremely valuable. I am not aware of any utilities studies which will have as wide an application.

In summary it appears that the time has come to take a broad outlook of land economic studies. Just as a property owner sees a proposed highway or utility line from a general and special viewpoint, we should recognize the application of land economic studies as both general and special. We should continue our efforts to set minimum acceptable standards for these studies and to obtain more studies particularly from the utilities industry. We should strive for a wider distribution and dissemination of all studies and attempt to interest industry in the exchange of information and publication of material which will alleviate fears or misconceptions concerning utilities installations. This work cannot be accomplished by a few members of the Land Economic Studies Committee. It must be carried out vigorously by all members of the American Right of Way Association acting through their chapters.

Pipeline Sectional Conference

The Colonial Pipeline Project — Easements by the Thousands

By Lou P. Humann, Executive Vice President, Coates Field Service

L. P. HUMANN

Executive Vice President, Coates Field Service, Inc., Oklahoma City, Oklahoma.

Attended Butler University. Treasurer, Georgia Chapter 22, American Right of Way Association. Member, Georgia Chapter, Public Relations Society of America.

Again it is my pleasure to speak before this group. As many of you may recall, Jim Ball apparently needed a "filler" to cover this spot on last year's Seminar program. Charles Elam invited me to speak about Colonial this year even though my affiliation with that firm was terminated last November. I suggested to Mr. Elam that making this talk might be likened to serving warmed over gravy up to you. He insisted and asked me to come out and I am delighted to be on the program.

Many of you have read about this gigantic project in the press, I will not bother repeating the statistics here. We had many frustrating, rewarding and costly experiences. From it all, the one big conclusion was that, like everything else, the price keeps going up. If I could answer how to stop these spiraling costs, I would probably be a very popular and sought after speaker.

It was determined long before we left the gate that, in order to gain a running start, the contract method of right of way acquisition should be employed. In April of 1962, Colonial's Right of Way Department consisted of three people. I was manager, Fred Collins was assistant manager . . . and we had a secretary.

By using the contractor method, Colonial availed itself of the skilled right of way and engineering organizations maintained by the contractors. This arrangement gained us at least 90 days lead time that otherwise would have been required for recruiting, contacting, interviewing and hiring hundreds of right of way agents, engineers, clerks, abstractors, draftsmen and survey crews. Most of these people would have had to be dropped from the payroll once the project was completed.

The 2,600-line pipeline system was divided into segments following state line boundaries. Population density, frequency of individual tracts, our estimate of the contractor's ability to handle the job and other factors led us to a fairly accurate distribution of the work in each segment. Texas and Louisiana were Segment 1, Mississippi and Alabama were Segment 2, Georgia and Tennessee - Segment 3, North and South Carolina - Segment 4, Vir-

ginia alone was Segment 5, Maryland and the main line to Booth Corner, Pennsylvania, (near Philadelphia) - Segment 6, and the State of New Jersey, with its main line from Booth Corner to the Delaware River, was Segment 7.

Segment 7 is an area that is almost completely urban and thickly populated. We withheld that segment from contract and operated it as a so called "company spread."

We knew that some of the same independent right of way agents, engineers and surveyors would have shown up on the job, either under direct company hire or the contractor method. But before a contractor assigned a right of way agent to the job, Fred Collins or myself personally approved each assignment. This resulted in a considerable measure of control.

As actual right of way acquisition progressed, Colonial maintained control by setting the "going price" in each area. We also stationed a Colonial supervisor, usually a loan employee of a Colonial stockholder, in each contractor's field office. This supervisor reported directly to the right of way manager and he personally reviewed each right of way and claim transaction. He then affixed his written acceptance and approval to each easement and release. Furthermore, Colonial Pipeline Company drafts, furnished to each right of way contractor agent, were not paid until the right of way manager gave his written approval. The manager was, in turn, supported in his approval only after Colonial's field supervisor had furnished him written information that each draft payment was in order.

For flexibility, the field supervisor was given a "price ceiling" in each area. When it was reached, the right of way manager usually advanced the ceiling or decided to condemn wherever possible. The field supervisor was also permitted to use his discretion — within limits set by the right of way manager — in cases of special easement provisions or deviation from the printed right of way form. Extremely unusual transactions or requirements burdensome to the Company were handed from the field supervisor to the manager of the Right of Way Department. Highly important matters went to Company management for a decision.

Besides the field or district right of way supervisors, there was a division right of way supervisor stationed in each Division operating office with the right of way contractor project manager. This might seem like a duplication but, in our opinion, it helped tighten supervision and control and assured proper liaison and good communication throughout the organization. The key to the control by the owner or client company is to station a com-

pany representative or field supervisor in each contractor project office location. Each and every operation of the contractor can thus be reviewed on an hour-by-hour basis and immediate remedial action taken, if necessary. Frankly, we took the view that a contractor, in effect, was merely a labor broker and that Colonial's policies and procedures, including public image, were our own business.

Looking back, the contractors on the Colonial job were very cooperative in this respect and in all others. They maintained a strong sense of duty and enthusiasm from start to finish.

Right of way acquisition activities peaked during August 1962. At that time, about 150 right of way agents were employed and there were more than that number of supporting people such as draftsmen, clerks, local attorneys and others. About the same time, right of way peaked to about 45 miles per week.

Another very important duty of all our right of way supervisory people was to see that no right of way crew was featherbedded, I am happy to say here that the contractor sthemselves, displayed a high degree of integrity in constantly policing the manpower situation. There were very few cases of Colonial representatives recommending a reduction in force.

There are in Colonial right of way files about 17,000 separate right of way negotiations with private land owners along the route of the Colonial system. There are also about 3,000 permit acquisitions to accommodate crossings of highways, railroads, city streets, rivers and other utilities.

Colonial's system traverse three states where no right of eminent domain was available — Alabama, North Carolina and Maryland. A law passed in North Carolina, effective January, 1964, now covers interstate pipelines. We could have put it to good use and made substantial savings had it been passed one year earlier.

Colonial crossed 17,000 separate parcels of land. The Right of Way and Legal Departments authorized 650 condemnation suits. Of these, 220 were settled after the landowner was notified that a suit was to be filed. Of the 400 additional cases actually filed, about 200 were settled after the filing, but before the hearing. Of the 122 condemnation suits that went to hearings, about 50 are still pending. Land owners appealed about 50 of the awards given and Colonial appealed in about 25 cases. We think that's a pretty good score, considering the magnitude of the project.

As you can well imagine, there are many interesting stories about our contacts with the public. While acquiring a tract of land for breakout tanks in Cumberland County, Virginia, for example, we found a grave that was 100 years old. Our first thought was to simply move it. Application was made to the local health authorities to remove the remains, with dignity, to a public cemetery. An undertaker was retained and we waited for permission from the Board of Health. It was granted but with one significant restriction. We first had to determine, before re interment, whether or not the deceased was of the Caucasian race. We had to give that one a little thought. We retained specialists and they couldn't even tell whether it had been a man or woman 100 years ago. The permit to remove the body was cancelled because nobody could decide if reburial was to take place in a white or colored cemetery. Well, we finally solved it. On the edge of our property there is now a neatly sodded, fenced cemetery plot dedicated for eternity to the accommodation of the remains of a white or negro citizen of 100 years ago.

Then there was that interesting fellow we met at the start of the job down in Mississippi. He was violently opposed to the pipeline crossing his farm. Well, we had run into that sort of thing before, but there was a difference here. Not only was he rather disturbed psychotic but also an ex-World War II demolition expert. Now there's a wicked combination. Our engineers

showed up on his farm one morning to make a preliminary survey. The land owner confronted them and forbade setting foot on his land. He then pointed to fresh mounds of earth along the pipeline route and said they proved he meant business because there was a land mine under each of them. Our engineers and survey people have rarely been phased by obstacles, but this crew decided it wasn't quite dedicated enough to step across the fence to see if he was bluffing. We sent out an S-O-S for a Mississippi-born right of way agent who very successfully quieted the man down and made a deal to lay the pipeline. After the deal was closed, the farmer said he would show us he hadn't been lying. The explosions were very impressive. We finally got to be such good friends with him that he and one of his sons joined our construction crew for several weeks while we were building in the neighborhood.

For those of you who have not operated in the Louisiana Arcadian or Cajun country, take the advice of someone who has learned the hard way — if you can't fight 'em, join 'em. In the dark reaches of the swamps, forests and bayous of the Evangeline country, many of the natives speak only French. Here we had to hire a special team of French-speaking right of way agents to get us through.

Several times, we altered the route of the line so that historic shrines and monuments, even if they were unofficial, would be left undisturbed. There was the famous Port Hudson Confederate Battlefield in Louisiana. We changed our route slightly in Prince William County, Virginia, to avoid a huge 18th century elm tree, under which it is said that early Colonists made an important treaty with hostile Indians. We also encountered in Virginia a white family that had lived side by side with a colored family for 35 years in peace and contentment. When our title expert went to the county records to determine ownership of the two tracts, he discovered that each family had inadvertently built their home on land actually belonging to the other. Colonial assisted the parties in exchanging corrected deeds, the owners gave us right of way and everybody was happy.

In the southeastern Pennsylvania area we met with a different breed of land owners. Our right of way and engineering people "wore out the ground" trying to satisfy them as to the location of our line, but to no avail. Even after receiving right of way from the Courts, people kept harassing our construction. One little old lady laid across the right of way (all 5'1" of her) to delay our ditching crew. One land owner and his wife advertised a "fun and games breakfast" for 7 a.m. one morning. Orange juice, doughnuts and coffee were served to 50 or 60 people on picnic tables placed across our right of way. Another gentleman, and I use that term loosely, taking a page out of a Zane Grey novel, rode a horse up and down our ditch line firing a rifle. We kept the Judge and Sheriff busy signing and serving restraining orders. After a day or so of this, we knew what time the Judge ate breakfast, where he was going to eat lunch, what golf club he belonged to, his court calendar and practically every move he made during any given hour of the day, in order to find him should there be any further attempts to delay our contractor.

As in any other business enterprise, Colonial's most important assets were the hundreds of skillful, loyal, hard working people who contributed to the success of the project.

Personally, I take a great deal of pride and satisfaction in having made a contribution to a transportation facility of such tremendous beneficial impact on the well being and convenience of the people of this country. Colonial's effect on the economy, whether in peace or in the event of national emergency, is still immeasurable.

May I thank you again for your invitation to speak, your courtesy and attention.

The Large Landowner and Rights of Way — Problems and Advantages

By James A. Walker, Manager, Oil Lands and Leases, Kern County Land Company

JAMES A. WALKER

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Kern County Land Company.

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The large landowner must view Rights of Way with mixed feelings. As you know there are many problems as well as advantages to all landowners — large or small. This meeting is an excellent opportunity to discuss our mutual problems. I am addressing my talk to the entire subject of Rights of Way even though this is the Pipeline Section meeting. In the question and answer period I will be happy to cover any specific questions.

KCL'S BACKGROUND

As you may know Kern County Land Company is a hetero-

genous enterprise engaged in agriculture, cattle, oil, royalty activities, oil exploration and development, electronics, hard minerals, automotive parts manufacturing, real estate, and farm and construction equipment manufacturing. Many of these activities are international as well as domestic.

The land holding or property management activities are the functions of interest to you. Out of 1,800,000 acres of ownership in the Western United States, our 400,000 acres in Kern County, California is the most valuable land asset, with over 1000 miles of private canals, 150,000 acres of irrigated farm land, 120,000 acres subject to oil leases, 6,000 acres subject to a commercial, residential and industrial development and 4,000 acres currently under major Right of Way negotiation.

CURRENT RIGHT OF WAY PROBLEMS

Currently we are negotiating four major easements covering some 4,800 acres or approximately 1% of KCL land in Kern County with a revenue potential in excess of \$2,000,000 (approximately 50c per share before income taxes). They are:

1. The Feather River Project Canal,
2. The Interstate No. 5 By-pass,
3. The 500 KV Transmission Line, and
4. The Arvin Edison Canal.

Both the problems and potential to the company are substantial. These and other major Rights of Way have developed several significant new problem areas for us not previously encountered.

Examples are:

1. Access over the Feather River Canal which traverses a 25 mile stretch in the San Emidio Front area near Highway 33 and east of Maricopa, California.
2. The joint severance damage between Interstate No. 5 and Southern California Edison 500 KV line in the center of our ownership.
3. The severance of farming units from water access by the Feather River Canal in the San Emidio Front Area, and
4. The PG&E Transmission Line in our Real Estate Development at Stockdale with Del Webb Construction.

HOW RIGHTS OF WAY ARE HANDLED

Being a sophisticated and profit oriented landowner, multiple use of land is a necessity. We are in favor of intelligent progress and fair easement settlements. Yet with such progress our operating divisions are often materially disrupted by new facilities. Short term they usually represent a significant nuisance factor. In addition there are many administrative and operating costs and inconveniences which cannot be offset, even with a fair settlement on land values. Of course, long term many, if not most, of these new facilities have a positive benefit to the company's overall picture. Obviously new highways, canals and other improvements enhance certain segments of our ownership. To balance both the positive and negative we maintain a competent staff of specialists to take a constructive position and to see:

1. That the operating divisions are not unnecessarily inconvenienced.
2. The company and ultimately the shareowners are properly compensated and
3. That our demands are realistic to permit construction of the facility with minimum delay.

HOW LANDOWNER AND RIGHT OF WAY AGENTS COOPERATE

The main point I wish to convey today is the urgent need for preliminary discussions with informed and competent representatives of both parties at the early planning stage before design and details are complete.

An excellent example is the proposed Southern California Edison 500 KV Transmission Line which will go through a major oil field — Paloma. Because of our historical working relationship with Edison we were able to help them save considerable costs. This solution will actually cause some inconvenience to KCL because the relocation goes through a valuable segment of our agricultural land. However, taking an objective view, it doesn't make any sense for the oil operations by our lessees to be disrupted and for Edison to pay extra costs. Generally we have found that our inconveniences can be minimized and at the same time materially reduce costs to the license if we are afforded an opportunity to look at and discuss preliminary plans.

Agencies operating under the *Right of Condemnation* pose special problems. Wherever possible, we issue "Rights of Entry"

as a substitute for a "Declaration of Taking" possession. We believe this approach avoids unnecessary title clouds, legal bills, arguments and delays — all of which adversely influence the landowner's settlement price and ultimate cost of the facility.

MULTIPLE USE EXAMPLES

It is difficult to cover this subject in depth during a short talk. I have picked two interesting examples which will illustrate compatible multiple uses of land. First will be agricultural operations expanded into an existing and developed oil field. Second will be an oil field development into an existing agricultural area further complicated by the currently proposed Feather River Project and Interstate No. 5.

1. *New Farming in An Old Oil Field.*

About three years ago our Agricultural Division commenced farming within the limits of the Greeley Oil Field discovered in 1937 and fully developed by the 1950's. With the help and cooperation of Standard of California this was accomplished. Normal irrigation farming operations were altered to accommodate the existing oil facilities.

2. *New Oil Field in an Existing Agricultural Area.*

In 1958 the North Tejon Oil Field was discovered. Ultimately it was extended into a farming area. The normal oil field road pattern was substantially altered in the farming area to accommodate the existing irrigation pattern. Richfield Oil was cooperative with our agricultural tenants during the drilling phase. As an additional service, KCL is frequently able to assist both the utility or oil company and the farmer by providing knowledgeable people to make sure that our tenants' requests are reasonable and that the lessee or licensee is being fair.

SPECIFIC PIPELINE PROCEDURES

Specifically on the subject of pipelines we have certain procedures. In agricultural areas where deep plowing techniques are common we require pipelines to be buried 48" below the surface and reserve relocation rights. In the San Joaquin Valley erosion is not a major problem in changing depths from time to time. This is a significant factor in the peat moss areas of the Sacramento River Delta. In the idle desert, mountainous regions and oil field areas most pipelines are located on the surface with the right to require burying or relocation at a later time. Pipelines on our land range from temporary water lines to the two 34-inch PG&E Topoc-Milpitas lines carrying Texas natural gas from the California border to Northern California.

OTHER PROBLEM AREAS

Erosion Control poses numerous problems to us. Frequently we find lack of followup and control over actual construction of Rights of Way. Often the contractor goes outside the easement area in access operations. His wanderings over the countryside contributes to many erosion problems. To avoid this we would like to see greater supervision over contractors.

Subsidence and Top Soil Problems are of great interest to us. Even though proper backfilling procedures are followed we frequently find substantial subsidence in irrigated areas. A current example of costly subsidence is in an orange grove area where there is a buried utility facility.

Often noxious weeds grow abundantly in pipeline areas where there is disturbed soil. We find that natural reseeding takes several years. Recently we solved one such problem by getting the licensee to take off the top soil in a two stage ditching operation. Our experience indicates that this effectively saved the valuable agricultural potential.

CONCLUSION

Because we are a large landowner, I do not think that we will continue to be a significantly different factor in the Right of Way business. Right of Way problems have become big business to all concerned. Landowners, their attorneys and advisors generally are becoming more knowledgeable. The value of land is steadily increasing so that it is profitable and necessary to pursue a careful investigation of all requests. Therefore, the principles I have discussed for us, as a large landowner, will have application, to various degrees, to all landowners not just the larger ones.

As I see it the future of your profession has no short cuts. The modern Right of Way agent must be thoroughly informed and consistently a careful operator in order to properly perform his function.

I hope that this review of KCL's situation has helped you understand how one large landowner thinks and operates.

The Legal Approach to Negotiations

By Albert J. Day, Partner, Hill Farrer and Burrill

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The title "The Legal Approach to Negotiations" may seem to be a contradiction in terms. As we all know, the primary purpose of negotiations is to avoid the ultimate legal consequences — i.e., a lawsuit. But negotiations, however practical in their nature and approach, must also be based on a sound legal foundation which recognizes the respective rights and liabilities of both parties.

This perhaps can best be illustrated by an example of what happened to a client of our office some years ago. One day the ranch foreman while driving over the property observed a line of survey stakes. After ascertaining that permission had not been given for any survey, he carefully pulled each stake out and when he caught up with the survey party, dumped the stakes on the ground and ordered the crew off the property. After the survey party retired, the owner was approached concerning the possibility of a pipe line company, which incidentally did not have the power of eminent domain, acquiring an easement across her property. The result of this belated attempt to negotiate can clearly be seen today because if you go to a certain ranch in Ventura County you will find a pipe line easement coming up to the property line, making a right angle turn, proceeding along and just outside the property line to the corner of the property, then turning at right angles and proceeding along and just outside the property line to the next corner, then turning at right angles and proceeding along and just outside the property line to a point opposite the original planned point of entry where it finally proceeds along its original course.

Perhaps this result could have not been avoided. Some of you, I am sure, must have attempted to deal with an owner who refused to sell under any circumstances. But most owners, if properly approached, can be reasonable. You gentleman, as representatives of various pipe line companies, have the important job of doing everything in your power to negotiate this reasonable settlement. But in doing so you must recognize the rights of the property owners. Failure to do so may necessitate condemnation or even result in the unfortunate situation outlined above.

It has been our experience that good advance public relations render an important contribution to the negotiation process. Even though the ultimate settlement is consummated by the right of way agent and an attorney, the attitude of the property owner is still an important factor. He must approve the compromise. If he has been arbitrarily approached in the first instance, the attorney's discretion to make reasonable compromises may be non-existent or at least seriously curtailed.

What are good public relations which can smooth the path of negotiations?

First, I would like to suggest that the selection of the route sufficiently far in advance of construction is essential. Hurried negotiations which allow no time for adequate study of the problem are rarely productive. Furthermore, the company may be seriously hampered if the owner, knowing of the need for immediate construction, decides to delay in the hope of getting a hold-up price.

Other company policies which will smooth the negotiator's path are flexibility of location, design and construction date. While I realize that it is often impossible for technical reasons to shift the location of a utility line, there are instances where this has been done. In the initial design stage the right of way agent, if consulted by management, can often suggest routings which, while not necessarily the best from an operational viewpoint, can result in an overall saving to the company. Generally, a route along the property line or next to the street is more acceptable to the owner and results in less damage to his property than one which cuts diagonally through the barn, across the back yard and requires a manhole or vent pipe under the bedroom window. The practical approach avoids this when possible and balances cost of construction and operation against the damage to the property.

Another suggestion that comes to mind is to investigate the history of the area through which your line is to run. For example, in many areas of Orange County today they have what is known as the Stearn's Rancho Reservations. When the Rancho made its original conveyances, many years ago, it reserved to itself easements along section and quarter section lines for road purposes. While these easements do not necessarily appear on any map, they have been enforced by the courts in Orange County. Similarly, there are often old tract maps which may have dedicated certain streets and highways and even though they are not improved upon the ground your company may, through a franchise procedure, have the right to lay its lines within the dedicated right of way.

I would also like to suggest that the company make a detailed inspection of the type of property which you are crossing. If other utility lines have been installed, it may be that you can use the existing easement or by paralleling it, considerably reduce the damage to the owner and consequently, the compensation payable.

If you are crossing farm land, attempt to find out the type of crops which are grown, the planting season and the method of cultivation. If possible, lay a line at a sufficient depth to avoid interference with normal cultivation and plan your construction during the fallow season rather than just before harvest time. If the property is in transition from agricultural to residential or industrial, try to work with the owner to avoid damaging his subdivision layout. Here again, a line running down a prospective street is much less damaging than one which cuts diagonally through the property and reduces the number of lots.

By making these few suggestions, I do not mean to imply that every owner's demand must be met. Reasonable cooperation, when possible, is all that I suggest.

After the initial contact has been made, the route determined and all reasonable concessions discussed and agreed upon, we come to what might be called the legal approach to negotiations. What, generally, are the rights of the company and the owner?

First, the company, assuming it has the power to condemn by virtue of being a public utility or quasi-public utility, may take the property. However, it must preliminarily show that the easement is being acquired for a public use and that it is necessary for such use. Assuming these preliminary questions are resolved in favor of the plaintiff, the law also requires that the condemnor pay the just compensation for the taking of the property. Just compensation, in most states, includes not only the fair market value of the property or property interests taken, but also the severance damages to the owner's remaining property. Severance damage is that loss or diminution in value of the owner's remaining property caused by the taking and the construction of the improvement in the manner proposed. A common example might be the taking of a diagonal easement through a field and the laying of the pipe at an insufficient depth to permit normal cultivation. In some states a public utility may be permitted to offset against these severance damages, special benefits resulting from the construction of the improvement. An example of this might be the bringing of water to the property where none was available before.

While these concepts of value and damages are somewhat theoretical, they are susceptible of opinion testimony and evidence. The negotiator, before approaching the owner, should have a complete up-to-date appraisal of the property being taken. He should review and be thoroughly familiar with the details of this appraisal and be prepared to demonstrate to the owner the effect of the easement upon the property taken. While it may be possible in some instances to classify properties into various categories for the purpose of determining the market value of the easement taken, there is a saying in the law that no two properties are exactly the same. Consequently, a general averaging of the entire right of way is rarely helpful. If the particular property is inferior to that found in the general area, you may pay more than just compensation. Conversely, when a superior property is encountered, the owner may become disgusted and terminate all negotiations. An example of this situation which comes to mind involves a case handled by our office some years ago where the owner was originally offered about \$1,500 for an easement over 31 acres of property in Los Angeles County. This offer was later increased to some \$4,700. The matter was finally settled for

\$37,500 — but not until the company and the owner had secured individual appraisals of the particular property.

In closing, let us briefly consider how extensive the negotiations should be. It has been our experience that the mere making of offers and counter offers is rarely productive. Effective negotiations should include a mutual discussion of the merits of the case. Factual differences, where possible, should be resolved as soon as possible. If one side or the other is proceeding upon an improper factual basis, this should be brought to his attention at the earliest possible time.

When possible, the various appraisal theories utilized should

also be discussed. Dollar amounts must be placed in their proper perspective before a meaningful discussion of the merits of a particular case can ensue.

Of course, this should be on a mutual basis. I would not want to suggest that you disclose your hand while allowing the other side to play his cards close to the vest. However, where there is a full mutual disclosure of the pertinent facts and appraisal theories, then both parties, the company and the property owner, have a better opportunity to resolve the various, and sometimes conflicting, approaches to compensation and hopefully a settlement can arrive at which is fair and just to both parties.

General Session — Wednesday, June 16, 1965

The Pacific Northwest-Southwest Intertie

By John V. Mulcahy, Chief, Branch of Land Bonneville Power Administration, Portland, Oregon

JOHN V. MULCAHY

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"The eyes of the world are on you." This is a quote from President Lyndon B. Johnson's address to the Intertie victory breakfast held at the Sheraton Motor Inn in Portland on September 17, 1964.

This will be the largest single electrical transmission program ever undertaken in this country. The capacity of the four lines will be greater than the output of two Grand Coulee Dams. *The lines will tie together electric systems from Canada to Southern California and Arizona* and will provide benefits to 11 western states and about 250 electric systems, large and small.

THE INTERTIE LINES AND THE OWNERS

There will be four lines constructed in this program.

1. A 500,000-volt alternating-current line of approximately 1,000,000-kv capacity will be constructed from the John Day Dam on the Colombia River to near Los Angeles, plus a 230,000-volt line from Round Mountain, California, to Cottonwood Substation near Redding, California.
 - The 265-mile Oregon portion will be built by Bonneville Power Administration.
 - The 100-mile section from the Oregon border to Round Mountain, California, will be built by the Bureau of Reclamation.
 - The balance (approximately 750 miles) of the 500,000-volt circuit will be built by the California Power Pool, consisting of Pacific Gas and Electric Company, Southern California Edison Company, and the San Diego Gas and Electric Company.
 - The 34-mile 230,000-volt line from Round Mountain to Cottonwood will be built by the Bureau of Reclamation.
2. The second 500,000-volt line will be constructed as follows:
 - The 80-mile portion from John Day Dam south will be built by the Bonneville Power Administration.
 - The 185-mile section to the Oregon-California border will be built by the Portland General Electric Company.
 - The 50-mile section from the border south will be built by Pacific Power and Light Company.
 - The balance, about 730 miles, will be built by the California Power Pool.

There will be a switching station in Oregon, near a town known as Grizzly, where the Round Butte project owned by Portland General Electric Company will be tied into the Intertie at 500,000 volts. There will also be a switching station near the California border, to be known as Malin, where the California sections of the lines will be tied in. There will also be a 500,000- to 230,000-volt substation constructed at this point by Pacific Power and Light Company to tie into its system at Klamath Falls, Oregon.

3. A 750,000-volt direct-current line of 1,350,000-kw capacity will be constructed from The Dalles to Sylmar Substation near Los Angeles.
 - The 265-mile Oregon portion of this line will be built by the Bonneville Power Administration.

—The 560-mile Nevada-California portion will be built by City of Los Angeles.

4. A second 750,000-volt direct-current line of 1,350,000-kw capacity will be constructed from The Dalles, Oregon, to Hoover Dam.

—The 265-mile Oregon section will be built by Bonneville Power Administration.

—The 560-mile Nevada portion will be built by the Bureau of Reclamation.

—A 240-mile 345,000-volt line will be constructed from Hoover to Phoenix.

—The Bureau will also "rebus" Hoover Dam and make possible the interconnection of the Hoover-Phoenix line with existing circuits between Los Angeles and Hoover Dam. The financing of this latter line will be by the Arizona Public Service Company in conjunction with the Arizona Power authority.

INVESTMENT

Total investment in this system is estimated at \$700,000,000. The Federal Government's share will be approximately \$300 million. Of this amount, Bonneville will spend approximately \$165 million, the Bureau of Reclamation \$135 million. The remaining \$400 million will be financed by the various private systems involved in the construction, principally, Pacific Gas and Electric Company and the City of Los Angeles. Approximately 2,100,000 kilowatts of the transmission capacity will be utilized, in California and 1,300,000 kilowatts of capacity in Arizona, Nevada, and the Colorado Basin.

USE OF THE LINES

These lines will be used for five principal purposes:

1. These lines will permit the marketing of surplus peaking capacity. Peaking capacity is the ability of a system to produce large quantities of power for brief periods of time to meet peak loads. We can sell this peaking capacity in California and other Southwest areas without diminishing our ability to produce firm power. This is because Southwest utilities on off-peak can run their steam plants to return the same amount of energy to the Northwest. In the Northwest, we can shut down our generators and store an equivalent amount of water that is required to produce the peaking energy in the first place. This is called "selling peaking capacity without energy."
2. It will enable the Northwest utilities to market their surpluses of secondary power. Secondary power is that which can be produced when stream flows are higher than critical, but which cannot be guaranteed for delivery day in and day out. Some \$20 to \$30 million worth of secondary power now goes to waste every year over the spillways of Northwest dams. Secondary power can be used by utilities in California and elsewhere in the Southwest which utilize steam plants which burn fuels that are more costly than the delivered price of Northwest secondary power. If secondary power is available over the Intertie, the steam plants can be shut down at substantial savings in fuel costs; if it is not available, the steam plants supply the energy.
3. The lines will permit exchanges of energy between regions to take advantage of diversity in stream flows at peak loads. In parts of the Southwest, peak loads occur during the summer months for air conditioning and irrigation pumping. In the Northwest, peak loads occur in the winter months mainly for heating. The Northwest therefore can transmit their summer-time surpluses to the Southwest, and the Southwest can send

their surpluses back in the winter months when we need it. This permits utilities in each region to meet their loads with less plant investment than if each region were to install sufficient equipment to handle its own requirements.

4. The Intertie lines will make it possible for Bonneville Power Administration to firm up some 700,000 kilowatts of secondary power and make this much additional firm power available for sale to customers here in the Northwest. Some years we can produce substantial quantities of secondary power the year around, in other years for many months; and only in a critical water year would we be unable to produce any secondary power. However, by importing a small average amount of steam energy from the Southwest to fill in the low spots, we would be able to guarantee delivery of the additional 700,000 kilowatts.
5. The lines will enable Northwest utilities to sell in California, Canada's share of Columbia River Treaty power for the time it is surplus to Northwest needs. Under the Treaty, Canada will build three large storage dams on her side of the border. This will level out the flow of the Columbia and enable existing United States dams to produce initially an extra 2.8 million kilowatts. Canada gets half of this additional power and the United States the other half. However, Canada has decided to sell her half of the Tracy power in the United States for the first thirty years. The Northwest utilities have agreed to buy it. It will all be needed in the Northwest by the mid-1970's, but until then large portions of Canada's share will be surplus to Northwest needs. For as long as it is surplus, it can be sold in California.

SELLING PRICE

Bonneville will sell its surplus secondary energy at the Southern Oregon border at the same "postage stamp" rate at which it sells to customers in the Northwest. This rate will be approximately 2 mills per kilowatt-hour under projected rate schedules. Purchasers outside the Northwest will bear the transmission charges from the Southern Oregon border to their load centers.

BPA will sell peaking capacity without energy — that is, peaking power where the energy is returned — for \$9.00 per kilowatt-year under projected rate schedules. There will also be a special short-term summertime rate of \$5.00 per kilowatt-year for those who need peaking in the summertime only. Purchasers of peaking power would bear the transmission cost from the Oregon border south and the transmission cost north to the Oregon border when they return energy associated with peaking capacity.

Canadian Treaty power will be sold at the Southern Oregon border for the same price it is available in the Northwest. This price includes a \$1.50 per kilowatt-year transmission charge payable to BPA for transmitting Treaty power to any part of the Bonneville grid.

BENEFITS

Over a fifty-year payout period the Intertie lines will produce total benefits measurable in dollars estimated to be at least 2.6 billion. There are important other benefits such as greater assurance of Federal power supplies for preference customers, advancement of extra-high voltage transmission technology, conservation of exhaustible resources, reductions in generating reserves, emergency assistance between large electrical systems, and other benefits that are difficult to measure in terms of dollars.

The estimated dollar benefits will be divided as follows:

Pacific Northwest, \$1 billion; California, \$869 million; and Arizona-Nevada, \$724 million.

One of the most important benefits to Northwest citizens is an estimated increase in BPA net revenues of as much as \$20 million a year, and on the average \$11 to \$12 million per year for fifty years. It will go a long way toward keeping BPA rates low. It will spare BPA customers at least \$550 million in rate increases otherwise necessary during the fifty-year payout period.

DIRECT-CURRENT TECHNOLOGY

As I have indicated, two of the four lines will be operated as direct current at 750,000 volts. These two lines will be America's first, and the world's longest direct-current lines.

This technology was pioneered in Sweden and Russia. However, our program will enable the United States to assume world leadership in the application of this exciting new transmission technique.

Direct current can be used to move large amounts of power over long distances more economically than alternating current, providing the line need not be tapped at frequent intervals. Utilization of d-c technique requires that the voltage be stepped up as alternating current at the converter stations, converted to direct current, transmitted and then inverted at the inverter stations back to a-c, then stepped down to the usable voltages needed for various types of load that will be served. Lines can be built for approximately two-thirds the cost of an alternating-current line, but the terminal equipment is very substantially more expensive than alternating-current terminal equipment.

The major economy in direct-current transmission is that it requires only two conductors as opposed to the conventional three wires for alternating current. Thus, the towers have to carry less weight, can be smaller, and cost less. Of course, there is one-third less conductor needed. The economic crossover point is where the savings in cable and towers offset the high cost of terminal equipment. Direct current permits savings in right of way costs because fewer circuits are needed for the same amount of power. It reduces insulation costs because lower voltages to ground can be used. A 750,000-volt line will be normally rated as 375,000 volts plus or minus, meaning that clearance to ground will be 375,000 volts; the voltage between conductors will be 750,000. Losses are less for transmitting the same amount of power with the same size conductor for the same distance. A-c line losses are approximately one-third again as much as for d-c. Another problem with a-c is frequency control. With d-c transmission there is no frequency problem. Technically, distance is not a limiting factor in the transmission of power. The larger the conductor the farther power can be transmitted for a given voltage. From a practical standpoint, in long-distance transmission there are far less problems with d-c than with a-c.

While we know enough about d-c transmission to utilize it effectively on the Intertie, we hope to learn still more from experience with these lines so as to lower the cost of d-c and increase its potential use.

Assuming complete success in this major transmission program, which we are certainly looking forward to, this country will be the world leader in this field. We believe this country will continue with the program and maintain this leadership. However, we must point out that one of the basics of this success will be how well we manage the right of way program. There are some peculiar right of way problems involved in it. Mr. Long will discuss these.

Panel Discussion — "Trends in Discovery Procedures"

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MR. PEGRAM (brief remarks to the Chair and delegates): As you know, our assigned topic is "Recent Trends in Discovery." Realizing that our organization is made up primarily of non-lawyers and, further, that even those lawyers among us may not be fully cognizant of the past history of this subject, we felt that some background should be presented in order to fully appreciate the trends or portents of the future in this field. Needless to say, our remarks are concerned primarily with the impact of discovery upon the eminent domain field.

Before getting completely into the subject at hand, we should point out a factor on your panel. All three of us are practitioners in California and have only had an opportunity to make a cursory

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study of discovery in other states. However, since the amendments to the Federal Rules of Civil Practice in 1948 to provide for broad and liberal discovery, most states have followed suit. California did so in 1957, adopting almost identical discovery rules. The interpretation given these rules of discovery by our courts has been far more liberal than the federal practice. We believe this liberality in discovery which has revolutionized our litigation, foreshadows the national trend. For these reasons, our remarks will deal mainly with the subject in California.

One of the noticeable idiosyncrasies of eminent domain discovery in California is that the trend has been almost circular from 1957 to date. We hope to take you through this circuitous route this morning.

In our discussion today, we will refer to certain cases without giving their citations. For those of you who are interested in the legal citations, we will provide you with them at the conclusion of the panel. Also, it is hoped that there will be sufficient concluding time for our panel members to answer any questions you may care to propound.

With that, I would like to ask Paul to give us his thoughts on the principles of discovery and how they are brought to bear.

MR. OVERTON: The broad concept of discovery is fairness and its justification is a framework of argument propounding that it accomplishes two primary purposes, one, a shortening of the trial and, two, the elimination of surprise. Even as late as today, there are in our trials some aspects of the old English feudal system's "trial by combat." The adversaries lock in battle to win the minds of juries or courts. In their sparring, truth is sometimes overlooked, misplaced or beclouded because each adversary is trying to present those things which are best for his case, or so the proponents of liberal discovery argue. They assert that if both sides are fully aware of what each will rely upon, the case can be shortened because by checking in advance, they will find things they both must admit to be true. The parties will also not attempt to dispute the indisputable. The proponents assert further that if neither side is worrying about surprise — information presented at the trial — they can more fairly and effectively present their side of the case. All of this is to be accomplished by letting both sides discover the factors of the other party's case; hence, the name for this field of law "discovery."

MR. MONTROYA: I would like to interrupt here to give some of the arguments against this philosophy even though it appears that in California at least they are somewhat academic. Those who oppose what is called liberal discovery say that the arguments for it are Pollyannish. The arguments can only work in a perfect society where all men are ever-truthful. We have seen from experience that those high-flown precepts of discovery are not always met in eminent domain matters. One of the primary reasons for this is that we deal with opinion testimony that does not fall into the general niches of discovery. As for shortening the trial, I found that the more we know about the adversary's case, the more cross examination we have time to prepare for. On admitting the existence of facts, one example is sales data. The fact of a sale would be admitted but the fight rages on because of the opinion as to its comparability. As far as not refuting the irrefutable, this may be technically true but a large number of experts will take days trying to explain why that irrefutable fact is meaningless. This factor brings me to the last argument, the elimination of surprise. We work in adversary proceedings and in my opinion, it should be kept that way. Surprise is one of the

greatest weapons to produce truth that can be found. Some experts will only admit the effect of a fact upon their opinion if they are caught flat-footed with that fact. Let them know the fact days before they are on the stand and they will come up with dozens of reasons as to why it does not affect their opinions, or worse, they will then build their opinion around that fact.

Now, that I have aired some of the opposing thoughts, why don't you continue with your description of where we are going.

MR. OVERTON: Well, in 1957, the discovery rules in California were fairly strict. No opinion or contention could be discovered and very few facts were open to discovery. Moreover, before you could discover your adversary's position, it was necessary to prove to a court an overriding necessity to get this information from him. In the early part of that year, the first effort to change this came about with the adoption in California of rules requiring a pretrial conference. The stated purpose of pretrial proceedings was to shorten the trial, define the issues and secure agreements on those facts the parties could agree to. This is much like the purpose of discovery. At the time of the formulation of these rules, some of their creators felt that in eminent domain proceedings there should be an exchange of appraisal reports at the pretrial hearing.

MR. PEGRAM: Yes, I remember that dispute. There was at the time a pretrial practice in the federal courts and in that federal practice, among other rules was subsection H of Rule 9. This provided basically that in an eminent domain proceeding, the parties must file with the court 30 days before a pretrial hearing, a "statement of comparable transactions" which essentially was a list of all sales that a party would rely upon, including all of the facts such as names of the parties, the consideration for the property, the date of the sale, the book and page of the recordation and when all of the parties had filed this statement, the clerk of the court would serve a copy of each party's list on the opposing side.

In addition to the list of sales, the parties must submit to the court in camera a "schedule of witnesses as to value" which gives the various opinions as to value, the names of all persons intended to be called to give opinion evidence and the opinion that each persons will give. Ten days after the filing of these two documents, the parties were required to file with the court a statement of just compensation which sets forth their contentions as to fair market value, severance damages and special benefits. One of the factors here was that the appraisal report itself, that is the opinion, was submitted to the court in camera or for its confidential use and only the sales information was exchanged between the parties.

MR. MONTROYA: Yes, but the California people wanted to go further and have the full appraisal report exchanged at the pretrial.

MR. OVERTON: That's right. But the Bar succeeded in blocking the insertion of discovery into the pretrial hearing and that carried over to benefit eminent domain matters. When the rules were adopted, no exchange of material was required and the pretrial merely placed a limitation on discovery in that it was required that discovery be completed before the pretrial hearing.

MR. PEGRAM: Bearing in mind the effect of pretrial on discovery, that is that it is the generally accepted cut-off for discovery, explain the next step in our development.

MR. MONTROYA: Well, later in 1957, California adopted completely new discovery laws becoming effective January 1 of 1958. These laws were modeled on the federal discovery statutes which, at that time, were the most liberal laws in the field. The development was rather slow after the institution of these laws but the pace rapidly quickened.

MR. OVERTON: That's right. The early cases decided after the new laws became effective, did not make many changes and they relied primarily on federal case law to interpret the statutes that California had adopted.

For example, in 1959, the case of *Rust v. Roberts*¹ held that appraisal reports were not subject to discovery because they were prepared for and given to the attorney that was going to try the condemnation case.

MR. MONTROYA: But this firm decision was clouded somewhat by the case of *Grand Lake Drive-In v. Superior Court*² in 1960. This was a case involving an expert on physical facts, specifically an engineer and the case held that while his report was confidential and not obtainable, the expert's knowledge was obtainable. Many people felt that this was a distinction without a difference and felt that the rule of *Rust v. Roberts* was destroyed. However, it is interesting to note that the *Grand Lake* case dif-

ferentiated between an expert in eminent domain and the expert dealing with opinions based upon the physical facts that were handled in that particular case.

MR. PEGRAM: But then in 1961 came *Greyhound* and her puppies, as a chain of cases are sometimes called. The State Supreme Court decided at one time several cases on discovery and the leading case at this time was *Greyhound Corporation v. Superior Court*³. The effect of these cases was to hold that while California discovery was patterned on the federal law, our courts would be liberal and not as restrictive as the federal courts. Two big changes were made in addition. Anything that might lead to admissible evidence was discoverable. This meant that fishing expeditions were allowable. The other change was that instead of requiring the parties seeking discovery to prove a good reason why they should have the information, the law was actually to reverse the situation and it became the burden of the party trying to prevent discovery to prove good cause as to why the discovery should not be allowed. The courts went further in *Greyhound*. They expressly disapproved the rule of *Rust v. Roberts* and they held that no privilege of the attorney's work product existed in California.

MR. OVERTON: Shortly after these cases in 1962, the Supreme Court decided an eminent domain matter in *Oceanside Union School District v. Superior Court*⁴. In that case the specific matters sought under discovery were the appraisal data and opinions of the expert witnesses. The court held that it was fair to require disclosure of this information and inserted something of a time bomb by holding that the trial court, if it wished could require a simultaneous exchange of this information and, therefore, it must have decided that it was fair to require the particular unilateral disclosure.

MR. PEGRAM: I think that lays the background and shows pretty well the start of our trend. This is probably a pretty good place to get into the various aspects of discovery. We should probably tell our audience how discovery is basically accomplished, that is the four general modes, deposition, interrogatories, request of admission of facts and the exchange of information. Joe, suppose you tell us what these elements are and how they are used.

MR. MONTROYA: A deposition is the taking of testimony before the trial with oral interrogation. It is done before a certified court reporter. The witness is sworn and under oath. The interrogator usually starts with what would be cross examination because the questioner has called his adversary's witness. The attorney representing the side that would normally call the witness can then, through questions, clarify anything he feels needs such treatment but, just as redirect examination in a trial is usually restricted, his questions at the deposition will usually be at a minimum number. Sometime after the interrogation is concluded, the witness is furnished a transcription of the questions and his answers. He can correct these, if he deems it necessary and he signs the deposition before a notary public, again swearing to their truth. The original transcript is filed with the court and the attorneys get copies.

The interrogatories are written questions. The party seeking discovery, writes out a series of questions and serves them upon his adversary. The adversary has 15 days in which to write out answers and serve them upon the questioner. When he serves them, he swears that the answers he had given are true.

Requests for admission of facts are much simpler. The interrogator writes out various statements of fact and demands to know if his adversary admits them to be true. These call only for a yes or no answer. However, if no answer is made, then a yes answer is presumed.

The exchange of information is usually done on a petition to the court. The inquirer demands certain facts, documents or information and in return for this matter, he must provide his adversary with all information that he has relating to the same matters. In California, we have one frequently overlooked device, peculiar to eminent domain. Section 1247(b) of the Code of Civil Procedure requires that the condemner provide a map of the part taken and the larger parcel if the owner demand it. This is interesting in that discovery is usually precluded if the inquirer is in a position to have better knowledge of the subject of inquiry than the one inquired of. Yet, who should know what the owner owns better than the owner and he is the one that can force his adversary to give him a map stating the ownership.

These are broad definitions. Paul, why don't you go on and give us your thoughts on the relative merits of these general types.

MR. OVERTON: That's a pretty tough question. Let me dispose of the easier parts first.

Requests for admission of fact are seldom used in eminent domain cases. They are usually confined to material facts and limited in scope. If the party answers "no" that is to say, he denies the truth of the fact, about all you have found out is that you have an area of dispute. You can see from its very simplicity that this matter is not too efficacious. The request for a map of the larger parcel that Joe mentions, is not very productive and usually is not to meaningful. Interrogatories are the most frequently used device because they are far less expensive. However, they have some drawbacks. The inquiry is limited to the questions exactly as they are written out by the inquirer. The one answering these questions has 15 days in which to sharpen and refine answers to these specifically worded questions. Further, the questioner does not have the advantage of being able to ask questions based upon the preceding answer. For this reason, a great deal of care must be taken in drawing the questions and they usually are quite large in number.

Deposition is probably the most effective means of discovery for a person who wants to cover every facet of the matter. Here the drawback of the written interrogatory is overcome. The questioner confronts the witness face to face and inquires on every facet of a subject and he has the advantage of building questions upon preceding answers. Its main drawback is that it is extremely expensive and more time consuming because it requires a more or less formal hearing. It is not really necessary to go to all of this detail in most condemnation cases.

The exchange of information is probably the better approach in condemnation proceedings because it allows the discovery of the essential factors of your adversary's case and it forces an element of fairness in that both sides simultaneously give and receive information.

MR. PEGRAM: Just generally, when is all of this discovery accomplished?

MR. MONTROYA: Well, as you have already indicated, the primary rule is that all discovery must be completed before the pretrial hearing. The pretrial hearing is usually held four to six weeks before the actual trial. There are exceptions to this general rule and that is that a party can get court permission to pursue discovery after the pretrial hearing if he can convince the court that there is a good reason why it was not finished before that time. All of this holds true for the various methods that we have discussed so far with one possible exception and that is that exchanges of information are frequently carried out at the pretrial hearing itself.

MR. PEGRAM: Both of you have indicated subjects or times when particular subjects are not required to be disclosed. Will you tell us something about the various defenses about discovery.

MR. OVERTON: Offhand, it is hard to think of a particular subject that is defensible in the vacuum of a general discussion. There are times or circumstances that protect various subjects but not in a general way. For instance, the old rule was that opinion as opposed to fact is not discoverable. This is no longer applicable and the cases now make it clear that under particular circumstances, opinions are discoverable. Besides California, the federal jurisdictions and some of the states such as Maryland follow this same rule. The theory here is that if an expert's opinion is material to the issue of a case, and in condemnation that is the only material issue, i.e. the opinion of value, then the adversary should be apprised of what that opinion is.

MR. MONTROYA: However, as you have indicated, there are circumstances and times in which the opinion is not discoverable. The case of *Swartzman v. Superior Court*⁵ stated in 1964 that there is a difference between the opinion of an expert hired to advise an attorney and the opinion of that same expert hired to testify to the opinion as a witness in court, the indication being that the former is not discoverable while the latter is.

MR. OVERTON: The only problem there is that so far the courts have not decided when this opinion magically changes from that of an adviser to that of a witness.

MR. MONTROYA: Yes, that trouble still exists but beyond that in eminent domain merely getting the opinion does not usually tell the adversary too much. The meat of the coconut is fact upon which the opinion is based and the reasons for the opinion.

MR. OVERTON: That's right and that brings us to the rest of the defenses. You can always answer, if it is true, that you don't know but this is of little value in an eminent domain case because, obviously, you cannot proceed to trial until you do know

the opinions of your witness and the facts upon which they are based.

MR. MONTROYA: This is a difficult area because the cases hold that one can't force his adversary to prepare for trial and, therefore, he cannot delay the trial for the simple reason that his adversary cannot answer the questions under discovery. On the other side of the coin, however, the rules provide that discovery will be completed before a pretrial hearing.

MR. OVERTON: Yes, and the courts are strengthening this by requiring that before a party can move for the setting of a case for trial, he must swear under oath that all of his discovery is completed. This rule is tough on condemners because he has the burden of getting the case to trial in order to preserve the date of value. In order to accomplish an early trial, he must frequently forego discovery or in some instances give up information without securing the mutuality that he should be afforded.

Another defense is that the question asked relates to facts that are peculiarly in the knowledge of the inquirer or on matters of public record.

MR. PEGRAM: Well, how about sales then? Aren't they matters of public knowledge?

MR. OVERTON: The fact of a sale is but there are two distinctions. First, besides the bare records of the sale, an expert may have found out the actual selling price, facts concerning the sale pertaining to its open market nature, the date, the price that was set and things of that sort. The second distinction is that after the sale occurred, the expert must decide if it is comparable. This is really the point of inquiry in the sales area and does not exist as anyone's knowledge except the expert's who has stated that the sale is comparable. Here, again, you are seeking opinion of the witness rather than the mere fact of the sale.

MR. MONTROYA: Another defense is actually several under the general category of good cause. As we pointed out earlier, the defense used to be that no good cause existed for the disclosure but now the cases are going the other way and hold that defense is to show why the party inquired of has good cause not to disclose. Under this general field are harassment, oppression and burden. That is to say, if you can show good reasons why a particular line of discovery is harassing or oppressive or overly burdensome, the discovery can be defeated.

MR. OVERTON: Perhaps we should explain something as to what these terms are. By harassment would be included such things as the overly repetitious asking of questions; by oppression would be meant putting the party inquired of to unreasonable work and expense in compiling the information. The distinction between oppression and burden is generally held to be that a burden will exist if the answers require undue expense and work in their compilation and oppression can exist only if the defender can show that the inquirer actually intended to create the burden. It should be noted here that the cases that have precluded discovery for the reason of harassment, oppression and burden have held that before discovery will be stopped, the court will weigh the gain to the party seeking discovery against the hardship to the person inquired of as one of the factors in deciding whether good cause exists for the preclusion of discovery.

MR. PEGRAMs How about fairness? Both of you have touched on this aspect but does it have anything to do with these defenses?

MR. OVERTON: Yes, it certainly does and it is one of the factors taken up under the broad general defense of good cause. The basic theory is that even recognizing the theories behind this liberal discovery, it would be grossly unfair to require one party to do all the preparation for the benefit of the other side. As one of the courts has put it, "discovery is not for the benefit of the lazy." However, as in all of the categories under the general heading of good cause, the party objecting to the discovery must prove to the court how it would be unfair to require him to give facts to his adversary. In eminent domain, so far, this requirement of fairness has been an effective defense. We have usually been able to convince the courts for example that it would be unfair to require one side to run all of the sales and hand them over to his adversary.

MR. MONTROYA: Along that line there are cases holding that the court can require the party making the inquiry to bear the costs of getting information if it would be unfair for the party inquired of to bear the whole expense but this is not too effective a solution to the question of fairness.

MR. PEGRAM: Well, I can see that one side would not be willing as a general rule to rely solely on the sales used by his

adversary so that this does not really completely cover the fairness test.

MR. OVERTON: That's correct and we have usually been able to convince the courts that the only way to complete the fairness requirement in an area such as sales, that is where facts are as easily discovered by one side as by the other, is to require that there be some mutuality in the discovery and the inquirer must be required to give up any information he has developed in order to get information from the one inquired of.

MR. PEGRAM: This fairness concept is also basis in the last of the defenses, the various privileges. Suppose we get into them.

MR. MONTROYA: Well the first one that comes to mind is the attorney-client privilege. Basically, this, as its name suggests, covers with the cloak of secrecy those communications that a client has made to his attorney in confidence. The theory behind this is that attorneys cannot properly represent the client and the client cannot effectively pursue his litigation if he is not free to openly and confidentially discuss all of the factors of his case with his representative.

MR. OVERTON: While this privilege exists, it is generally not applicable in eminent domain proceedings. In the main, the matters that are usually sought under discovery, do not emanate from the client but come from the expert witness that is employed to represent the client. The case of *People v. Donovan*⁶ in 1962, clearly held that communications from the expert witness to the attorney were not communications from the client and, therefore, did not come under this area of privilege. There is some distinction here in that most of the cases hold that if the expert's opinion is based solely upon things that are only ascertainable from a confidential disclosure from the client to the attorney, then the privilege does exist. However, as you can see, this again is not applicable to eminent domain matters as a general rule because the appraiser bases his opinion on facts which are ascertainable whether the client discloses them or not.

MR. PEGRAM: Yes, that is true and even beyond that such facts as the income history of a piece of property are generally held to be not such confidential information as would fit within this attorney-client privilege.

MR. MONTROYA: The next privilege of specific interest is the work product. As Reg indicated earlier, the *Greyhound* case says that there was no work product privilege in California but in a later case, the Supreme Court said that they did not really say that in *Greyhound* and that what it was was that California did have a work product privilege but its use did not apply to very many cases.

In 1963, the Legislature amended the discovery statute to specifically provide that there is in California a work product privilege. Section 2016g was added to the Code of Civil Procedure to provide that it is the policy of this state to preserve the right of attorneys to prepare cases for trial with that degree of privacy necessary to encourage them to prepare their cases thoroughly and to investigate not only on the favorable but the unfavorable aspects of such cases and to prevent an attorney from taking undue advantage of his adversary's industry or efforts. Subsection "b" of that same code section was amended to provide that the work product of an attorney shall not be discoverable unless the court determines that a denial of discovery will unfavorably prejudice the party seeking discovery in preparing his case or defense or will result in an injustice, and, further, that any writing that reflects the impressions, conclusions, opinions or legal research or theories of the attorney shall not be discoverable at all.

MR. PEGRAM: Well, just what is that work product?

MR. OVERTON: This is generally held to be a privilege on the work of the attorney. It is generally limited to tangible records of evidentiary material that the attorney has compiled, the attorney's knowledge that he has obtained through his own work or by communications with his client and the attorney's legal memoranda dealing with questions of law in the case. As we mentioned before, it was earlier felt that the appraisers' report was part of the work product of the attorney because the attorney had hired the appraiser for litigation and it was through his work and efforts that the appraiser compiled his report. This no longer appears to be true as a general rule.

MR. PEGRAM: As I understand it then, there are two distinctions in dealing with this work product privilege, the first one being that the actual writings of the attorney himself are not discoverable under any circumstances and the other one being that the rule of good cause has shifted back to putting the requirement on the person seeking discovery. That is to say, the

work product of the attorney is free from discovery unless the parties seeking discovery can show by some fact that it would be totally unfair for him not to receive the particular information.

MR. MONTROYA: Yes and this doctrine has been expanded to cover appraisal reports in some instances. In 1964, the District Court of Appeal decided the case of *People v. Glen Arms Estates*⁷ where they held that the appraisal report prepared by one of the staff of the condemning agency was privileged so long as it was prepared primarily for use by the attorney. There was a further requirement that it be actually delivered to the attorney and that the privilege not be waived by freely publishing the appraisal to the public or other attorneys.

MR. OVERTON: Yes, in effect this was a return to the "dominant purpose" rule of earlier cases holding that if the dominant or main purpose for the preparation of the report was for the use in litigation, then it was under the work product rule.

This is probably a pretty good point to mention that this work product privilege is to some extent intertwined with the attorney-client privilege. As we indicated earlier, the attorney-client privilege deals with communications from the client to his attorney. This is a privilege available to artificial persons such as corporations and public bodies as well as private individuals and the case of *Chadbourn, Inc. v. Superior Court*⁸ held at least by dicta that if an employee of an artificial person communicated facts on behalf of that person to the attorney, that communication was then confidential. This would tie into the holding in the *Glen Arms* case regarding the appraisal report prepared by a staff appraiser and explains some of the differences in the cases that have held an independent appraiser's report is not confidential. It would be noted here that the corporate employee must be one that in his normal scope of duties gathers that particular type of information for the corporation for which the privilege is asserted.

MR. PEGRAM: Another facet of this privilege was indicated when Joe was talking about the *Swartzman* case. That is the case, you will remember, that held that an independent appraiser's opinion may not be discoverable while it is in the area of being advisory to the attorney. The case held that frequently experts are employed to educate and advise counsel of the technical aspects of his case and its conduct and that type of expert opinion is privileged. This would obviously be in the area of the attorney's work product.

MR. MONTROYA: Well, aside from those instances where the whole appraisal or opinion of the expert are shielded by the work product privilege, frequently in a condemnation case, you will find areas of the appraisal report that would come within the work product privilege. Such questions as the extent of the larger parcel are clearly questions of law and it is the attorney's work product in deciding what the extent of the larger parcel is that forms the framework for the appraiser's opinion. In other words, the appraiser has adopted this legal conclusion and anything in the report dealing with that field should, I think, come within the privilege. We have, in the past, gotten some of the courts to agree that there are instances when the comparability of a sale can be the work product of the attorney because the question of comparability can in some instances rest upon legal conclusions as opposed to the factual determination of the appraiser. By that I mean to say that in every case, the degree of comparability is an opinion conclusion of the expert witness whereas opposed to that the fact of comparability is sometimes precluded or established as a matter of law.

MR. OVERTON: I think we have covered the most common privileges that are run into in eminent domain proceedings. Of course, there are a great number of other privileges and California statutes provide that discovery does not eliminate any of them. However, most of these other privileges do not usually arise in a condemnation proceeding. The only one I can think of offhand would be the privilege against self-incrimination. If a party happens to be cheating on his income tax, I suppose he could assert the privilege of self-incrimination against being required to give up the true fact of his income, but I would think that would be rather rare.

MR. PEGRAM: Another one is the privilege afforded public officers. Section 1881(5) Civil Code of Procedure provides that communications made to officers in official confidence are privileged if the public interest would suffer by the disclosure. This would apply to our cases as long as we could show the two conditions: official confidence and damage to the public interest.

Well, now that we have covered some of the defenses, generally, how are they raised?

MR. MONTROYA: Well, usually in a deposition they are

raised by objecting to a particular question. However, there is no court present at the hearing to rule on the propriety of a given question so that if the question is objected to, the objector has two alternatives. He can make his objection for the record, or, if he wants an all out fight, he instructs the witness not to answer the question. At this point, the party seeking the discovery must petition the court to rule on whether the objection is a good one or not if he desires to pursue it. If the court decides that the defense is good, the question then is not answered and the matter terminated. If the court decides that the defense is not a valid one, the parties return to the hearing and the interrogation continues.

MR. OVERTON: Obviously, the same device is not used in interrogatories and requests for admission of facts. As we pointed out earlier, this is conducted by the filing of written questions which require written answers. If the parties feel that they have a valid defense, they may state that defense rather than answer the question. They can then object to the entire interrogation or to particular questions. Under the present climate, he would not get very far objecting to the interrogatories as a whole. In order to be effective, when he objects to a particular question in the written interrogatories, he must specify the exact grounds and beyond that, the particular facts upon which his objection is based. If the inquirer is satisfied, the matter stops there. If he is not, he then petitions the court for an order requiring that the question be answered. At this time the court studies the reason put forth for the objection and determines the validity of the objection. It should be borne in mind, as we noted before, that the party objecting to the question has the burden of proving the facts which support his objection and unless his objection is complete, the court will preemptorily overrule it.

MR. PEGRAM: Well, are there any sanctions relating to these matters and how are they employed?

MR. MONTROYA: There are several sanctions available going both ways. Penalties imposed upon one wrongfully seeking discovery and there are penalties imposed upon one wrongfully thwarting discovery. There is a difficulty, however, in imposing sanctions upon the party asserting discovery. About the only punishment that can be imposed upon him is to require him to pay the attorney's fees and court costs for the party who successfully defends himself against the discoverer's efforts. This sanction is a part of our law and is frequently employed, the theory being that the discoverer will be a little more careful in his fishing expeditions so long as he knows that he will have to pay all of the expenses of his adversary in protecting himself from improper discovery.

MR. OVERTON: The sanctions on the person opposing discovery in the event he is wrong are pretty much the same. However, depending upon which side of the case he represents, they can be considerably rougher. The statutes provide and the cases upheld that it is proper to take drastic action against the party wrongfully opposing discovery if he happens to be the plaintiff in an action. The reason that I say they are much rougher sanctions is that the courts can dismiss his action entirely if he wrongfully refuses to answer questions properly posed. I suppose that it is not entirely correct that it is rougher on the plaintiff because even if the wrongful opponent to discovery is on the other side of the fence, that is to say, a defendant, the law provides that a default judgment can be obtained against him as the most drastic sanction for his wrongful refusal to submit to proper discovery. Other than that, as I said, the sanctions are about the same as Joe outlined, that is to say that short of these drastic steps, the court can and will award attorney's fees and costs to the discoverer for the process of forcing answers to properly posed questions.

MR. PEGRAM: I think we have pretty well covered the mechanics at this point and perhaps we should get back to our discussion of trends or what the future might hold for us. We alluded several times to a circular route in the thinking on this subject from 1957. Joe, you are familiar with the current practices in Los Angeles that seem to throw some light on this facet. Will you tell us about the actions there and what they may portend for the future.

MR. MONTROYA: Well, in 1963, the Superior Courts for Los Angeles County attempted to combine the pretrial and discovery into one neat package in eminent domain proceedings. They began just as the efforts started in 1956 to overhaul the whole pretrial procedures relating to condemnation cases. The primary effort was to streamline the procedure as far as the trial was concerned, to make the pretrial procedures more meaningful and in going about this, they set up not one but two pre-

trial hearings, whose primary purpose was to bring the parties before the court on two different occasions, one early in the history of the case where the parties would generally outline the specific areas of dispute and a second one immediately before the trial. The theory was that between these two hearings the parties would sharpen their cases both from a legal and appraisal standpoint and by the second pretrial would be able to effectively discuss settlement.

As a part and parcel of this procedure, they set forth the requirement that appraisal data would be exchanged at the time of the second pretrial. As originally contemplated, the court intended the exchange of a complete appraisal report. Some time after the institution of this procedure, the matter crystalized to where the only thing the court would require exchanged was the opinion of value, all of the sales that the parties would rely upon, any studies made under the three basic approaches to value, that is to say, capitalization studies, reproduction studies and market data studies, a statement of the highest and best use, the zoning, reasonable probability of change in zoning and specific descriptions of the property. The matter has changed again and the court is presently requiring that full and complete appraisal reports be submitted to the court. The court examines this data and if the court determines that an exchange would be fair and mutual, he would exchange all or parts of the data contained in the report.

MR. OVERTON: Well, it seems that this Los Angeles requirement is very close to the federal rule 9 that was basically contemplated when pretrial procedures were originally adopted. If the court will stay within the areas that you indicated were at one time crystalized, it would put the Superior Court in much the same area that the federal court operates in. They still operate under the requirements that Reg mentioned earlier in our discussion, that is an exchange of sales data and a disclosure to the court in camera of the balance of the appraisal data. It would seem from what you said that the Los Angeles Superior Courts are again liberalizing this federal procedure.

MR. PEGRAM: Some of our brethren in the condemnation field in the northern part of the state have accused us of having a cult in eminent domain here in Los Angeles. There are some indications that because of the high concentration of experts both of the legal field and in the appraisal field, other parts of the State are prone to follow Los Angeles. Have there been any indications of this?

MR. MONTROYA: Yes, there have been two counties that we know of in Northern California that have indicated that the Los Angeles rule relating to the exchange of appraisals is a good one and they have stated categorically that they will pursue the same policy although not necessarily as a written published policy as was done in Los Angeles. We have also heard rumors from individual judges in various counties that they as individuals would like to see the practice put into effect in their courts.

MR. OVERTON: Reg, California is not unique in this area and Los Angeles is not unique in its specific handling. We have already mentioned the federal practice in the southern district of California. Several other federal jurisdictions are following a similar procedure. In addition to the federal jurisdictions, other states are following the practice of requiring an exchange of appraisal data before the trial. In addition to data the federal court requires, the Missouri courts also require an exchange of highest and best use studies. Besides, New York has also adopted liberal discovery requirements and the Court of Claims in New York requires that detailed appraisals be filed in court. The court may require settlement conferences in which he will use these detailed appraisal studies to accomplish settlement with the parties.

MR. PEGRAM: Do you see any advantages to this type of procedure?

MR. OVERTON: One definite advantage of this type of procedure is the elimination of much of the sparring around that accompanies many of the discovery attempts. However, to fully capitalize on this advantage, the courts would have to be very clear and succinct as to exactly what material they will require to be exchanged. Assuming, however, that the courts will follow the indicated trend of limiting the material to more or less factual matters, the discovery would have much advantage in that you would no longer have to be worrying about interposing the various defenses to the discovery that we have talked about.

MR. MONTROYA: Well, another advantage is that the parties are assured of fairness without setting a particular court hearing to determine this by submitting the appraisal report to the court

in camera. Before the hearing, the court has the opportunity to read and weigh each report as far as the amount and authenticity of the material contained in it. He can decide beforehand whether the parties would receive a fair deal through the exchange or whether on the other hand, one party would give up everything and get nothing in return. So far, in Los Angeles, we have been very successful with the courts insisting upon a mutuality before they will carry out the exchange of the material. In many cases, the courts have returned the reports to the respective sides because one side has come up with practically no information.

MR. OVERTON: Another advantage is that the exchange would eliminate concerns about the various privileges. As I understand it, the only things exchanged are the bare factual or formal matters that the appraiser has considered and his opinion which is based upon those matters and there is no problem then of protecting those matters which you would in most cases assert were privileged.

MR. MONTROYA: Well, so far the matter has not reduced itself to quite such simplicity. There have been occasions when the court wanted to turn over the complete report rather than excerpts from it and the attorney has had to argue that various portions of that particular report came within the scope of the privilege. But this again brings me to one of the other advantages of this type of proceeding. The parties are required to attend the pretrial hearing for the purpose of defining the issues of the trial and approaching a settlement. They are already present in court and they can have a face to face confrontation with each other and the court in the discussion of these various matters that we have been covering and if the attorney feels that the exchange is not fair, he can tell the court then and there why he so feels and if he wants to assert privileges on a factor of the reports he is handed an opportunity to do so before the exchange is consummated.

MR. PEGRAM: Well, gentlemen, you raised a point that bothers me somewhat when you were talking about the question of fairness and you pointed out that if the exchange is not fair, the court returns the report. Does not this to some extent frustrate the general principles of discovery?

MR. MONTROYA: Yes, to some degree, or rather I should say, until recently it seemed as though it would. Perhaps we should clarify at the outset here the fact that it has been the theory of the courts and most of the practitioners in condemnation that this exchange took the place of all the other forms of discovery; that is, it was felt that if you got the basic appraisal information, there was no need to pursue depositions, interrogatories, etc. Up until recently, then, if you came to the last pretrial hearing and found that no exchange was consummated because of the rule requiring discovery to be completed by the pretrial, you were then foreclosed. However, the court has recently taken a much needed stride forward to prevent unfairness along this line by now providing in its pretrial order, and parenthetically, this pretrial order controls the conduct of the litigation thereafter, that no party may testify to any matter which was not either (1) exchanged or (2) submitted to the court. And in those cases where the court has found the exchange to be unfavorable, he has initialed the returned reports so as to indicate what was submitted to him and thereby indicating limitations to be placed upon the ensuing testimony submitted by either side.

MR. OVERTON: That, by the way, is a type of sanction we did not mention earlier and it has been approved by the appellate courts. In other words if a party fails to disclose information or only partly discloses, he can be foreclosed or limited in the evidence he produces at trial. In the case of *Mellone v. Lewis*⁹, decided in the District Court of Appeal in April of this year, the parties agreed at pretrial that the plaintiff would deliver to the defendant his doctor bills. This would be much like your exchange of appraisal data. He failed to deliver and the court held he was properly precluded from showing the amount of the bills at the trial. This should apply to the exchange and if a party submitted no information, then pursuant to the pretrial order, he could be precluded from introducing that evidence at trial.

MR. PEGRAM: I mentioned the so-called cult of condemnation in Los Angeles? What seems to be their attitude regarding this new departure.

MR. MONTROYA: Well, I think the attitude of the condemnation Bar fits into what we are talking about as the circular pattern in the trend of discovery. Whereas they opposed this concept in 1956 and 1957, in light of the fluctuating decisions on discovery, it appears that most of the Bar generally favor the idea of exchanging so long as it is conducted under strict rules and the

court actually and judiciously determines the fairness and mutuality of the exchange and there are sanctions imposed to make the exchange meaningful.

MR. OVERTON: We should point out in all this that the appellate court in 1964 gave approval to this Los Angeles practice. In the case of *Swartzman v. Superior Court*⁶ the property owner sought a writ of mandate to compel the condemner to submit to depositions, interrogatories and to vacate the trial court's order which held that the exchange eliminated the necessity for such discovery techniques. Among other things that this case held, which we have already touched upon, the appellate court said that the exchange of appraisal data was a proper exercise of the court's own prerogatives in discovery matters and that there was adequate statutory law authorizing the court to require on its own motion that the parties submit to this particular method of discovery. Further, the court held that a complete and mutual exchange would be an adequate substitution for the other discovery procedures and that, therefore, a party refusing to comply with the exchange could not complain because he was deprived of the opportunity to take depositions and/or interrogatories. It

seems that whether we like it or not, the trend is for an all-out disclosure.

The trend seems to be circular beyond the aspect of exchange in that there seems to be a movement back to recognition of limitations that should be imposed on total discovery. As we pointed out, there is again a recognition that there are some areas that should not be discovered and there seems to be in this concept of exchange a recognition of the fact that only certain basic information should be disclosed.

MR. PEGRAM: Well, it look as though whatever your philosophy is of the merits of discovery, we are committed to a full program of discovery in the future. It appears that at least the opinions of the expert witnesses and the basic reasons for those opinions must be produced. The trend appears to be that we will be required to make more and more frequent disclosures and as a result we will have to begin the preparation of our trials much earlier. I think it is safe to say that in the future an appraisal witness had best consider that his adversary is looking over his shoulder at whatever steps he may take.

Changing Legal Concepts

By Harrison Lewis, Deputy Attorney General, State of North Carolina

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The subject "Changing Legal Concepts" is as broad as the entire field of law, because all legal concepts are constantly changing. The law is a living body continually undergoing evolution. Changes in all phases of human existence, such as economics, industry, agriculture, health, social concepts and morals, aesthetics and transportation, to name a few, are all reflected in changes in legal concepts.

The law is nearly always slow in changing and there is generally a cultural lag between changes in the law and changes in other aspects of our life, although there are instances in which the law precedes and is supposed to implement the change in the other phases of human existence. Some legal concepts, of course, change much more rapidly than others. My comments will be limited to legal concepts which have or are currently changing more perceptively and, of course, will be limited to the right-of-way field and even more particularly the field of highways.

I will try not to duplicate what Mr. Morton has said, although since we are talking in the same field, there will, of course, be some overlap.

The concept of the highway itself has undergone radical change in the last seventy-five years. In the days of the horse and buggy, the road was primarily a means of getting from a house or farm to a marketing area. The primary purpose of the road was to serve the land it abutted and the people living thereon. Through travel was generally by railroad or waterway. With the development of the automobile as the primary means of transportation of the American public, the changing concept of roads from an instrumentality for land service to a means of through transportation has developed. We now find that we have at least two kinds of roads — those primarily for land service which are typically exemplified by local county roads and through roads typically exemplified by the Interstate System. Of course, between these two extremes, we have many categories of roads serving both through traffic and the abutting land.

In addition to the changes above mentioned in roads, we find developing a concept of roads as a thing of beauty and a means of recreation. This last concept is particularly emphasized by the President's proposal and bills introduced in Congress to implement it which would make the elimination of billboards and junkyards mandatory as well as require an expenditure of one-third of the Federal Aid Secondary Funds on scenic and recreational roads.

With the change in the concept of the highway from a land service road to a means of through travel, there has been an increasing change in the financing of highways. In the old days, highways were constructed and maintained almost entirely on a local level. My home state, and I am sure many others, used to have a statute requiring every able-bodied male to donate so many days work annually to the maintenance of roads. Highways have now been federalized with the Federal Government paying 90% of the Interstate, and 50% of the Federal Aid Primary. With the increase in Federal Aid has come the usual increase in Federal regulation. This Federal regulation has in some instances initiated change in legal concepts and in others has brought before the courts issues which would not have otherwise been presented possibly for many years.

The changing concept of the highway has affected legal concepts in certain areas, particularly the area of abutters' access and police power, the area of just compensation and evidence bearing on just compensation, inverse condemnation, concept of necessity, police power with regard to aesthetics, planning and zoning, to mention a few.

Access Rights — The concept that a property owner abutting upon a road has a private right of access to the road, which right is a property right in the nature of an easement, is an old and well-founded concept stemming from the time when a road's primary function was that of land service.

The older cases all hold that any substantial interference with an abutter's right of access is *pro tanto* a taking for which the abutter must be compensated. As Mr. Morton has pointed out to you, this concept has changed considerably through the years. The abutter still has his right of access but the concept of what amounts to a substantial interference which constitutes a taking has changed. Mr. Morton has pointed this out to you in the relatively new concept that no right of access arises when a controlled-access road is constructed on new location, and also in connection with the substitution of service roads for direct access. Another field which appears to be changing is in connection with the fact situation where a road is dead-ended or closed beyond the end of the abutter's property as distinguished from an interference with the property owner's crossing his property line into the right of way. The majority rule for years has been, particularly with respect to urban property, that where a road is dead-ended, forming a *cul de sac* beyond the abutter's property but before the next intersecting street, a private right of the individual has been interfered with, differing in kind from the inconvenience caused the public. This rule has also been applied in rural property, though to a lesser extent. This concept seems to be changing.

The North Carolina Supreme Court in the recent decision of *Snow v. Highway Commission*, 262 N.C. 169, 136 S.E. 2d 678, made it clear that the *cul de sac* situation did not apply to rural property and in quoting from *Taft County v. Smith*, 131 S.E. 2d 527 (Ga. 1963), it held as follows:

"It must be remembered that in this situation the rights of the plaintiffs fall into two categories: general rights, which they have in common with the public, and special rights, which they hold by virtue of their ownership of this property. In order to constitute a taking or damaging of their property, it is the special rights that must have been violated.

"The only interference plaintiffs allege is inconvenience of travel on the old road. But this inconvenience they share generally with other members of the public who use this road . . . their damage is different from that of the general public in degree only, and not in kind . . . their inconvenience does not constitute a taking or damaging of their property under the Constitution."

The Court also quoted at length from *Warren v. Iowa State Highway Commission*, 93 N.W. 2d 60, and cites *Department of Highways v. Jackson*, 302 S.W. 2d 373 (Ky. 1957), and *Holbrook v. State*, 355 S.W. 2d 235 (Tex. 1962). Concluding its opinion, the North Carolina Supreme Court held as follows:

"*Hiatt v. Greensboro*, supra, (this was the old case which adhered to the next interesting street rule) is not controlling or applicable under the circumstances of the instant case. The Georgia and Kentucky courts, in the *Smith* and *Jackson* cases, declare that they longer recognize a distinction between city streets and rural highways, and they repudiate the *cul-de-sac* principle *in toto*. *Quaere*: If the questions presented by *Hiatt* arise again in this jurisdiction, should this Court re-examine its holding in that case in the light of modern conditions and the trend of recent opinion in other States?"

It was not long after the rendition of this opinion that we gave the Court a chance to answer its *quaere*. In the case of *Woford v. Highway Commission*, 263 N.C. 677, 140 S.E. 2d 376, the Court recognized that the same legal question was presented as had been presented in the *Hiatt* case, which was the dead-ending of a street in an urban area. The Court expressly overruled *Hiatt* and held in part as follows:

"The restriction upon the landowner and the restriction upon the public generally, in the use of the street for travel, is no different in kind, but merely in degree. A property owner is not entitled to compensation for mere circuity of travel. Absolute equality of convenience cannot be achieved, and those who purchase and occupy property in the proximity of public roads or streets do so with notice that they may be changed as demanded by the public interest. (Citing cases.) The private right of the owner of land abutting a street or highway is an easement appurtenant to the land, consisting of the right of reasonable access to the particular street or highway which his property abuts. (Citing cases.)

". . . The General Assembly has found, determined and declared that controlled-access highways are necessary for the preservation of the public peace, health and safety, the promotion of the general welfare, the improvement and development of transportation facilities in the state, the elimination of hazards at grade intersections, and other related purposes. (It should be noted that the closing was occasioned by the construction of a controlled-access highway.) When the Highway Commission acts in the interest of public safety, convenience and general welfare, in designating highways as controlled-access highways, its action is the exercise of the police power of the State. And the impairment of the value of property by the exercise of police power, where property itself is not taken, does not entitle the owner to compensation. (Citing cases.) If plaintiffs were permitted to recover for impairment of property value, because of the circuity of travel thereto and therefrom and the dwindling of traffic by their property, resulting from the street obstruction, practically every property owner in a town could recover for the same reasons when the Highway Commission constructs a by-pass to expedite traffic.

"Where the State has authorized the construction of a barricade across a street, thereby closing it to vehicular traffic in one direction, the owner of land abutting the

street on the *cul-de-sac* thus created has not been deprived of his property without due process of law in violation of the Fourteenth Amendment to the Constitution of the United States, though the value of his property has been impaired and the State has not compensated him for such loss of value."

This is an unusual case in that it expressly overrules a previous holding which is rarely done by our Court. In addition, it reflects how legal concepts change to meet the changing concept of the highway.

The tremendous death toll upon the highways and the necessity for through travel, I am sure, is reflected in this decision. It also indicates that many actions of the State Highway Commission which have traditionally been exercised under the power of eminent domain may now be exercised under the police power where a controlled-access highway is involved.

The Bureau of Public Roads over a year ago amended its Right-of-Way PPM to provide that where any reasonable access remained to a property, the Bureau would not participate in payments for loss of access. This is a changed legal concept which the Courts of many jurisdictions have not yet accepted. In part, I think it is an attempt on the part of the Bureau to change legal concepts by Federal regulation. The trouble is not so much with the concept as embodied in the regulation, although it is extreme in many jurisdictions, as it is in the application of the concept. The Bureau's divisions apparently have applied the concept to mean that where any access remains the Bureau will not participate. It would not be so bad if the Bureau would be willing to go along with the law of the States that where the access has been substantially interfered with, i.e., the remaining access is not reasonable, that they would participate; however, this is not the case.

In fairness to the Bureau, I must admit that there is some legal trend in line with the regulation. As Mr. Morton pointed out to you, a number of states, including my own state, have held that where a service road is substituted for direct access, no compensation is required. This is in line with the concept of the PPM; however, a great deal more difficulty arises when direct access is eliminated, that is when frontage is cut down by control of access. In this area, there is also some trend in the direction of the PPM. The case of *Nick v. Highway Commission*, 109 N.W. 2d 72 (Wis., 1961), was one of the first cases to view access, not merely as property distinct and separate as of itself, the interference with which was *pro tanto* a taking, but on the other hand, viewed it as one of a bundle of rights attaching to property and held that if these rights were not substantially interfered with and if the right of access still remained to the property in a reasonable manner, no compensation would lie. This theory was carried forward in the North Carolina case of *Abdalla v. Highway Commission*, 261 N.C. 114, 134 S.E. 2d 81. This was a suit concerning the interpretation of a Right of Way Agreement and subsequent action of the Commission. The Right of Way Agreement in suit provided that the owners of abutting land should have no right of access to the highway except by way of service roads and ramps built in connection with the project. The project was an overpass of one highway over another with connecting ramps. The Commission provided plaintiff access at the point where a service road was adjacent to plaintiff's property from which point the plaintiff had access to the highway by way of a ramp but completely denied plaintiffs direct access to the ramp. The Court held that plaintiffs were given reasonable access to the highway by way of the service road and ramp in conformity with the Right of Way Agreement and plaintiffs were not entitled to additional compensation on the ground that the denial of access to the ramp at all points contiguous to their property was an additional taking. The Court in so holding said:

"It is generally recognized that the owner of land abutting a highway has a right beyond that which is enjoyed by the general public, a special right of easement in the public road for access purposes, and this is a property right which cannot be damaged or taken from him without due compensation. (Citing cases.) But a landowner is not entitled, as against the public, to access to his land at all points in the boundary between it and the highway, although entire access cannot be cut off. If he has free and convenient access to his property, and his means of ingress and egress are not substantially interfered with by the public, he has no cause of complaint. (Citing cases.)

"Thus, the parties knew at the time of making the con-

tract that the highway to be constructed was one of limited and restricted access and they were contracting with respect to the question of access. Yet plaintiffs contend they reserved under the contract the right of direct access to all points along the service road and ramp opposite their property, which is a greater right than they would have had at common law had the contract been silent as to access."

The North Carolina Supreme Court again recognized this principle in *Highway Commission v. Farmers Market*, 263 N.C. 622, 139 S.E. 2d 904 (1965). The Court held that the property owner has a right to reasonable access to a public highway which abuts his land, and such right of access cannot be taken from him without compensation. Nevertheless, such right of access must be exercised with due regard to the safety of others, and if the abutting owner is afforded reasonable access, he is not entitled to compensation merely because the limitation of access necessitates circuity of travel to reach a particular destination.

Defendant's land was, for practical purposes, divided into two tracts by a railroad spur track. The construction of a limited access highway to the north of the land did not affect the access to the highway from the southern part, but as to the northern part, access to the highway could be obtained only by the construction of a road some 3,000 feet in length. The construction of the limited access road substantially reduced access from the northern portion to a public way and constituted a taking for which compensation should be paid.

This case holds that the remaining access was not reasonable but, as far as I know, the Bureau has not yet participated in this payment.

Beauty and Recreation — As previously stated, the concept of the highway as a thing of beauty and a means for recreation is currently being strenuously pushed. Two bills have been introduced into Congress — one making Federal Aid dependent upon control of billboards and the other making Federal Aid dependent upon control of junkyards within 1,000 feet of the right of way. The control of billboards is not a new idea as this has been an optional provision of the Federal law for some time. Pursuant to that provision, a number of states have adopted billboard control; however, I believe the number is less than half. A good number of these states have been able to control billboards through the use of the police power. This has given rise to the somewhat new legal concept that the billboard is a hazard and that the general health and welfare of the nation will be promoted by control of billboards. States which cannot control them through police power are presumably controlling them through the acquisition of a negative easement.

The concept of controlling junkyards involves different considerations. There is considerable case law which holds that junkyards are not nuisances *per se* nor dangerous instrumentalities. Therefore, the reason for controlling junkyards is one of purely aesthetics and the majority of courts in the United States have held that police power may not be exercised for purely aesthetic reasons alone. There are a few states that have given some weight to this consideration and there may be a trend in that direction, but it appears to be a long time coming.

The majority view with regard to control of junkyards may well be stated in an opinion of the North Carolina Supreme Court in *State v. Brown*, 250 N.C. 54, 108 S.E. 2d 74, (1959).

Prior to 1959, North Carolina had a statute making it unlawful to maintain a junkyard within a certain distance of a highway unless the junkyard were screened from view of motorists on the highway. The Court, in declaring this statute unconstitutional, held as follows:

"The business of operating a junk yard is a legitimate enterprise which, while offending the aesthetic taste, does not constitute a dangerous business or one known to be inherently injurious or harmful to the public. By itself, it does not adversely affect the public peace or safety, nor can it be designated as a fire or health hazard.

". . . We have found no authority to support the view that a junk yard is a nuisance *per se*.

". . . It is difficult to imagine what danger to public health, morals or safety exists in connection with the operation of a junk yard or an unenclosed lot that could be removed or prevented by the erection of a solid board fence six feet high. Certainly there is nothing immoral about a junk yard. Neither does it constitute any menace to public health or if, by reason of unsanitary conditions being permitted, it should become a menace, putting a

board fence around it would not be a reasonable solution of the problem. No danger to public safety is apparent except perhaps that materials from the yard might find their way onto the highway if piled too close, but to prevent this a solid board fence would not be required . . . "In our opinion, the statute, as it relates to junk yards, was enacted solely for aesthetic reasons — that is, to make our hard-surfaced highways, particularly those which carry heavy interstate traffic, more attractive. We think the provisions of the statute support this view. "If any conditions presently exist or have existed on the premises of the defendants during the period set out in the bills of indictment that would warrant the exercise of the police power by the State in order to correct them, it must be conceded that building a fence as required by the statute would not correct such conditions. In the exercise of the police power by the State or by a municipal corporation, the thing required to be done must have a real and substantial relation to the object to be attained, otherwise it is an invalid exercise of the police power.

"We are in sympathy with every legitimate effort to make our highways attractive and to keep them clean; even so, we know of no authority that vests our courts with the power to uphold a statute or regulation based purely on aesthetic grounds without any real or substantial relation to the public health, safety or morals, or the general welfare."

If the bill requiring controlled junkyards should pass Congress, the states will have not alternative in most instances but to acquire a negative easement 1,000 feet wide on each side of the highway and in addition condemn existing junkyards. If such action is taken, I am relatively sure that the questions of discrimination, necessity and public use will be raised.

Just Compensation — I would like to mention briefly one or two additional areas in which it seems to me there are changes in legal concepts. One of primary importance is the area of just compensation. As pointed out by Mr. Morton, there is considerable move afoot presently to change the rules of damages in condemnation actions. One which we have seen implemented the most is the payment of moving costs; however, I will not dwell on these phases but will mention something which occurs to me as happening to the law with respect to evidence bearing upon just compensation.

For years, many courts did not recognize appraisal principles. Since appraising is becoming more and more a recognized profession with standard principles, it appears that the courts are beginning to take notice and adjust the law to fit the appraisal technique. We have seen more and more courts recognizing the admission of comparable sales as bearing upon value.

The recent North Carolina case of *State Highway Commission v. Conrad*, 263 N.C. 394, not only recognizes this, but recognizes that the appraiser must necessarily base a part of his appraisal on hearsay. The Court held as follows:

"Defendants also assign as error the admission of certain evidence offered by plaintiff. Several expert real estate appraisers testified that they based their opinions of the value of the subject property in part on voluntary sales of comparable undeveloped lands. They described and gave the locations of the lands involved in these sales — one of the tracts adjoined defendants' property. They were permitted to say they knew the sales prices. The witnesses who did not have first-hand knowledge of the sales were not permitted to state the prices paid . . .

"Defendants contend that the testimony of the experts was incompetent and prejudicial (1) because it was based on hearsay and could not be considered as substantive evidence, and (2) because the lands involved in the sales were not comparable to the *locus in quo*."

The Court went on to say:

"A witness who has knowledge of value gained from experience, information and observation may give his opinion of the value of specific real property . . . The fact that certain elements are not independently admissible in evidence . . . does not bar their consideration by an expert witness in reaching an opinion. Thus, it has been said: 'An integral part of an expert's work is to obtain all possible information, data, detail and material which will aid him in arriving at an opinion. Much of the source material will be in and of itself inadmissible evi-

dence, but this fact does not preclude him from using it in arriving at an opinion. All of the factors he has gained are weighed and given the sanction of his experience in his expressing an opinion. It is proper for the expert when called as a witness to detail the facts upon which his conclusion or opinion is based and this is true even though his opinion is based entirely on knowledge gained from inadmissible sources."

This case, I think, embodies a substantial trend on the part of the court to recognize appraisal technique.

As a final word, I would like to call a few additional changes to your attention without going into them in detail.

There has also been a significant change in the concept of what payments will be made for the relocation of utilities located on State right of way. Due to certain regulations of the Bureau of Public Roads which permit Federal participation in such payments, many states have enacted statutes permitting such payment. This is a radical departure from the previously existing law.

Several states have excess taking statutes and we have recently in North Carolina enacted a statute permitting the State Highway Commission, in those instances where the right of way severs a building, upon certain determinations, to acquire by condemnation the entire building. This may be something of a new concept of necessity but we anticipate that the statute will be

upheld by our courts on the ground that it works an economy in the expenditure of public funds and is, therefore, for the public use. I mention this because it may be of interest to some of you who have this same problem with severed buildings cut off on the right-of-way line.

This has been a brief perusal of some of the legal concepts concerning highways and rights of way which have been changing fairly rapidly in the last few years. If I have mentioned North Carolina decisions overly much, it is not because I am attempting to educate you in the law of North Carolina, but because I believe these cases embody changing legal concepts occurring throughout the country. There are certainly other fields that merit discussion such as the changes in the concept of platting and planning and reserving of right of way, the field of law relative to air space, changes in the states' attitudes towards sovereign immunity, and the developing field of inverse condemnation which might warrant some discussion; however, each in itself is a complicated subject and possibly somewhat beyond the scope of my comments.

We all need to be aware that the law is not static but a living body that legal concepts are constantly going through the process of evolution. It is through such meetings as this that we are able to stay abreast of the significant changes and in some measure to guide these changes in the right direction.

Who, Where and How Much

By Ernest J. Loebbecke, Chairman of the Board, Title Insurance & Trust Company

ERNEST J. LOEBBECKE

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I am extremely happy to be here today and have the opportunity of meeting with my many friend in the American Right of Way Association. One of my prized possessions, of course, is my membership in Chapter #1 of your organization. One or two of you may recall that back in 1959, during my year as President of the American Land Title Association, I was invited to address your Seminar held at the University of Alabama. I prepared the paper but something made it impossible for me to attend and so Dan Rosencrans delivered it for me. This was probably to the good, for Dan always does an outstanding job and my greatest worry today is that you may wish the same thing had happened on this occasion.

At that time my paper, in essence, dealt with the same subject as my talk today. Although the title was different, I was talking then about "Who, Where and How Much." But I was concerned solely with the specifics of right of way acquisition, while today I propose to discuss a somewhat broader subject. Let me quote a part of that talk. I said:

"First, what particular land do you need for the purpose you have in mind? Second, how is it to be acquired and for how much? Third, who owns the land now and are you going to have good title when your acquisition steps have been taken? If you agree that this is the fundamental of any acquisition program, then I think you will agree that you, the right of way men, are the catalyst which makes the program work. First, the particular land which is needed is determined by your engineers and those planning the particular highway or other facility for which the land is to be used. You, as an expert, and with appraisers, where necessary, determine the amount that is to be paid for the land. And those with whom you are associated and who are responsible for producing the financing, either from the taxpayer in the form

of bonds in public matters, or if it is a private acquisition by a utility, by the finance committee of your company, work out the sources of funds and the amount of the funds needed for the program. Your third step then is to go to the person who owns the land. First, you must know exactly *who does own that land*. Secondly, after you have taken the necessary steps, which are provided by the law of your particular jurisdiction, you want to know that you have *good* title to the land which you have acquired. Here you should be working with title experts. If this is followed it seems to me that each person, the expert in his field, does the job which he can do best and for which he is best fitted. I think it is axiomatic, in our American economy, that those who are well trained, who have the necessary tools and experience, can do the particular job for the least amount of money. And, after all, whether it be acquisition for public purposes, or fore private purposes, the principle is the same. It is our responsibility to produce the finished product for the lowest possible cost. To me this is fundamental and is the reason I believe that the title industry has an obligation to work with you in producing the finished product."

As you can see from the foregoing, that was pretty specific. We wanted to know who would do the planning, handle the acquisition, determine the financing and examine the title. Also, we wanted to know who owned the land, where it was located, how much land was going to be needed, and how much was going to be paid for it. We were, in effect, discussing the experience, the capabilities and the responsibilities of the individuals involved in the total program. We were concerned with right of way people — and title people — as professionals, particularly qualified to do the job better and more economically than anyone else. Certainly you have developed a professional status in your field, just as I hope we have in the title industry.

In my talk today, it is my hope to indicate that our thinking and our responsibilities must go, to a substantial degree, beyond the real confines of our own activities. This is a price that must be paid by those who assume leadership and professional status.

First of all, the "who" of my talk refers to those to whom we have ultimate responsibility, namely the people of the United States. The statistics are so well known on the population explosion, the age brackets, the family formation, and the baby crops that it is unnecessary for me to spend time boring you with a restatement of them. I daresay that most everyone here can recall from memory the projections of the next ten to fifteen years for his own particular area of the country and for all of the requirements attendant thereto. You are also aware that a great increase in prosperity is expected to result. And we should prosper; but let me point out that mere numbers will not guarantee bright days ahead. If this were true mainland China would be approximately four-times as well off as we are here in the United States. After all, there are more than 750 million people on the Chinese

mainland, so I think it obvious that it takes more than numbers to make a nation strong — or perhaps it would be more nearly correct to say, to *keep* it strong.

When we get into the problem of “where,” we should be a bit more thoughtful. If all of the United States was exactly the same we could equate the number of square feet to the population, present and prospective, and then allocate each person a particular plot. We could calculate mathematically the things that were going to happen, where people were going to be, how much would have to be reserved for farming, for services, for recreation, etc., etc., and the computer could even come up with a mathematical date on which we would start stacking the population one on top of the other. But obviously it cannot and will not work that way.

There are many factors which lead to distribution of people. The first, of course, is geographic. This is influenced by climate to a substantial degree. It is also influenced by soil conditions, availability of water, power, raw materials, harbors, and factors of that kind. Changes in technology and productivity also affect the flow of population. We are presently attempting to offset some of the adverse effects of this latter factor within the government's program in Appalachia. But this isn't as simple as it seems.

The United States Steel Corporation went into the hills and brought out people who had spent their lives there in coal mining communities and found jobs for them which they could do, in Pittsburg and other areas. Many of these people did not stay beyond the first payday. They would rather struggle in the hills of West Virginia than to accept the change involved. Thus, you have human characteristics or cussedness, if you prefer, to contend with in solving problems of this kind.

Let me use some California figures to illustrate the flow of people. Usually we think only of growth here in California. We know we have a net addition from births minus deaths and also new people moving in or, as it is often referred to, in-migration. But we also have out-migration from our state as well. For example, in the period 1955 to 1960 the ten states which produced the largest number of in-migrants for California sent us approximately 950,000 people. But during that same period 385,000 left California to go to the ten states to whom we provided the largest number of people. I might say in passing that Texas, which always does things in a big way, sent us the most, or 150,000 in that period, but they also took back the most, 67,000.

Now the only point I am making here is that people come and go — we have a mobile population, and the reasons for their movement are many and varied — health, family, jobs and just plain “I don't like it where I am.” Now the existence of these reasons lead me to what I consider to be an important point. Whether you think of yourselves as one or not, *you are a planner*. As our population grows and moves and as our problems thus become more complex the planning function must of necessity assume an increasingly important role in our society. Each of us has a fundamental responsibility to the whole. But more importantly, we have a basic responsibility to our own particular community, state, or area. Most often it is a community; in some cases just one town, in other a complex, such as the Southern California area. And this basic responsibility requires that we plan carefully and intelligently so that we do not create, at some time in the future, an Appalachia in our own community or area. Thus, we must of necessity recognize the importance of the planning concept. And those of us who have experience must assume responsibility — not wait for someone to come and ask us — for the kind of thinking and planning that is done. I have long held the view, and I state it again here, that those of us involved in any aspect of real estate — which is fundamentally the basis of all our wealth — must be the leaders in this respect.

Having mentioned wealth let's turn now to the “how much” part of this discussion. I am not referring to how much you will pay for that piece of property you are going to appraise next week, nor what the cost will be for any given pipeline, power line or highway. Rather I hope to look a bit at the general economic situation and try to measure its impact during the next ten or fifteen years.

My reason for doing this again relates to the responsibility that those of us in this room have for sound planning and for thoughtful participation in the big job of making our economy tick.

I am fully convinced that the reason our nation is the leader in the western world, and that the western world far out-distances all other nations economically, is the operation of our free enter-

prise, capitalistic system. It's a good one, for it works best in a highly competitive, free market atmosphere. Fortune Magazine described this best when it said: “One of capitalism's numerous paradoxes lies in this: The market economy is both a highly resilient system with a powerful forward thrust, and also a system that would not be secure if it were not for the fact that it generates anxieties only as long as it is free.” It is these anxieties that cause us to think and plan and that stimulate the ingenuity of the American businessmen.

These anxieties must exist within you and me. We must be conscious of the desirability and the results of every project with which we are connected. For example, when land is taken for a freeway, will it actually generate a higher degree of service to our people and their economic well-being than if it were left to other uses? And the converse is true. Is our planning adequate — will the power lines, pipe lines and highways we are building adequately serve for a period long enough to justify the investment. These are but a few of the many, many considerations which, when added together, will make the final economic determination of where our country is going to be.

I am one who believes that we will adequately meet these responsibilities. It is unnecessary for me to discuss the short term economic outlook. Practically every economist and businessman believes and states publicly that we are at a high level of business activity and, more importantly, that it will continue. In fact, I guess the only basis one could have for doubts is the old adage that when everybody thinks that things are going to be good, that is the time to look out. However, let me say here that I feel as do others that business is going to continue at a high level in the foreseeable future.

So, let's look a bit at the longer range. Not being endowed with supernatural powers I cannot, of course, know what is going to happen tomorrow. But a look at some past experience, and some known facts give us a pretty good indication of what we can expect if we do not plan so poorly as to strangle our economic system and thus destroy its potential.

First let's look at the past and at something we are all fairly familiar with — real estate. Let me use Los Angeles County as an example because it has had such marked growth and includes all kinds of real estate activity. In 1954 there were in Los Angeles County approximately 305,100 real estate transactions. Most of these needed financing and so there were 229,450 real estate loans placed of record. This required \$2,212,600,000, and something in the neighborhood of 45% or less of that money came from local sources. Compare this with the activity ten years later. In 1964 there were 377,800 real estate transactions, an increase of nearly 73,000 or 24%. To finance this there were 316,700 loans, an increase of more than 87,000 or 38%. But now let's look at the real meat of the coconut. You will recall that the 229,450 loans in 1954 required \$2,212,600,000 and that 1964 loans were up 38% in number. But in dollars, they amounted to \$6,767,600,000, an increase of 206%. And most important to the economy of the West, between sixty and sixty-five percent of this money was provided locally. Even with inflation that's quite a growth.

Purely as an aside, it is interesting to note that there was a 14% greater increase in the number of loans than there was in the number of real estate transactions. This was due in good part to the fact that people had built equity and were borrowing against that equity for many purposes — such as sending their children to college, buying boats, cars, etc., and investing in their businesses. All of these things added greatly to the total economic growth of our area.

While I do not believe that the next fifteen years will show the same steep curve in real estate values and in costs of construction as have existed during the past, it seems certain that they will continue to climb.

Let's look at another phase of the problem and on a national basis. To set the stage, you are all familiar with the change in emphasis from aircraft construction to aero-space and the shift in the location of a good many contracts from California to Texas, and other parts of the country. This has created some unemployment problems. San Diego has had its share of them. A great deal of work is being done on this, for if jobs are not created, as I indicated earlier, Southern California could wind up as another Appalachia.

And the problem grows. I touched on the population explosion earlier. Now let's look at the actual work force. In 1950 there were slightly under 65 million in our nation's work force. By 1964 it had grown to 77 million, and it is estimated that by 1980 there will be approximately 101 million in the labor force.

This is a pretty good estimate because even if they all went to work following their 16th birthday you realize that every one is already born. Now the problem is to provide these people with jobs and it can only be done if our economy remains strong and continues to expand.

To illustrate this point let's look at our old friend the Gross National Product. Back in 1950 it totaled about 284 billion, of which personal consumption expenditures represented 195 billion, or an average of \$3,000 for each person in the work force. In 1964 the gross national product had grown to 622 billion, of which 399 billion represented personal consumption expenditures, or an average of \$5,200 for each person in the work force. This was an annual increase of about 3½%, a figure which you have heard discussed many times. Assuming a continuation of that figure (and I am sure you have read the reports within the last two or three days that government economists do not expect the gross national product to continue at its present growth rate, which was over 6% in the first quarter of 1965, so I think it is a safe assumption), we can anticipate a gross national product in 1980 of well in excess of one trillion, 100 million dollars. If this is so, the personal consumption expenditures will be about 750 billion, or approximately \$7,400 for each person in the work force.

Now another interesting aspect of the gross national product is the fact that government accounts for between twenty and twenty-one percent of that figure. Thus, its 135 billion in 1964 will be about 225 billion in 1980 if we continue at the same rate. Personally I hope it does not, because personal consumption expenditures (about 67% of the gross national product) is the primary steam that makes our engine go. Next are construction expenditures, and money used for investment and business inventories, plus the net favorable balance of trade which together make up about 12% of the gross national product. This 79% is a productive, self-generating mechanism in the economy. Obviously, government expenditure is not, for while it provides jobs and necessary services it lacks any real productive capacity. Thus, when the economy must produce \$5.00 in order to wind up

with \$4.00 it is essential that we think pretty carefully about the amount of government we can afford. However, I am not here to discuss that subject, my purpose is rather to outline the scope of the problem that faces us.

I hope I have made my point, namely that the problem of maintaining a high level of economic activity is essential if we are to provide the necessary jobs for the rapidly expanding work force which is a part of our expanding population. The dollar must remain strong. It must be the world's leading currency. People must understand the working of our economic system. They must understand the inter-relationship of interest rates, money supply, savings, and the need for new investment for job creation. They must understand our need for strong national defense and the solution to domestic problems on a sound basis.

It is unnecessary for me to pursue this further. It is sufficient for me to again say to you that we in this room hold ourselves out as leaders in our field and claim to be men of professional attainment. Having made that claim we must assume the responsibility of doing our part in meeting these challenges. We cannot turn our backs simply because of the magnitude and complexity of the task ahead, and we cannot say that it is so big that it really doesn't matter what one person does. The answer to that is mathematically definable. You are aware that the ocean is made up of drops of water, and that the distance to the moon is measurable in inches. The whole of either is incomplete if one drop of water or one inch is missing and thus it is with us. Each of us in our own way can contribute importantly to the solution of these problems if we will but recognize their existence and recognize the need for the study and thoughtful consideration of each project with which we come in contact — keeping in mind always that we must justify it as contributing to the economic strength of our community and nation. If each of us does our part, we will find that the potential of our nation and the system which has made it great, will result in a future growth outstripping anything which I have talked about today.

Utility Sectional Conference — Thursday, June 17, 1965

Fundamentals of Right of Way Negotiations

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Faced with the immediate prospect of supervising the acquisition of the right of way for a 1500 mile coaxial cable with a must service date of October 1, 1967, and with the Bell System's schedule calling for installation of a thousand miles of coaxial cable a year for the next ten years this subject of fundamentals of right of way negotiations is one of the utmost importance to us.

When we look back twenty-five to fifty years to see the technological advances in all phases of the utility industry, public or private, and compare it with our right of way problems then and now, it is enough to make all of us in this audience "shudder"!

Let me retrogress for a few minutes and talk about the communications industry for that is the phase of the business my life has been devoted to. The first transcontinental telephone line, which was placed in service 50 years ago in January, 1915, extended between San Francisco and New York. It consisted of four copper wires strung on 130,000 poles. Imperfections such as loose connections could disrupt service. Snow, ice, wind, flood and fire were hazards. It took 23 minutes to set up a call between New York and San Francisco as the operator had to call ahead to the next switching location to arrange for a connection. The quality of transmission was comparable to two persons shouting at each other across an open room and the charges were \$20.70

for a three minute call. During those early days we averaged three transcontinental calls a day.

Today the nation is spanned by five main telephone routes, both microwave and cable with the newest route being a coaxial cable extending from New York to California and being placed in service in December of last year. This new cable is deeply buried, by-passing cities — repeater and main buildings are all underground and the route is designed to survive any disaster short of a direct hit by a nuclear bomb. Average speed on interstate long distance calls is now 60 seconds with most calls going through in less than 25 seconds. The quality of transmission is now comparable to two people conversing across a desk and the cost today of a three minute coast to coast station to station call all day Sunday and after 8 PM on the remaining six days is \$1.00. We now average 30,000 coast to coast calls a day as compared with three calls as you will remember 50 years ago.

What has happened to right of way during that period of time? When the first pole line was built right of way men would go along with a General Foreman and if they missed a property or dealt with the wrong owner the problem could be corrected without a great deal of expense or trouble. Now with acquiring right of way for a coaxial cable capable of carrying 30,000 calls at one time and finely engineered, if we miss a property or for any reason have to relocate the cable because of inadequate or imperfect rights it is a "catastrophe."

Now that we are up to 1965 what are some of the fundamental problems and key factors which affect the success or failure of right of way negotiations?

In my judgment the number one fundamental problem is the scarcity of land. By that I mean we cannot provide more land for our population explosion. It is getting to be a scarce commodity. More people will require more power lines, more gas lines, more oil lines, more sewers, more streets, more highways, more of everything. With the demand for land far exceeding the supply, prices for both fee purchases and right of way are going up. At one time our right of way costs would be three to five per-

cent of a given project but it is now running from ten to twenty percent and even higher. This, of course, is a source of great concern to Management. We are now faced with a competitive situation in the right of way field, that is, competing with other utilities and public bodies for the right to the use of land. Property owners and their attorneys are well aware of this condition and are profiting by it. Hence, land owners now think that a speculative value is often its highest and best use. Not too long ago we attempted to purchase 20 acres of land five miles from an interstate highway which was assessed at \$10.00 per acre or \$200. The owner, after talking to his accountant, his realtor and his lawyer, came up with the fantastic asking price of \$190,000. Needless to say, we made other arrangements. I would like right here to make an observation with land becoming such a scarce commodity — Before many decades utilities will not be able to afford the luxury of having their own rights of way but will be forced by necessity to pool their resources to acquire a common right of way for all of their needs. This observation is not as far fetched as it may seem!

A second fundamental problem arises from the lack of furnishing the right of way agents with sufficient appraisal information as to the value of the affected properties. In my opinion monies expended in securing competent appraisals is a sound investment. We find them particularly effective when dealing with attorneys. In the use of appraisals I find it to our advantage just to give the land owner or his attorney the amount of the appraisal and the name of the appraiser. To allow him access to the appraisal data especially on the initial go around opens too many gates for discussion and disagreement.

An essential ingredient for the success of right of way negotiations is for the right of way agent to convince the property owner as to both his integrity and that of his principal. Our diversity of ownership often works to our advantage in that over a given route we find many land owners who are share owners of A.T.&T. Co. stock and most always they will listen with understanding to our agents.

Another key factor is that the right of way agent must be fully versed in all of the aspects of the installation his Company proposes to make. He must know "all the answers" and must be able to communicate with the property owner.

In acquiring right of way the agent if he is to live up to the Code of Ethics of the American Right of Way Association has two obligations:

- (1) To the property owners
- (2) To his company

In order to meet this dual obligation he must have a standard negotiating formula based on experience and appraisal information and what the installation will do to the property. Property owners are inherently fair and if approached by an agent armed with this information and sound in his convictions he will, 90% of the time, go along with the proposition. To review, a right of way agent must have a sense of fair play, integrity, land and price familiarity, know the fundamentals of land development, know actual construction conditions, be a good listener, have a nice appearance and a pleasing personality.

Recurring maintenance problems are likely to arise unless we have the complete understanding and cooperation of the property owner because we are going to be neighbors for a long, long time. With, as I have said, 30,000 circuits working in one cable we want him as a friend to assist our maintenance people in protecting service over this highly important facility. This condition would probably apply to most utilities, but if we can turn a given section of line over to our maintenance people with property owners feeling that they have been fairly treated by right of way, engineering and construction, then we all can feel a certain "glow" over a given assignment.

Another problem area is in the field of zoning. We have been negotiating for the last year for right of way for a buried coaxial cable, circling Washington, D. C., and at one point the cable is within 15 miles of the Pentagon. It has been for all of

us a most trying ordeal. As a result of this experience the right of way agents assigned to this project have become "experts" in the field of zoning. So to work in highly developed areas it is fundamental in right of way negotiations for the negotiator to be familiar with all of the aspects of the various state and county codes so that they may know initially the requirements to be met for compliance and to discuss and review them with the land owner. In this locality under discussion you must first secure the approval of the zoning board even to the proposed location of a buried cable.

The manner in which damage claims are settled has much to do with the success or failure of a given project. It is our goal to keep a right of way man in a given section during construction so that he can act as liaison coordinator between the contractor and the property owner. This in itself mitigates damages and often is of great help to the inspector on the job in policing the contractor. If you have a sixty foot right of way and the contractor uses a 100 foot strip, as is often the case, the right of way man, having a first hand knowledge of our rights can help keep the contractor within bounds. Most important of all through this close watch of construction by the agent it gives him a first hand and intimate knowledge of damages so that with the help of a complete set of notes he is in a position of being well informed in settling with the property owner. Later on if settlement cannot be reached his testimony is invaluable before a board of arbitrators or a jury.

A fundamental problem of a right of way negotiator is not to be led by a *cagey property owner* and lawyer into a false sense of "security" — By that I mean the property owner will always be pleasant and courteous and have all the time in the world to spend with the right of way agent but he never *signs on the dotted line*. This is a situation which the experienced agent and his supervisor should soon recognize and do something to correct it. The facility should if possible be rerouted to by-pass this crafty property owner. If that cannot be done, then have the property surveyed and appraised with a view to filing eminent domain proceedings. This, of course, is always a Management decision and is often given reluctantly after having a complete knowledge of the facts and much soul searching. As all of you are well aware, to buy a given section of right of way where conditions are comparable at one price is "utopia" and an ideal one from a public relations standpoint. The surest and quickest way to reduce this situation to an all time low is to give a hold out, such as our artful property owner, an exorbitant price, just to close out the section. To condemn and even if he gets his price from a friendly jury, you have saved face and kept your faith with those who went along with your proposition.

Much has been said and written about lack of "lead time" but it is a fundamental problem of all right of way negotiators to have sufficient time to conduct their negotiations in an orderly manner. In most instances a service date is first set. From that date, time intervals are subtracted to secure Government and Management approval, financing, engineering, construction and all of the remaining facets required to complete a large project. The time that is left is usually given to right of way acquisition. We are dealing with the human element which is wholly unpredictable. All of us know only too well that in spite of all prognostications of our planners that not a foot of cable can be laid in the ground until we secure the required rights. I cannot say too much about right of way managers insisting on being given adequate lead time in the setting up of the time schedules.

The last point I would like to make is the need for good old fashioned hard work on the part of the right of way negotiator, particularly in marginal cases. There is no substitute for long hours spent in the field. Right of way cannot be acquired by sitting in a motel. It has been my experience that the right of way manager, superintendent, supervisor or whatever his title may be is no better than his men in field. I for one am exceedingly proud of the high type of field men in my organization. Often I hear from our Management — "We don't know how they did it."

Legal Implications Related to Right of Way in the Condominium-Type Developments

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Your speaker's assignment in the presentation of this paper is to alert the Right-of-Way Engineer to the obstacles that may befall him in his dealings with the evermore increasing condominium owner. At the outset, perhaps it is reassuring to let the Right-of-Way Engineer know that our research has disclosed no case law; i.e., no decisions of courts of last resort of United States from the year 1658 to date wherein a Right-of-Way Engineer has run into any legal entanglement involving condominium ownership. With the typical, twisted and expectant attitude of a lawyer, however, we can prophesy that it is only a question of time until one of you encounters a serious situation. Man, we know, cannot remain free of trouble. If it doesn't come to one, he must go look for it. When that time comes, our advice is to consult your lawyer. One of two things will then happen — he will either bail you out, or you may wish you had never heard of the word condominium.

"Condominium" is a lengthy, often misspelled, foreign-sounding word, and sometimes is subject to short, concise and confusing definitions. In the College Law Dictionary, edition of 1931, a recognized source of knowledge to every law student during the 1930's, it is simply described as "joint ownership." Now there probably isn't a member of your organization who does not believe he is fully aware of what is meant by "joint ownership." Undoubtedly, a great number of you own your homes in joint ownership with your wives, or own bonds or other securities as joint owners, and, therefore, under the quoted definition, may think that you have a complete and understandable knowledge of the concept of condominium. From your own experience, you well know that when you own a piece of property jointly with your wife, you own the land on which your home and garage, stables and barns may be located, from the middle of the earth *ad coelum*. In the 1931 Law Dictionary referred to, Roscoe Pound, one of the most outstanding lawyer educators ever to grace the bar of a court in this country, lent his name to the Foreword, in which he stated:

"The popular use of legal terms is so loose, so many words have technical legal meanings different from those which they bear in ordinary speech, and intelligent understanding of the cases and of law books depends so much upon a clear grasp of the terms used, that the beginner cannot be too assiduous in pulling down his law dictionary whenever he has the slightest reason to suspect that a word he meets in his reading may have a technical legal meaning. By resorting constantly to his law dictionary, he will acquire a sure and accurate use of legal terms . . ."

Despite these sage remarks, a few pages further on in the dictionary, the author confuses the issue by merely defining a condominium as a "joint ownership." As you will see, this definition is woefully lacking! Should anyone seek real confusion as to the definition of a condominium, he should turn to a typical lawyer's dictionary where, for example, in the 1961 edition of Webster's New Collegiate Dictionary, a condominium is defined as "joint sovereignty by two or more nations."

The concept of condominium has its roots in antiquity, being a favorite type of ownership of property widely used by Romans over 600 years before the birth of Christ, and it has been continuously used as a type of ownership throughout Europe with the exception of Germany.

The best definition of condominium ownership that we have found and, incidentally, the only United States reported court definition since the year 1658 is that of a lower New York appellate court in *Susskind vs. 1136 Tenants Corp.*, 251 NYS 2d 321, wherein the court defined a condominium as:

"A system of separate ownership of individual units in a multiple-unit building."

A condominium owner, under this definition, and we believe this

to be a much more refined definition than we have just discussed, is obviously something more or perhaps less than a joint owner. The condominium owner is the complete and single owner — not joint with anyone — of a cubic volume of air enclosed by a floor, a ceiling, and four walls in a building or a series of buildings, likewise occupied by similar single — not joint — owners of various amounts of cubic airspace. It is only in relation to what are denominated as common elements, such as the land on which the building is situated, the hallways connecting the various single-owned airspaces, the gardens surrounding the building, the drives entering into and from the project, the recreational areas, the club houses and swimming pools, that each single condominium owner becomes an undivided fee simple owner (not necessarily a "joint owner") with his brother condominiumers, to coin a word.

Man is a social being, and since he emerged from the caves and learned to build his residences above the ground he has sought to live as closely as possible with others of his species. Urban living satisfied some, but many sought even a closer communal kinship with his neighbors, leading to the development of the apartment, the cooperative and the condominium. We sometimes call this togetherness.

Little need be said as to the apartment. The apartment dweller has no ownership interest in the apartment in which he resides nor in the common elements which he shares with the other tenants.

To understand the condominium, it must be distinguished from the cooperative. Cooperative ownership of an apartment dwelling came into great popularity in the United States, particularly in the East, during the 19th Century. In this form of ownership the prospective tenants form a corporation in which they all purchase their respective stock interests entitling each stockholder to reside in a specific space within the dwelling and to share in the common elements — the hallways, recreation areas, store-rooms, garages, laundries, etc. The cooperative is taxed as a unit, and the officers of the corporation are charged with the duty of annual collections from each of the stockholders in order to pay the taxes. Should one stockholder default in his assessment, the burden of paying the taxes remains on the other tenants. Another disadvantage is that no one tenant can borrow and create a lien upon the apartment in which he resides. The construction costs are borne by the corporation, financed through a single loan from a lending agency. Again, should one or more of the tenants not pay his prorata share of assessments and the corporation is not able to meet the provisions of the instrument creating the lien against the property, the entire dwelling is foreclosed. These disadvantages may well be the source of the recent development of the condominium in this country.

In a condominium, each owner is responsible for the payment of his own respective taxes assessed against his own apartment, and his apartment only. Should his next door neighbor fail to pay his taxes, the tax sale would not affect the other members of the condominium.

The present form of condominium, as we know it in this hemisphere, originated in Cuba and started its rather fantastic growth upon the adoption by Puerto Rico of the Horizontal Property Act of 1958. Soon the States began looking into this form of ownership, but it quickly became apparent that it would be of little moment in this country until Congress authorized the FHA to finance this type of ownership. In 1961 the National Housing Act was amended to so provide, and quickly the various States began the adoption of condominium acts authorizing this form of ownership, and by the end of 1964 at least 34 states had passed legislation with reference to condominium ownership.

Fundamentally, there are two model forms of statute authorizing condominium development, one known as the "Long Act" and the other known as the "Short Act." With apologies to those from other states, we may refer more in detail to the Colorado Act with which we are more familiar. Indeed, having examined the New York and California Condominium Acts, we see little difference, if any, in their substance. The difference between the statutes of the various states is of little moment. The Colorado law comprises less than two full pages. The Congressional Act amending the National Housing Act runs to 14 pages of fine print. Perhaps the explanation is that as a state legislator graduates to the national senate, he becomes more verbose.

Colorado defines a condominium as an individual airspace unit consisting of an enclosed room or rooms occupying all or part of a floor or floors in a building. Thus, the person who purchases a condominium, in effect, buys himself a given amount of atmosphere. He does not own the walls surrounding that atmosphere. It probably could be said that a person who buys the same given cubic amount of airspace on a mountain top near Aspen, Colorado, gets less for his money than a person buying the same amount of airspace at sea level.

The law then provides that the developer shall execute and record a declaration which defines the character, duration, rights, obligations and limitations of the prospective condominium owners. By all means, the declaration should carefully define a "condominium interest" so that the prospective purchaser and those such as you who might be dealing with the various owners in the future will have an exact idea of what the owner is buying. An example of a typical and well thought out definition would define a condominium interest as:

"The fee title to a condominium unit, together with all undivided interests, fractional interests, building ownership, and other rights appurtenant thereto."

The developer then notifies the assessor in the county in which the condominium is located and describes the various condominium units in the development. Thereafter all taxes are assessed and collected on each condominium unit. This feature of the law is a distinguishing feature from the cooperative.

In Colorado, since the adoption of the Condominium Act in 1963, the condominium development has embarked upon a phenomenal growth. It is a peculiarly palatable form of living in the various ski areas such as Aspen, Vail and Breckenridge, and in each of these and some of the other large ski areas, there are rising some large and luxurious condominium residences. The owner can finance the purchase, turn the rental thereof over to an agent during those weeks when he may not be using his unit, oftentimes receiving from these rentals sufficient monies to retire his loan and pay his taxes.

The upkeep of the common elements is maintained through a non-profit corporation, membership of which is composed of the various condominium owners. The owners, in turn, select a board of directors and officers, and it is this corporation, acting through its directors and officers, which controls the use of the common elements comprising the condominium development. It is with these officers and directors that the Right-of-Way Engineer must deal when proposing to install water lines, gas mains, telephone lines, cables or when proposing to cross the common areas with roads, highways, ditches, pipe lines, railroad tracks, bus lines and similar projects perhaps having the nature of public convenience and necessity.

The various statutes usually authorize not only condominium ownership of residences but also of the business buildings. The business condominium has had a slow beginning. We surmise that the average doctor, lawyer and similar type person occupying an office building is unwilling to tie up his capital in the ownership of his office and prefers the usual leasing arrangement.

This, then, is a sketchy background of condominium ownership. With the continued growth of this type of ownership, you, as Right-of-Way Engineers, and especially those of you engaged in projects requiring condemnation and the exercise of eminent domain, will undoubtedly encounter some problems. Originally, and we are referring to the short period of the last two years, the typical condominium was a building enclosing a number of individual apartment-type residences. Quite often there was a common recreational area adjacent to the building, usually including a swimming pool and other similar aids to leisurely living. This type of development would probably pose no greater problems than any apartment building. More recently the multi-unit condominium development, encompassing in various instances many acres, has begun to emerge.

Let us build a windmill or two at which to tilt. Consider a proposed development covering some 40 acres of land wherein the developer records a plat describing one perimeter roadway, being the only portion of the subdivision which is dedicated to public use. This could pose a problem to the water company, gas company, telephone company or other utility, all of whom are desirous of introducing their pipes, cables, and telephone lines into each individual unit to be constructed within the condominium subdivision which may contain as many as 200 to 400 individual condominium units, not to mention the common recreational areas, which, in turn, need the attention of the Utility Right-of-Way Engineer. Ordinarily, the Engineer would plan his program

of furnishing service to each unit as much as possible through the use of streets. Suddenly he finds there are no public streets, and each separate utility line must occupy a space not dedicated to the public and under private ownership of one type or another. A different approach, therefore, must be worked out, which can be done and is being done by agreement between the developer and the various utilities concerned. If the Right-of-Way Engineer and the developer can agree at an early date as to the location of the utility lines and the rights of the utility company in the maintenance and operation of the lines, the agreement can be binding upon the subsequent condominium owners.

It takes but little imagination, however, to anticipate problems once the various individual units are sold and there are some 200 to 400 owners to be considered, each of whom may have his own special ideas. It then becomes imperative to look to the government of the condominium project as expressed in the by-laws, with the fond hope that the directors and the officers have the power to act for and in behalf of each individual owner. In the absence of proper powers, it is apparent that an impasse could be created.

These large-acreage condominium developments might also pose another special problem to certain Engineers. If, because of the terrain involved or other special considerations, it is imperative to cross over and through such a development with, as an example, a road or highway, in the exercise of eminent domain, the Engineer would usually be faced with the prospect of condemning perhaps only one or two units. In the condominium development, however, he may well be faced with the prospect of condemning the entire subdivision in one fell stroke inasmuch as the condominium owner at the far end of the subdivision undoubtedly has the same interest as the condominium owner whose unit is directly affected by the condemnation proceedings.

From the standpoint of the Utility Engineer, his future troubles in dealing with a large condominium development can be minimized if he approaches the developer in the very early stages of the condominium development and acquires at that time the necessary easements. This obviates the later necessity of having to deal with 200, or 300, or 400 individual owners. In certain instances it may be necessary to work with the developer, particularly in the formation of the non-profit corporation which is to take over the management of the development when it is completed and make sure that the corporation has all the necessary power to bind the individual unit owners in granting any necessary easements and rights of way. This can best be accomplished by giving the corporation the power of an attorney in fact.

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"Condominiums" The American Home, September, 1963
"Condominium Streets Trouble Aired" The Denver Post, March 10, 1965
"Condominium Easements obtained by Jefferson County" The Denver Post, March 17, 1965
"Condominiums and Cooperative Apartments" 15 American Jurisprudence 2dp. 977, et seq.

APPENDIX

A TYPICAL SHORT CONDOMINIUM ACT, Being Article 15 of Chapter 118, Colorado Revised Statutes, 1963

118-15-2. Condominium ownership recognized.—Condominium ownership of real property is recognized in this state. Whether created before or after the date of this article such ownership shall be deemed to consist of a separate fee simple estate in an individual air space unit of a multi-unit property together with an undivided fee simple interest in common elements. The separate estate of any condominium owner of an individual air space unit and his common ownership of such common elements as are appurtenant to his individual air space unit by the terms of the recorded declaration shall be inseparable for any period of condominium ownership that is prescribed by the said recorded declaration.

118-15-3. Definitions.—(1) An “individual air space unit” shall consist of any enclosed room or rooms occupying all or part of a floor or floors in a building of one or more floors to be used for residential, professional, commercial or industrial purposes and which has access to a public street.

(2) (a) Unless otherwise provided in the declaration or by written consent of all the condominium owners, “general common elements” means: The land on which a building or buildings are located; the foundations, columns, girders, beams, supports, main walls, roofs, halls, corridors, lobbies, stairs, stairways, fire escapes, entrances and exists of such building or buildings; the basements, yards, gardens, parking areas and storage spaces, the premises for the lodging of custodians or persons in charge of the property; installations of central services such as power, light, gas, hot and cold water, heating, refrigeration, central air conditioning and incinerating; the elevators, tanks, pumps, motors, fans, compressors, ducts and in general all apparatus and installations existing for common use; such community and commercial facilities as may be provided for in the declaration; and all other parts of the property necessary or convenient to its existence, maintenance and safety, or normally in common use.

(b) “Limited common elements” mean those common elements designated in the declaration as reserved for use by fewer than all the owners of the individual air space units.

(3) “Condominium unit” means an individual air space unit together with the interest in the common elements appurtenant to such unit.

(4) “Declaration” is an instrument recorded pursuant to section 118-15-5 and which defines the character, duration, rights, obligations and limitations of condominium ownership.

118-15-4. Assessment of condominium ownership.—Whenever condominium ownership of real property is created, or separate assessment of condominium units is desired, a written notice thereof shall be delivered to the assessor of the county in which said real property is situated, which notice shall set forth descriptions of the condominium units. Thereafter all taxes, assessments and other charges of this state or of any political sub-

division or of any special improvement district or any other taxing or assessing authority shall be assessed against and collected on each condominium unit, each of which shall be carried on the tax books as a separate and distinct parcel for the purpose, and not on the building or property as a whole. The valuation of the general and limited common elements shall be assessed proportionately upon the individual air space unit in the manner provided in the declaration. The lien for taxes assessed to any individual condominium owner shall be confined to his condominium unit and to his undivided interest in the general and limited common elements. No forfeiture or sale of any condominium unit for delinquent taxes, assessments or charges shall divest or in any way affect the title of other condominium units.

118-15-5. Recording of declaration—certain rules and laws to apply.—(1) The declaration shall be recorded in the county where the condominium property is located. Such declaration may provide for the filing for record of a map properly locating condominium units. Any instrument affecting the condominium unit may legally describe it by the identifying condominium unit number or symbol as shown on such map. If such declaration provides for the disposition of condominium units in the event of the destruction or obsolescence of buildings in which such units are situated and restricts partition of the common elements, the rules or laws known as the rule against perpetuities and the rule prohibiting unlawful restraints on alienation shall not be applied to defeat or limit any such provisions.

(2) To the extent that any such declaration shall contain a mandatory requirement that all condominium unit owners shall be members of an association or corporation, or provide for the payment of charges assessed by the association upon condominium units, or the appointment of an attorney in fact to deal with the property upon its destruction or obsolescence, any rule of law to the contrary notwithstanding, the same shall be considered as covenants running with the land binding upon all condominium owners and their successors in interest. Any common law rule terminating agency upon death or disability of a principal shall not be applied to defeat or limit any such provisions.

Effect on Right-of-Way Negotiations of use of Guyed, V-Type Towers for Transmission Line in Cultivated Areas

By I. M. Meier, Real Estate Agent, Pennsylvania Electric Company, Johnstown

I. M. MEIER

Real Estate Agent, Pennsylvania Electric Company, Johnstown, Pennsylvania.

Attended Gettysburg College and the University of Pittsburgh. Member: Pennsylvania Electric Association, Land and Land Rights Committee; Cambria County Board of Realtors; Pennsylvania Chapter 9, American Right of Way Association.

When I was invited to participate in the discussion on this subject, I was inclined to refuse, for the reason that Penelec does not have a single Guyed “V” Tower in its transmission system. However, since Penelec had considered the application of Guyed “V” Towers for a specific project, I have knowledge of the design of the structure and I am familiar with several applications of its use. I have also made an analysis of the approach to be used in the acquisition of right-of-way for EHV Lines supported by Guyed “V” Towers. So I hope you considered me not completely unqualified to make this presentation.

The evolution of the design of supporting structures for electric lines has been in progress ever since the first pole line was constructed. The guy wire has been a primary support for electric lines just as long, and its evolution has been considerable, also. Structures have changed from the simple single 20' to 30' high pole to today's giant multi-pole structures, and mammoth metal towers, reaching heights in excess of 150'. The guy wire has progressed from a single strand of wire, used to support an angle in a line — frequently fastened to a tree, another pole or some other convenient object in the area — to today's guys which consist generally of numerous stranded cables, as big as 1" in diameter — secured by carefully calculated “dead men” of concrete or steel, buried in the ground at appropriate depths.

The guy wire of the early days of the utility industry was frequently installed with less forethought than is required currently. Today's guys, however, are as carefully engineered and designed as the most intricate parts of any equipment used in the industry.

With the evolution of structure design, the use of guy wires has broadened considerably. With appropriate application of the guy wire, structures are designed for installations that would otherwise be impractical to construct. The guy wire permits the use of extreme angles, with certain types of structure, for instance. It is used to hold down structures and as support for tangent deadend structures. These are a few of the present primary uses of the guy wire; and now, it is used as a supporting member of the “V” Tower. The reason for this application is one of economics, for the guy as a supporting member allows the use of lighter and considerably less metal in each structure. The Guyed “V” Structure, under some conditions, can provide the use of longer spans of heavier conductor for less money. This is the basic criteria for profitable pursuit of our business. However, I will come back to this point a little later.

In the evolution of the use of guy wires, there is one factor that has never changed. From the day the first anchor was placed in a cultivated field, the farmer did not like them, and to say that he still doesn't like them is probably the understatement that will be made at this Seminar. I am sure that no one here will deny that right-of-way for anchor guys has been the most consistently difficult easement to acquire. From our early days in the business, the old refrain “Take the word ‘guy wire’ out of the agreement and I'll sign,” has been a popular tune frequently heard by the negotiator.

With the advance in the Electric Industry's ability to construct higher voltage lines, the use of the guy wire has increased proportionately, as mentioned before — primarily for the reason that, in some instances, it can be the lowest cost method of support for the lines. So we probably can agree that the burden on the land owner, and in turn on the right-of-way negotiator, has increased with the advancement in transmission line capabilities, in regard to the use of guying facilities in farming areas.

I am sure that during the design stage of any line structure the engineers do seriously consider land use, but generally justify the use of a particular design, regardless of land use, on the

grounds that the structure being considered can save "X" number of dollars and that, after all, land has a maximum value for which we are already paying the price. So why not make greater use of the farmer's land if we can save money on material and construction — after all, we are paying for the land anyhow. This logic is not unreasonable. Land does have a maximum value and we do generally pay this price for transmission right-of-way, particularly in farming areas. But to the farmer, the consideration paid for the right-of-way frequently represents something other than payment for the occupation of his land. It is payment for each and every time he has to work around any obstacle in an otherwise unobstructed field.

It is true that the Guyed "V" Tower occupies less space than most conventional self-supporting structures — that a smaller area is lost to cultivation by the use of "V" Towers is also true. However, the "V" Tower with its supporting guys, is spread out over such a wide area that instead of one rather large obstacle in the field, the farmer has to work around a minimum of five and, one some types of "V" structures, ten or twelve obstacles. This conceivably could be a more objectionable land use than the self-supporting tower. The benefits derived from the consideration received for the right-of-way might grow dimmer in the farmer's mind with each occurrence of inconvenience experienced in preparing the land, planting, cultivating and finally harvesting the crop, and this sequence of inconveniences may occur every single growing season. In these instances, the amount of money received for the right-of-way could diminish in importance with each passing season.

From my experience, it is, therefore, probable that the first effect the use of Guyed "V" structures would have on right-of-way acquisition for EHV Lines is a stronger objection by the farmer to more restrictive use of the right-of-way occupied by the structure. Regardless of the fact that we are willing to, and generally do pay full value for the land occupied, the farmer is faced with the increased inconvenience of farming around the numerous obstructions of each structure. This seems to be a real and sincere objection — not a potential or imaginary possibility; such as the resistance encountered sometimes from the land owner who has a piece of mountain land or marginal land 25 miles or so from nowhere, and who resists conveying the right-of-way for the reason that maybe someday someone will come along with a scheme that will make his land valuable.

The second, and possibly just as severe an effect, lies with the negotiator himself. In spite of the fact that it is desirable that the negotiator be prepared to prove that, regardless of the type, size or magnitude of the structures used in a transmission line, the particular installation on the farmer's land with whom the agent is currently negotiating is the ideally situated and the least

inconvenient structure conceivable for this particular installation, it is a difficult problem to sell the farmer the idea that, after all, guy wires are really not so bad, and that the mere fact there are 4 or 5 guys on each structure won't really inconvenience him as much as other types of structures. If the negotiator does not believe this, he is hard put to make the deal.

The next effect is a long range one, and one that only time will tell whether it is good or bad for the negotiator. It is the acceptance or rejection of the Guyed "V," both by the land owner and the viewing public. There is no question in my mind that, properly inspired, a good negotiator could purchase right-of-way for a line of the first Guyed "V's" in his area for a reasonable price and in record time but if, after several years, the farmer whose land the towers occupy finds that the Guyed "V" is more inconvenient to him than the self-supporting structure would have been, or if the viewing public thinks the sight of the towers is unbearable, the next attempt to purchase right-of-way for a similar line could be considerably more difficult. On the other hand if, as a result of there being fewer structures, and if, as a result of careful consideration being given to the structure location by the lay-out people, the land owner and the public don't object, it is conceivable that the Guyed "V" could become the preferred structure right-of-way wise for EHV Line construction. Assuming use of the Guyed "V" is desirable from a cost standpoint, as mentioned earlier, the foregoing would be the desired result. Conceivably this result can be attained by a combined effort on the part of design, lay-out and right of way personnel.

I hope you have observed that I have not mentioned increased considerations for the right-of-way as an effect on Guyed "V" acquisitions. In my opinion, this should not be considered as an adverse effect for several reasons. First, it is generally agreed that considerations now being paid are usually at least equal to full value of the land occupied, plus a substantial amount thrown in for severance damages. Second, if there are, in fact, fewer structures per mile in a Guyed "V" Line, the agent would lose benefit of this advantage by paying higher prices for less occupation of the land. Third, and most important, the going cost of right-of-way in any given area is usually the price paid for the right-of-way for the last line constructed. Regardless of the type of structure — if Farmer Brown was paid in excess of the value of his land for right-of-way for a Guyed "V" tower line last year, Farmer Smith wants paid on the same basis for right-of-way through his land this year — even if you hang the conductor on sky hooks. This is the human element and, gentlemen, the human element is the thing that affects negotiations most — regardless of the type of structure used to support a line.

Acquisition of Easements in Areas When Underground Minerals are a Factor

By Paul F. Grant, Central Illinois Public Service Company

PAUL F. GRANT

Land and Right of Way Supervisor, Central Illinois Public Service Company, Springfield, Illinois.

BA: University of Notre Dame. Director, Illinois Chapter 12, American Right of Way Association.

The territory served by Central Illinois Public Service Company, consisting of 63 counties in Central and Southern Illinois, has many areas where coal is mined by surface stripping, and also has some oil fields. Naturally we must give careful consideration to these areas if we encounter any in the course of selecting a route for a transmission line.

We find the coal companies to be co-operative in supplying us with classified information as to their future plans for strip mining, and we take great steps to avoid areas where our lines must be relocated at a future date. In one instance, we built a single pole 138 KV line temporarily around an area actually being stripped. When the coal company completed its work, they levelled a wide path for our trucks to enter and erect an H structure line and remove the temporary single pole line.

Many times the land owners will insist that our lines will be a barrier to their selling their land for strip mining, and when the coal people assure us that the area surrounding our proposed line, as well as the area beyond, is not feasible for economic coal removal, we add a clause to the Right of Way Grant that we will temporarily rearrange our line to permit stripping when so requested by a coal company. To date, the information we get

from coal companies must be accurate, because we have yet to move any of our lines.

Illinois law provides that no excavation may be made closer to a public highway than 1½ times plus 10 feet of the depth of the excavation. For example if a coal company planned to strip a seam of coal 50 feet below the surface, it must keep 50 plus 25 plus 10 feet away from the road. There would therefore be a strip 85 feet in width along the road which could be suitable for single pole type of construction and possibly H frame construction if there are no farm buildings beyond the area to be stripped.

We also have some shaft mined coal areas in our territory but we make no attempt to obtain subordinations from the mineral owners, but rather negotiate only with the surface owners. And again, I can say that to date we have never experienced any difficulties from the owners of coal.

While we do not have huge oil fields in our area, our small ones sometimes present a problem. We know that a derrick cannot be erected under or near our line, and we also know that a derrick of some sort is required to pull casing pipe, etc., in the routine maintenance of the well. We do not attempt to get subordinations from the mineral owners, but rather take our chances on locating our center line a safe distance from existing wells to permit their safe maintenance, and we trust that no intermediate wells will be drilled. We know that most of the time the mineral interests are so divided that we would have great difficulty in running all of them down. We also know that every request for

a signature is an invitation to a refusal and possible complications in completing the construction of a line.

When we condemn a right of way across a parcel of land, we include all the owners of the sub-surface as well as the surface. We first try to get subordinations, but usually experience the 10% group of "do nothings." Actually, a judgment award payable to all parties named as defendants works a hardship on the surface owner when there are mineral interests scattered all over the countryside. We pay the award to the County Treasurer for the benefit of those persons named as defendants in the specific suit, and the surface owner must prove to the satisfaction of the treasurer that he is entitled to a certain percent of the money.

Obtaining Permits for Construction of Utility Facilities Across Interstate Highways

S. Paul Crawford, Chief Transmission Engineer, The L. E. Myers Co., Overland, Missouri

S. PAUL CRAWFORD

Chief Transmission Engineer, The L. E. Myers, Company, Overland, Missouri.

BS: University of Oklahoma. Registered Land Surveyor, Registered Professional Engineer. President, Gateway Chapter 37, American Right of Way Association.

The Code of Ethics of American Right of Way Association sets forth certain duties and responsibilities for our profession the second of which is "to add to the knowledge of our profession by constant study and to share the lessons of our experience with our fellow members." Today I will tell of some of our experiences in obtaining permits for the construction of electric utility facilities across Interstate Highways in Missouri hoping to share with you the lessons we learned and later welcoming you to tell of your experiences in your area.

One of our clients recently planned and constructed a 161 KV wood pole H-frame electric transmission line from New Florence to Overton a distance of seventy miles. As with most transmission lines spanning a similar distance in most midwestern states, the line crossed many public highways, including fourteen public highways which were either interstate, federal, state or county routes. In Missouri all of the public highways that are improved and designated as routes are under the jurisdiction of the Missouri State Highway Commission.

For many years our client has prepared crossing drawings showing not only highway crossings but also all crossings of the facilities of other utilities. Although in the beginning it was not really considered necessary to obtain assent to these crossings the repetition of the gesture of cooperation has made it mandatory. So we made additional surveys, prepared drawings and filled out requests for permits to cross the public highways. There were 14 of these crossings and the reams of necessary papers were submitted to the district office of the Commission for approval.

Our experience had been that although no permanent utility facilities were to be placed on the highway right of way, nor had any such encroachment been requested, that within a short time an "Excavation Permit" for each requested crossing would be forthcoming and in that case that was true with thirteen of the requests but oh that fourteenth.

In Missouri the laws provide that electric and other utility facilities may occupy highway rights of way. The State Highway Commission is given the right to regulate the location of utility facilities on highway rights of way, but they are forbidden to exclude such facilities. Furthermore, the statutes provide that the Highway Department may require the relocation of utility facilities, to permit highway reconstruction, but the statute explicitly provides that the Commission may not require the removal

We do not find it more difficult to negotiate right of way across lands where the underlying minerals are a factor. There will be the usual hard ones who complain that our project will spoil their imaginary profits; but we feel these persons would give us a hard time whether or not minerals were in the picture. We dread the need to condemn a right of way when mineral owners are involved because (1) we can only know the names of those owners of record; (2) their addresses are sometimes hard to obtain; and (3) since they are usually out of state residents, we must get service by publication.

Perhaps we are living dangerously when we ignore mineral owners on negotiated deals, but after all, every call we make is an invitation to danger. The Great Society with whom we must negotiate, is not entirely a Good Society.

of utility facilities, in whole or in part, to accommodate such relocation.

Despite these provisions of the laws of the State of Missouri the Highway Commission has instituted policies which will, totally or partially, require the relocation of facilities or the construction of new facilities off the highway right of way.

In accordance with that policy, the Highway Commission refused to grant a permit for that good old fourteenth crossing. The Interstate Highway which was to be crossed was at that time only under construction but anyway the permit was not to be granted unless the line could be constructed "without entering or leaving the highway except at approved access points and without parking equipment or material on the median, pavement or shoulders thereof."

Now I bet some of you are thinking, "Well! why didn't they rent a helicopter?" You are entirely correct, we could have rented a helicopter to string the lead lines that we use to pull the conductors from structure to structure. But, in the span which was to cross the Interstate Highway there was also U.S. Highway No. 40, a very busy well traveled road and the construction people even though the lead lines could have been strung by helicopter and even though the conductors could be strung under tension by use of a retarding machine would not accept the liability and responsibility of stringing the conductor without temporary guard poles set along the shoulders of U.S. Highway No. 40 and also along the Interstate Highway. So you see that the restriction required for granting of the permit made the stringing of the conductors impossible.

At this point we appealed for a revision of the permit requirements and after considerable delay an "Excavation Permit" was granted which allowed the guard poles to be set for the conductor stringing but future servicing and maintenance of the transmission lines must be accomplished without entering or leaving the the highway, except at approved access points and without parking equipment or material on the median, pavement, or shoulders thereof.

Most recently the Highway Commission sought to impose the same restriction upon a request for a permit to cross a four lane divided highway which is not a portion of the Interstate system.

It is recognized that different states have different regulations covering occupancy of highway rights of way by utility facilities. However, most Interstate Highway restrictions are established by the Federal Bureau of Public Roads. In the beginning I said that I would share our experience in obtaining permits for the construction of electric utility facilities across Interstate Highways in Missouri now will you please tell us of your experience.

Developments on the Railroad Situation (Sub-Committee No. 1 Report)

By E. M. Kennedy, Superintendent, Right of Way, American Oil Co., Chicago, Illinois

EUGENE M. KENNEDY

Superintendent of Right of Way, American Oil Company, Chicago, Illinois.

Attended the University of Kansas. Co-chairman, Education Committee, Chapter 12, Chairman, Sub-committee No. 1, National Utilities Committee, Member National Pipeline Committee and former National Director, Chapter 12, American Right of Way Association. Chairman, Subcommittee 5B1 - Rights of Way, Division of Transportation, American Petroleum Institute.

Last year in Detroit on May 26, 1964, your Sub-Committee No. 1 decided that the work of this group should be continued for two reasons:

1. It could serve a useful purpose as a source of information for the members of AR/WA in their dealings with the railroads,
2. Discontinuance might be misconstrued by the railroads.

It was decided that this committee would issue reports or bulletins from time to time during the year. Such reports or bulletins would be factual and contain information which should prove helpful in dealing with the railroads.

Today, we have two Bulletins to present for the information of members of the AR/WA.

1. The first one is a Master Crossing Agreement. Such an agreement will tend to establish and stabilize acceptable fees and rentals, eliminate delay and expense in negotiating separate permits and otherwise promote friendly relations between the railroads and the utilities.
2. The second one sets forth five legal principles or rules of law which are generally applicable and have major significance with respect to the construction of utility facilities across railroad right of way. All utility people should be thoroughly familiar with these legal principles because knowledge of them will strengthen the utilities' bargaining position which again will tend to stabilize railroad-utility relations.

In the future, providing this committee is continued, it will issue another bulletin covering court decisions favorable to utilities. There has been some preliminary work and research on this matter. Any recent decisions that you people have knowledge of would be appreciated by the committee.

The master agreement presented today relates to electric line crossings only. It is felt that the pipeline and telephone people should consider supplements to the master agreement that are peculiar to their crossings.

It is my recommendation that this committee be continued for another year.

Bulletin No. 1*

RAILROAD-UTILITY RELATIONS.

MASTER CROSSING AGREEMENT FORM

Introduction. In recent years the Railroads, especially those associated with the Eastern Railroad Presidents Conference, have insisted on excessive fees and rentals for the crossing and/or occupancy of railroad R/W by utility facilities. To overcome this, some Utilities have entered into master agreements with Railroads covering such crossings and, in some instances, occupancy. Such agreements establish and stabilize acceptable fees and rentals, eliminate delay and expense involved in negotiating separate permits, and otherwise promote friendly relations between Utilities and Railroads.

The following is a summary of a basic form of master agreement which may be useful in negotiating crossing agreements. Such form relates to electric line crossings over the private R/W of Railroads; but it is susceptible of being revised to cover telephone and pipeline crossings.

Summary of Master Agreement Form

Parties — Railroad Co. (herein called R) and Utility Co. (herein called U).

Recitals — R operates railroad lines and U operates electric lines within the State of U has occasion to construct lines across R's private R/W not within the limits of public highways; and R is willing to grant U the right to construct such lines upon the following terms and conditions.

1. *Application for Crossing* — U shall submit to R, in duplicate, a separate application for each proposed crossing in the form of Exhibit A including a location drawing, engineering plans and specifications. If the application is approved, R shall return one approved copy to U or, if disapproved, R shall advise

U of the reason. If U states in the application that the crossing must be built as soon as possible, and if R does not within 20 days advise U of disapproval, then approval shall be presumed and construction may proceed. In emergency cases R and U shall cooperate to avoid unnecessary delay in construction.

2. *Construction, Maintenance and Operation* — These shall be in accord with the plans and specs accompanying the application. They shall conform to the current National Electrical Safety Code or to standards promulgated by a duly authorized governmental agency, and in case of conflict such standards shall govern. Any subsequent changes in the crossing shall conform to the rules or standards then in effect. U shall provide any devices required to prevent electrical interference with R's signal lines, etc. U shall give R written notice before starting construction of not less than 72 hours except in emergency cases.

3. *Attachments to R's Structures* — Not covered by this Agreement.

4. *Structures on R's R/W* — None for overhead crossings are covered by this Agreement.

5. *Alterations After Initial Construction* — U must submit plans to and secure R's approval before making alterations. Thereafter, on 5 days' notice, U may make the alterations. In emergency cases, R and U shall cooperate to avoid unnecessary delay. U shall not make any additional payment to R under Item 13 unless added facilities cross R's R/W beyond the limits of the original occupation.

6. *Maintenance* — U shall properly maintain its facilities. On notice from R, U shall make such repairs as are reasonably required; and if U fails to do so R may make such repairs.

7. *Relocation* — At R's request, U shall promptly relocate its facilities to another suitable location to permit changes in R's grade, alignment or additions. If U fails to make such relocation, R may do so. U shall not make any additional payment to R under Item 13. R shall reimburse U for the cost of such relocation on land not controlled by R at the time of the initial installation.

8. *Performance of Work* — All work on U's facilities shall be done by U at such reasonable time and in such manner as approved by R's representative; however, R may do such work within the limits of its R/W. In emergency cases, R and U shall cooperate to avoid unnecessary delay. U shall furnish any watchmen reasonably needed for safety.

9. *Supervision and Inspection* — R can supervise and inspect U's work and facilities to determine that they are in accordance with this Agreement.

10. *Watchmen and Flagmen* — R may place watchmen and flagmen during the progress of any work on the crossing; but R's failure to do so shall not affect U's obligations.

11. *Indemnity* — U shall indemnify R against all injury or damage which is not caused by R's sole negligence; but if caused by joint negligence, then it shall be borne equally by U and R. R shall not be deemed negligent because of unsafe conditions of U's facilities unless caused by work thereon done by R.

12. *Cost of Work* — The cost of all work on U's facilities shall be borne by U; and if R does any such work in accordance with its rights hereunder, then U shall reimburse R plus 15% for supervision.

13. *Payment Per Crossing* — U shall send \$.....** with each application. R shall retain said sum if the application is approved or return it if the application is disapproved.

14. *Non-applicability to R's Land Outside Its R/W* — U shall have no right under this Agreement to occupy R's land outside the limits of R's R/W. Any such occupancy shall be covered by a separate agreement.

15. *Assignment* — U shall not assign its rights hereunder without R's consent, which shall not be unreasonably withheld.

16. *Term* — This Agreement shall continue for** years and from year to year thereafter until terminated by either party on 1 year's notice. Termination is effective only as to cross-

*Issued June 1, 1965 by Subcommittee No. 1 of the National Utilities Committee of the American Right of Way Association for the information of the members of the Association.

**The payment called for by recent master agreements effective in eastern United States has ranged from \$100 to \$300 per crossing, regardless of the voltage or number of wires.

ings thereafter to be constructed, and shall not affect the rights of the parties relating to crossings then existing under this Agreement.

17. *Removal or Abandonment* — Upon removal or abandonment of any crossing U's rights hereunder regarding that crossing shall cease; U shall restore R's property to good condition, or R may restore same at U's expense. R shall not refund any payment made by U with respect to such crossing.

18. *Sale or Abandonment of R's R/W* — In such event, R will, to the extent it can, grant U an easement for continued maintenance of facilities covered by this Agreement.

19. *Exclusions* — This Agreement does not apply to crossings constructed prior to the date hereof, nor to crossings within the boundaries of public streets or highways, nor to crossings constructed for the sole purpose of serving R or R's tenants.

20. *Eminent Domain* — U does not hereby waive any of its rights of eminent domain.

21. *Notices* — Notices hereunder shall be in writing and sent to the respective parties at designated addresses. No other method of giving notice is precluded.

Exhibit A — Form of letter of application from U to R, describing briefly a proposed crossing, and enclosing plans and specifications and payment.

***The term stipulated in recent master agreements has ranged from 5 to 30 years, with an average of about 15 years.

Bulletin No. 2*

RAILROAD - UTILITY RELATIONS LEGAL PRINCIPLES APPLICABLE TO UTILITY FACILITIES ACROSS RAILROAD R/W

Introduction

The construction of utility facilities across railroad R/W is governed by certain legal principles which establish the rights of the respective parties. The legal principles hereinafter set forth are generally applicable to such crossings; and knowledge of these principles should facilitate negotiations and otherwise improve relations between Utilities and Railroads.

Legal principles**

1. *Public Crossings* — Where utility facilities cross a railroad within the limits of a public street or highway *no permit is required from the Railroad* for such crossing even though the railroad R/W is owned in fee.***

This legal principle assumes that the utility has obtained any requisite governmental consents to place its facilities within the highway limits and therefore, has the same right as the general public to use the public road right of way to provide the public with needed services and commodities.

2. *Crossing Over Railroad Easements* — Where utility facilities cross railroad R/W in which the Railroad owns only an easement (as distinguished from fee title) *no permit is required from the Railroad* for such crossing; *provided* the utility facilities are of such height or depth as not to interfere with the use of the R/W for railroad purposes.

Railroad easements extend only to such height and depth as reasonably permit the full and free enjoyment of the surface of the land for railroad purposes; and the weight of authority holds that the *safety clearances* established by State Commissions, rather than the clearances the Railroads desire for their own con-

* Issued June 1, 1965, by Subcommittee No. 1 of the National Utilities Committee of the American Right of Way Association for the information of the members of the Association.

** Legal principles of general application may be modified by statutes and court decisions. Hence, these legal principles should be checked against the law of your State.

*** See *Citizens Telephone Co. v. Cincinnati, etc., RR Co.* (1921) 192 Ky. 399, 233 S.W. 901, 18 A.L.R. 615; *N.Y. Central RR Co. v. Middleport Gas & Elec. Light Co.* (1920) 193 App. Div. 273, 184 N.Y.S. 221; *Herold v. Hughes* (1955) 141 W.Va. 182, 90 S.E. 2d 451. See also *Pack v. Southern Bell Tel. & Tel. Co. et al.* Tenn. Supreme Court, March 4, 1965.

**** See *C.C.C. & St.L. Ry. Co. v. Central Illinois, Pub.S.C.*

(1942) 43 N.E. 2d 993; *Farmers Grain & Supply Co. v. Toledo P.&W.R.R.* (1942) 44 N.E. 2d 77, 81; 18 A.L.R. 619; 18 Am. Jur., *Electricity*, Sec. 29; *Cook on Telegraph Law* (1920) p. 64.

venience, determine the height or depth at which utility facilities must be constructed to avoid interference with such easements.*

3. *Crossings Over RR R/W Owned in Fee* — Where a Railroad owns fee title to its R/W it has the exclusive right of occupancy of the R/W indefinitely upward and downward, and can enjoin the placing of any wires or structures on, above or beneath the same.**

This legal principle assumes that the Railroad has an absolute fee title to its R/W; however, the nature of the title to railroad R/W has frequently been questioned (see 4 below); and the Railroad's right to enjoin the placing of wires or structures on, or above or beneath its R/W is subject to the Utility's power of condemnation (See 5 below).

4. *Interpretation of Railroad R/W Deeds* — If a deed conveying railroad R/W contains the words "right of way," or words of similar meaning, it conveys only an easement — not fee title.***

Much of the railroad R/W in the United States was acquired before the turn of the century by deeds containing language which might be construed as conveying either fee title or an easement. In numerous cases involving such deeds courts have held that the deeds should be narrowly construed as conveying merely easements unless the intent to convey an estate in fee is manifest.****

5. *Condemnation of Crossing Rights* — The eminent domain laws of most States authorize public utility companies to condemn the right to cross or occupy railroad R/W owned in fee; *provided* the utility facilities will not materially interfere with the use of the R/W for railroad purposes

This rule of law was established some sixty years ago in a number of Postal Telegraph Co. cases which upheld that Company's right to place its lines along and within railroad R/W; ***** and it is based on the generally accepted principle that property held for a public use may be taken under the exercise

* See *Farmers Grain & Supply Co. v. Toledo P.&W.R.R.*, supra.

** See *Citizens Telephone Co. v. Cincinnati, etc., R.R. Co.*, supra.

*** See *L.&G. Realty v. City of Indianapolis* (1957) 139 N.E. 2d 580.

**** See 44 Am. Jur. 316; 132 A.L.R. 142; *Sherman v. Petroleum Exploration* (1939) 132 S.W. 2d 768, 771.

***** See *Postal Tel. Cable Co. v. Oregon S.L.R.Co.* (Utah Sup. 1901) 65 P. 735.

of the right of eminent domain for the same or a different public use, when such taking does not materially interfere with the uses for which it is already held.*

Since such right of condemnation is based on the absence of material interference with railroad use of the R/W, courts have generally held that the Railroads could not recover substantial damages.**

Notes

(a) Re 1 and 2 above — in some States the Utility is required, by Commission regulations or otherwise, to give the Railroad advance notice of each proposed crossing; and in those States any such requirement should be complied with even though a permit from the Railroad is not needed.

(b) Re 2 above — the fact that a permit is not required from the Railroad for crossing a railroad easement does not eliminate the necessity of obtaining the permission of the owner of the underlying fee title.

* See *Union Pac.R.Co. v. Colorado Postal Tel. & Cable Co.* (Colo. Sup. 1902) 69 P. 564.

** See *Western Union Tel. Co. v. Nashville C.&St.L.Ry.Co.* (Tenn. Sup. 1916) 182 S.W. 254, 2 7 S.W. 64. See also *United States v. 0.84 Acres of Land, Etc.* (N.D. Cal. 1953) 112 F. Supp. 828.

Latest Developments Regarding Rights of Way Over Federal Lands (Subcommittee No. 2 Report)

By Harold M. Gustafson, Office Manager, Land Department, Pacific Gas & Electric Company, San Francisco, California

HAROLD M. GUSTAFSON

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I have a special file at the office where I keep information on pet subjects. One of the folders is labeled regulations. When asked to make a subcommittee report on right of way activity and regulations affecting investor-owned companies I found it instructive to review its contents. One item was a digest of a talk given by the Honorable Joseph C. Swidler, chairman of the Federal Power Commission, before the Chicago Law Club. If you follow Mr. Swidler's career as a servant of the people you learn to take note of what he has to say. Although his talk was not necessarily along the same line as my theme today, it has its points. Here is the editor's digest of the Commissioner's remarks on regulation:

QUOTE:

"Regulations need not be negative or shortsighted or a drag on management enterprise and initiative. The regulatory process should work the other way around. Regulators and management alike should recognize their vital roles in a highly developed economy, to provide the best of service, to force the pace of technological development, to lower costs, and to distribute fairly the benefits of industry advances. In this way, the welfare of these industries, the interest of the consumers, and the economic progress of the nation can best be advanced."
(END OF QUOTE)

Mr. Swidler's comment that regulation need not be a drag on management initiative is interesting in light of action by two other Federal administrative agencies. Two years and three months ago the secretaries of Interior and Agriculture jointly released through the Federal register new and revised regulations affecting all electrical transmission facilities above voltages of 33 kv proposed for construction by investor-owned utility companies across Forest Service Lands, administered by the Department of Agriculture, and open public lands under the jurisdiction of the Department of Interior and administered by the Bureau of Land Management.

The new rules require non-Federal builders of transmission lines above 33 kv crossing such public lands to agree to share the new facilities with the Federal government as a consideration for obtaining rights of way. Investor-owned utilities are required to make available to the government surplus capacity in the transmission lines for delivery of power principally to Federal agencies, municipalities and cooperatives. The government may demand that the utility construct greater transmission capacity than the utility needs, at federal expense, in order to provide spare capacity for government use. Furthermore, the government may withhold approval of the right of way applied for if the secretary of either federal department finds that the construction of the line would conflict with the Federal power marketing program, or changes may be required to make the line conform with such program. The marketing program itself is undefined in the regulations.

Here, let us take note of the other phase of these regulations. That is the charge which is made for rights of way across public lands. When a transmission project is planned to construct lines with voltage above 33 kv from substations to substations it is expected that the utility pay for the use of lands crossed. But when we apply for rights for lines under 33 kv, the government uses the same procedure or principle of charging for the use of public lands. As you know the regulations require that the government agency charge the fair market value for the rights

granted. The former practice for assessing land use costs was based on five dollars per mile regardless of voltage.

There are two schools of thought, however, one being charges made for transmission lines and the other the questionable charges made for distribution lines. Because the investor-owned utility companies pioneered the service extension practice, mile after mile of distribution lines were constructed. They extended their lines in order that a proper development could take place through electrical service. We know that unimproved lands are worthless without utility service of some kind and that when it is provided it enhances the value of the land. Because of this, our country has grown into a great nation founded upon sincere business principle.

Experienced land men all agree that to evaluate land costs properly, you should pay present-day fair market value for lands needed for projects such as transmission and substation use, and no one will argue that point, but when these facilities assist in developing lands for a higher and better use, where there is direct benefit, the cost of rights should be waived.

A continuing rental formula as now contained in the regulation will, in some cases, prove uneconomical in rendering service to the utility customers. In a great number of new business extensions, a line may be built to serve, say, four or five mountain cabins. The annual revenue may some day be below the amount required by the utility to pay for the rights. Since the government can review its yearly rental charge, the rental could escalate considerably. In other words, the value of properly developed lands increases, thereby reflecting an unrealistic assessment of the original rights on which to base our revenue rates. Many of the existing lines which have been in operation before the new regulation will now be subject to a new appraisal.

As I mentioned before, a charge was made on a flat rate of \$5 per mile of line or fraction of a mile. This type of measurement was always fixed and we could rely upon it for estimating purposes.

If the government would modify all charges for the use of public lands for rights needed by utilities for lines under 33 kv, there would be no problem. Reasonably so no objection would be made by anyone if government assessed an initial handling charge called "administrative expense" for issuance of the rights granted.

The release of these regulations caused concern to all who are charged with responsibility for obtaining rights of way necessary for the orderly growth of their companies and the development of the territories served by them.

As we know, about 90% of all public lands are under the jurisdiction of the Departments of Agriculture and Interior together. Moreover, a great part of the land area of the nation is in the public domain. In the 11 Western states, excepting Alaska and Hawaii, an inventory requested some years ago by the Senate Appropriation Committee revealed that Federal land holdings totaled more than 48-percent of the entire area. Nearly one acre in two is owned by Uncle Sam.

In California the government owned 47-percent — very close to the average for the whole West — of the state's total acreage. Other states have even larger percentages of their total areas as public lands; such as Nevada, 87½-percent, Utah, 70.3-percent, and Oregon, 51.3-percent. The lowest amount, in the state of Washington, still was nearly 30-percent, or almost one acre in three under government ownership.

After the regulations were placed in force it was plain what effects they would have on the over-all planned lead time program for most companies in right of way acquisition. Naturally some changes had to be made in plans for work which had already been catalogued for the immediate future.

The attention of a Congressional Committee was called to this regulation but no definitive action resulted.

Besides the utility companies' objections, strong protest came from your own American Right of Way Association upon recommendation of the National Pipe Line and Utility Sections prior to the annual seminar in Atlantic City in May, 1963. The Association's representations to Congress likewise were ineffective.

The Interior and Agriculture secretaries' action in promulgating regulations having the force of law, but without Congressional action, was condemned in press comments. I find in my file one such editorial by the Compton Herald:

QUOTE:

"If you were operating a business, how would you like your business competitor to be able to fix the rules under which you operate?"

"Could you remain in business without going bankrupt under such conditions?" (END OF QUOTE)

Despite objections, these restrictive regulations remain in force. Representatives of utilities here today certainly can answer for their own companies what effect they have had in delaying the orderly programming of line extensions and construction.

This is a serious matter, and not just for the utilities. The real effect is on our customers who must be served.

While these Federal regulations have been clouding the picture regarding rights of way over public lands, other developments have made it clear that obtaining rights for transmission lines over lands, not necessarily public lands, adjacent to urban areas will increasingly concern utility companies in the future.

No doubt everyone here is familiar with the Woodside case, in which the town of Woodside on the San Francisco Peninsula passed an ordinance requiring underground construction of the 230 kv line needed to serve the Stanford Linear Accelerator of the Atomic Energy Commission. Here the shoe is on the other foot. The Federal government has been unable to obtain right of way. AEC asserted its power to build an overhead line in place

of the excessively costly underground line demanded by the town, but on May 20 the Federal appellate court struck this claim down. The court ruled that the AEC must abide by local laws that require such power lines be underground. The Joint Congressional Committee on Atomic Energy held hearings. Legislation has been introduced in Congress to amend the Atomic Energy Act on this point and nullify the court's ruling. At the time of writing this outline I asked: What if the amendment fails to pass? How will power be brought to the Stanford accelerator in that case? Who can say?

Across the continent, the Consolidated Edison Company has a pumped storage hydro project on the Hudson River for which it finally was able to obtain a Federal Power Commission license over opposition from local and conservation interests. They now are concentrating their attack on the utility's acquisition or rights of way for transmission from the project over private lands.

Here is a case very similar to that of Woodside, but without the Federal interest represented by AEC's construction of the Stanford accelerator.

These are only two examples of the increasing problems land men are encountering as they seek to play their part in the utility companies' discharge of the responsibility to supply energy for our growing nation.

Clearly the public interest in the solution of these problems must be recognized. If the utilities are unreasonably hampered in meeting their responsibilities it's the people at large who suffer.

Finding ways to bring about a greater public understanding of this fact is our challenge.

The Right of Way Agent Looks at the Old Woman

By Charles A. Naylor, Manager of Training, Consolidated Gas Supply Corporation, Clarksburg, West Virginia

CHARLES A. NAYLOR

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Throughout world history there have been eras with characteristics so peculiar to themselves that historians have labeled them by their traits; there was the Warlord age of the Philistines; the Golden Age of Greece; the Dark Ages; the Renaissance; and the Frontier Age of a century ago. These names are indicative of the life and mood of those times. But in each of those times the business man stood out as an uncouth character who scoffed at culture, who would stop at nothing to fill his pockets, who was morally weak, who was a "robber-baron" — a pirate in mutton-chop whiskers, ruthlessly destroying competition, fleecing his customers, exploiting his employees. In the frontier society of 100 years ago, with a technology barely able to meet subsistence needs, people lived by a code which was conditioned by the realities of the day.

What about our era — the age of providing a service, stress on keeping customers satisfied, and maintaining a high level of employee morale — what do they call our age of "The Man in the Gray Flannel Suit?"

Our era has won its own distinction. It has been labeled —

THE ASPIRIN AGE

Americans today spend more money on tablets, tranquilizers, elixirs, sleeping pills and mechanical aids to induce relaxation than any people in history. Each year our consumption of "slow down" drugs increases — and why?

The Aspirin Age emphasizes competition, efficiency, specialization, drive, ambition, responsibility, as the Wheaties commercial says, a real "Go-Power" of business living. The 20th Century has built in pressures of money, control, fear of failure, fear of criticism, and the search for status.

We cram for exams in school.

We compete for a degree in higher education.

We train unmercifully for a rough job in the armed services.

We undergo stiff psychological scrutiny in job interviews.

And we grab eagerly for promotions and new delegated duties.

And we inevitably reach into the medicine chest for our favorite remedy to allay our fears and pains.

Aspirin for headaches.

Roloids for indigestion.

Cigarettes for nervous stimulus.

No-doz for excessive fatigue. Alcohol for soothing relief.

Miltown for mental anguish.

If we can't stop this old world, we'll do all we can to at least slow it down. The "robber-baron" no longer exists; in his place today we find the shirker, the smooth operator, the high pressure salesman, and the "Doubting Thomas."

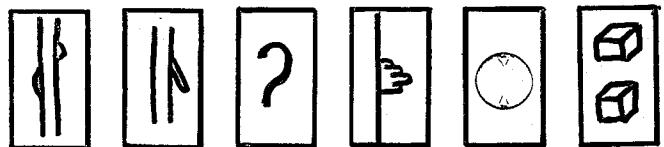
People seem to forget in the modern age that other people are forming an impression of them at all times. More and more business and social life means contact with other people, with associations, with meetings and conferences, and at all of these we are making an impact on other people. So with the aspirins and roloids and sleeping pills that you may have with you, would you relax for the next half hour and listen closely to the impact that you have on others.

Every time you make a statement of fact to a person you get one of four reactions: either (1) belief and acceptance, (2) disbelief and rejection, (3) questioning or doubt, (4) disinterest. All of you in some way are in the business of persuading or wanting people to do something, to follow instructions, to buy or to sell, and all of you are no doubt competent in doing this; but, you may not realize that one of the most important assets you possess is your judgment in understanding people and in responding to their reaction.

Unfortunately, the judgment of how adequate our own judgment is, is left up to us and I suppose that is about the poorest repository of objective judgment. We often refuse to accept another persons interpretation of our judgment — they just don't have the whole picture — so I'd like to spend the time that we have left together today as a mirror to your judgment image. I'll provide the situation, you provide the analysis of yourself — you see the whole picture — you decide what's in it for you.

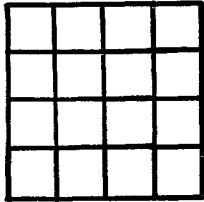
I'm asking all of you to participate in a series of experiments. You must participate willingly and vocally in these experiments. Each of them will provide a basic principle that may help you in your association and understanding of other people. So let's begin.

I'm sure that most of you know what doodles are. They are symbolic representation that depict something. I'm going to show you some examples.



What do each of these pictures represent?

What does all this prove? **SOME PEOPLE CAN BE LED TO BELIEVE MOST ANYTHING WITH NO FACT AT ALL.** I told you what these symbols were. You may or may not have had an impression of your own, but when I told you what they really were you accepted my statements. You didn't question them. No one argued that it wasn't really what I said it was, because it didn't cost you anything to believe and it really didn't make any difference what the symbols were. Some people are like that. If it doesn't personally affect them, if it doesn't cost them money, if they're not really interested, you can tell them most anything without fact and they will believe it. Don't intentionally intend to be a doodle. Don't represent or symbolize something that has no basis and fact in the hopes that the other person will accept you for the picture you try to present.



Let's move on to experiment #2. I'm going to show you a picture and ask you a question. Let me know as soon as you have the answer to my question. Here is the picture, *how many squares in this drawing?* 16? 17? 21? On and on we go until finally we get closer and closer to the truth because of being aware of more facts. How true this is of so many things that we take time to investigate. We start off with an

assumption, we make a quick decision, and we realize that there is more to be considered the longer we look at the situation. Thus, principle #2, **SOME PEOPLE SEE AND JUDGE WITHOUT BOTHERING TO GET THE FACTS** — sometimes called jumping to conclusions. There was an obvious answer to this experiment and that answer was partly correct, but as you take time to study the drawing more and more facts become evident to you and more and more squares become apparent. Take time to consider situations, associations or problems before you make the snap decision. Realize that in many instances the more consideration you give to a problem the closer you get to the truth. (There are a total of 30 squares in the picture.)

Now for experiment #3. Imagine yourself, if you will, driving in your car and approaching a "T" intersection. You look to the left and see another car approaching down the highway with his right hand blinker light blinking. You assume that he is going to turn right into the road where you are waiting, so you pull out to make a right turn down the highway. The results are inevitable, a collision is sure to occur — all because of a faulty assumption. There could be many alternatives that could have happened in this situation. (1) The driver of the approaching car may not have known that his turn indicator was blinking. How many times have you followed a car down a highway whose turn signals were blinking on and off, yet a turn was never made. (2) The driver of the approaching car may have thought that he would turn into this road but upon reaching the intersection determined that this was not the place that he thought it was, and so continued on. (3) The driver intended to turn right but not into the intersection, but into a driveway twenty feet past where you are waiting.

How often we go through life assuming things will happen because of mistaken opinion we have and judgment that we make based on what we believe is true. Perhaps all of you are not guilty of arriving at faulty conclusions based on opinion, but I'd like you to test yourself to see how close you come to understanding truth. Here is a very brief paragraph. After you have read this paragraph, I would like to ask you four questions. To each of the questions you are to answer either true if the statement is true, false if the statement is false, or question mark if you are not certain that what is said is either true or false. Here is the paragraph:

A large gray building stands at the end of Oak Street. A sign on the front of this building reads Jones Manufacturing Company, L. D. Jones, President.

Question

- (1) — There is a building at the end of Oak Street.
- (2) — The building is occupied by the Jones Manufacturing Company.
- (3) — A sign on the front of this building reads, Brown Manufacturing Company.
- (4) — The President of Jones Manufacturing Company is Mr. L. D. Jones.

Let's check your answers. Question #1 is true because the story says it is true. There is a building at the end of Oak Street.

Question #2 is questionable. We don't know that the building is actually occupied at this time. How often have you seen a vacant store or office building where the previous owner's sign had not been removed, therefore, we do not know that Jones Manufacturing Company is currently occupying the building. Question #3 is questionable. We only know about one sign on the front of the building which reads Jones Manufacturing Company, but there may be several other signs on the same building — one of which could read Brown Manufacturing Company. Question #4 is questionable, mainly because we don't know whether L. D. Jones is a Mr. or a Mrs., or even whether L. D. Jones is still living; thus, the statement is questionable.

Perhaps some of you fell into the trap of taking for granted that you understood truth when in reality it was your intuition or opinion that led you to mark some of these answers in error. The principle that we derive from this experiment is that **SOME PEOPLE GET PART OF THE FACTS — THEN MISTAKE THEIR OPINION FOR TRUE OBSERVATION.** How often people are guilty of making a complete story out of rumor or hearsay simply because they heard a portion of the fact and embellish it with assumption, opinion, and unsubstantiated information. Remember the blinker light on the car in front of you the next time you travel down the highway and think to yourself, sometime I may be wrong in what I assume to be true.



Let's move on now to the final experiment. In the last project we had part of the facts and some of you reached faulty conclusion. In this experiment I will give you all of the facts. All of you will have the complete information before you. I am going to show you another picture. Study it for just a little while and then answer the question I shall ask. Here is the picture. *What do you see?* Do you see an old woman who must be at least 80, with the largest nose you've ever seen, a few teeth missing, who sells apples on some corner somewhere. If you see this you are right.

Do you see a young woman perhaps in her late 20's, very stylishly dressed, looking over her right shoulder, a black choker around her neck, and just her nose and one eyelash visible on the front of her face? If you see this, you are right?

How can there be such a wide difference of opinion in what this picture actually portrays. All the facts are before us. Perhaps it depends on our frame of reference, for what strikes us initially sometimes remains with us as fact and we find it difficult to shift gears and see a completely different point of view. But, two people can look at the same picture and see two completely different points of view. Put this experiment into any situation you can think of where you saw something, where you had all the facts before you just as you have here, yet someone else viewing the same situation responds with a completely different reaction. The principle is this — **SOME PEOPLE NEVER SEE THE ENTIRE PICTURE EVEN WITH ALL THE FACTS BEFORE THEM.** Some people never see reality because of a fixation on an immovable point of view. Some observations never change even when a new element is introduced into the picture and resistance to change is hard to overcome. Let this experiment constantly remind you of the two sides to every story and cause you to question dogmatism.

Let me quickly go over these principles and relate them to your impact on people and their response to you. (1) The doodles taught us never to force other people to believe us just because we have the authority and that what we say is eminently true simply because we say it. (2) The squares helped to remind us that we should not make superficial conclusions and decisions based upon an initial belief. The more we investigate a subject or a situation the more facts come to light, the more realistic our conclusion. (3) The story about the Jones Manufacturing Company should have pointed up to all of us the danger of inferring things to be true based on our observation. Simply because we believe something to be true will not necessarily convince others that this is fact. (4) As we look at the old lady or the young girl, we must remember that there are two sides to everything as long as there are two or more people involved. Do not be rigidly focused on one belief without realizing that someone else may see an entirely different side to the picture. This old lady first appeared in a basic textbook of psychology in 1854. Someone has questioned our point of view for over one hundred years.

I'm not questioning your point of view, but I hope you do,

and I hope you become aware of your association with people. Everything you say, believe, question, or doubt, may or may not be true, depending on your reaction and response. Remem-

ber also that they may have a similar reaction to what you say and do.

Are you ready for an aspirin or a No-doz?

Latest Developments in Right of Way Engineering

By Doyle A. Heape, Southern California Edison Company, Los Angeles, California

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Unofficially, it is reported that California has surpassed the State of New York in population, thereby becoming the most populous state in the nation. The population is increasing at the rate of approximately 500,000 to 600,000 people annually which, broken down to a daily basis, amounts to approximately 1500 people per day. It is said that Southern California is growing faster than any other place in the country. Forecasters predict that in the near future, this area will become a gigantic megalopolis, stretching from Santa Maria on the north, 240 miles south along the coast to San Diego in a solidly built belt 20 to 100 miles wide.

In recent years, during this tremendous growth and expansion, forward-looking Company management has reached the conclusion that a ten million kilowatt system must be built. Building to ten million kilowatts means a lot of new high voltage transmission lines. In addition, the value of land has increased; more and more people purchased land; the parcels became smaller and pinpointing their exact location became a necessity. For these reasons, together with the demand for faster and more accurate surveys and maps, the Engineer and Land Surveyor were faced with the task of seeking out and perfecting new surveying techniques and tools.

Surveying is an ancient art whose beginnings are lost in the shades of history. Many of its basic principles date back to the early Egyptians. Though the specific methods and equipment the Egyptians used for surveying have not survived, we do know their measurements were remarkably precise. The Great Pyramid of Gizeh, for example, is laid out with its base lined up with the four points of the compass. The base of the pyramid was so accurately measured that the four sides, each of which is 764 feet long, have an average error of only 6/10 of an inch in length, and 12 seconds in angle from a perfect square. The Egyptians were very much concerned with the survey of property boundaries for taxing purposes — a job that had to be done many times over in the wake of the annual floods in the Nile Valley.

In the Bible there is a reference to preserving and honoring the corner monuments marking the boundaries of land. The remnants of irrigation systems laid out by surveyors in Biblical times are still to be found in the Middle Eastern countries. Also a planned system of surveys was used throughout much of the Roman Empire.

Surveying is an honorable and highly respected profession. From the days of Euclid down through the ages to the present time, mathematicians and astronomers who have engaged in the practice of surveying have been set apart as men of special qualifications and integrity. In the United States, many men who have taken a leading part in the formation and development of our way of life have come from the ranks of surveyors. George Washington was a surveyor for Lord Fairfax. He laid out the boundaries of many farms and woodland areas on the large Fairfax estate in Virginia. Thomas Jefferson took an active part in the development of the plan for the survey of the public lands. William Burt and his sons took a very active part in the development of the midwest; they worked on the construction of such works as the canal and locks at Sault Sainte Marie, Michigan, which contributed so greatly to transportation on the Great Lakes.

Surveying may be broadly defined as the art of measuring the earth's surface and is divided into three general classifications, namely; (1) geodetic surveys, (2) topographic surveys and (3) cadastral surveys. Geodetic surveys measure the shape and

size of the earth. Topographic surveys measure the features of the earth's surface, such as hills, valleys, rivers, streams, lakes, and the location of roads and railroads. Cadastral surveys determine and lay out the boundaries of parcels of land for defining individual ownerships.

The majority of early day surveys were made with the link chain and one form or another of the surveyor's compass. These surveys determined the direction in terms of magnetic bearings and the distance in chains and links. A very effective unit of measure is 10 square chains equals one acre. However, the wear on the links made it very inaccurate. Later surveys followed with increasingly accurate equipment. The surveyor's compass gave way to the transit and the chain to the steel tape. Today most survey work performed by the average land surveyor gives the courses as true bearings and the distances in feet to tenths, hundredths, or thousandths.

The so-called conventional methods of surveying with transit, tape, rod and weary men on foot are no longer adequate. They are too slow, too costly, and offer many chances for errors under trying conditions.

Present day surveying crews have the advantage of the most modern developments in equipment and methods. Transportation in the more remote and inaccessible regions is by airplane or helicopter.

Modern electronic devices are frequently used for measurement of distances, particularly where the distance between points is several miles. Electronic advances continue to have major effects on every phase of engineering. Recent developments in surveying equipment and techniques have significantly changed a basic civil engineering operation, opening an important new market to electronic instrument manufacturers. Many electronic devices are making it possible to survey areas that were formerly considered inaccessible, and are cutting working time substantially. Computers are bringing drastic reductions in data processing time. Engineers working on crash programs have discovered the value of the photogrammetric engineer, aerial photography and all phases of photogrammetry in general.

Photogrammetry is officially defined as the science or art of obtaining reliable measurements by means of photography. It is a lusty new arm to civil engineering and surveying, and it has a fabulous future but it should be used with judgment. Like the wonder drugs, it's no cure-all.

Aerial photography in the United States started about 1919, having received some impetus in World War I. By 1923, some contour maps were already being utilized which had been prepared by photogrammetric methods. It was in that year that the first contour map for a dam site was prepared by photogrammetric methods, and that the first reservoir capacities were likewise determined from photogrammetric maps. In 1927, photogrammetrically made contour maps were first used in the development of an oil field, and in 1931, the first real estate subdivision was engineered from such a map. In 1931, the first highway was designed from a photogrammetric map, and from that day to this, there has been a constant broadening in the acceptance of aerial photography and photogrammetry across the board for many types of engineering projects.

Today, most U. S. Geological Survey maps are compiled by aerial photography and photogrammetric methods. Likewise, most of the maps and charts compiled by the U. S. Coast and Geodetic Survey, the Hydrographic Office of the Navy, the Air Force, and the Forest and Soil Conservation Services, utilize photogrammetric methods whenever the aerial photography is available. The Army Map Service does an extensive job of photogrammetric compilation around the world.

Surveying by air is the modern tool used in the location, design, and construction of our highways, railroads, pipe lines, transmission lines, city plans and numerous other projects performed by the Engineer of today. In this fast moving era in which we live, time is of the essence and surveying by air, or more properly aerial photogrammetry, produces precise maps in the shortest possible time.

In the location and design of a project, such as a highway, transmission line, or pipe line, it might be well to mention the various phases of operation. The initial phase would be that of a general reconnaissance study in order to select terminal points between which a continuity of design is indicated. This entails detailed study of existing maps to ascertain type of terrain, populated areas, bodies of water and other features which may have an influence on the final design.

After a general route has been selected, and the horizontal and vertical control set, photography is secured with a precision aerial camera. Pictures are taken from a pre-determined altitude in order to insure coverage of any alternate routes which may require study. In a matter of days, after the pictures have been taken, the location engineer has at his disposal stereoscopic coverage of the entire area. A wealth of information can be gathered from a detailed study of these photographs. With a three-dimensional viewer, terrain features can be studied in detail, stream and river crossings are studied, geological interpretation of the photographs can be made, and other topographical features nearest to the project are readily discernible in the pictures. Finally, a route band is selected for mapping in precise stereo plotting instruments.

A stereoscopic plotting instrument is a precise photogrammetric instrument capable of making exact measurements from aerial photographs. Some of the most widely used instruments in the United States at the present time are the Multiplex, Kelsh and Stereoplanigraph. By use of these instruments, planimetric maps or topographic maps showing contours in addition to all physical features, can be produced rapidly and efficiently to meet standard map accuracies.

In order to produce maps of this nature, overlapping photographs are inserted in the stereo plotter and, when precisely oriented, produce a three-dimensional view of the terrain. All details visible on the photography are then plotted in correct position and orientation. Also, projected on the maps is the selected centerline for the proposed transmission line route, together with the width of the right of way. Most photogrammetric topographic maps prepared for the Edison Company in connection with a transmission line project are compiled on a Kelsh plotter connected directly to a digitizer for obtaining and recording the X, Y and Z coordinates which are subsequently processed through electronic computers to determine centerline profile, side clearances and the locations of towers.

Prior to completing the planimetric and topographic maps, photogrammetric strip maps are prepared from existing reconnaissance photography and given to Right of Way personnel who are now in a position to proceed with title searching, land appraisals and the preparation of applications for various permits. These photogrammetrically compiled strip maps showing details such as the project route, section and property lines, roads and railroads, buildings, fence lines, tree lines, stream and crop lines denoting cultivated fields or pastures, aid materially in the orientation and plotting of deeds which are abstracted for the properties affected.

The type of mapping, including scale and contour interval, is commensurate with the particular project under study. For instance, in transmission line location, photogrammetric strip maps prepared at a scale of 1" = 1000 feet are most commonly used by the Edison Company. It is well to remember that maps of this nature are produced prior to any field work. This is a very important factor and should not be underestimated. Of prime significance is the fact that a set of these maps can be made readily available to Right of Way personnel, who in turn can proceed with the initial right of way work. This results in a substantial saving in time and money by narrowing the usual swath of options and survey permissions normally secured. It also gives the land acquisition personnel an opportunity to meet with the land owners involved before any survey crews have been in the area. Secondly, with a party sent out in advance of the centerline staking, all highway, road, railroad, flood control and foreign utility crossing information can be rapidly obtained and permit drawings submitted far in advance of the mainline survey. Finally, the field crews "know where they are going" with the aid of the maps and consequently survey time is appreciably reduced.

In addition to photogrammetric strip maps, most of our generating station and substation site topographic drawings, together with transmission line plan and profile drawings, are prepared photogrammetrically. The generation station and substation site

topo drawings are usually completed at a scale of 1" = 50' with one foot contours while the transmission line plan and profile drawings are completed at a scale of 1" = 200' horizontally and 1" = 40' vertically with 5' contours. These plan and profile drawings also show ground elevations along the centerline of the route, together with all physical features within 300 ft. on each side of the centerline. Final design of the transmission line is achieved with this information.

Transmission line jobs prepared photogrammetrically offer a number of advantages. The principal ones are (1) costs and time have been cut 30% and 70% respectively. (2) Land owners are not irritated in advance of construction by land survey crews. An aerial survey can be made and tower locations chosen without property owners being disturbed. This facilitates the purchase of the right of way easements and avoids occasional land speculation. (3) By comparison with ground survey crews working under conditions of restricted visibility, the most desirable route can be selected with greater ease and assurance that it is the best one. (4) A photographic record of the entire route is provided at no additional expense. (5) In cases where survey permission has been denied, all preliminary transmission design and right of way engineering work may be completed without setting foot on the landowner's property.

With the constant research in the field of photogrammetry, many new applications of its uses will become more and more evident. Just as in the transmission line field it has become, indisputably, the most economical and efficient method to get the job done.

Establishing ground control for aerial mapping had threatened to be the most tedious, time-consuming portion of the preliminary engineering. Instead, thanks to the use of electronic distance measuring devices, this phase of the work can now be completed in an unprecedented short length of time.

In 1953, the Coast and Geodetic Survey made the first use in the United States of electronic methods of measuring distances for the accomplishment of basic ground control surveys. Today these electronic measuring devices are widely used by both private industry and Governmental agencies for the establishment of first order ground control for photogrammetric mapping. The instruments most universally used are the Geodimeter, Tellurometer and Electrotape.

The Geodimeter was invented by the noted Swedish geodesist and physicist, Dr. Erik Bergstrand. The basic principle of the Geodimeter system of distance measurement is the indirect determination of the time required for a pulsed light beam to travel between two stations. A modulated beam of light is emitted from the Geodimeter to a passive reflector placed at the other end of the line being measured. The reflector returns the light pulses back to the instrument where a phase comparison is made between the projected and reflected light pulses. The initial model of the Geodimeter was designed exclusively for night-time operation. The manufacturer has recently developed a new light source which can be incorporated into the existing model to convert it to a daylight operating instrument. It is reported that under normal conditions, distances up to 3 miles can be measured in daylight and that the night range is extended to 20 miles with an accuracy of within 0.04 ft.

The Tellurometer was invented by Mr. T. L. Wadley, a scientist on the staff of the South African Council for Scientific and Industrial Research. It employs micro-waves to give surveyors the precise distance between two stations. A set of the equipment consists of two portable units, one placed at each end of the line to be measured, each powered by an ordinary automobile storage battery. Operators, sometimes out of the sight of each other, maintain contact by means of built-in radio telephones. What the Tellurometer actually measures is the time taken, in Millimicro-seconds, for a radio wave to travel from a "master" to a "remote" unit and return. Since the velocity of wave propagation is known, surveyors can easily convert this finding into distance, by a fairly simple calculation. The instrument is designed to measure distances up to 40 miles within an accuracy of 1 part in 300,000 or approximately 2 inches.

The Electrotape is manufactured by Cubic Corporation of San Diego, California. Its design and operation are much the same as that of the Tellurometer. Operating on principles similar to radio, the Electrotape determines distance from the time required for a radio wave to travel (at the speed of light) to and from the point being measured. After a series of brief, simple operations, the distance is obtained numerically in centimeters directly

from a counter on the face of the instrument. The instrument provides accuracies of three parts in one million, plus or minus one inch. Third order accuracy is found in measurements of 400 to 1000 feet, second order from 1000 to 2000 feet and first order from 2000 feet to 50 miles. The entire operation, including set-up time, is completed in less than 15 minutes. These capabilities of range and accuracy are unparalleled in the field of surveying instrumentation.

Another development hopefully anticipated is electronic equipment which will be capable of measuring distances directly, without the need for computation other than unavoidable atmospheric corrections similar to temperature corrections applied to taped lines. The ultimate goal is to eliminate the tape wherever possible, or at least to reduce greatly the need for a tape.

New electronic equipment is thus playing an ever-increasing role in gathering survey data and translating them into maps. Not to be neglected are the many uses for computers in the processing of these data. Digital computers are used for checking traverses for geometrical closure and adjusting angular errors, for computing adjusted bearings and trial closures and for computing plane coordinates.

Since the time early man counted, using rocks or sticks, a never-ending search for a better, quicker, and easier way to use numbers has been and is still continuing today. As numbers and their use forms the basis for most of man's work, and in particular that of the surveyor, it follows that, as the methods and means for using numbers increase, the surveyor materially benefits. Since electronic digital computers became generally available in 1956 and with the advent of more and more accurate and complex general survey work, it made possible what is commonly called today *Electronic Calculation*. Today, increasingly more surveying, mapping and engineering firms throughout the world are saving time, money and manpower by solving problems through electronic computation. Unless one has a large operation, the cost of buying a computer is prohibitive. Many different makes and models of computers are used in right of way engineering computation work. In all cases, each must have a "program" or set of instructions which will vary depending upon the equipment being used and the method of approach.

To be economical, any computer operation must be continuous in the sense that the solution from one operation be stored within the computer for use in subsequent calculations. This permits the calculation of entire jobs or projects with one "pass." This, from the engineering point of view, means to calculate and adjust the traverse by various methods all in one continuous operation.

This basically is the same approach as manual calculations except that it is much faster and perfectly correct. The computer method of solving for sides is again basically the same as manual computation modified to fit the language of electronics. Two basic methods are employed in today's computer programs. One uses distances and bearings — the other, coordinates. Both approaches require the same basic computations.

Regardless of the type of computers generally employed by our Company, it is not practical to store function tables. The computer instead, develops all of the trigonometric functions by one of a number of formulas (such as the MacLaurin series), and proceeds to obtain the departures and latitudes, sum up and obtain the final solution for unknown distance and bearing. This, then, is a simple explanation of the complex general procedure for solving a traverse.

Electronic calculations are most widely and advantageously used in curvilinear, rectangular, traverse and triangulation work. To the computer, there is no difference between the four types; all can be solved with equal ease. To the hand computer man, however, the computations involved in connection with these various types of work are time-consuming and present many opportunities for possible errors.

Computers have repeatedly proven their value by making possible the thorough and accurate evaluation of large quantities of data. Despite high rental costs, engineers find that for organized operations of sufficient size, the use of computers is economically justified.

Another new twist in transmission line surveying was inaugurated by our Company in 1958 when it became the first investor-owned U.S. utility to own and operate its own helicopter. Transporting survey crews by light helicopter has reduced the time for surveys in inaccessible mountain and remote desert areas moer than 70%, and at the same time, cut down total man

hours needed for such projects as much as 80%. On a recent 500 kv transmission line job approximately 565 miles long and extending generally from Bakersfield to Los Angeles to Hoover Dam, the speed of the helicopter in transferring surveyors across canyons and valleys made it possible for the crew of four and equipment to leapfrog down the traverse line in record time. In fact, traditional methods in this particular instance would have required probably ten times as long, considering the weather, the terrain, and the scarcity of trails.

The helicopter carried two men and the pilot plus the electronic measuring devices, theodolite and appurtenant equipment. Due to the numerous short hops required to transport the survey personnel from peak to peak, some 50 to 60 take-offs and landings were made each day. Flight time averaged about six hours daily. Many of these flights took only 2 or 3 minutes but saved the men many hours of arduous foot travel over desert and brushy mountainous terrain to reach their designated traverse stations. It was often necessary to drop a man out of the helicopter from a few feet above the ground to clear an area of brush to provide for a landing spot near the desired traverse station. Ground party members maintained constant contact by use of the compact light-weight Duo-Com two-way radio. These small radios were found to be very effective within the work range of three to five miles. Communications between the helicopter and the ground parties were maintained by Motorola Walkie-talkies.

(At the conclusion of the program, I will show several slides of office techniques, equipment and field operations used on this particular job.)

Based on our experiences, we feel that the electronic distance measuring devices, electronic computers, photogrammetry, and the use of the helicopter for transportation are all valuable additions to the growing list of tools now available to the modern surveyor.

Before closing, I would like to predict what might be in store for us in the near future. It is very likely that within the next few years, we will see the time when this work will be done by an electronic computer which is connected directly in line with a comparator. Instead of the present optical, mechanical method of solving the photogrammetric problems, the electronic computer will do the complete job for us. At the same time, it will reduce electronic information that is received from the field by radio, automatically make the necessary coordinate transformations, and punch out a tape possessing coordinates of points of interest, such as section corners, P.D.'s of the centerline of right of way, along with the necessary information for a profile over the centerline in addition to offset profiles to determine side slopes. The right of way property ties to the centerline of the right of way along section lines will be computed, as well as stationing of all P.I. and property crossings of the right of way. This information will be fed into a coordinatograph which will automatically plot and draw the basis for the right of way map. Title searches will be conducted by automatic sorting equipment and then it will only be necessary to record on the map, the names of the owners and the dimensions that have been computed by the electronic computer.

This may sound somewhat like a dream, but I can assure you that all of the necessary technical equipment has already been designed and it requires now only the application and the coordination of this equipment to produce that which I have just mentioned. So it seems that it is just a matter of time and necessity to achieve what a few years ago would have been considered unrealistic.

The versatility of these new instruments and improved techniques has been repeatedly revealed enabling the engineer or surveyor to obtain accuracy, economy, and speedy completion beyond that possible by previous methods. This is a practical consideration of which large companies are keenly conscious.

Responsible engineers are aware of an increasing variety in the assignments and requirements being asked of them, and to this extent, their working tools need to be adaptable to a range of conditions and productive of a variety of results. Electronic and photogrammetric measurements and methods can meet these qualifications, if the company using those methods will exercise imagination and resourcefulness.

These advances are only a few of many that are being developed by engineers and surveyors throughout the country. We are constantly on the alert for new methods to serve our purposes — we have to be if we are not to fall behind the accelerated pace of right of way engineering today.

Educational Sectional Conference

The Regional Level

By Charles A. Morrill, Continental Oil Company, Ponca City, Oklahoma

CHARLES A. MORRILL

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Chairman, Region 2, charter member, Kansas City Chapter 5, organizer and Past President, Oklahoma City Chapter 33, former National Director, Chapters 5 and 33, former member National Nominating Committee and National Pipe Line Committee, Chairman, Region 2 Right of Way Refresher Course, American Right of Way Association.

My discussion today — and I won't say my speech, or my paper, or my presentation — but my *discussion*, is on the subject of Education at the Regional Level. I use the word "discussion" because whatever I have to say is going to be strictly informal and pretty well "off the cuff."

I have some notes which I shall try to follow, because I've found that if I don't follow notes, I tend to ramble and pretty soon I'm talking about some blond that just walked by the door and completely forget my subject. Speaking of forgetting, I believe it was Oscar Wilde who wrote "He had the sort of face that, once seen, is never remembered." So perhaps if I stick to some notes I may be of assistance to some of you in promoting closer regional relationships and therefore a more productive regional organization.

Our times are marked by a rising sense of the importance of education. As John Gardner says in his book on excellence, "education is now a national purpose and also the servant of all other national purposes." "No man is educated unless he can relate himself to the past." Regional education as we in Region 2 have seen it — and pursued it — for several years now must be grass roots education at a regional level. We have promoted and encouraged full-day seminars by all chapters — and most of our chapters have conducted them regularly. And in connection with these all-day seminars, we have promoted evening "happy hours" or a time after hours when members can get together for refreshments, because we have been of the firm belief that a great deal of good education comes from the bull sessions over in the corner during these friendly get-togethers or from several devoted and serious-minded right of way men getting together in one of their motel rooms and threshing out many of their sticky problems. This is all education — and with it we can do our job better. As Samuel Johnson so ably said, "It is when you come close to a man in conversation that you discover what his real abilities are."

Education doesn't necessarily have to come from sitting in a schoolroom and listening to a lecture, although this is truly a part of our formal education that we must have if we are to survive as a profession in this world of big business and expanding population.

I must say at the outset that the regional organization can promote stronger individual chapters in the region and vice versa. If the members of your chapters are strong on the values of continuing education, and enthusiastic in their response to and appraisal of seminars, then you have the groundwork already created for greater fulfillment of any region-wide program initiated. And as said by Goethe "He who does not stretch himself according to the coverlet finds his feet uncovered."

The individual chapters in Region 2 have been aggressive in their promotion of education. I realize and readily admit that this program is not unique in Region 2, as some other chapters are doing this same thing. We have several universities working with the chairmen of the education committees of the chapters in the establishment of college credit courses in formal right of way training, and a curriculum which could eventually lead to a minor in right of way work.

College staffs have shown a keen interest in working with the AR/WA in establishing these courses, and they refer young graduates to various companies for interviews. The larger companies are cooperating in this program by hiring small numbers of inexperienced young graduates in order to get younger men started in right of way work. Chapters have subscribed to the Right of Way Magazine for certain professors of several colleges

— and again I say I realize this is not unique in Region 2; however, all of these things added together and coupled with a strong regional organization gives the necessary background for the support of regional seminars. However, one thing is certain, even the biggest ideas must have enough people behind them to provide forward motion.

Now I believe we all feel that Education is the most important job of the American Right of Way Association, and since I am supposed to be talking about regional-level education, I'll get immediately to that phase.

Region 2 is, I believe, the originator of the true Regional Seminar. Several years ago, under the very able direction of Bill Howard of El Paso Natural Gas Company as Regional Chairman, the Regional Seminar saw the light of day. This is not the getting together of two or possibly three chapters in a region of six chapters, but is the wholehearted cooperation of every officer of every chapter throughout the region. This is a seminar for the neophyte right of way agent and appraiser . . . and we hope to keep it that way . . . but it is also a seminar with enough meat to challenge the man who has been in the business for many years.

Region 2 is not a small region as regions go — nor is it the largest, although we do have two chapters that are almost 1200 miles apart. This makes transportation difficult, but does not dampen the enthusiasm which has been generated through regional meetings. We all have chapter meetings where about the same people get together monthly or bi-monthly for educational presentations. And we have our National Seminars such as this where education is stressed on this level; however, we in Region 2 believe that the Regional Seminar is nearly ideal in size. It permits the exchange of information between neighboring states where much of our work overlaps — and it gives all of us an opportunity to become acquainted with all company personnel, independent appraisers, highway personnel and attorneys in the much larger area of most of our operations.

Now as to our organization in Region 2 which makes possible these regional Seminars. Several years ago it was decided that we should have a regional advisory group to meet as a region to promote the inter-regional relationships. This would make possible regional cooperation, bringing the chapters closer together as they *worked* together and as their members became better acquainted with members of other chapters in the region.

As a result, two groups were appointed by the regional chairman. One of these groups consisted of the President and immediate past National Director of each chapter . . . and this group of twelve men were called the "Executive Commission." A second group, consisting of the two National Directors from each chapter was named to the "Advisory Commission." The Regional Chairman is the Chairman of each of these commissions, and the Regional Vice Chairman serves as secretary.

It is understood that the chief purpose of these commissions is to assist the Regional Chairman in promoting region-wide activities and in pulling the region together to function more closely in the conduct of such activities. By-Laws to guide these groups have been written and serve very well as a guide, although it has been suggested that they should more properly be called "Rules and Regulations" or some other such terminology rather than using the term "By-Laws." You can call them what you like, but they do serve to set down when these commissions will meet and what they are expected to accomplish. In other words, "don't start a vast project with half-vast ideas!"

These Commissions first met four years ago and laid plans for the first regional seminar — which we in the region prefer to call the "Annual Right of Way Educational Refresher Seminar." A representative of the Transportation Institute of Texas A&M University met with this group on that first occasion and offered the services of the Institute in conducting a seminar. Since Texas A&M was about half way between the two of our chapters which are 1200 miles apart — and incidentally nearly 500 miles from one of the other chapters — the location seemed about as ideal as you could find in the region. Too, we especially liked the idea of the seminar being held in the atmosphere of a university or college campus. Since then this idea has been developed further and now many chapters are using college facilities to

promote education programs, of course including the Negotiations Course developed at Temple University which many of you have taken.

We found, too, that the Texas Transportation Institute had a lot of good experience in developing industry seminars and they were and are most cooperative — helping with arrangements, printing programs, mailing announcements, and providing the proper type of meeting rooms in a center of learning. I have heard many people say that their companies did not hesitate to approve their attendance at a seminar to be held on a campus — we believe the setting adds prestige to all educational programs.

Another thing in favor of the college town is that they do not seem to have quite the aggressive type of entertainment found in the larger cities and, as a result, you have never seen such bright eyed and bushy tailed participants as we have had in College Station, Texas.

Our first Regional Seminar was held in the summer of 1963, the second one in 1964, and the Third Annual Educational Refresher Seminar *will* be held in August of 1965.

The Regional Commissions meet in January of each year to lay the preliminary groundwork for the August seminar. At this meeting we exchange ideas as to subjects to be taught, and suggest speakers who can best teach the courses. These speakers are always men within the region who are outstanding in their particular field. We have no funds, so we pay no traveling expenses or other remuneration to the speakers. They are men dedicated to the right of way profession. The college offers to furnish instructors for many courses which are educational to the right of way practitioner — but so far we have used the college instructors for only one half-day session . . . and they did a very fine job.

From the very first contact with our instructors, we ask that they not read their speeches, and that they use visual aids to supplement their lectures. This, we believe, causes the instructors to be better prepared before they walk out on the stage.

Our seminars cover three full days — Wednesday, Thursday and Friday, with one night session, usually on Wednesday night. Although our participants are members of our association or other specialists in their fields of endeavor, they are given college-type titles in keeping with a seminar held on a campus. For instance, the presiding member of the Seminar is called the "Dean of Education." The Purpose and Scope is given by a "Dean of Students." The "M.C." or individual who introduces the various sessions is known as the "Chancellor." The presidents of our six chapters each handle the coordination of either a morning or afternoon

session. They are designated on our programs as "Professors." The individual instructors are called just that — "instructors."

One morning is devoted to workshops — similar to our national seminars — and, like at National Seminars, these workshops prove most popular. The total response is great.

A little further with reference to our regional set-up, I mentioned a while ago that our Commissions meet in January of each year to lay initial plans for the Regional Seminars. These groups meet again in the late Spring, if necessary, to discuss regional activities and to look at the program as it has developed and to assist in finalizing the preparation. Sometimes everyone has done their job so thoroughly and efficiently that this meeting is not held. In any event, the commissions are always called together the afternoon before the seminar at the University to discuss business and plans for the next year.

Attendance at these seminars are around the 200 mark — last year we had 215 in attendance. All chapters were ably represented in this number.

After the seminar is over, the presentations by the instructors are printed, bound, and sent to all in attendance. Anyone else wanting copies of the proceedings may order them for \$1 per copy from the Regional Chairman or Vice-Chairman.

Dues for the seminar are kept as low as possible to encourage attendance. They have been \$10 each year, which includes one meal and the cost of printing and mailing the brochure.

The 1964-65 Association year has been a year of substantial accomplishment in Region 2. It was also a year in which great plans were made for future activities and projects. Like the man who rocked on his porch all day but claimed to be a real go-getter. Finally he explained it that way "You see my wife works all day and every night I go get 'er."

We have found that the Regional Commissions have been a great asset to the Regional Chairman and to the Region itself. I would encourage other regions to follow this pattern, and I have brought along a few extra copies of our Regional By-Laws which might serve as a sample for other regions.

Now I've been talking too long about education on a regional level and it's time I quit, even though there is much more to be said. I'm a little like the small boy that walked into the blacksmith shop and picked up a hot horseshoe which the smithy had just tossed on a pile of sand. The boy put it down quickly and when the smithy said "What's the matter, is it hot?" the boy said "Oh it isn't that, it just doesn't take me long to look at a horseshoe!"

Joint Education - Public Relations Sectional Luncheon

Educating the Adult Student

By Dr. John Quinton, Tennessee Gas Transmission Company, Houston, Texas

JOHN D. QUINTON

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When President Johnson called education "the first work of our times and the first work of our society," he was laying down a momentous challenge to industry, educators and government alike.

This challenge calls for the solution of the nation's most pressing problems — new problems arising from the new technologies — the pressures of human rights. And the solution lies largely in a stepped-up education and training effort in every segment of our society — especially in industry.

In the last few years, private industry and government agencies have come to realize that training and educating the employees are no longer luxuries but are necessities.

In past years, the bulk of education was provided by colleges and vocational schools. In this age, however, a great deal of education and training must be provided after graduation. The re-

quirements range from simple updating of existing skills to learning new concepts, subjects and techniques.

The skilled workers and technicians in our work force play a vital role in the progress of the American economy. They make it possible to translate the ideas of the scientist and the plans of the engineer so that the production of goods and services can be carried out efficiently. These workers usually combine technical knowledge with practical manual skills. But, no one becomes skilled by accident. It requires education and experience. Most workers acquire their skill by learning on the job and by moving to new jobs where they can increase their opportunities to learn. A well designed training and education program helps to reduce the time required to learn these skills and makes the worker more productive sooner. In some areas we have already run out of time.

As David Rockefeller, President of Chase Manhattan Bank recently said, "Developments that once would have required decades are now compressed into a few years. Consider the dramatic telescoping of the time span between initial demonstration and practical application. For the automobile, it was 40 years; the airplane, 14 years; television, 10 years; atomic energy for peaceful purposes, 7 years; and for earth satellites for communications, a mere 5 years." And when science finishes getting a man up to the moon, maybe it can have another try at getting pigeons down from public buildings.

There is a strange paradox in this country today. Each month we set new records for employment and at the same time we set new records for unemployment. So we ask ourselves the obvious

question, "Who are the unemployed under these conditions in the U.S.A.?" While there are many answers to this question, the unemployed have one very important characteristic — *they lack the skill to match up with the jobs that are available.*

It seems to me that we have the choice of making the necessary changes in our educational and industrial training programs. If we don't, we will find ourselves with workers without jobs because they lack the necessary skills; and jobs without workers because not enough people have been trained in the skills required.

If there's anything that really comes clear from studies now being done, it is that there will be large numbers of totally new jobs that no one is now being educated to do. Unless we gear our education system — both in the schools and in industry — to start educating people for these jobs, the country will be hard-pressed to produce the goods and services that will be needed in the future.

This leads to the assumption then, that an industrial concern can only achieve its goals, both internal and external, through the effective efforts of its employees. To be productive, the employees must possess the necessary knowledge and skills to do their jobs correctly, quickly and conscientiously. Companies strive to select employees who will be able to do their jobs well. At best, however, the most valid selection procedures can only provide a partial answer. Certain learning *must* occur after the worker is on the job.

In the past, this learning had been mostly uncontrolled. However, since 1944, companies have become increasingly aware of the importance of *controlled* learning. More and more, they are systematically attempting to teach and guide their employees in their development of the knowledge, skills, and attitudes which will make them more satisfied and productive employees and citizens.

As an indication of this increased interest in teaching employees there are now over 5,000 members of the American Society of Training Directors, where in 1945 the society did not even exist.

Also we can see the importance of degrees from Education and/or Psychology Departments, as the companies' requirements for Training Directors change. When I first entered industry 14 years ago, the companies would assign any "good old boy" to be head of training. Today, more and more, the industries are requiring anywhere from a B.A. degree up to a Ph.D. or Ed.D. Many companies actually require experience as a teacher on the secondary school or college level.

Industry knows that secondary schools and the universities and colleges are responsible for the teaching of the reading, writing, arithmetic, and social skills which form a necessary foundation for productive employment. They also know that *industrial training of "education" supplements the more pervasive influence of our education system.*

Companies are becoming aware that ignorant workers are poor workers and that undeveloped and unaroused employees are liabilities. As A. V. McCullough has stated ,

"Perhaps the greatest competitive advantage to be enjoyed by an enterprise lies in the development of its human resources. While I recognize the worth of on-the-job training, I believe that attention should be paid to employee education in a broader sense. There is an increasing recognition that education cannot stop with the school or college, and that business and industry must alter their policies to accept a social obligation to provide broad educational opportunities to all employees as long as there is an expressed need for them."

The nature of the education programs in industry today can generally be grouped into three categories:

1. Developing Skills
2. Transmitting Information
3. General Education

The first, "developing skills," is concerned with developing the abilities of the employees to perform their work more effectively. The second, "transmitting information," concentrates on passing vital information to the employees on such subjects as organization of the company, its officers, its products and/or services, its policies and its history. The third, "general education," is not directly job oriented but aimed at developing the employee's attitudes and increasing his knowledge in areas ranging from company economics to politics.

The use of the term "general education" for the third cate-

gory implies that the first two terms, "developing skills" and "transmitting information" would be considered as "specific education." Some individuals would question the use of the term "education" instead of the word "training." Historically, industrial organizations have "trained" their employees — not "educated" them. It is my belief, however, that the two words are synonymous and that throughout the years industrial firms have indeed been "educating" their employees.

There are indications today that more "adult education" is being done in non-academic institutions than ever before. Churches are building new educational additions, almost every college and university is expanding, governmental organizations are stressing education functions, the armed forces advertises their education services nationally on TV, labor organizations are promoting education and research, and business and industrial firms are improving their training and educational efforts. There is a new and higher level of interest and activity in education and training than ever before.

Most of this new "education movement" is post-post graduate, or adult education — outside of, or beyond formal schooling of the institutional type of education. It is the education of mature citizens to meet the new challenge of a more populated society in an increasingly complex civilization. It is the kind of education and training that requires both the practical experience and professional leadership of a newly emerging group of non-academic "educators" called "training directors."

Broadly interpreted, industrial education may be said to include all learning activities of employees and workers from the time they enter industry until they retire. Training and education then, are, and should be, the same.

General education provides the understanding that employees need if they are to do their present jobs well and acts as responsible citizens both in and out of the company. At the same time it will, through encouraging self-development, assist them to live up to their own ambitions as wage earners, homemakers, and individuals. This is a large order, but it is not impractical. Personnel men know that ignorant workers are poor workers; that undeveloped, unaroused employees are liabilities. On the other hand, alert workers are a good investment and a guaranty of progress to come.

It is not necessary to marshal statistics to prove that public schools and colleges cannot provide this education needed by our population of working adults. Public schools lack money, equipment, and teachers. Colleges are so overcrowded that their efforts must be devoted to extending and improving instruction for their full-time students. They cannot and dare not attempt to add millions of new students from factories, offices, and stores.

Yet the need for worker education is urgent. There was a time when most business was a simple matter of buying, processing, and selling directly to consumers. All might be done by one man, or by men working in a single shop.

Today all this has been changed. The workman neither buys the raw material for his product nor sells the finished article; both are done in his plant by specialized departments with which he has little contact. His employer is a corporation, not a man: a corporation whose authority and interest filter down through hired executives, supervisors, and members of a personnel department. The worker performs a single deskilled operation. His life in factory or business is regulated by intangibles of research, engineering, trade balances, quality control, product specifications, standard practices, and labor law, about all of which he may know little. Social factors that infringe upon him from outside the plant range from increasing delinquency to implications of atomic energy.

In short, the worker's world, even within the office or factory, is no longer simple nor even rational. It has become a world of such complexity, specialization, and confusion that the uninformed, unmotivated person must either guide himself by unpredictable emotion or go utterly adrift. Once this point is granted, the major function of education becomes obvious. It must tackle the job of turning workers and managers into informed, cooperative, understanding human beings.

Dr. Abbott Kaplan, President of the Adult Education Association, had this to say about the importance of educating the adult:

"This task is an important one in light of the emerging character of adult education in the United States resulting from the need of adults to meet the challenge of

rapid social, political, and economic change. The professors are convinced that the real frontier of education for the decade of the 1960's must be adult education if we are to survive a free democratic society."

Leigh B. Block, vice-president in charge of purchases for Inland Steel Company, giving the principal address at graduation ceremonies for 63 employees just finishing a company sponsored education course said:

"Each of you had your special reasons for enrolling in our program. Some of you wanted to improve your technical background. Some of you wanted to enhance your opportunities for advancement in the company. And some of you wanted to increase your knowledge. But no matter what your motive, I believe that you all realize that *education is a never-ending process.*"

When Block said, "Education is a never-ending process" to his steelworkers, he really meant "Education *must not end* for the survival of our company, industry, and national economy."

Mr. Block's company, as well as many others, has what is becoming known as a "survival attitude" toward industrial manpower and its development. Experts currently estimate that it takes \$17,000 worth of plant and equipment to support one job station. From then on it takes about \$450 yearly to maintain it; this comes to about \$28 billion for America's work force. A considerable amount of that is spent on adult education.

Some companies, believing that good citizens are good employees, wish to see their employees improve as individual citizens as well as workers. These companies provide or arrange for any courses — vocational or not — which the employee finds interesting or profitable and wishes to study. They are convinced that alert and well-informed employees carry over some of that interest to their jobs and prove to be better workers than those who are not concerned with their self-development. In short, they believe that general education — whether in government, chemistry, or company costs — will directly benefit the individual, the company, and society.

One Eastern chemical plant, for example, offers inplant courses in popular chemistry, chemistry of medicinal products, algebra, electricity, the metric system, practical English, effective speaking, Spanish and Russian. A nationally known manufacturer of business equipment, as part of an extensive educational program, presents a general education curriculum including courses in such varied fields as aeronautics, effective speaking, first aid, Spanish, Portuguese, French, current events, interior decorating, home planning, and practical psychology.

Where general education aims for understanding, cooperation, and teamwork, programs are developed which deal with the business climate, the environment, and the demands upon an employee from within his own industry. In these cases training directors endeavor to provide courses which may lead an employee to find interest, purpose, and enthusiasm in his job. Such courses, to have a concrete and practical value, may deal with the history of the company, the outstanding employee contributions; or they may deal with sales, company research, costs, scientific management, distribution of the sales dollar, and a study of the finished product and its destiny. These courses are designed to teach the worker about his company, its techniques and its economy, so that he will cooperate more fully with its policies and purposes.

Industries that offer this kind of training do so in the belief that it will help increase cooperation and minimize conflict. It is, they feel, the catalyst that turns employees into interested and cooperative workers — a change as essential to full production as it is to emotional satisfaction.

Some companies go a little further than aiming for understanding, acceptance, and compliance through formal training courses. These are the managements which believe that mutual understanding will come about fastest when employees participate more fully in those decisions of management which affect them directly.

The development of a training and education program which will create this partnership is a great challenge for industrial educators and a great opportunity for profit, material and spiritual, for owners and workers alike.

It seems then, that the great increase in interest on the part of management in education in industry stems from an increasing acceptance of three major principles:

1. Management must take the responsibility for any deficiencies of the whole man which are not provided for by other agen-

cies or which industry can provide better than schools, churches, or civic groups.

2. Man works better at any isolated, specific job when he knows all the conditions, facts, and forces surrounding that job.
3. In complex, modern industrial society, it cannot be left to chance that workers will meet and understand all the social and economic factors of business which are necessary to satisfied, productive employees. Therefore, formalized adult education programs must be developed and the employees taught.

The size of America's industrial training effort has been estimated to be some four times that of the public schools. America's "second largest educational educational system" — the one carried on by business and industry to train employees — will spend about \$17 billion this year educating employees in both formal and informal programs. This sum represents an additional \$1 for every \$3 spent for education in public and private elementary schools and colleges and universities. In addition to the money spent internally on adult education, voluntary contributions by business to education have risen to a new level estimated to be \$178 million — an increase of more than 30 per cent in two years. Business and industry not only are contributing more money to education than ever before, but they are also giving education a larger share of the corporate gift dollar — 35 cents of every gift dollar in 1962 compared to 28 cents in 1958.

To get an idea of where the money and effort are expended in industry on adult education, consider some of the overall training effort now being expended in American industry. Over 98 per cent of the companies questioned in a recent survey help employees advance their education and improve their skills, either on or off company premises. Of course, most companies have more than one kind of training program for their employees. In this way, all echelons of employees may have a chance at special educational privileges. A company may combine an apprenticeship program with outside tuition aid; on-the-job training with classes on company premises, plus after-hour management development seminars. Some training classes may supplement one another; others may be entirely separate, slanted at different levels of employees.

An outstanding movement in quite a few companies today is to give employees college training, in job-related courses, right on company premises.

Training departments usually coordinate these instruction classes. Outside experts (professional consultants, nearby college instructors, manufacturer's representatives) are frequently invited to lecture.

In addition to individual companies sponsoring program to update its personnel some far-sighted professional organizations such as yours, have "educational" committees. This is far-sighted indeed and you are to be complimented on your insight into current and future problems.

I understand that you are holding educational seminars in such places as Temple University, Oklahoma State, the University of Minnesota, Texas A&M, Mississippi State, and many other locations.

The subject matter of these Educational get-togethers, should consist of material that will upgrade the participants. Otherwise each land man and his knowledge will be obsolete.

There are several areas of advancement in the Right-of-Way business that will make one's knowledge obsolete unless educational sessions are held to bring your membership up to date on the latest developments.

In surveying alone great changes are taking place. We are in the age of super-accuracy now. Highly precise and coordinated theodolite camera systems are being utilized. Aerial surveys by photogrammetric methods are replacing the plane-table method. Magnetic, radio, and sound waves are being used for geophysical surveys. Even the old chain method of measurement is being replaced by electrotape.

The combining of aerial photogrammetry with electronic recording devices and plotting devices are plotting terrain and profile data at here-to-fore unheard of speeds.

To meet the challenges of today and especially tomorrow the Right-of-Way profession must insist upon education for its membership.

And remember — the ADULT — or, as they say, the OLD DOGS, can learn new tricks. In fact, if the Old Dog wants to continue working — he *better* learn new tricks or he will be left behind.

Educational Sectional Conference

The Local Level

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Introduction

It is always pleasant for me to participate in education panel discussions involving right-of-way problems which are so much a part of the every day professional lives of most of us. I am to discuss right-of-way education at the local level.

While annual seminars such as this one are very important, as are regional seminars which are becoming more and more effective too — while both of these media of training and education are important, it is really the local educational effort which is, by far, the most important to the large bulk of the membership of this Association and its chapters. Unless someone wants to challenge this finding, let us assume that it is quite valid.

Accordingly, let us inquire into such matters as what kinds of programs have proven to be the most effective? Which the most acceptable? What about variation in programming? How frequently should such efforts be made? What kinds of speakers are the most helpful? What should the format of the effort be? We could ask many other questions about such local right-of-way education efforts. It is my purpose this afternoon to discuss some of these matters. If some of the problems confronting you in this connection remain unanswered, perhaps we can discuss them in the question-and-answer period later on.

Before we plunge into the substances, may I add this thought too: some time ago our Association, through our National Education Committee, sought to document what the right-of-way education needs were, for the average rank and file member. This was accomplished through a detailed questionnaire which many of you graciously answered for us. A good portion of this survey was devoted to local needs and local education programs. In connection with the major portions of this discussion then, I shall bring in the findings of this questionnaire survey, hopeful that it will highlight local needs as indicated by almost 4,000 of our membership — not just one or two or three articulate individuals.

Format of Local Education Effort

Perhaps one of the first questions we could ask ourselves is: What should be the design of the program at the chapter level? Should it be a panel discussion? One principal speaker? Two of them? What about discussion?

The ARWA Education Survey reveals that members had some very definite notions on format of chapter meetings. Over one-quarter of the respondents liked the panel discussion technique while another quarter said they like the single-speaker feature. One-sixth preferred short talks by two speakers. Many members wanted informational discussions, with time allowed for questions and answers.

From these responses and from the experience of many ARWA chapters which have conducted successful local meetings, the best chapter meetings apparently are those which employ the panel discussion device and the single-speaker technique. Both of these need not necessarily be part of the same chapter meeting. One session could be a good, solid panel discussion, by competent and outstanding authorities in the subject area under discussion. The next session could be a single, effective speaker of fine reputation, or two such speakers could be teamed up on the same program. Of course, this presumes that only a single day is devoted to the education effort, rather than two days.

Incidentally, regardless of which format is used, ample time should be allowed for questions from the audience and discussion of those questions. I know that many local chapter program chairmen start out fully dedicated to this concept; what actually happens, though, in nine cases out of ten, is that the panelists or speakers get so enthralled with their own discussions that most, if not all, of the time is consumed by formal discussion, with no time for questions.

Accordingly, chapter meetings should be so arranged that as much time is reserved for questions and audience discussion and participation as is allocated to any of the speakers. Program chairmen should make it clear to all speakers and panelists that this is what is wanted and the chairmen should make sure that this allocation of time is reasonably adhered to. The chairmen would do well, too, to plant a few questions as "pump-primers."

Variety

I want to talk for just a minute about variety in program format. This is most important. Regardless of how many individual chapter education sessions are contemplated during the course of a year, *variety* should be the watchword. If you schedule a panel discussion one session, use the single or multiple-speaker idea the next one.

In fact, from the point of view of variety, you need not limit yourselves to these two old-timers either. Most of us here have been exposed to still other varieties of programs. I recently attended a session where a single speaker was used but he insisted upon, and obtained, a fine audience response as he went along. It takes a skilled speaker to do this and his subject matter must be adaptable to this kind of technique, but when it is done it is excellent.

Still another device involves problem-solving as part of the education effort. This is particularly effective in appraisal sessions. Another variable includes visual aids and, as you know, I personally feel very strongly about this. Frankly, I cannot visualize an effective education effort without visual aids. This is based upon the education principle that the human creature responds much more effectively to what he sees than to what he hears.

Speakers, Panelists and Company

Let us talk about speakers for local educational programs and where you can find them. This, I think we would all agree, is so important to the success of the program that it can make or break a program.

The kind of speaker you get is a direct reflection of the effort that is exerted by the local program chairman. If he really works at it, he can get top-flight speakers who can really communicate. If he delays until the last minute to put a program together, chances are the quality of his speakers will reflect this lack of advance planning. So, to have successful local education programs, be quite sure you select the right program chairmen in the first place.

I have been told, off and on, that this chapter or that one just can't get any decent speakers. Frankly, that is just a lot of poppycock. Every State has talent in the right-of-way field. What you have to do is find it and nail it down for your program.

Look to a variety of sources. Get some university people; if you don't know them, make it your business to get acquainted. Pay your State or local university president or dean a visit, identify yourself, tell him about ARWA and your chapter meetings; tell him you are interested in negotiation or appraising, or whatever you are interested in, and want some suggestions from him as to whom on his faculty would make an outstanding speaker. You will be pleased and delighted, I promise you, in more cases than not with what a fine response you can get.

Look to your public officials, State and local. There is plenty of talent there too. Use the same technique there. Get as close to the top as you can. Find the fellow you want and get him committed.

You can look to bank presidents, highway officials, to housing and urban renewal officials, to public utility people, to just about every segment of the business that is represented in this fine Association.

Chances are you or someone else know some outstanding individuals who might be helpful, attorneys, appraisers, etc.

Now, this is most important: Regardless of where you look for speakers, be very sure you get some specialized talent that can be effectively communicated to your audience. Just don't get a big name unless he can contribute. I have sat through countless chapter meetings during my career, in many parts of the Nation. Frankly, I have been sadly disappointed, more often than not, by a so-called outstanding speaker, and all I seemed to hear was a lot of hot air. What's more, this same opinion was shared by the rank and file membership of the chapter. We have got to remember that members are getting fed up with self-criticism and pious pronouncements; they want solid fact, concept and principle; they want to learn and absorb, so that they can pull themselves up professionally by their bootstraps.

Joint Local Seminars

If you can arrange a good seminar at the local level all by yourself, fine. On the other hand, some chapters have found that they can add strength, support and response to a seminar that is jointly sponsored. Recently, I had the privilege of participating in just such a venture in New York City, involving the matter of eminent domain. It was a joint venture of ARWA Chapter 18 and the Federal Bar Association of New York, New Jersey and Connecticut, at the Columbia Law School. It was outstanding; a good many jurists in New York attended and participated. The speakers were excellent.

Such joinder can be had with a college or university, with an appraisal society, with the State or local bar association, with a highway department, and other professional groups that would have a logical interest in the subject matter. Sometimes, even two chapters of the Association may join together in a common session for educational purposes. Any proposed affiliation of this kind, however, should be scrutinized for its appropriateness, for its benefits to the Association, and for other purposes.

Frequency

An issue of great importance concerns the frequency of local educational meetings. On this point the Association's Education Survey indicated that approximately seven percent of the membership desired local educational sessions aggregating about eight hours per year; forty percent suggested 8 to 16 hours annually; 27 percent wanted 17 to 32 hours; 12 percent said from 33 to 48 hours; while eight percent wanted more than 48 hours annually. There is obviously quite a spread in desire here.

Viewing the matter from a practical point of view, every ARWA chapter should sponsor, either individually or jointly, educational sessions at least four times annually; more should be arranged if you have a very active chapter and an outstanding program chairman. Of course, when you talk about frequency, you also have to talk about quality in the same breath. In other

words, having two outstanding local seminars is much better than having four or five inferior ones.

Subject Matter

Now, let us ask yourselves, what subjects should be emphasized at the local chapter meetings? This should vary, of course, with time and with the specific interest of a majority of local chapter members. They are the ones to be catered to, so that you may want to ask them periodically what subjects they want discussed, if you haven't done so already.

I might suggest a few, though, as being so universal in their appeal, that you would be safe in scheduling them at any chapter meeting, just about any time. These might include the following, not necessarily in the order of their importance:

- (1) Negotiations, especially the new ARWA course.
- (2) Appraising, with emphasis on benefits rather than damages.
- (3) Partial-taking appraising, documentation of comparables for after values, etc.
- (4) Plan reading, etc.
- (5) Judicial rules involving just compensation.
- (6) Property management principles.

Additionally, some of the newer items that are coming to the fore should be stressed too, perhaps as collateral subjects; these might include some of the following:

- (a) Analysis of the Davis Report (Committee Print No. 31, 88th Congress, 2d Session.)
- (b) Right-of-way aspects of highway beautification — scenic easements, scenic roads, parkways, etc.
- (c) Air rights, valuation and acquisition.
- (d) Winds of change in eminent domain — Pennsylvania law, etc.
- (e) Recent and significant court decisions involving right-of-way elements.
- (f) Right-of-way scheduling and programming — new and emerging techniques.

Many other subjects could be added to both of the foregoing lists but they should give you a rough idea of what I am suggesting.

Conclusion

I have touched on just a few of the many problems which plague local chapters in setting up local right-of-way education seminars. As I conclude, may I say that we have actually just scratched the surface on the possibilities in this area of operation of the Association. I hope that with the recent impetus provided the chapters through the provision of positive substantive assistance at the national level, that chapters will be encouraged to march forward in this field with more vigor and determination than ever before. Your National Educational Committee stands ready to assist you in any way possible, in strengthening your local educational programs.

Right of Way Valuation Sectional Conference

The Concepts of Professionalism in Right of Way

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During the past several years we in the right of way field have somehow become quite glib concerning the professional stature of our avocation. This thing that even a short time ago seemed quite remote, or at best conjectural, has through some sort of a process — and maybe even a bit of self delusion — come to be accepted as an accomplished fact. For today, we somehow bask in what each of us tells each other is the actual achievement of professionalism.

Now my purpose is not to tilt at this windmill of professionalism, but rather, with your indulgence, trace some of the

concepts of professionalism, and attempt to arrive at some status report or "state of the art" in this our right of way field.

First, let us see what has brought us to where we are; what have been the factors accelerating the evolution of right of way acquisition. We have heard over and over again the time-worn cliches and continual references not only to the absolute statistical growth of right of way acquisitions, but also to the changes that have occurred in the complexities thereof. But this evolutionary process goes a little deeper than the mere mouthing of words. As I see it, five cardinal factors have been responsible for our present position in the right of way field.

(1) First we have simple statistical size. We are now spending approximately 12 billion dollars per year nationwide on public land acquisition projects alone, such as highways, urban renewal schools, dams, parks, etc. This figure is, moreover, exclusive of those sums spent by the various utility companies in their own land acquisition programs.

(2) Secondly, we have a type of acquisition problem different in scope and complexity even from that encountered a very few years ago. We have today a highway design with geometric standards that include complete limitation of access, traffic flow through the interchange mechanism, highways on new location because of the simple facts of economics, and most importantly,

rights of way of progressively larger dimensions. This combination of factors has necessitated not only an increase in the absolute amount of land acquired, but also a new qualitative dimension introduced into our classical approaches to property damages brought about by the severing and landlocking of large acreages, the marked changes that occur in land uses, the effects of denial of access, and a realignment of not only traffic patterns, but also consumer and traveling public tastes, habits, and preferences.

(3) Third, the appraisal standards and guidelines established by Public Roads have brought about a standardization of appraisal practices, documentation and requirements that have long been needed — especially in the highway field. It has become rather fashionable to spend a lot of time complaining about Federal regulations, but in the process we have somehow lost sight of the simple fact that the appraisal practices and concepts used in our public land acquisition agencies are probably a lot better today because we have been forced by the simple economics of reimbursement to bring them up to acceptable standards. We have always been too ready to gloss over the fact that many of the appraisal and operational practices that we have used in the highway departments have been below average, and we continue to congratulate ourselves on what a tremendous land acquisition program we're handling. But realistically, we've had pretty sloppy appraisal practices, and we've had antiquated, outmoded, and inefficient operational procedures.

It's a difficult thing to say that many of the land acquisition agencies weren't doing the best job possible, so everybody has kind of avoided the subject, and a sort of community crying towel approach has grown up with a reassuring acceptance of problems as being unsolvable, instead of an objective, constructive attack on those problems. We have temporized by saying problems will be solved some day if only we're given the time. In a word, we had somehow been so self-satisfied by our previous handling of normal land acquisition for our normal highways, that we have been unwilling to admit that those same appraisal principles and the same operational procedures were inadequate to handle the type, size, and complexity of our new highway concepts. Maybe, through a bit of defense mechanism, we have been resentful of Federal control, but in a way, the overall national results have probably more than justified the means.

(4) Fourth, the new dimensions of our land acquisition programs, and their particular effects upon individual properties, have introduced entirely new concepts into our standard appraisal techniques. What we have in effect today are two levels of appraisal activity and appraisal sophistication. The first is what has historically been the standard textbook approach of the professional appraisal societies with its simple emphasis on finding the market value of properties as complete and whole entities.

However, with the dynamic situations existing in the eminent domain field with such a large preponderance of partial takings, the old standards and the old guidelines are simply not enough for today's requirements. For today we have a whole new emphasis and a whole evolving academic discipline which must of necessity deal with the concepts of benefits, noncompensable damages, and estimations of severance damages that are bringing about by definition, serious modifications in our classic before and after approach. While our old appraisal techniques as taught by the appraisal societies have been an excellent tool in the normal world of appraising, it is naive on our part to think that these same simple tools will do the job required today in our highway field. What we are talking about is actually a whole second stage in the standard appraisal process, the development of adequate means and measures to handle our new appraisal problems.

I think it axiomatic that we in this field have not been willing or at least realistic enough to accept the simple fact that these new dimensions in the appraisal process have actually been with us for some time, and we are still skirting and avoiding them with little more than a sideward glance. I will put additional emphasis on this area later in this presentation since I think in our ultimate handling of this problem and several related ones will hinge the future question of professionalism for those of us in the right of way field.

(5) The fifth cause of the present position in our professional endeavors, and perhaps the most important in terms of ultimate, is that right of way has become the focus of public and national attention. Under this generic category, I would like to briefly touch upon a few events and a few ideas. The first are the ramifications and results growing out of the Blatnick hearings. What I think we're dealing with here is first of all a national disillusionment with the whole public land acquisition process,

and by extension, the whole appraisal profession.

Now the easiest and most comfortable thing for anyone connected with a highway department to do is to question these hearings as being mere isolated events, which to paraphrase the words of 1939, "it couldn't happen here." Here again we have at times engaged in a sort of defense mechanism complaining perhaps about the processes, procedures and means to the end without really critically recognizing the crux and the rationale of the hearings, that something very basic was wrong — indisputably wrong. For we had a breakdown in the orderly process of public land acquisition, by those public officials so charged with this responsibility. And in the end analysis, nobody really seemed willing to fully face up to this central factor, and this obvious fact.

But additionally, these hearings showed up the lack of a prudent appraisal process and controls, with its inherent danger of complete disparity of unsupported opinion, and its complete avoidance of any consideration of benefits or the tangible results of State acquisition and construction. This latter observation is perhaps the most damaging, for at least a prudent appraisal process is something under our direct control and is within the bounds of our professional competence. Yet too many times, we have tended to act in a professional vacuum, hiring the incompetent appraiser, having an ineffective and meaningless appraisal review procedure, neglecting the question of benefits, accepting unsupported opinion of severance damages, and putting up with a lack of practical and enlightened administrative control over our land acquisition functions.

Perhaps the most enduring total development to emerge from the hearings and the publicity attendant thereto, has been a greater public awareness of the eminent domain concept, and that individual, the right of way man, who is the means to this end. We have today a public image — whether for good or for bad. And with this awareness and this image, we are today experiencing a critical public eye directed towards our classical concepts of just compensation. We have the very obvious evidence of this examination in the rapidly expanding scope of payments and services to owners — in the payment of moving costs in 20 states, in the provisions for relocation advisory assistance, in the payment for business losses and the loss of good will emerging in some of our eastern states, and in the other related legislation pending on both our state and national levels.

But if we examine this situation a little closer, we may find that maybe these developments, as dramatic as they are, are merely surface symptoms of something that goes deeper. Maybe what we are really faced with is a sort of national disenchantment with the way we've been conducting our business. For after all, the basic intent of all this legislation is merely to remedy an inequity which enough people must feel exists, or the proposals would not even be acted upon in the first instance.

Now, far be it for me to rationalize, justify, or even advocate these extensions of our just compensation concept. Rather I am hoping that in this historical approach we can perhaps see where some of the practices that we so nostalgically look back upon, have brought us. I don't think this statement is an oversimplification when we reflect upon the abuses of the "horse-trading" approach to negotiations, when we think of the old single page cost approach appraisals, when we think of the rather cavalier attitudes towards the property owner shown by some of our acquiring agencies, and when we think of the prevailing attitudes that said that laying a strip of concrete was our paramount concern, and everything else secondary.

For what we forgot in all of this rush to get our particular job done and our particular concrete poured was that single amorphous unit of the body politic — the individual owner. And we have somehow sometimes, been in too much of a hurry to bother with the niceties and the procedural sophistication that today is evolving as the mark of our current right of way pattern.

And so where do we stand today, at least in a professional sense? In this part of our discussion, I'm afraid I'll almost have to resort to the "shotgun approach" — throwing out ideas, and hoping in the end with a certain distillation of thought to bring us back to a composite picture of our contemporary professional status.

I think first of all we are seeing a dramatic reappraisal and reassessment of many of the premises of thought that we have all assumed over the years to be self-evident. This reappraisal in professional thinking is particularly evident in two areas — in our use and treatment of benefits and severance damages.

While there has always been some legal dispute as to the proper placing and offsetting of benefits in our appraisal process,

this area now appears to be rapidly defining itself at least from a judicial standpoint. And a significant part of this judicial resolution mandates the offsetting of benefits as part and parcel of the appraisal process.

While this problem at first blush may seem almost insurmountable, what we in essence are confronted with is merely a further refinement of the entire market concept. For what we are asked to project in terms of benefits is merely what the market at the time and place of our appraisal will recognize and pay in enhanced value for a particular piece of property because of its availability, or proximity, or special location to a highway.

And, perhaps we should stop confining our thinking always in such dramatic terms as the spectacular highway interchange where the increase in value is so marked and pronounced, but we should also be directing our attention to those individual properties such as residences where the effects of the takings may be such as to directly increase marketability.

In the appraisal field we have always been quick to recognize and to put our professional opinions "on the line" when the question of damages has arisen. And yet, an estimation of benefits is no less valid and no less a part of the appraisal process.

The simple premise is this — if the market recognizes an enhancement in property value, this is the measure and criteria of our offsetting. If the market does not recognize the increase, then there is to be no offsetting.

In the second of the two areas delineated — that of severance damages — we are again dealing rather specifically with a further refinement of the market process. More than any other concept that has caught the imagination of eminent domain appraisers over the past several years, the idea of severance studies has, at least from my point of view, been framed in the context of a tremendously, illustrative but basically useless toy.

It is quite evident that many people today feel our national studies and our grandiose publications in this field are currently basically unusable as an exact appraisal tool, and there is a large measure of truth in this reaction. But, by focusing our attention on the national studies that have been done and then pronouncing them unusable in our individual appraisal reports, we are missing, perhaps, the whole point of severance studies. For what we have missed is the very real ability and availability of data to support and test our after values by market sales.

It has been pointed out many times that if any competent appraiser were required to coldly evaluate only the after value of a piece of property sitting as it does perhaps six months after a portion thereof has been acquired, there would not be too much difficulty, for he would merely apply the standard three approaches to value to arrive at a market value of the property as it today sits. In this collection of data, one would be able, in fact, required, to secure comparable sales to validate and support the value of the property. And so in a similar sense, this is the whole crux and the whole premise of the before and after approach and the use of severance studies.

It is entirely within the range of competence and the range of availability of every appraiser in a majority of instances, to support and document his after values of a piece of property through the use of a series of comparable sales which may, by definition, be a series of sales entirely different from those which he had used to support the before value of this same piece of property.

Certainly, when and if we are furnished on a wholesale basis with severance studies on a state-wide and regional basis, if certain component parts of these severance studies fit the test of comparability to that particular property under appraisal, then they individually would be analyzed and used in the appraisal process just like any other comparable sale. But, in the meantime, we are doing ourselves a disservice and we are not following prudent appraisal practice if we neglect to utilize the already available comparable sales to document our after market value.

As we hopefully progress in this professional approach to right of way valuation, and as we define and refine our appraisal techniques, we will perhaps at last make inroads into that nebulous, troublesome and controversial area called divergency.

It has been said many times that there are two types of divergency — that involving an honest difference of opinion and that, charitably speaking, involving something less than an honest difference of opinion.

About the former, it is certainly possible and feasible for two competent appraisers working with the same data to come up with two different and widely spaced opinions of value. For, after all, no matter what else may be said, an appraiser as a professional is hired because of the value and weight of his profes-

sional opinion and judgment. And yet, this other thing does exist and everyone knows that it exists. In fact, at times, there is almost a standard joke about its existence, simply because we in our profession and we in our professional societies are unwilling to do anything positively about it.

All of our societies make pious statements about punishing offenders and yet in the end analysis, we are perhaps akin to the medical profession whose unwritten code of ethics prevents one doctor from testifying against another. And just as this is true of our own appraisal profession, so also are the same facts of life true of some of our legal profession. The valid distinction must be made between a professional code of ethics which is protective of an honest and substantiated difference of opinion and conduct, and a professional attitude which shelters the incompetent and unethical practitioner.

The time has come for our professional societies to make this choice and to make this basic decision, for whether we like it or not, the appraisal profession on a nationwide basis is rapidly and dramatically falling into disrepute. And again, whether we want to face up to this fact of life or whether we want to scoff at the idea, these realities still exist, and it is because of this national disrepute that concentrated efforts are being made in many areas to require a state licensing and policing of appraisers. We are, in effect, being presented with a choice — either we clean up our own house or our governments are going to do it for us.

And so, we now lead into that final phase of our analysis — the future — and with it those ingredients, criteria, and characteristics necessary for professional status.

In terms of this future, the first and primary requirement is that a body of technical knowledge exists to form the basis for the academic and operational development of the practitioners in the professional field. If we can start off with one truism, we can state this body of knowledge simply does not exist today. Rather, over the past several years, we have seen isolated and divergent attempts here and there to get together some workable series of courses that serve only an immediate, parochial and limited goal. We have justified this approach, and perhaps rightfully so, on the basis of expediency — we have had to get a certain amount of training into a certain group of men to make them workable right of way people. And in this same process we have somehow excused our rather awkward steps by lifting our eyes to that promised land when the colleges would offer courses of study in right of way work, or perhaps even the American Right of Way Association would develop some basis of technical knowledge that our future professionalism could build upon.

But in this myopic process, we have all failed to establish the very important ground rule of where do we want to go? We've talked a good game, but the simple hard truth is that we lack the cohesive and regulated guidance necessary to make that first step. The answer herein is basically an organizational one, but it does require that one moment in time when the leaders in our right of way field finally sit down and say — let us begin.

I wish I could come here to you and say that we in New York have found that golden key. Over the past two years we have spent over a half-million dollars in right of way training alone, and we have established a full-time permanent training section in our right of way organization. We feel that in terms of what we set out to do, and how we have tried to do it, that we've done a pretty good job. But yet the basic question still remains — are we on the right track, are we really getting anywhere in terms of futures, and in terms of the production of truly professional personnel, or are we still using outmoded methods of teaching outmoded axioms? I frankly don't know whether we're really getting anywhere in terms of ultimate professional advancement. And in this last question lies part of the root of our national and our professional problem.

As an extension of the above, the second requirement for a professional stature is that the practitioners possess the ability to solve total problems in the most expeditious and efficient manner. As this general postulate relates to right of way, it involves the ability to, first of all, integrate the planning, location and design functions with those we have hitherto segregated as a separate right of way function. Further, it involves the development and the view that our task is not merely to perform a mere technical appraisal function, but rather it is the ability to really and truly think through the entire appraisal problem in terms of central key factors that influence and affect the outcome.

If I could attempt to develop an analogy for a minute, perhaps this thought pattern would become clearer. We have before us a total problem in terms of land acquisition beginning with the location studies and ending with the ultimate readjustment

or land use change of a particular subject property. And yet in between these two relatively divorced steps are not only all of the practical mechanical factors such as road construction, but more importantly the changes in community travel and living patterns, development of interchange clusters, road realignments, changes in grade, and dynamic market conditions that operate in the general area to affect the specific individual subject property we are particularly concerned about.

I think our difficulty, and this is understandable because of the size and complexity of the problem, is that we tend to confine our thinking and our efforts to that specific micronism with which we are working and somehow lose sight of the very big picture of which this little segment is but a miniscule part thereof. We attempt to stop this property in mid-flight, as it were, without either gaining or give a picture of its total historical development. And yet this property is affected by many seemingly unrelated dynamic forces, just as man himself in a certain sense is affected in his growth and development by conflicting peripheral forces during his life cycle.

Therefore, as we grow and accept the view of a total right of way process and as we introduce and inject all of the elements of engineering, community economics and societal progression into our thinking, we will develop a truly professional view of a total historical process distinct in concept and degree from our current view as merely this microscopic part thereof.

The third test of our ultimate standards of professionalism is the evolution of a code of ethical behavior above and beyond the mere mouthing of time-worn cliches. We must recognize that this right of way field, by definition, carries within it one of the most critical personal responsibilities for decision making that exists anywhere within the entire purview of general governmental activity. And yet no matter how many controls we think we're setting up for effective review and supervision of both staff and consultant work, the final test of integrity and honesty rests on the shoulders of each individual. We have no fool-proof checks, and a good, or rather clever appraiser can still reasonably justify almost any conclusion of value he wants to put forth. Everyday we see — and at times we smile at — the backing into value that is common in a number of cases. At times, low appraisals have been justified for the reason that in a court test it's better to be low and hope for a judicial compromise that will give an award somewhere near where the market value should have been in the first place.

What this really means when you come down to the real truth is that it is still up to the individual appraiser to determine the amount of just compensation and it's still up to another individual to finalize the extent of settlement with an owner and the general overall treatment of those persons affected by our takings. We can never impersonalize this thing and reduce it to a set of statistics or impose absolute controls over people's work

— it's still an area of tremendous personal discretion. And it's only when each of us fully realizes the rather awful power and the responsibility that we bear, and only when we conduct ourselves in the full knowledge of our overall position in the democratic process, that we still have achieved this third ingredient of our ultimate professionalism.

The last, and perhaps most nebulous mark of professionalism is when we all fully realize our rather unique position in society and when we start to exercise our voice and, in a nutshell, concern ourselves with what's happening in our communities and our nation in general. Again, we at times are blinded by the "let's get a highway built" type of philosophy. We somehow equate human betterment and human progress with how many miles of new construction we've completed, and we look at a highway or an urban renewal project or what have you as an end in and by itself.

And yet, let's look one step beyond, and see what is happening to our cities and our suburbs and our rural areas — are we somehow thinking that it is fashionable these days to have an urban renewal project in our city that somehow gets lost and ends up merely clearing a few isolated blocks of property without any real thought of what we want to do with our cities, or even in fact what function are our cities to perform? Are we that rich of a nation that we can see the tremendous outpouring of resources into patterns of growth that are uncoordinated, wasteful, and basically undeserving of our greatness? Let us never forget that the highway, the new building in the urban center, the stretch of mass transit trackage are only a part of the huge jigsaw puzzle that are means to an end.

In a word, we have got to care what happens to our communities. Perhaps no other professional segment of our society possesses the innate training, experience, and expertise that we as a conglomerate field possess. We are that link, perhaps the only link — between the practical knowledge of what public improvements actually mean in a community and that discipline in our nation that believes that new highways and new urban centers are self-contained objectives in and by themselves. We are the bridge between the everyday realities of how a community functions and operates and the planners with their innumerable "year 2000 plans."

We therefore have a unique opportunity to perform a vital service to our society. We can no longer classify ourselves simply as an appraiser, or a negotiator, or a title man, but above and beyond all this we are right of way men. And as right of way men we must develop a community awareness and become the spokesmen for those intangible "better things" in our civilization. For we will carry with us not only the rewards and attributes of professionalism, but perhaps most importantly, the responsibility of professionalism, the responsibility of making a vital contribution to our community, our nation and our society.

Preparation of Right of Way Plats and Legal Descriptions

By J. L. Ranney, Right of Way Supervisor, Central Illinois Light Company

J. LEE RANNEY

Right of Way Supervisor, Central Illinois Light Company, Peoria, Illinois.

Registered Professional Engineer. Member: American Institute of Electrical Engineers, and Peoria Association of Commerce. Chairman of Advertising Committee, Chapter 12, and Member of the National Right of Way Valuation Committee, American Right of Way Association.

It is a pleasure to appear before this distinguished group again this year.

About 2 years ago the President of the Illinois Chapter of Registered Land Surveyors asked me if I would speak to them on the "Preparation of Right of Way Plats and Legal Descriptions" and I expressed my desire to do so, if he thought I could give them any information that would help all of us in our work. After the President and I had discussed the topic at some length, it started me thinking as to what direction or guides we might have in our own office on the preparation of right of way descriptions. I found we had nothing in writing that stated definitely how we should prepare a description. So, I wrote the following directive for our personnel.

Right of Way Descriptions

When preparing a right of way description of part of

a lot, we should use a metes and bounds description of the lot, the name of the subdivision, and the quarter section said easement is located. When we describe a right of way agreement outside a subdivision, we should start the description, "A part of theQuarter of Section; TownshipNorth, RangeEast or West of thePrincipal Meridian," then give the metes and bounds description of the right of way desired. If we are putting more than one right of way location on the same instrument, we should make separate legal descriptions of same and use the word ALSO on the second, third, etc. descriptions. In all cases, the description should be tied to a fixed legal point. ALSO: in notarizing any instrument, the notarization should show the relationship of the individuals signing the instrument to be the same as that of the Grantor or Grantee.

I would now like to elucidate further what our practices have been, and what in my opinion should be required when preparing a right of way plat or description. First of all, I probably should explain what the term "easement" means to a public utility. When we secure an easement by dedication or by negotiation, that easement provides us with the necessary route for our lines along with the right to trim or remove trees that may interfere or threaten to interfere with said lines, and to restrict the

construction of any structure on said easement that would interfere with said lines. Also, in our area, on dedicated plats or easements where the easements are made a part of the plat of record, the reservation is made for utility company's use, and is not deemed to be dedicated to the public; but, shall be a private easement for public utilities on a basis of equality between such utilities. An easement only gives us the legal right to trespass.

We have a wonderful working agreement, and excellent cooperation with the Civil Engineers in our area. When a registered land surveyor lays out a subdivision in our area, he submits to our Service Sales Department five (5) prints of the preliminary plat, those in turn are forwarded to our Engineering Department. One of our engineers and a Telephone Company engineer, then, take the plat, make a physical inspection of the property as laid out on the preliminary plat, and then show the necessary easements required by our companies to give electric and telephone service to the subdivision. Gas, water and sewer are normally installed in the dedicated street in our area. These easements are then shown in red on the preliminary plats and a copy is returned to the registered land surveyor. If these easements, as shown, are acceptable to the registered land surveyor and the property owner, they are then put on the plat of the subdivision prior to its being recorded. I might add that the local surveyors try to keep the lot lines on opposite sides of the street, where we must cross with our lines in line to minimize the installation of anchors; and also, the corners on rear lot lines are located so that the anchors fall on the lot lines. If they are not acceptable, which is very rarely, the registered land surveyor contacts our engineer and they work out the necessary easements together. This has proven to be an excellent way of expediting service to the new subdivisions in this area, and as I aforesaid, we have excellent cooperation from the registered land surveyors in our area and we are very grateful for same. Now let us get into the preparation of a right of way description other than by dedication. When we write a description for an easement over a part of a lot, we should always start our easement by saying, "A part of Lot in Block of Subdivision in Section, more particularly described as follows." Then, give the description as being the Southerly feet of even width of said Lot or if you cannot use an even width description, it should then be a metes and bounds description or feet on each side of a centerline described as follows.

When we describe an easement outside a subdivision we should start the description, "A part of the Quarter Section, Township North, Range East or West of the Principal Meridian," then give the metes and bounds description of the right of way to be desired. Here again it is possible to use a description saying feet of even width along a section line or Quarter Section line or any legal division of a Quarter Section. If this description is not used, then we should use a meter and bounds description tied into a legal point or corner of a section, Quarter Section or any legal division of a Quarter Section or use so many feet on each side of a centerline tied into a legal point.

There are a few rare exceptions where it becomes necessary because of the description on a deed of record that we must refer to this deed or instrument of record, but this practice should be kept to an absolute minimum. Although, on the other hand, if it is possible to refer to a survey of record, we should do so if said survey is tied into a legal point. I am sure you have noticed that I have repeatedly used the phrase, "tie in to a legal point," in my discussion today. This has been done on purpose because I cannot over emphasize the importance of tying any description into a Lot corner of record or the corner of a legal division of a section. We should never tie in a description to a point that is subject to change or to a point that does not have a traceable

tie to a legal point.

When we use a metes and bounds description, other than parallel with a section line, we should establish a section line as a base line and then use bearings for our description. Some engineers use deflection angles from an establishment base line, but I personally prefer bearings. Thus far, I have dealt only with legal descriptions but all of the above information also applies to plats or surveys.

Plus: when we are preparing plats or drawings of any parcel of land they should always be drawn to scale and if possible, have the North point as nearly as possible to the top of the drawing; also, when we are putting section numbers on the drawing, the top of the number should always, and I want to reemphasize ALWAYS, be to the North.

If there are any structures or buildings in close proximity to proposed easement, it is a good idea to show those on the plat. This, along with the contour lines is very necessary if the plat is to be used for an appraisal.

In brief, plats can never be too complete in their detail and most surely, legal descriptions can never be too carefully prepared. Errors or omissions in legal descriptions can be embarrassing, costly and create many problems for all concerned.

I know many of you gentlemen here today work very closely with the civil engineers in your area and I would like to suggest that you take this safety thought back to these men. As you know, many of the civil engineers use utility poles for bench marks and ties by driving nails and bottle caps or spikes into the pole. This practice creates a safety hazard for the linemen and personnel climbing said poles. When a lineman climbs a pole, he does not always inspect the pole for such foreign materials. If his spurs should hit one of these foreign materials while either ascending or descending the pole, his spur could kick out causing him to fall to the ground or burn the pole. I am sure that the linemen that work in your respective areas would appreciate your advising the civil engineers to keep foreign materials off utility poles, or, if they must use one of the utility poles, keep their bench marks and ties as near to the ground level as possible.

In closing, I would like to read to you a letter to our Electric Engineering Supervisor, and I might add, this same letter was given to our Gas Engineering Supervisor.

TO: F. J. McCluhan - Electric Engineering Supervisor
FROM: J. L. Ranney - Right of Way Supervisor
SUBJECT: Right of Way Information Requirements

Per your request of February 28, 1963, we are submitting what we consider basic requirements on sketches, plats or assignments to the Land Department for right of way. It is necessary to start a legal description from a fixed legal point such as the corner of a lot of a recorded subdivision, or from the corner of a section, or any legal division of a section; sometimes, these points cannot be found in the field, and it is necessary to make your ties to the centerline of a street or public road. In most cases, if a dimension is given from the center of a street or a public road, we can determine from the records in the courthouse where the starting point would be. From the point of beginning we should give dimensions along a lot line, section line, or centerline or a street or public road. Then give the direction from said line by a bearing or a deflection angle, and then any change in the direction of a line should be given with a bearing or deflection angle, and, all dimensions should be clearly shown from the beginning to the terminus of the line.

All plats and sketches should be drawn to scale.

I want to thank Mr. Lee and the committee for inviting me to participate in this program today and to thank all of you for the many courtesies extended to me.

Thank you very much.

The Cost of Doing Professional Appraisal Work

By W. D. Davis, Appraisal Associates, Kansas City, Missouri

There is a great lack of understanding about the actual costs of doing acceptable professional appraisal work. This is due in large measure to the fact that there are few appraisers or appraisal organizations that have accurate cost records on their own work. Many of them are unwilling to keep accurate time cards. Many professional appraisers just do not have an adequate staff to do acceptable cost accounting.

The situation is further made more difficult by the tendency of many employers to attempt to set what they consider to be

fair appraisal fees. This is difficult for many of them because in some cases they do not have a staff with sufficient professional qualifications to actually recognize acceptable professional work. Further, the men charged with the responsibility of employing appraisers rarely have had any experience in operating a professional appraisal organization and, therefore, have had no opportunity to have assembled any real knowledge of the cost of operating such an organization. This is why some employers are relying on what amounts to competitive bidding. This is not only

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unprofessional insofar as the appraisal is concerned, but is disastrous insofar as the employer is concerned. When he relies upon competitive bidding, he consistently ends up with the cheapest and least qualified appraisal services.

Another reason why there is little actual knowledge of the cost of doing professional appraisal work is that in many cases there is a complete lack of agreement between the appraiser and the appraiser's employer as to what actually constitutes an acceptable professional appraisal. Many times the appraiser is talking about one quality of work and the employer, another. When the employer discusses the same appraisal problems with two professional appraisers, he may not be talking about the same work product. Thus, there is reason to believe that in many cases the employer and the appraiser do not come to a complete agreement as to the exact professional product that is to be delivered.

It is my belief that in any real discussion of appraisal costs, the three essential ingredients of an appraisal must be given full consideration. These essential ingredients are the appraisal itself, the experience and training of the man making the appraisal, and the actual cost of the appraisal allowing professional fees in line with the competence of the appraisal staff making the appraisal. Considering the problem in this light, the employer actually pays a fair price for the quality of work done in keeping with the professional competence of the men who do the work.

Perhaps the best way to discuss appraisal costs is to refer to specific groups of appraisals. I have brought with me both the cost sheets, the basic data reports and some of the appraisals from three different groups of appraisals. You will have an opportunity to examine both the basic data report and some of the appraisals. I will tell you of the experience and training of the men actually doing the work, and you will have an opportunity to see the actual cost sheets that we kept on each appraisal assignment.

The first example of a group of appraisals was the appraisal of 17 tracts in Independence, Missouri, which were acquired by the city for parking lots. The Basic Data Report containing the essential data upon which the appraisals were based is a volume containing 196 pages. In addition to the general economic data concerning the City of Independence, it contains the complete information on 43 index sales that were relied upon in the making of the appraisals. The individual appraisals that I have brought with me for your inspection include the following: The Bundschu Estate Company, Inc., Register Nos. 3112, 3113 and 3114; and William L. Antoine and wife, Register Nos. 3110 and 3111.

In Platte County, Missouri, it was necessary for the City of Kansas City to acquire a right-of-way for a sewer line. In this assignment, there were nine separate appraisals. The Basic Data Report containing the essential information upon which these appraisals were based had a total of 133 pages. There are 38 index sales shown in this report in addition to the essential economic data on the portion of Platte county traversed by the sewer line. Two individual appraisals are available for inspection. They are the appraisal of Parcel 2 belonging to Edna J. Listrom, Register No. 3127; and the appraisal of Parcel No. 5 belonging to Clyde R. Thomas and wife, Register No. 3131.

Another example of an actual group of appraisals is the appraisal of 17 farms in Gibson and Vanderburgh Counties, in Indiana. These are farms that are traversed by an interstate highway. The Basic Data Report for this segment of the highway contains a total of 203 pages, in Register No. 3263B, and 57 pages in the Supplement. In addition to the economic data of the area traversed by the highway, there are 29 sales completely described and analyzed in this report. In addition there are in-

dividual appraisals of Parcel No. 6 and 6A, Gilbert Adler, Register No. 3227 and Parcels No. 10 through 10C, John Simon, Register No. 3231.

These are actual appraisals made for what we considered were fair professional fees in line with the competence of the men assigned to the work. However, so that you may judge for yourself, it seems desirable to give you some information on the competence of the men who actually did the work.

The Independence Parking Lots and the Platte County Sewers were appraised by Tom Rule of our office and myself. Tom Rule is a specialist in marketing. He has his Bachelor of Science Degree in Economics. He has passed Appraisal Course I, II, III and IV. In addition, he has had six years of experience with our firm. As many of you know, this is my 33rd year in the appraisal profession. I have both Bachelor's and Master's Degrees. As many of you know I have received all of the professional titles that are available to an appraiser in this country.

In the appraisal of the Indiana Farms, I personally drew the value conclusions on each property appraised. Much of the work, however, was done by our staff appraisers. Francis Naeger has a Bachelor of Science Degree in Agriculture. He has passed Appraisal Course I, I., III and IV. He has had three years of continuous appraisal experience. He was assisted by Leon Blomendahl. Leon has his Master of Science Degree in Agriculture. He, too, has passed Appraisal Course I, II, III and IV. He has had four years of continuous appraisal experience. Howard Williams also assisted in this work. He has his Master's Degree in Agriculture and has passed Appraisal Course I, II, III and IV. He has had three years of continuous appraisal experience.

In fairness I should point out that in our organization a staff member is considered to be a student appraiser until he has received a professional designation. Thus, even though each of these men has had many years of actual professional appraisal experience, has earned at least one college degree with a major in economics and has passed at least four of the appraisal courses, we still consider him a student appraiser. Only when he has received his professional designation is he permitted to take the full responsibility of drawing a value conclusion on any appraisal.

Many years ago it was necessary for us to keep as accurate record as possible of the cost of making appraisals. In order to have a better understanding of just what we are doing, we keep the actual cash cost of making the appraisal and also keep the cost of the appraisal under normal professional fees. The actual cash cost of the appraisal is the actual expenses paid out in salaries, supplies, travel, etc. These costs do not include professional fees, rent, accounting, licenses, taxes, education, contributions, or any other costs. The normal billing shows the time of the professional staff charged out at professional rates. In these normal billings my time is charged out at \$150.00 per day, any of our younger men who have received the MAI designation are charged out at \$100.00 per day. If the man assigned has passed Appraisal Course II, his time is charged out at \$75.00 per day. If he has passed Appraisal Course I, he is charged out at the rate of \$50.00 per day. The non-professional staff is charged out at the actual working hourly rate doubled in order to cover the cost of rent, office equipment, vacation time, and other charges. Actual expense such as travel, supplies and telephone that can be allocated to the assignment are charged in both the actual cash cost column and in the normal billing column.

I believe the actual cash cost column fairly well approximates what many governmental employees consider to be their actual appraisal cost. Unfortunately this column does not include taxes, does not include rent, does not include the cost of vacation time, sick leave or retirement. It just includes the bare hourly cost of the man's salary for the number of hours that he worked. In the normal billing column we have what we believe we should receive for the work of these men. It takes into account the amount of their experience and the actual number of hours that they worked. Although there are no charges for overhead as such, the overhead costs are covered by the doubling of the actual working hourly rates of the reproduction and checking staff and by the professional fees charged for the professional staff. Thus, if we so handle the appraisal assignment and receive a fee in line with normal billing, our charges are sufficient to cover all overhead cost and pay a reasonable return for the time of our professional people.

The expenses shown in the actual cost column are generally larger than the expenses in the normal billing column because they include O. A. B. taxes and other charges which are not shown when the time of the staff is charged at professional rates. All

other costs are as they have been described above.

Here are the costs of doing the Independence Parking Lots. They have been divided into per square foot cost and into per appraisal costs. Further, the per appraisal costs are divided into the appraisers' time, the time for research, the cost of reproducing the reports, and the cost of the allocable expenses. This table below shows the summary of these costs.

Independence Parking Lots		
	Actual Cost	Normal Billing
Per Square Foot	\$ 0.0164	\$ 0.0329
Per Appraisal		
Appraisers	\$ 33.60	\$ 104.41
Research	24.64	47.90
Reproduction	41.26	82.52
Expense	33.46	31.87
Total	\$ 132.96	\$ 266.70

The appraisal of the property in Platte County for a sewer right-of-way was a different type of appraisal assignment. This was in a suburban area. That is to say, that while most of the properties were residential in nature, they were acreage properties rather than houses and lots. The appraisal costs that we actually experienced in connection with this work are as follows:

Platte County Sewers		
	Actual Cost	Normal Billing
Per Acre	\$ 3.813	\$ 8.532
Per Appraisal:		
Appraiser	\$ 69.87	\$ 207.29
Reproduction	34.68	69.36
Expense	32.85	30.81
Total	\$ 137.40	\$ 307.46

The farms in Indiana were choice farms in an area where the better land sold for around \$600.00 per acre, and the average and poor land selling at a somewhat lower price. Farm size averages around 160 acres or more. The actual cost and the normal billing for this work is shown as follows:

Indiana Farms		
	Actual Cost	Normal Billing
Per Acre	\$ 0.983	\$ 2.354
Per Appraisal:		
Appraiser	\$ 59.56	\$ 286.22
Reproduction	65.52	131.01
Expense	82.38	79.60
Total	\$ 207.46	\$ 496.83

These costs that I have reported are facts. The appraisals that are before you for your consideration speak for themselves. The training and experience of the men who made them is quite apparent from the facts that I have given you on them. This is an accurate guide to what can be done with men of this ability in the appraisal properties of these types with the quality of work that is before you.

Please keep in mind that an appraisal is only as good as the quality of the information that is contained in it. The quality of the information that is contained in the appraisal is only as good as the professional ability of the men who prepare it. Thus, the true cost of making a professional appraisal is the sum total of the fair professional fees in line with the professional competence of the men doing the work of preparing the complete professional appraisal report that is delivered to the client.

Integrity of the Appraiser

By Sanders A. Kahn, President, Sanders A. Kahn Associates, Inc., New York, New York

SANDERS A. KAHN

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BBA, MBA, PhD: City College of New York. International Governor, International Chairman of the Education Committee, and International Associate Chairman of the Board of Examiners of the American Society of Appraisers, Director of the Citizens' Housing and Planning Council of New York, and First Vice-President of Empire State Chapter 18 of the American Right of Way Association. Senior Member, Society of Residential Appraisers. Member: Lambda Alpha Honorary Fraternity; Urban Land Institute; American Society of Planning Officials; National Association of Housing and Redevelopment Officials; New York State Urban Renewal Officials. Author and lecturer on Appraisal and Real Estate Matters. Co-author of *Real Estate Appraisal and Investment*, published by Ronald Press, 1963.

This talk is going to encompass two subjects. First, I will follow the assignment task given by President Adelbert W. Lee to discuss the integrity of an appraiser. I will also devote a portion of my talk to further explain the concept of the entrepreneurial factor in value that I have developed and presented to the appraisal profession about five years ago.

INTEGRITY

An appraiser's integrity is one of two assets that he possesses—the other being his ability to find market value.

INFLUENCE

My thesis is all based upon the word *influence*.

Possibly, the appraiser can be influenced by:

1. His client or employer.
2. By engineering reports.
3. By attorneys
4. By obtaining a potential assignment if he arrives at a predetermined value.

The key to the problem is, can the appraiser be influenced. In my opinion, he should influence the client, *not vice versa*. I listen carefully and respectfully to my clients, the attorneys, and carefully study engineering reports reporting the soil conditions that will influence construction costs. I will then ask pointed questions so that, by the time I have finished these orientations given to me by the engineer, lawyer and client, I will have sifted out any factors that will not be helpful to finding just compensation via fair market value.

Advocacy

It is important that the appraiser maintains an objective attitude and not "join sides" in a case between condemnor and property owner. He is not an advocate. That is another term for an attorney. He must find market value and then, of course, do everything possible to convince all concerned of the propriety of that value.

Use of Appraisal

1. This value can be utilized by right of way negotiators in attempting to buy properties directly.
2. The appraisal may have to be used in a condemnation trial, and the appraiser must then testify.
3. If the appraiser has not found fair market value, he has been destructive to the entire eminent domain process and wasted everybody's time and, possibly, disqualified himself for future activities.

Basis of Successful Right of Way Activities

I'm not impressed by acquisition managers that point with pride to the fact that only a small fraction of their right of way takings are litigated. If these are sizeable parcel dollar takings, say \$50,000 and higher, then an obvious possibility is that their appraisers are placing very high values on properties. In other words, the public purse is being abused, and the property owner is profiteering by the acquisition manager's free spending of "other people's money."

Basis for Ethical Appraisal

I'm not here to preach a sermon on integrity and the golden rule! I'll influence few that way, insult others, and put the rest of you to sleep.

My entire premise is that integrity is practical! Once you are known as a high or low value appraiser, your opinion will be scorned by all concerned. Once you can be influenced, you will have a temporary demand for your services; but, finally, you will not be acceptable to the courts and the very same condemning agencies, lawyers, and property owners that *influenced you*. You will be out of business.

I recently was involved in two major New England appraisal matters.

In one case, there were seven appraisals on one side. Their values ranged from \$800,000 to \$5,200,000. These were people having the highest credentials. As a matter of fact, seven of the eight were M.A.I.'s. But, obviously, they were being influenced.

In the other case, a property that had sold for \$375,000 was appraised, one year later, for \$1,450,000 and \$1,500,000 respectively by two leading appraisers hired by the condemning agency

— and in no way was the property altered or changed by economic factors.

I suggest that appraisers be independent; this is the practical way to be a successful professional man.

Be practical — be independent. You never can get too big to be invulnerable. There are all types of reviewing agencies that constantly check the appraiser and the agency that hires him. Any time that you start to feel that you are past the point of being investigated, think of two names — Sherman Adams and Bobby Baker.

Ethics is Profession.

Ethics is Practical.

Ethics lets you Sleep and Prosper.

The Entrepreneur

I will now respectfully call your attention to a problem in appraisal practice.

Appraisers, mortgagees, and condemnation courts all instinctively have been critical of some appraisal methodology. The most frequent criticisms have been directed toward the cost approach and the hypothetical improvement land residual method. The cost approach involving a new structure often produces a result below the value indicated from the sales market comparison approach. Conversely, the land residual method often results in a land value far above the market approach.

Strangely enough, both problems arise because appraisers forget their economics. Specifically, they have not considered the contribution of the entrepreneur as a factor of production.

The four distinguishable factors of production are land, labor, capital, and entrepreneurship. This recognition of entrepreneurship is the clue to a very basic problem of appraising; namely, the realization that going concern value is the special value-product of the entrepreneur.

Under conditions of perfect competition, economists have held that value cannot long exceed the cost of producing a product. Therefore, most appraisal texts assert that the value estimate derived by use of the cost approach (cost new) tends to set the upper limit of value. It is believed that if the property were to achieve a higher value than its cost in the market place, others would enter the market, creating additional supply which, after first forcing rents down, would result in a decline in market prices.

We do not, however, operate under conditions of perfect competition for several reasons, including the following:

1. Some sites are unique and limited in number either due to the physical qualities of the area or the fact that other sites cannot be made available.
2. Zoning laws may limit the areas of competing uses.
3. License laws and regulating agencies may prevent the establishment of competing units, such as gasoline stations, banks, liquor stores, taverns.
4. Restrictions may temporarily prevent new construction. This occurred during and immediately after some of our wars. It also has occurred in some communities which have refused building permits for home or apartment house construction due to crowded conditions in schools.

Thus, it can be seen that often we do not have perfect competition; and, therefore, the economic basis for the theory that the value indication by the cost approach equals value may not be valid. Utilization allowed under older, more liberal rules may have a long-term advantages which cannot be reproduced at will.

However, let us consider the rule under assumed perfect competition. It is probably agreed that all costs of producing the completed project should be included. What should these costs include?

1. Land
2. Land improvements.
3. Buildings.
4. Licenses.
5. Financing.
6. Costs of owning the real estate while the project is being developed. (Realty taxes, insurance, etc.)
7. Leasing.
8. Proper interest on the capital investment during construction.
9. Legal and accounting fees.
10. Consulting and appraisal fees.
11. Adequate compensation to the entrepreneur to induce him to organize the entire project.*

In other words, the final cost figure should be equal to the sum of all the costs necessary to produce the property as a finished product.

In the typical appraisal, all of the first ten items are rarely treated in the cost approach, and Item 11 is almost never considered. The burden of this paper is that it should.

The problem as to the method to be utilized to appraise the cost of the entrepreneurial service is not simple. Valuing executive skill and risk-taking is extremely difficult. One evidence might be found as to the income level of people engaged in the production of projects similar to the project being appraised. However, the nature of this basis of value precludes the assumption of a direct relation in each or any particular instance. What is needed is some understanding of what prospective gain will motivate promoters to attempt the production of a going concern with going value. It may be possible to use as a basis for the return expectation at which the entrepreneur will function, the profits which they have made in typical projects. Let us assume that for the past five years, such developers have been involved in three transactions a year and earned a total of \$90,000 per annum. Then, it might be deduced that they earn \$30,000 per project.

This is only suggested as an idealized and oversimplified method of determining the cost of entrepreneurial effort. However, it would not be practical to follow this procedure except under special conditions. In most cases, it can be assumed that the difference between the total cost of the first ten components and the resale market value will equal the entrepreneurial value to the project. It may then be deduced that this is a "residual value." This is quite true, and the idea conforms to economic theory. Enterprise economics recognizes that land, labor, and capital must first be paid; and that the remainder can be claimed by the entrepreneur, subject to government claims for taxes.

It would appear that theory and typical practice are in agreement. This would then suggest that economic theory is in fact descriptive of the market.

Cost Approach. Now let us look at the practical problem in the cost approach. This is best demonstrated when the mortgagees attempt to make loans on a property which has a long-term net lease with one national tenant. Invariably, the market today will support a value based upon the capitalization of income at an over-all rate of return ranging between 6½% and 9%. The appraiser must usually supply financial institutions not only with a value estimate based on the income approach, but with an indication obtained by the cost approach. In doing so, it is normal that the value evidence derived by the income approach will materially exceed the value found by summation of land and building costs.

Most financial institutions usually do not lend more than two-thirds of the combined value of land and improvements. The appraiser is confronted with this difficulty because the market value obviously reflects the occupancy under the long-term lease.

Now, the reason that we have improvements on the land and a long-term lease is due to the efforts of entrepreneurship. An investment builder put together a transaction whereby he negotiated a rental which would pay fully for the land and building and for his own skill in setting up the arrangement. It is necessary to distinguish between the investor-entrepreneur-builder and an investor who will later be willing to buy the property upon its completion on an income basis. As an example, the investment builder will normally want anywhere from 9% to 12% computed on what he has to pay for land and construction. However, the investor who finally may buy this property from the investment builder (who may also be termed a speculative builder) will be satisfied with a 6½% to 9% range dependent upon strength of the tenant, length of the lease, and freedom from any costs — in other words, indications of degree of assured net income.

We can, therefore, see that as a part of our economic process, the entrepreneur (investment builder, speculative builder) becomes a factor of production and obtains a return for his efforts. On this basis, we can now see why merely checking land sales and utilizing building costs will not give us a complete picture of the economic cost of production. It omits compensation for the entrepreneur who can command compensation in the market.

As a matter of fact, one element that the entrepreneur's work will include is the initial leasing function. He will either deal directly with a tenant, or a broker may bring him a parcel of land to buy and a tenant ready to sign a lease. The broker will normally obtain a rental commission for his efforts. Most appraisers do not include this in the cost approach. However, it is paid

*The entrepreneur's profit should not be confused with a builder's profit; the latter refers to a payment to a building contractor above the cost of his supplies and labor.

for with the same type of dollars as is the structural steel in the building, and for equally good reasons.

If the entrepreneur finds his own tenant, the property costs still should properly include the cost of an initial leasing commission. After all, if he laid his own bricks, the appraiser would not omit masonry labor as an element of cost. This illustrates the difference between cost and expense; not all costs take the form of money out-payments.

If this is not apparent at this point, let us have our speculative builder with a total of \$70,000 land and building cost (his cost equals market factors) sell the property for \$93,000. Let us assume that there is a 20-year lease with a national tenant at \$7,000 net per annum. Also let us assume that many other buyers were eager to buy at this same price. The people who buy this type of property for \$93,000 do so because they cannot or do not want to perform the entrepreneur's function. They will have an investment on about a 7½% basis. Isn't this a clear demonstration that something is missing from the summation approach?

Some appraisers say the \$23,000 difference must be the value of the "advantageous" lease. This is not necessarily so, and probably never entirely so. We can also assume that these national companies with their highly skilled realty departments generally do not pay higher rent than is required at the time. Nor will the entrepreneur be satisfied with a lower rent. Therefore, we are not valuing excessive rent as of the time. We must include payment to the entrepreneur. This is what the market does; this is what economics teaches; and as appraisers, we must conform.

It can also be demonstrated that the success of the entrepreneur does not depend upon having a lease with a tenant of national credit standing. If the tenant's credit is of lower quality, the entrepreneur will insist on a higher rental so that he may obtain a similar or even higher profits to cover the risk cost increment. In the case suggested above, a small company may have to pay a rental of \$9,000 instead of \$7,000. The investment buyer may then insist on a 9% over-all return due to the higher risk. Therefore, he will pay \$100,000. The entrepreneur will now have a \$30,000 profit. Of course, he will find it more difficult to market the property; but when he succeeds, he will be given additional profit for the extra work and risk. Therefore, the cost summation may be stated as follows:

Land	\$35,000
Building and Improvements	35,000
Total (before considering the influence of the entrepreneur)	\$70,000

Land Residual Approach. This gives us the answer to one additional problem; that is, the problem surrounding the land residual approach with a hypothetical highest and best use. Many appraisers have been skeptical of this approach for they believe that it results in too high a value. This is only true if they omit consideration of the cost of entrepreneurship. However, the appraiser must understand that the entrepreneur will not work for the investor's bare rate of return. He wants full payment for his efforts, risk, and the capital which he temporarily invests until

financing is arranged. The appraiser must either add this to the improvement cost, or capitalize the residual income at a rate which will produce an incentive in the market.

In finding a value by the hypothetical land residual method — assuming highest and best use — the appraiser's resulting estimate defines the value after completion of the project. Sometimes he remembers to give a time discount to provide for the delay in income receipts. However, a more vital element is often forgotten. He will usually provide for all building costs and figure an appropriate rate for investment capital on those costs. The remaining income he will credit to land and apply his capitalization rate to get his land value. This is the reason why his derived land value is so often excessive. The land and building venture is arranged and consummated by an entrepreneur (speculator, investor, or operator). The entrepreneur does not perform this function without expecting to be paid! The appraiser rarely recognizes this factor as an element in cost. This can readily be corrected.

When capitalizing the land, forget those 6% to 8% rates. The entrepreneur wants a sizable payment for his work. He will not start the project unless he believes that he can see a return of 10% or more on his land and building cost. If he sells the project on its completion, he will get his profit when an investor buys on a 6½% to 9% over-all return basis.

It would also be possible to use the normal 6% to 8% rates which are appropriate for finished projects. However, the final result would then be a combination of payment to land and entrepreneur, which then would have to be allocated.

There is another method of stating this principle. Dr. Herbert B. Dorau, pioneer urban land economist, points out that his system is similar to the concept of going concern value. A business concern which has been successfully operating can be sold on a more advantageous basis than one which is just being established.

Dr. Dorau also believes that the measurement of the entrepreneur's contribution can best be found in the market place. The buyer pays a price which includes a reward for the entrepreneur's skill, risk, time, and foresight.

It seems odd that the very foundation of our American economy, the entrepreneur, has been forgotten by real estate appraisers.

We can now see that the cost new approach tends to set the upper limit of value only after being certain that all costs are considered. We also now will be able to place more reliance on the land residual technique.

The real error of the cost approach is in not seeing clearly that a property established as a going concern is more than merely a pile of arranged building materials on a parcel of land; it is also a complex of established economic relationships ready to provide a flow of income out of the relationships of revenue, expense, and capital employed. A going concern is something more than brick, mortar, and stone; and it has a value greater than the sum of the cost of such physical requisites. The entrepreneur has put the pieces together in their highest and best use. He must be paid when he achieves success.

Application of the Techniques in the Comparison of Market Sales

By Y. T. Lum, M.A.I., Independent Appraiser, Honolulu, Hawaii

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This talk, — "The Application of the Techniques in the Comparison of Market Sales" — is a sequence of my endeavors to explore the assumptions, doctrines and implications in right of way valuations. Basically, the objective is to narrow the margin of divergency to value opinions.

Having briefed you previously on the occasion of the 10th annual seminar held in Detroit, in the relevancy of market data and analogy of sales data comparison, I shall now give you my rationale and application of a reasonable comparison technique, known to me as comparison by a band of value indicators, in the estimating of fair market value for condemnation purposes, bearing in mind that its qualifications and use must conform to the rules of evidence in a court of law. It must be stated that the

value concept for condemnation purposes differs from the value concept for some other purposes and that different jurisdictions may require different interpretations and applications.

The observations in this talk are subject to the contingent and limiting comments and conditions set forth in my last paper entitled — "The Meaning, Comparison and Application of Market Data."

Specifically, the technique of comparison by a band of value indicators, contemplates the following:

- Investigates, examines and compiles from public records and other sources, as far as possible, all known transactions of sales and leases which occurred a few years ago, say the last 3 to 5 years, within a given area, proximate in place to, and encompassing, the subject property. In so doing, all market activities in the area must be recognized and considered. (For thoroughness of research and qualitative applicability of research, all the transactions are charted on a large national map.)
- Classify, consider, analyze and examine these transactions generally.
- Bracket a list of properties pertinent for comparison with the subject property, by eliminating and discarding the properties which are dissimilar in comparability as to time, place and

other physical characteristics, non-bona fide transactions, and those irrelevant in comparison to the subject property.

The most significant transactions affecting substitute properties having close resemblance or nearly corresponding to the subject property, in time place and physical characteristics are then selected.

- d) These properties are then re-listed, fully particularized in motive details of the parties involved, recording data, consideration, zoning, present use, physical configuration, topography, shape, area, street frontages, depth of parcel, type of construction, building elements and other features of the improvements.
- e) Each data property to be considered is carefully weighed for its specifics, capacity, utility, quality, character and desirability.
- f) To effect direct, positive comparison, the similarities to the subject property are matched and the differences are contrasted, in points of capacity, quality and intensity of the utilities, functions and desirability.
- g) In weighing comparability, attention is given to the degree of, or approximation to, the equality, interchangeability or balance of desirability of the subject property with the data properties considered as similar or substitute properties.
- h) In the investigation, it may be difficult to find another whole property identical to the subject property. It may also be difficult to find similar vacant land, depending on the location and consistency of the subject property.

In these events, comparison is made of parts or elements of the data properties in various proportion or degree of comparison and similarity.

- i) Land comparison is direct and more positive for indicating the relative value of the property being appraised. If vacant, unimproved land is not available for comparison, a reasonable land estimate is extracted from the selling price of the improved properties, i.e., by deducting from the price paid or the recited consideration for the transaction, the estimated contributory value (not reproduction cost estimate) of the improvements or structure, (commonly referred as the land residual technique).

Where sales data clearly establishes land value, the process can be reversed to estimate the contributory value of the improvements or structures, if the property is improved, (commonly referred as the building residual technique).

- j) The value indicators from the data properties are then compiled into a summary, representing the most significant comparable sales or lease transactions of similar properties within certain limits which occurred prior to the value date. This range of values will reflect buyer performance on similar properties in a historical market. The prices paid will indicate the historical circumstances and influences affecting and surrounding these transactions. They form the basis of tests to weigh substitutions for the subject property.

A summary of listings of similar property offered for sale is also prepared. These listings of similar property offered for sale will reflect the demand for, and supply of, similar properties in the market, and the reaction of the public, if a property were offered for sale in the usual manner, with the usual time allowance for making the offering known to the buying public. Current listings of similar properties constitute an important tool to the appraiser in support of his opinion of market value of the subject property.

These summary lists, when re-defined and analyzed, would permit rating of the data property or properties as equal, superior or inferior to the subject property, accompanied wherever possible, by a carefully worded, lucid analysis of comparability, easily understood by a lay reader.

- k) It then becomes necessary to bring the summary indications of past sales and leases to the current date (value date of the appraisal) to account for the intervening changes, happenings and trends in the market since the date or dates of the past transactions, generally occurring after the sale date. Market conditions constantly change. Consequently, values change since the date of the prior sales. The indicated values from the prior sales will increase or decrease or remain the same as the case may be and in the manner and to the extent, as being affected by the favorable or adverse influences in the market.

The influences of change on the locality, neighborhood, region or state, together with other economic considerations would have a definite bearing on the marketability and market

price of the data properties.

Price correction or adjustment is typical of the actions in the investment market for bonds, stock, etc.. The buyers and sellers in these markets make adjustments by discounting or appreciating the good and bad news in the market as affecting the securities.

- l) In updating the transactions by reconciling the basic difference — time, i.e., the lag or interval of time between the date of the actual occurrence of the transaction and the value date, the appraiser considers the margin or spread of differences which a buyer or seller would adapt (add or subtract) for economic conditions, material market factors, available credit, interest rates, competitive influences, relative contributory cost and value of the improvements, opportunities, limitations and circumstances of the data property, demand factor and trend, tendencies of price acceptance or resistance, listings and offerings in the market, including if possible, an indication or verification of price and terms under which the present owner would sell or lease the property under changed conditions if he should expose the property for sale or lease in the market on the value date.

The prepared listings of similar properties becomes significant at this point of the reconciliation.

In a general way, each data property is closely examined in the light of changed conditions and roughly appraised as of the value date.

The indications of transactions occurring after the value date, when properly analyzed and correlated, become valuable aids, sign posts or brackets to support and test the reasonability of the updated estimates in the reconciliation process.

The opinions of value for each of the data property is expressed in a single estimate or price, with full consideration for all elements of comparability of a whole property and not separately for each element of comparability, such as size, shape, location etc., or of each component part of a property. The conclusion is a value approximation as to what price or prices each individual data property would have commanded in the current market if it was exposed for sale on the value date, in view of all the changed market conditions.

It must be noted that this updating or plus or minus reconciliation of the disparities relates only to the data property and not the subject property.

- m) When properly analyzed and reconciled, a range or bracket of value indicators is established to indicate the maximum and minimum levels of values of data properties on the value date.
- n) No adjustments, percentage or otherwise, are made to relate, equalize, or equate the data properties with the subject property or vice versa. Such adjustment, if employed, is indistinct and unrealistic, for the subject property is not directly related to the data properties. There is no value connections, or money or functional relationship, between the data properties and the subject property. Each data property sold or leased at different time and of different location was transacted or made under different circumstances and market condition. These value indicators of unrelated sales and leases do not dictate, prescribe, control or make up the value of the subject property. These values indicators are only important as bases for comparison or tests to weigh substitutions for the subject property.
- o) This range or bracket of values becomes the scale to measure the value of the subject property. Each data property on the scale is compared with the subject property, location with location, shape with shape, dimensions and size with dimensions and size, use with use, income with income, etc. The probable value of the subject property must fall or lie within this scale or range of high, medium and low values. The subject property is thus confined within reasonable limits of expectable performance.

Finally, considering the relevancy of the pattern of the data properties, weighing the range of value indicators, and analyzing facts relating to the size, shape, consistency, capacity, utility and location, and the influences, scarcity and competition of the subject property, the market demand and price trends surrounding a property of this size and type in this location, wherein the potentials, limitations and elements are involved in greater or lesser proportion but never being inclusive, the appraiser with sense and perception of the market, forms an opinion of an overall value estimate or an approximation of value for the subject property.

The appraiser summarily estimates the price at which the subject property would sell in the current market if offered

for sale in the ordinary manner. This price or estimate in terms of a precise dollar figure is basically a reasoned judgment or opinion of an approximation of value.

It must be noted that market data comparison of sales and past transactions is an incidence of the major endeavors to estimate fair market value of the property but does not, in itself, constitute the entire process of estimation. The analysis of comparison of the sales data is only one aspect of an appraisal process and the appraiser in making a report, or the value witness in testifying in a condemnation action, presents an account of the factual basis upon which he finds his opinion on the issues of value of the property under appraisal. Realistically, the appraiser or witness, in considering market data, was aided or guided by the market facts in forming an opinion estimate of a fair market value of the property. It is opinion testimony or opinion evidence and is based on the appraiser's or the expert witness's special knowledge and experiences of all the varied elements of value which are outside of the limits of common observation as well as on the investigation of facts which the owner would properly and naturally press upon the attention of a buyer with whom he is negotiating a sale, and all the facts which would naturally influence a person of ordinary prudence desiring to purchase. The real estate market is not rigid. Much like the stock market it is in a constant flux. The valuation of a property as of a certain date is a function involving time requiring a forecast of future likelihood of factors not too contingent and not too definite. Market data, when intelligently processed, welded into the interaction, direction and trend of the economic forces of supply and demand will logically reflect the present worth of the future benefits of the property.

(Next proceed to demonstrate the examples of comparison.)

PART "B"

Several examples of comparison are exhibited to show the relative techniques and logic in the comparison of market sales. In the interest of readability and brevity, the details are minimized. Form is emphasized rather than substance.

A) Examples of Comparison by Percentage Adjustments.

Illustration # 1 (Simple Adjustments)

Subject Property (#R-72839) Value Date: March, 1961
Street frontage - 40 feet and depth - 137 feet. area - 5,464 sq
Use: Commercial

Data Properties	Transaction:	"B" (DC-73401)	"C" (DC-73403)
Date sold		5/60	2/60
Area of Comparable Property		6,363 sq	18,637 sq
Allocated Land Value		\$54,000	\$90,000
Location (Distant from Subject Property)		4 blocks (corner lot)	4 blocks st. ftg. 100' depth 208'

Indicated Sq. Ft. Value Rate for Comparable Property
\$ 8.49 \$ 4.83

Adjustments for Subject Property

Time	0 %	+ 10 %
Size	0	+ 10
Location	- 10	- 5
Ftg. & Plottage	- 5	- 15
Easement - penalty	0	0
Zoning	0	+ 10
Corner Influences	- 10	0
Site Premium	- 15	0
Access - rear	0	- 5

Net Adjustment (- 40 %) + 5 %

Amount of Adjustment -\$3.40 0.24

Indicated Rate for Subject Property
\$5.09 5.07

Comments: The above mathematical adjustments are arbitrary and unrealistic in conclusions.

Illustration # 2 (more complicated adjustments)

Subject Property (R-70575) Value Date: March, 1961

Street frontage 63.6 ft., av. depth 80 ft., area 5,485 sq
Use - Commercial

Data Properties	"D" (R-H-1)	"E" (R-H-3)	"F" (R-H-4)	"G" (R-H-6)
Date sold	4/61	3/61	3/61	8/60
Area of comparable prop.	5,295 sq	9,452 sq	3,059 sq	6,972 sq
Alloc. land value	\$24,000	47,150	20,000	84,000
<u>Av. Rate</u>	\$ (4.53)	(5.00)	(6.53)	(12.05)
				-1,349(a) \$82,651
<u>Add / Sub % for Location</u>	+ 20 %	+ 20 %	+ 15 %	- 50 %
	4,800	9,430	3,000	41,325
<u>Adj. Land Value</u>	\$28,800	56,580	23,000	41,325
<u>Relativity Adjts.</u>				
Size	+ 3.6	- 41.8	+ 79.3	- 21.3
Depth	+ 24.4	0	- 11.6	0
Shape & Topo.	0	- 5	0	- 5
Other Factors	0	0	- 5 (b)	0
<u>Net % Adjust's</u>	(+ 28.0)	(- 46.8)	(+ 62.7)	(- 26.3)
<u>Adjusted Price for Subject Property (area 5,486 sq)</u>	\$36,864	30,100	37,421	30,457
<u>Indicated Rate for Subject Property</u>	\$ 6.72	5.49	6.82	5.55

Notes: (a) Payment required for off-street parking assessment
(b) Frontage along Private Road

Recapitulations of Value for Subject Property (Area 5,486 sq)

Comparable	Land Value	Av. Rate
# D	\$36,864	\$ 6.72
# E	30,100	5.49
# F	37,421	6.82
# G	30,457	5.55
<u>Average</u>	\$33,710	\$ 6.15
<u>Median</u>	\$33,760	\$ 6.15

Final Conclusion Area 5,486 sq x \$6.10 = \$33,500 value for Subject Property.

Comments The foregoing mathematical adjustments are highly speculative and arbitrarily involved, not representative of market behavior.

B) Examples of Comparison - The Band of Value Indicators

Subject Property (PG-KLW-70521) Value Date: March, 1961

Street frontage - 76 ft., depth - 87 ft., area - 5,178 sq
Use - Commercial

Data Properties (arranged according to locations)

Identif.	Kind	Date	Area sq	Av. Rate	Time Diff.	Updated Indic. Data Property to Value Date	Locations to subject property	Other Factor
<u>Group I (Immediate Vicinity)</u>								
7-0524	S	2/61	4,000 sq	\$ 13.65	V. D.	\$ 13.65	Same block	(*)
7-0406	S	8/60	6,972	14.20	7 mos.	15 - 16	Better	"
7-0501	S	11/61	45,099	11.22	8 mos. (after V. D.)	10	Equal	"
7-0510	S	11/61	35,263	9.22	"	8 - 8.50	Inferior	"
7-0511	S	11/61	23,380	9.20	"	8 - 8.50	"	"
7-0542A	S	11/61	16,395	13.20	"	12	Better	"
B	S	11/61	55,091	7.00	"	6	Inferior	"
7-0441	Le	11/61	4,179	14-17	9 mos. (after V. D.)	10 - 12	Equal	"
7-0429	Le	1/62	6,570	15-18	10 mos. (after V. D.)	11 - 13	Inferior	"
<u>Group II (Outside of Immediate Area)</u>								
7-2422	S	3/61	8,935 sq	\$ 8.40	V. D.	\$ 8.40	Inferior	"
7-2425	S	1/61	6,545	7.72	2 mos.	7.72 - 8.40	(Across Stream) more remote	Inferior
7-2618	S	3/61	3,839	7.25	V. D.	7.25	"	"
7-2654	S	1/61	4,523	7.61	2 mos.	7.61 - 9.00	"	"
7-2912	S	10/60	7,760	10.00	6 mos.	10 - 12	"	"
7-3401	S	5/60	6,363	6.29	10 mos.	8 - 10	Inferior	"
7-3401	R-S	8/61	6,363	8.50	5 mos. (after V. D.)	7 - 8	"	"
1-0908	Le	12/62	12,515	15-17.64	1 yr. 9 mos. (after V. D.)	12 - 13	Better	"

(*) Size, shape, dimensions, use, income, etc., are compared. Explain similarities and dissimilarities.

Note: The indications of transactions occurring after value date tested and supported the judgment and opinion of the updated value rates.

Final Estimate for Subject Property

Comparing the subject property with the indications of the above brackets and considering location, size, configuration, utility, type, consistency, competition, potentials and limitations of the subject property, the indicated overall rate for subject land was estimated at:

\$13.50 - 15.00 per square foot.

Condemnation Trial Preparation

By Leonard I. Lindas, Chief of Right of Way and Legal Department, Highway Department of Nevada, Carson City, Nevada

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You will later be hearing an excellent presentation on the appraisal report and the technical excellence that is required in its development. This report is the corner stone upon which trial preparation is commenced. The appraiser must understand that which he has composed and be able to make plain its content coherently. The attorney who is presenting the case must understand it, but far and away of much greater importance, a court or jury must be able to comprehend it, be impressed by it, and be able to accept it.

Many papers have been written on the subject of trial preparation. All stress the need of the appraiser to confer and have a full understanding with the attorney who represents his client; the need of the appraiser to properly define his terms, explain to and be able to convince the attorney of the worth of his work product; the need of the appraiser to simplify his presentation of value testimony in an endeavor to convince a court or jury of his logic and value conclusions; the need of the attorney to simulate a court trial and examine and cross examine you prior to your actual appearance on the witness stand.

While in this talk I will be dealing with these matters also, I am hopeful I will be able to point out to you other thoughts on trial preparation that may be of assistance to you when next required to occupy the witness stand.

Bobbie Burns once wrote that "The best laid schemes of mice and men — Gang aft a-gley." While what I have to say to you today has worked for me more often than not, nevertheless there will be times when the result will be more catastrophic than one would desire in spite of intense preparation.

You and I know there are so many factors which may influence the outcome of a court trial that it is almost impossible to categorize them. These factors are most often incapable of being weighed or evaluated with exactness and as a result a learned presentation does not always result in the winning of a law action. As one eminent English barrister put it, "what is lost in learning may well be balanced by a twinkling eye." When imperponderables such as this influence a verdict, you should not feel badly because there is nothing really that you could have done to change it.

Once it is known that a condemnation action is going to necessitate a court trial, you become an important member of a team. Generally this team is composed of the attorney, engineer, appraisers, negotiators and possibly others such as photographer, model maker, or the like.

From this point on you do not act alone. Since the presentation of the case will be a team effort, there must be close coordination between the team members and a complete understanding of the role each is to play. The testimony of each is of necessity linked with the testimony to be given by the other, and it is imperative that each know what the other is going to testify to.

At the first conference all factual considerations should be clarified so there is no misunderstanding in this regard. Once this is done what can you, as the appraiser witness, contribute that will assist the attorney in his presentation of the case. I can think of several things.

1. Highest and Best Use

If in your opinion this may become an issue in the case to be tried, you should fully discuss this matter at length with your counsel. Make sure he fully understands the reasons supporting your conclusion as to the property's highest and best use. In addition, advise him of the reasons most likely relied upon by the opponent's appraiser in arriving at a different conclusion as to use. Point out to him, if you are able, any fallacies that might exist in such reasoning so that he may be able to reach the opponent's appraiser on cross examination. You need each other, since the attorney must not only endeavor to impress a jury that your conclusions are valid, but he must also endeavor to show any other conclusion is incorrect.

2. Market Data

Since in the greater majority of cases, this approach to value is relied upon, your investigation in this realm becomes most significant. Not only should you and the attorney be completely familiar with the sales you have relied upon to support your opinion of value, both of you should together view the property involved in the sales and have a full discussion of your reasons for relying upon them.

In this connection your investigation should indicate to you, and through you to the attorney, the sales the opposition may be placing dependence upon to show a different value. You and the attorney should also view these properties that their non-comparability may be pointed out and understood by your client's counsel.

This kind of trial preparation places your client's attorney in a much better position to meet and overcome objectional testimony that probably will be offered by the opposition to support their theory of value and damages.

A matter that may not seem to you to be of overshadowing importance, but I feel does have an appreciable effect upon a jury, is your ability, when required, to approach an unmarked aerial or sales map and instantly identify the location of sales upon which you have relied to support your opinion of value.

Contrast this with the appraiser who, when asked to do the same, must take minutes searching the map to locate properties he has relied upon and with which he should be completely familiar. This striking difference can and does have its effect upon the triers of the fact.

3. Damages — Benefits

These items, or your opinion of the lack of the same, are sometimes quite often difficult of proof. It is in this area that you and the attorney must have a clear understanding of your thinking and reasons supporting your conclusions. In those states where the comprehensive land economic studies have been made, you, as well as the attorney, should be completely informed of the studies and the conclusions indicated by the same. Additionally, you both should together view the areas covered by these studies, which will immeasurably assist the attorney in understanding your theory and conclusions that there are damages, or no damages, with or without special benefits.

4. The Cost Approach

In those cases where this approach to value is the basis upon which you have determined the just compensation to be paid a landowner, make sure the attorney fully understands the need of relying upon this technique. Generally we are dealing with special service type property. Where the improvements are new and actual construction costs are available from the building contractor, the pre-trial conference should include his presence also, since he will become an important witness in a subsequent trial.

It becomes a different matter where the improvements are old. No one in his right mind would ever reproduce the type of improvement that was originally constructed about the turn of the century. The attorney should know the difference between reproduction and replacement cost, however if he does not, you should point it out to him. Explain to him that in your appraisal approach involving an outmoded structure, you are replacing the function of the old improvement, not necessarily identical in a physical sense, that has the same utility.

As in the first instance, the cost for the replacement has probably been arrived at by estimates supplied by a building contractor. If so, he should of course, be a prominent participant in the pre-trial conference.

The land value, if arrived at by the comparison of sales, would again necessitate a view of these sales by you and the attorney.

Where the attorney generally runs into difficulty in an appraisal based on the cost approach is in the matter of depreciation. Here we are primarily dealing with judgment estimates and the appraiser should fully explain to the attorney his reasons for adopting a given percentage of depreciation to the structure involved. He should point out to the attorney when viewing the property, the physical deterioration, as well as depreciation caused by functional deficiencies and economic factors. This he needs to know to properly present his own case as well as to recognize fallacies that may exist in his opponents case.

5. The Income Approach

Speaking as an attorney the preparation of a condemnation

case involving this approach has given me more headaches than any I know. Not that this technique is not a good one, but simply because of the difficulty of presenting the same to a jury without completely confusing them. Trial preparation in such an instance becomes vastly more important than in any other.

Arriving at a gross or net income is not the problem as much as the adoption of a capitalization rate, and being able to explain to a jury how the capitalization rate is used to arrive at an opinion of value. A change of 1 percentage point in the adopted rate can make a vast difference in your estimate of value, as you well know.

Explaining to a jury how you arrived at a particular cap rate when used in connection with the Land Residual approach, or the Building Residual approach, for instance, almost necessitates a short course in this process for a jury's edification. You have to become a teacher and understandingly portray for them in a period of an hour or two that which has taken you weeks or even months to learn.

You and the attorney must spend time, considerable time, planning how this may be done to prevent a jury from entering into a state of utter confusion upon the completion of your testimony.

It will not be an unusual situation to find your client's attorney needs many hours of briefing to grasp this approach to value, so you have the double responsibility of teaching him as well as a jury.

Once your attorney has an understanding of this approach to value, there will be a need on your part to fully explain to him why, for instance, you used a cap rate of 7%, and not 6%, and in addition, point out to him why the lower rate is improper to assist him in cross examining an opponents appraiser who has used a lower rate. Believe me, this is not easy to do.

Now I would like to talk of some other factors to be considered in all trial preparation not directly associated with your technical evidence. It is, of course, always important that your conclusions be based on a solid foundation of fact, but it is equally important, in fact more so, that your demeanor on the stand and your testimony reflects professionalism, understanding and a sincere belief in the correctness of your judgment. This to me is vitally important in preparing for any court action.

I know most states permit a choice on the part of litigants to have the condemnation case heard before a Judge or a Jury. My personal preference is the jury. While jurors know very little about law and are less concerned about rules of evidence, sober reflection has convinced me they will, more often than not, arrive at the right answer, particularly if the facts have been presented to them simply and understandingly.

How many of you, in your trial preparation, have given any serious thought about the jury? Have you planned how you will attempt to sell your approach and opinion of value?

How many of you realize that you are faced with the task of selling your work product to a group of citizens, most of whom, if not all, have little or no understanding of appraising or the appraisal processes?

Have you given serious thought that normally this group of veniremen must within a comparatively short span of time — perhaps 16 to 24 hours — not only comprehend your testimony and that of the others, but make a decision?

Do you give thought to human considerations you may have to overcome?

Many things influence the outcome of a legal contest. Human beings decide law suits, be they the witness, judge or jury. At least they have a part in the outcome. They are either a part of the problem or a part of the answer to the problem.

Since the people themselves are the major factor inducing the outcome of a trial, their personalities, beliefs, prejudices, sympathies, likes or even physical makeup may bear upon the issue. The judge, the lawyers, the witnesses, the thinking of the times, the lateness of the evening, the length of the trial, or the season of the year can have their effect upon the thinking of those who must make the decision after having heard the evidence.

Juries most often reflect a cross section of the citizenry of the county in which they reside. Most prospective jurors with a high degree of business sense, intellectual and political stature have already talked themselves out of serving. The attorneys have generally seen to it that anyone who has any special knowledge of appraising or the appraising processes have been excused. So what we have left can be classified as average.

In the individual case you find that the occupants of a jury box are twelve good folks who, in most instances, are abso-

lutely unacquainted with the problem with which they have to deal. It is obvious then, that in your trial preparation it is going to be vitally important that you adopt a method of presenting testimony that will paint a picture for them that is understandable and helpful.

Particularly you must speak the language of the multitude. I have found that appraisers quite often fall into the habit of using their own special jargon in testifying. References to multipliers, cap rates, functional obsolescence, land residual process and diminishing returns not only leaves them cold, but only adds to their confusion.

In our State, as I believe in most States, the jury views the property involved either before or after the opening statement by counsel. For the most part they do not spend more than thirty minutes to an hour doing this. You should not, of course, wrongfully assume that from their observation of the area that their perception will be the same. Further, you should not assume they will remember everything they observed. Even trained observers would be hard pressed to retain an image of a taking and its effect on the remainder in the short period of time an average jury spends on a view.

Now back to the courtroom where the jury will hear value testimony which we know will be conflicting to say the least. This value testimony will come from appraisers, all of whom generally have a good background and reputation in this field. Add to this counsel's argument, which one can say normally tends to muddy the waters somewhat, and you wonder how it is that a jury is able to do as well as it does in most cases.

In your trial preparation do not overlook the fact that an average condemnation trial takes about two to three days to present and that in this short space of time we expect the jury, with no special training or background, to absorb and comprehend all the technical testimony and opinions thrown at them. We expect them to understand and resolve these differences of opinions as to value during a trial that has lasted perhaps 16 to 24 actual hours. We expect them to grasp and understand the court's instructions and, better still, understandably retain 30 to 45 minutes of these detailed and involved ground rules, which are given them as an aid in making a determination of a problem which you have been living with for weeks or even months.

It seems to me that you and the attorney could well spend considerable time in your trial preparation developing a logical and simple way to present your technical and opinion testimony. This must be done if the jury is to understand your theory and approach to value. If your testimony is coherent, discriminating and skilled in reasoning, it will go a long way in erasing from the mind of the judge and jury the tendency to believe that all expert witnesses are biased in favor of the one who hires them.

The tendency of courts to look upon the expert value witness in less than complimentary terms seemingly is becoming prevalent in the country today. The latest pronouncement along these lines came out of the Oregon Supreme Court in the case of State vs. Nunes about a year ago. The Court, in speaking of the use of the capitalization method of evaluation had this to say about appraisers:

"It is recognized that the appraisal of property involves a considerable amount of guesswork. And at the litigation stage the uncertainties are compounded because the appraisals frequently reflect the bias of the witness."

The decision then makes reference to a footnote which does very little to enhance the professional status most appraisers desire to acquire, which states:

"**Since the witnesses derive their fees from the one or the other party to the controversy, the trial often amounts to a mere battle of lies. To some extent the exaggerations and prevarications of the witnesses are discounted by the tribunal as a result of the cross examination. But few juries and judges are equipped to form independent judgments on matters of such a technical nature, and the award is often a meaningless compromise between the values testified to on both sides. There is a crying need in the United States for the use of skilled commissions and specially trained judges in the trial important valuation cases."

(XI Seligman, Ency. of the Social Sciences 213-214-1948)

So I reiterate trial preparation should include planning in the method to be used in presenting your testimony. Remember this, however, that there is indeed beauty in simplicity. The unadorned recital of facts and resultant opinion based on those facts should make sense to the untrained. I am persuaded, therefore,

that every case of this type must be reduced to the lowest common denominator that the truth might be found.

I would suggest to you, then, that you as the expert witness remember and give thought to the twelve who occupy the jury box. You must not forget that all are completely uninformed on the subject of appraising. That their knowledge of the meaning and usage of appraisal terms is lacking. That most will be of average intelligence and want to do an honest job of deciding the issues placed before them. Do not, then, place obstacles in their path that will mystify or confuse.

In closing I think we can conclude that trial preparation is simply a cooperative effort on the part of the attorney and witnesses in seeking an unmistakable and descriptive method of pre-

senting to a jury a reasonable solution to a problem they are charged with solving.

Experience has taught me that if the average jury really comprehends the riddle that has been placed before them for solution, they will, in the vast majority of cases, arrive at the right answer. We may not like the answer, but sober reflection generally convinces us it was the correct one.

Adverse and unexplainable verdicts usually stem from the failure of one litigant or the other to present their position in a simplified, clear and illustrative manner. Let me therefore leave you with this thought:

When your opinion is too weak to be simply expressed, it is probably undeniable proof that it should be rejected!

Importance of Balanced Transportation Services in Metropolitan Areas

By Harry W. Gahagan, Realtor-Appraiser, Chicago, Illinois

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The noted journalist Erwin D. Canham, editor of the *Christian Science Monitor*, in his typically succinct manner, recently made an observation which admirably summarizes the theme of my remarks to you today when he said:

"Our cities are weltering in the mounting mass of automobiles pouring in and out of them daily. The statistics are bizarre. If mass transport is not revived on an adequate scale, some cities face the need of devoting from 40 per cent to 80 per cent of their central land area to highways and parking. The suburbs, which automobiles have largely created and made possible on their present scale, are likely to be an even greater problem than our central cities in the year just ahead."

Mr. Canham is accurate — the statistics are truly "bizarre" — yet we must have some familiarity with them if we are to properly comprehend the present transportation picture.

Statisticians tell us the U.S. adds one net birth every 7½ seconds. This means that, allowing for both deaths and births, our national population has grown by eight times since I stepped to this podium. What's more, some 85% of this population surge will ultimately wind up in our metropolitan areas.

By 1970, just five years from now, there will be about 210 million people in our nation. Of these, two-thirds, or about 140 million, will be living in our large metropolitan areas. More than 124 million will live in just 19 areas that are classed as "strip cities," according to reliable projections. These are areas where population growth tends to spread along major transportation arteries until one population center merges with another, for example: Milwaukee-Chicago, Boston-Washington, and San Francisco-San Diego.

What concerns me most, as both a citizen and a Realtor, is the outlook for mobility population — and I mean this in the physical, not social, sense. If present circumstances are not altered in the very near future, these babies being born right now, as adults, will find it far easier to go on a yearly vacation trip across our continent than to get back and forth to their places of work each day. What a monument to our transportation folly this would be!

Looking back realistically at the alternatives in this transportation picture for our urban centers, it seems that we have but two choices: One is to seek to find some way to provide for the movement of all people for all purposes in automobiles.

The other is to seek to provide the best, most efficient and most economical combination of facilities for both the automobile and efficient mass transportation.

Let's look at the all-automobile alternative first. Not long ago, a leading traffic engineer compiled for the Urban Land Institute some figures from actual studies to show what kind of problems would arise in an all-automobile city.

He developed a hypothetical city with 1 million people living inside the city limits and another 1 million living outside the city limits. He assumed that the central business district would attract

about 20 per cent of the total metropolitan population daily.

Of these 400,000 daily visitors, he assumed that at least 20 per cent, or some 80,000 would arrive in the heaviest 60-minute period in the morning.

To provide for the movement of all of these people into this hypothetical city by automobile would require 32 inbound lanes, or the equivalent of eight 8-lane freeways. Providing for interchanges and on and off ramps would call for what is described as "geometrics of highway design which have not, as yet, been designed."

Ignoring the people who would arrive before 8 a.m. and after 9 a.m., the 80,000 people arriving in the heaviest hour would require 47,000 automobiles at an average of 1.7 persons per auto.

These 47,000 autos would require a minimum of 14 million square feet of parking area, but there are only 22 million square feet in a circular business district one mile in diameter, including all private land and public ways. Filled curb-to-curb and bumper-to-bumper, the streets would hold less than 18,000 cars, none of them able to move.

The engineer summed up his views by saying that "this preview of the all-automobile city should be enough to make public administrators shudder," to which I add, the potential loss of tax-producing land should send taxpayers into convulsions.

It is doubtful that such a situation will ever come to pass, although I understand that two-thirds of the land area in downtown Los Angeles is devoted to freeways, streets and off-street parking.

Yet it is helpful for us to bear in mind this extreme possibility in contemplating development of a realistic alternative. Sometimes I feel it preoccupies some of those who control the public purse; they guard motor fuel tax funds as if they had to pay for the all-automobile city some day!

Let's look at the alternative, then — the provision of the most economical and efficient combination of facilities for both the automobile and mass transportation.

Let's imagine a metropolitan area of 1980 — LA, San Francisco or Chicago — with a modern system of mass transportation connecting major centers of residence, commerce and employment through the constituent counties . . . a system capable of moving great numbers of people from any one point in the area to any other point within an hour's travel time, swiftly, economically and safely . . . a system that would require relatively little ground space, thus leaving the maximum of land to perform tax-producing purposes.

Engineers estimate that a modern transit system can move at least 40,000 passengers per hour per track. But, the engineers also estimate that the capacity of a single modern freeway lane is only 2,000 to 2,400 passengers per hour in automobiles. What's more, space on city streets and in parking lots is not required by rapid transit passengers as it is for the passengers in cars once they leave the expressways.

Consider the matter of space for a moment. In densely-built up areas, the availability of space is a competitive proposition. More important uses of property have to prevail over less important uses. Let us bear this in mind as we observe that, at current passenger-per-auto rates, each person takes with him about 400 cubic feet of vehicle — vehicle which has to be provided for both on the street and in parking space while he's not using it.

As the number of automobiles grows, more highways, expressways and parking facilities are required. This need competes with private industry and business generally in finding room for their expansion. And if business and industry do not continue

to grow, job opportunities will decline and the entire prosperity will be adversely affected.

How much more of this critical space can we relinquish to accommodate the movement and parking of the automobile? How much of our available space can we afford to deny to the uses and purposes which constitute the tax base and the very economic life blood of our area?

Los Angeles is not the only city which seems to be dedicated to the car. In my hometown of Chicago, some 1.8 million square feet of downtown is being used for no greater purposes than to house 28,000 cars during peak weekday periods.

According to our county assessor, these parking lots in 1961 brought in a total of slightly more than 1 million dollars in taxes, compared with more than 45 million for the entire Loop Area. This was due to the glaring gap in assessed valuations arising from the land use differences.

Assessor Cullerton has declared flatly: "There is no question but that if the parking facilities were improved the way they ought to be improved, we'd have a whole lot more tax money from the land."

There is another aspect in this cost issue. Expressways require enormous amounts of tax-producing lands. Every time land is used for these purposes, it comes off the tax rolls. This reduces the productive tax base of the area and makes it necessary for the owners of land remaining on the tax rolls to pay just that much more in taxes to make-up for the land thus removed.

In contrast, let's look at the situation in Toronto, where a 4½ mile subway rapid transit line was built several years ago. In the first three years of its operation, values within two blocks of the subway soared to between three and seven times the values before the subway was built. Within three years the increase in realty values exceeded the fixed charges on the subway by more than one-third.

Office buildings and apartments continue to sprout along and near this Yonge Street route. Air rights over subway stations have been used for realty developments, thus generating rental revenues for transit purposes.

Similar figures show the positive economic impact of mass transportation routes in Philadelphia, Cleveland, New York and elsewhere.

While focusing on financial matters, let's take a look at the question of subsidy for mass transportation, or more politely, public financial participation.

Over the years, experience has shown that the total cost of such facilities cannot be borne out of the fare box. Capital expenditures call for some form of public assistance. The alternative is disastrous. Unless mass transportation can be improved and extended, it will not be able to attract new passengers to it. In fact, it is quite likely that, absent needed improvements, ridership losses will take place.

Some persons question the propriety of a subsidy for public transportation without seeming to realize that they are — and have been for some time — subsidizing the private automobile.

While it is commonly supposed that motor vehicles pay their own way through the use of highway user revenues devoted to their special benefit, this is not entirely true. For example, property taxpayers contribute many direct and indirect benefits to the motoring public through expenditure of general tax fund monies to street maintenance and repair, traffic engineering and signaling facilities, policing and so on.

Studies within recent years have shown property taxpayers subsidize each motor vehicle in Milwaukee at the average rate of \$90 a year and in Chicago at an average rate of \$85 annually. A study in San Diego showed that 20 per cent of its \$39 million general fund was spent for city street purposes. Of this, about 17% came from local taxes, and only three per cent from gasoline taxes.

The total transportation picture was considerably brightened by passage of the Urban Mass Transportation Act of 1964.

Basically, this legislation represents recognition by the federal government of the mounting plight of mass transportation in our urban centers. Most importantly, it introduces financial assistance from federal funds on a locally matched basis. This assistance is carefully delimited to prohibit the use of public monies to create competition which private transit facilities.

The possibilities under this Act are exciting. For example, in Chicago it has made possible serious exploration of the elimination of the elevated tracks in our Loop area, so long a depressing and congestion-producing factor for parts of our downtown area.

The federal government has just recently given the green light to two tests of new concepts in mass transit, for which it will pay two-thirds of the costs. The San Francisco test will involve seven projects covering such items as sound and vibration reduction, car stability, wind resistance and buffeting, propulsion equipment and power supply and track width. The Pittsburgh test will involve use of light-weight electric cars of 20-passenger capacity.

One of the most successful joint federal-local project is taking place practically in my own backyard — the Skokie Swift demonstration project.

Hailed as the world's fastest terminal-to-terminal rapid transit facility, the Skokie Swift makes a five-mile, 6½ minute run linking several northern suburbs of Chicago to the subway system serving our Loop. It operates on right-of-way purchased from the defunct North Shore Railway. From its inception, the project was highly successful and continues to be so, admirably demonstrating public acceptance of efficient mass transit facilities.

This kind of experimentation is most important to the development of superior transportation systems for our metropolitan areas for a fundamental reason, accurately put by W. E. P. Duncan, general counsel to the Toronto Transit Commission:

"The correct solution of the urban transportation problem will depend on local conditions. There is no panacea and what may be suitable for Toronto may not be suitable for Hamilton or Pittsburgh or Washington. The equipment and operating practices will vary according to the circumstances in each city and indeed on each route in a city."

Add to this observation, another by A. J. Tobin, executive director of the Port of New York Authority, and you have the dimensions with which we must cope in seeking balanced transportation systems. Mr. Tobin declared:

"Even in America we cannot afford the luxury of scrapping all that is old and building new systems. Transportation development in the years ahead must be fashioned out of what we have today, threading our way and our improvements and reconstructions through vast and growing urban areas. Our goal should be the attainment of a balanced usage of transportation facilities and balanced and realistic thinking the transportation planning process."

This reference to the planning process by Mr. Tobin leads to a final and vital point we should consider today.

To achieve the kind of co-ordinated transportation systems we have discussed requires much more than just deciding to do it — although this decision is critical. The inclusion of transportation as an integral part of total area planning is perhaps the most essential element in the achievement we seek.

Too often we have seen transportation treated as a stepchild in the planning process-handled more as an afterthought than as an integral part. This has led to a variety of misfortunes: Less of existing transit facilities adaptable to new uses, waste arising from poorly-phased timing, and failure to provide mass transit right-of-ways in expressways.

On the last point, I am proud to note, as the film did, that Chicago is a pioneer in the provision of expressway mass transit right-of-ways. Our Congress, now Eisenhower, Expressway median strip rapid transit has been in operation for several years. We are drawing closer to initiation of rapid transit in our Northwest or Kennedy Expressway, thanks to the new federal act, and space has been reserved in our South Route or Dan Ryan Expressway.

I am happy to report that all indications are that the integration of transportation into total planning is on the upswing. Intergovernmental co-operation in planning for urban transportation is expanding rapidly under recent requirements of the federal-aid highway and urban mass transit programs, according to the "1964 National Survey of Metropolitan Planning" covering the planning activities of 139 agencies serving 150 standard metropolitan areas. The study found that 135 of the 139 agencies studied indicate involvement in comprehensive area transportation programs.

The broad sweep of transportation planning is underscored in a statement by William R. Marston, Chicago's deputy commissioner of city planning, who said:

"We feel that the policies for transportation are aimed not only at a transportation system that moves people and goods more efficiently, but a transportation system that also promotes good land use development and a better environment for the entire city."

Addressing a recent Toronto conference of the American Society of Planning Officials, James E. Lash, executive vice-

president of the ACTION Council for Better Cities, announced his organization is "forming an urban transportation division to urge business leaders, with their community-wide interests, to show leadership in planning and improving urban transportation, which necessarily cuts across separate political jurisdictions in local urban areas."

In its just issued three-year study report on "Developing Metropolitan Transportation Policies," the Committee for Economic Development stresses three major points:

First — Transportation planning is essential to orderly area growth;

Secondly — If cities fail to meet mass transit needs, areas will decay, and federal intervention will grow; and

Finally — Businessmen must be active in transit planning bodies since they have greater freedom than politicians to view "area-wide" problems.

The idea of businessman participation in the transportation issue is my concluding thought. In Chicago, a period of considerable discussion with key civic groups and leaders culminated in the creation of a Joint Steering Committee on Mass Transportation made-up of representatives of the Chicago Association of Commerce and Industry, the Chicago Real Estate Board, the Chicago Central Area Committee and the Civic Federation (a taxpayers' watchdog group).

Using the Steering Committee framework, we were able to draft our policy statement supporting the use of local and federal funds under UMTA for transportation improvements. This document was termed "history-making" by the Institute of Rapid

Transit, which cited the endorsement of the statement by all participating civic groups.

Another outstanding cooperative achievement was the development of a "Statement of the Chicago Commuter Railroads on the Federal Mass Transportation Act of 1964." This document presented a position supported jointly by the Chicago, Burlington and Quincy, Chicago-Milwaukee, St. Paul and Pacific, Chicago and Northwestern, Chicago South Shore and South Bend, and Illinois Central Railroads.

In addition to putting Chicagoland's commuter railroads "on the team" working for balanced transportation by establishing criteria for support of efforts to aid CTA, the statements made a real contribution to transportation thinking as a clear-cut analysis of the realities confronting us. The support of the commuter lines will be most important to our program's success and represents a fine example of enlightened business thinking.

I cannot help but be reminded by our experiences in bringing together divergent groups into a workable program of joint action of our own AROW liaison activities and the positive good they are doing in our field.

It is my firm conviction that our urban areas must look to well-coordinated mass transportation for solution to the pressing problems I have described.

I am equally convinced that businessmen, such as you and I, can and must play a key part in this development. This is the path of enlightened business self-interest. I urge each of you to get into action in your own communities. Remember, transportation, like politics, is everybody's business.

Thank you for your kind attention.

AIMS AND PURPOSES

The purpose of the Association is to unite the efforts of all right of way men toward a betterment of the conditions of the individual; to promote high standards and cooperative spirit among its members; to assist in creating a harmonious and friendly feeling between members and their respective employers; to engender in its members attributes which elevate the profession in which they are engaged and to provide mutual protection and advancement for the members.

CODE OF ETHICS

Recognizing the responsibility of our profession to the people and business of our country, and believing that we should encourage and foster high ethical standards in our profession, we do hereby adopt the following CODE OF ETHICS for our constant guidance and inspiration predicated upon the basic principle of truth, justice and fair play.

1. To show faith in the worthiness of our profession by industry, honesty and courtesy, in order to merit a reputation for high quality of service and fair dealing.
2. To add to the knowledge of our profession by constant study and to share the lessons of our experience with our fellow members.
3. To build an ever increasing confidence and good will with the public and our employers by poise, self-restraint and constructive cooperation.
4. To ascertain and weigh all of the facts relative to real properties in making an appraisal thereof, using the best and the most approved methods of determining the just and fair market value.
5. To conduct ourselves in the most ethical and competent manner when testifying as an expert witness in Court as to the market value of real properties, thus meriting confidence in our knowledge and integrity.
6. To accept our full share of responsibility in constructive public service to community, state and nation.
7. To strive to attain and to express a sincerity of character that shall enrich our human contacts, ever aiming toward that ideal — "The Practice of the Golden Rule."