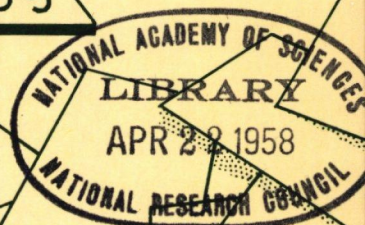


*HIGHWAY RESEARCH BOARD*

*BULLETIN 169*



*DEVELOPING CONCEPTS  
OF  
LAND ACQUISITION*

*1957*

**National Academy of Sciences—  
National Research Council**

publication 52

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1957

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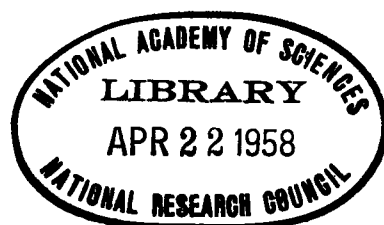
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**HIGHWAY RESEARCH BOARD**  
**Bulletin 169**

***Developing Concepts of  
Land Acquisition***

PRESENTED AT THE  
Thirty-Sixth Annual Meeting  
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**1957**  
**Washington, D. C.**

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Bureau of Public Roads

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San Antonio, Texas

Miss Marion Markham, Transportation Economist, Bureau of Public  
Roads

LeRoy C. Moser, Right-of-Way Engineer, Maryland State Roads  
Commission, Baltimore

H. J. Neale, 1 Albemarle Avenue, Richmond, Virginia

LeRoy A. Powers, Chief Counsel, Oklahoma Department of Highways,  
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# Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas

DAVID R. LEVIN, Chairman, Chief, Land Studies Branch,  
Financial and Administrative Research Division, Bureau of Public Roads

● THE YEAR 1956 long will be remembered in the highway field as the year of enactment of legislation providing for the biggest program of highway construction in the history of the nation. It is expected that this accelerated program, in its ultimate ramifications, will entail the expenditure of some \$15 billion for right-of-way. Present estimates indicate that, for the Interstate System alone, more than 700,000 parcels of land will have to be acquired at a cost of between \$5 billion and \$7 billion. State highway departments have found it necessary in some instances to overhaul their right-of-way organizations to meet the needs of the new program. Procedures need to be streamlined and personnel must be increased.

In this connection, a right-of-way salary survey, sponsored by the Highway Research Board in cooperation with the American Association of State Highway Officials and the American Right-of-Way Association, indicates a wide range of salary schedules for personnel engaged in the same type of work in the several states<sup>1</sup>. Salary levels for right-of-way personnel in some states appear to be adequate, but in others are woefully low.

There is a great need, too, for training programs for right-of-way personnel, both new and old. The AASHO Committee on Right-of-Way passed a resolution during the Association's Annual Convention at Atlantic City, urging that plans for such a program be made at the earliest possible moment. In response to this resolution, the committee is investigating the possibility of obtaining financing from appropriate sources to defray the cost of such training programs.

Three features of the 1956 Federal-Aid Highway Act are of particular interest to the committee. First, it places particular accent on control of access, inasmuch as the 41,000-mile Interstate System is to have planned access of this kind. This makes it imperative that each state have adequate legal authority to construct portions of this system within its borders to expressway standards. Most of the states now have some legal authority in this respect, but in many cases the law needs broadening and strengthening to provide for all contingencies. Many amendments to state laws have been introduced in or enacted by current legislative sessions for this purpose, as indicated in a later section. Additionally, a controlled-access law was passed by the New Mexico State Legislature in the 1957 session. Similar legislation was enacted in Minnesota, which heretofore had been controlling access under the general authority of the state highway department as interpreted by the State Supreme Court.

Furthermore, the 1956 Act authorizes the Secretary of Commerce to acquire, enter upon, and take possession of land (or interests in lands, including control of access) for right-of-way for projects on the Interstate System, at the request of the state. This is for the benefit of those states which do not have authority to acquire access rights or to take immediate possession of highway right-of-way.

A great many of the states have authority to take possession of right-of-way at some point before the completion of condemnation proceedings, but in many others constitutional limitations or other factors have prevented the passage of effective legislation in this respect<sup>2</sup>. Legislative and judicial developments in this field are discussed in a later section of this report.

The Federal-Aid Highway Act of 1956 also sanctions the acquisition of land for future highway use by authorizing federal participation in the cost thereof. Only a handful of states have specific statutory authority to acquire right-of-way for future use. In a few

<sup>1</sup> Highway Research Board Special Report (in preparation).

<sup>2</sup> See "Immediate Possession of Highway Right-of-Way," Committee on Right-of-Way, American Association of State Highway Officials (1951).



others, the law seems to imply the existence of such authority. In still others, the authority exists by dint of judicial decision<sup>3</sup>. One state (Indiana) was given authority to acquire future right-of-way by the 1956 session of the state legislature.

In at least four states attempts were made to enact legislation authorizing the setting up of a revolving fund for the purchase of right-of-way, which would, of course, aid in financing acquisition for future use. In three states (Florida, Indiana and Maryland) the attempt was successful. In Michigan, the proposal failed of enactment. The use of a revolving fund for right-of-way use is now authorized in eight states (California, Florida, Indiana, Maryland, New Mexico, New York, Ohio and Washington).

In three states, significant revisions in the laws pertaining to land acquisition have been made (Maryland, 1956; Indiana and Texas, 1957).

A significant provision of the Maryland law, designed apparently to prevent land speculation, specifies that the amount determined upon by the State Highway Commission as the value of the property is not to become public information until such time as all property along the pertinent section of highway has been acquired, or at least the price agreed upon by the parties to the transaction. Plats or maps are not to be open to public inspection until recorded in the appropriate office. The law further specifies that the State Roads Commission must acquire title to the property and ascertain the amount to be paid therefor within one year from the date plats or maps are recorded. If no agreement is reached with the property owner, condemnation must be instituted within the one-year period. Otherwise, the value of the property is to be determined as of the time of acquisition. If the value is less at the time of acquisition, it is to be determined as of the date plats or maps were recorded.

After payment to the owners or into court of the amount determined to be fair compensation, and the filing of the maps or plats, the State Roads Commission is authorized to take possession of the property. Negotiations between the property owner and the State Highway Commission are to be entered into at this point.

A detailed review of the provisions of the new Maryland law was given at the open session of the committee during the Annual Meeting of the Board in January 1957 by LeRoy C. Moser, Right-of-Way Engineer of the Maryland State Roads Commission. Moser's paper, "The New Land Acquisition Law of Maryland," is included in full in this report.

Highlights of the new Indiana law include provision for a revolving fund, authority to acquire a fee simple title, to acquire right-of-way for future use, and for frontage road in connection with the provision of expressway facilities. Use of a reservation mechanism was also authorized by the legislature, as discussed in a later section of this report.

In Texas, the acquisition of land for state highway purposes has been a function of the local governmental units. Under the provisions of a law passed by the 1957 session of the state legislature, however, the state will acquire and pay for right-of-way for projects on the Interstate System. The law further directs the state to pay 50 percent of the cost of right-of-way for United States or state highway projects. Additional revenue will be provided to the Department for this purpose by an increase in motor vehicle license fees.

The committee continued during the year to assist state highway departments, as well as other governmental and non-governmental agencies attempting to improve legal and administrative procedures in the acquisition of highway right-of-way, control of access and regulation of the roadside. This is one of the most important functions of the committee, and is becoming increasingly so as the expanded program of highway improvement goes forward.

Mention may be made at this point of an unusually interesting paper presented at the open session of the committee during the Board's Annual Meeting in January 1957. This paper, "Some Sociological Considerations in Highway Development," was prepared by Thel Black and Jerrilyn Black. The authors plead for greater recognition of social needs that highways can help fill, and for cooperation between administrators and specialists in highway agencies and specialists from other fields in planning the highway system.

<sup>3</sup> See Highway Research Board Special Report 27, "Acquisition of Land for Future Highway Use" (1957).

Membership of the committee has been expanded, as indicated by the roster on page ii.

## LAND ACQUISITION

Top highway officials are no longer casual about highway right-of-way problems. They now realize that difficulties associated with the acquisition of land for highway purposes can effectively block all of their sincere attempts to accelerate highway improvement. Accordingly, right-of-way problems may now be viewed from a new perspective.

### Immediate Possession

As previously mentioned, effective legislation authorizing immediate possession of highway right-of-way is lacking in a number of states. Attempts were made to remedy this situation in at least three states during the past year—two of them successful and one unsuccessful. In the North Dakota general election of 1956, the voters approved an amendment to the State Constitution which will permit the State Highway Department to take immediate possession of highway right-of-way. But a Washington resolution of the 1955 legislature, giving the state the right of immediate possession of property after payment into court of an amount provided by law, was defeated at the 1956 general election in that state.

The State of Illinois, where an immediate possession law enacted in 1947 was struck down by the State Supreme Court in 1951 on the ground that it contravened a section of the Illinois Constitution, was successful in obtaining passage of a new declaration of taking law in 1957. Objectionable provisions included in the original law have apparently been eliminated, and it is hoped that this new law will be able to withstand a court scrutiny of its constitutionality.

During the period between the adoption by the North Dakota Legislature of the resolution to submit the proposed constitutional amendment to the voters and its approval, the State Supreme Court handed down a decision in which it declared unconstitutional a statute authorizing the taking of possession after 30 days from the time the award was made and deposited in the court by the board of county commissioners. The statute in question was enacted in the 1953 session of the State Legislature and provided as follows:

Notwithstanding the taking of an appeal as provided in section 95 of this Act (24-0123) in proceedings of the commissioner in the taking of land or materials by condemnation, or from the award made by the board of county commissioners in such proceedings, the commissioner may proceed with the use of the property so condemned and shall be liable for any additional amount awarded to the appellant upon such appeal.

The court held that such a law was clearly prohibited by Section 14 of the State Constitution, which provides that private property is not to be taken or damaged for public use without just compensation having been first made to or paid into court for the owner. The use of the property pending an appeal, the court said, would constitute at least a partial taking prior to the determination of the court that it was necessary to take the property and before compensation for it had been determined and paid into court. The court without hesitancy held that this statute was repugnant to Section 14 of the constitution<sup>4</sup>. The court's decision is academic at this point, but does indicate the need for the constitutional amendment approved by the North Dakota voters.

Two more court decisions involving the right of immediate possession were handed down by state courts during the year. One, in California, came before the State Supreme Court as the result of a controversy as to who was responsible for an assessment lien against the land taken. Pursuant to Art. 1, Section 14, of the California Constitution, the California Highway Commission, upon instituting condemnation proceedings to acquire a tract of land for highway purposes, and the issuance of summons to the property owners, took possession of the property involved. Sometime prior to

<sup>4</sup>See Memorandum 87, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 318 (June 1956).



this action, an assessment lien was levied against the property by the City of San Mateo for the purpose of completing a drainage project affecting and benefiting the lands involved.

A trial court ordered payment of the city's assessment out of the condemnation award and the property owners appealed. The trial court based its decision on the theory that the assessment was a levy on the interest of the owner; that title to the property did not pass in a condemnation proceeding until judgment was entered and recorded; that the mere taking of possession of land prior to judgment did not accelerate the passing of title; that title was therefore in the property owners at the time the assessment was levied, and that the lien attached to the condemnation award.

The Supreme Court held, however, that in situations where it could be said that in addition to a mere taking of possession by the condemner, there was also such a substantial change in the status of the land taken and the condemnee's relation to it as to constitute, in effect, a divestiture for all practical purposes of all of the former owners' interest, the strict rule should not apply. In the present case, said the court, the effective taking by the condemner was advanced from the time of award to the time of appropriation of the property. The court held, therefore, that the assessment lien became effective after the property owners were deemed to have been divested of their rights in the property, and they were entitled to compensation without deduction on account of the assessment lien (*People v. Peninsula Title Guaranty Company*, 301 P. (2d) 1, Aug. 31, 1956).

A significant decision was handed down by the Kentucky Court of Appeals as the result of the passage in 1954 by the State Legislature of an amendment to the state statutes authorizing the acquisition of land for state and federal highways providing that a condemnee might, upon motions supported by affidavits, have trial deferred for a period of two years, or until such time as the road improvement was completed, whichever time was shorter. The court held this provision unconstitutional (*Commonwealth v. Werner*, 280 N. W. (2d) 214, June 3, 1955)<sup>5</sup>.

In addition to a provision that private property shall not be taken or applied to public use without just compensation having first been made (Sec. 13), the Kentucky State Constitution also has the following provisions:

All courts shall be open, and every person having injury done him in his lands, goods, person or reputation, shall have remedy by due course of law, and right and justice administered without sale, denial or delay. (Sec. 14)

To guard against transgression of the high powers which we have delegated, we Declare that everything in this Bill of Rights is excepted out of the general powers of government, and shall forever remain inviolate; and all laws contrary thereto, and contrary to this Constitution, shall be void. (Sec. 26)

The court cited previous decisions in which it had been held that Section 14 was a limitation on the judicial branch of the government and not on the legislative branch, that it prohibited the courts from arbitrarily delaying or denying to its citizens the administration of justice, but constituted no limitation upon the legislature in formulating procedural methods to be used by the courts (*Johnson v. Higgins*, 60 Ky. 566 and *Barkley v. Glover*, 61 Ky. 44).

In the cases cited, the relation of Section 26 to Section 14 had apparently not been discussed. The present court was of the opinion that Section 26 place a limitation on the power of the legislature to enact laws which were in contravention of the plain provisions of Section 14. The same conclusion had been reached in another Kentucky case (*Ludwig v. Johnson*, 49 S. W. (2d) 347, 351, 1932) wherein the court declared the reasoning in the previous cases "clearly unsound."

<sup>5</sup>See Memorandum 86, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 312 (Apr. 1956).

The Court of Appeals concluded that Section 14, when construed in the light of Section 26, prohibited the legislature from invading the province of the judiciary and that the prohibition of Section 14 applied to the legislative branch of the government as well as to the judicial.

#### Reservation of Highway Right-of-Way

As previously noted, use of a reservation mechanism by the Indiana State Highway Department was authorized by the 1957 session of the State Legislature. The provisions of this new mechanism may be of interest to those concerned with the problem of uncontrolled development which is apt to take place between the time plans for a highway improvement are formulated and the actual taking of the land.

Under Indiana's new law, the highway department, having determined the location of a state highway, may file a metes and bounds or other description of the land to be taken with the county recorder. After proper notice has been given the owner of the property that the department intends to acquire such lands for highway purposes, no owner may erect any improvements thereon, subdivide the same or make any changes in the use thereof which would affect its use for highway purposes without notice to the department. Upon receipt of such notice, the department has 90 days within which to purchase the land or to commence condemnation proceedings. If the department has not done so at the end of the 90-day period, the owner may proceed with the improvement, subdivision or change in use. The mechanism is further circumscribed as to time, in that if the department has not acquired the property or commenced condemnation proceedings within three years from the date of filing the description, the reservation ceases to exist.

The City of New York has been making use of the mapped-street device for a number of years as a means of reserving land for ultimate street or highway improvements. Although the constitutionality of the enabling act has never been the subject of a judicial decision, the courts have on a number of occasions refused to sanction application of the law in particular instances where such action would impose a hardship on the property owner.

One such decision was handed down on August 16, 1956, by a State Supreme Court. In this instance, a property owner more than 80 percent of whose land lay within the limits of a proposed improvement concerning which the Board of Estimate of the City of New York had adopted a map, applied for a permit to build a non-storage garage. The application was denied, whereupon the owner appealed to the Board of Standards and Appeals for a variance, which was granted on condition that, in the event of condemnation, the cost was to be amortized over a term of ten years at the rate of 10 percent per year starting from the completion of the building.

The landowner appealed, contending that the conditions upon which the variance was granted constituted an onerous and confiscatory burden, and, in effect, constituted the taking of her property without just compensation in violation of the Federal and State Constitutions. Her contention was upheld by the Supreme Court, which noted that the landowner was to receive no compensation for the building if condemnation took place more than 10 years from the completion thereof, though it might still have a useful life of 40 years. If condemnation took place sooner, compensation would be reduced by 10 percent for each year that had elapsed, although, said the court, property depreciation would be closer to 2 percent. The court concluded that conditions imposed were confiscatory in part during the first 10 years and completely so after the tenth year. From the undisputed facts, the court found it apparent that the property owner had been deprived of her property without due process (*Rand v. City of New York*, 155 N. Y. S. (2d) 753).

An unusual situation arose in Texas in connection with a proposed state highway improvement. A county bond issue was approved for acquisition of the necessary right-of-way, and the proposed right-of-way had been staked out. One day before a blank deed, prepared by the highway department, containing a description of the property, was delivered to the Commissioner's Court, W. H. Hammon who had an oil and gas lease on which he had some producing oil wells, had commenced a new well on a site

within the right-of-way bounds as planned by the highway department. Allegedly Hammon did not know the metes and bounds of the proposed right-of-way, but thought it would be on another portion of the tract. The court issued a temporary restraining order prohibiting Hammon from continuing to drill the well, which at that time had been drilled to a considerable depth. Hammon appealed from an injunction subsequently issued by the District Court.

The Circuit Court of Appeal held that as of the time of filing of the suit, the county had no right in the tract other than the right to enter thereon for the purpose of surveying, inspecting, staking, etc. It was evident that the county intended to acquire the proposed right-of-way by purchase or condemnation at some future time. However, said the court, the county had no right to destroy Hammon's property prior to the lawful appropriation thereof by paying or securing the payment of compensation. Furthermore, continued the court, the county had no right to restrain Hammon from making lawful use of his property prior to a legal taking thereof. Since the county had no present interest in the tract under consideration and no right of the county had been or was being violated by Hammon, the appeals court held that the lower court erred in granting the injunction. The injunction was thus dissolved (*Hammon v. Wichita County*, 290 S. W. (2d) 546, May 4, 1956).

A somewhat similar decision was handed down by the Ohio Supreme Court in November 1955, as the result of an attempt to prevent construction of a gasoline service station on land which would eventually be needed for right-of-way for an extension of the Lakeland Freeway in the City of Euclid (*State v. City of Euclid*, 130 N. E. (2d) 336).

The case arose when the city turned down a permit for a filling station to be located at the northeast corner of Babbit Road and Lakeland Boulevard in the City of Euclid. The city had, by resolution, declared that it was necessary to appropriate the land for a proposed highway. The applicant asked the court for an order compelling the city to issue the permit. Such an order was issued by the Court of Appeals for Cuyahoga County, and the city appealed. The Supreme Court held that the city could not freeze the land's use by adopting a resolution declaring the necessity of appropriating the land for a proposed highway, when such a highway had not been authorized by any of the municipal, state or federal authorities.

The property in question was zoned for retail stores and a previous application for a permit to construct a filling station had been refused on the ground that retail gasoline filling stations were prohibited in such a zone. The Court of Appeals at that time held that the zoning ordinance, to the extent that it prohibited the use of the premises in question for a retail gasoline filling station, was unreasonable and confiscatory, and therefore unconstitutional; that the action of the city council in refusing to rezone the premises was arbitrary, capricious, unlawful and void; and that the owner of the premises was entitled to a building permit. The Supreme Court refused to review the case (*Henle v. City of Euclid*, 125 N. E. (2d) 355, 1954).

When the Supreme Court refused to review the case, the City of Euclid adopted a resolution declaring it necessary to appropriate the property for highway purposes, to wit, for the Lakeland Freeway.

The Supreme Court noted that, with the aid and financial assistance of the Federal Government, the state made a study of the feasibility of an expressway, to be known as the Lakeland Freeway, from downtown Cleveland to a point of intersection with US 20, 1.3 miles east of Painesville, surveyed a proposed center line therefor, and determined the construction of such highway on such surveyed center line to be feasible. Some of the land in the surveyed course of such center line had been acquired by the City of Euclid. The center line passed through the center line of the property here under consideration. However, the court pointed out that no cooperative agreement of any kind in connection with the portion of the proposed Lakeland Freeway within the City of Euclid has been entered into by that city with the state, the Federal Government or the county; nor had the city adopted any legislation to provide on its own behalf for the establishment and construction of this section of the highway.

Pursuant to the resolution noted, the city council passed an ordinance, as an emergency measure, declaring that the premises in question had been "appropriated" and directing that condemnation proceedings be instituted. In the meantime, the owner of

the property and the Sun Oil Company, who had agreed to purchase the property if a gasoline service station were permitted thereon, filed application for a permit. The permit was again refused on the ground that since the premises in question had been ordered to be appropriated by the city, the permit could not legally be issued. Sun Oil Company asked the Court of Common Pleas for an order requiring the city to issue the permit, the court ordered the permit issued, and the case was appealed to the Supreme Court by the city.

The Supreme Court took notice of the fact that Euclid was a charter city, and its home rule charter included the power of eminent domain. However, its charter had no specific procedural provisions by which it might exercise that power. In the instant case, it undertook to appropriate the property in question by passing a resolution of intent. The court also found that there was specific procedure provided in the city's charter for the establishment of streets or highways. Its authority came from the statutes, which authorized municipal corporations to provide for streets and highways by ordinance. No such ordinance establishing the Lakeland Freeway within the city had been adopted by the city council.

The court pointed out that on several occasions it had held that, although municipalities were permitted to appropriate private property for public purposes, they must, in doing so, follow strictly the modes of procedure prescribed by statute. The record, according to the court, indicated that the city had not established Lakeland Freeway, but that the freeway was still in a visionary stage awaiting a cooperative agreement with the county, state or Federal Government, or with some of them, to establish it. The court concluded that the so-called appropriation was only an abortive attempt to acquire title to this property for possible future highway purposes. The municipality had no power or authority to appropriate lands for some contemplated future use.

The judgment of the Court of Common Pleas, ordering that the permit for the gasoline service station be issued, was affirmed.

Finally, the Maryland Court of Appeals was called upon to decide whether a landowner might collect damages from a city for delay in the widening of a street (Lord Calvert Theatre, Inc. v. Mayor and City of Baltimore, 119 A. (2d) 415, Jan. 11, 1956)<sup>6</sup>.

A 1928 ordinance of the City of Baltimore authorized and directed the Commissioners for Opening Streets to condemn, open, widen and grade the street in question, Washington Boulevard, from 60 to 80 feet. This ordinance had never been acted upon or repealed. In the meantime, in 1935, Lord Calvert Theatre, Inc., had been granted authority to construct a theater on Washington Street within the area covered by the ordinance previously noted. The theater was set back to the proposed building line in compliance with the ordinance.

The theater corporation brought suit for damages, claiming that: (1) it had been deprived of the use of the 20-foot setback strip; (2) its business had been adversely affected by the setback; (3) it lost a tenant in 1951 because of the failure of the city to go forward with the widening project, and (4) the city later permitted a store to be erected next door on the old building line, causing the theater to be boxed in so that prospective patrons could not see it when passing along the street. The corporation contended that the city had been guilty of "unreasonable, unnecessary, willful and negligent delay in failing to diligently complete or repeal the pending condemnation."

The Court of Appeals noted that while it was not universally recognized, it had been held in Maryland that damages actually suffered from unreasonable delay in either abandoning condemnation proceedings or paying the award determined therein were compensable. However, said the court, this rule was only applicable to situations where condemnation proceedings had actually been started. The court cited a previous case in which it has been squarely held that the mere passage of an ordinance, although it affected the tenure and business of a property owner, did not entitle the owner to damages (Shanfelter v. City of Baltimore 31 A. 439, 1895). In the previous case, the court said, however, that there were situations in which a property owner would be entitled to relief, such as where a deliberate effort was made to depreciate

<sup>6</sup>See Memorandum 90, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 328, Oct. 1956).

the value of the property for the purpose of subsequently acquiring it by condemnation at a reduced price.

In the instant case, the court found no allegation of bad faith or of any effort to negotiate or beat down the price. Although the enabling statute required the condemning authority to "proceed diligently" in the execution of the ordinance authorizing the condemnation, the court remarked that no diligence on the part of the commissioners could provide the funds necessary to negotiation or the institution of proceedings. The record did not indicate to the court that the delay was due to any fault on the part of the city, but was probably due to "governmental inertia," or the preference given other more pressing improvements. To hold that the city committed an actionable wrong in failing to implement its ordinance or repeal it would go far beyond any decision of which the court was aware.

In the court's opinion, the theater corporation could not complain of the delay prior to the time it acquired the property in 1936, since it was aware of the situation at that time. The court found no showing that the corporation suffered any damage by reason of the setback until 1951, when it claimed to have lost its tenant and to have been compelled to take over the theater and operate it at a loss until it was closed in 1953. In this connection, the court accepted the city's contention that this loss was due to competition from other forms of entertainment and not to street location.

In dealing with the corporation's claim that it was "boxed in" when the city permitted a store to be erected next door on the old building line, the court held that even if the permission granted by the city was ill-advised or illegal as a variance under the zoning laws, it would not justify a similar variance or exception in the case of the theater.

The court held that the corporation was not entitled to damages.

### Compensation for Damages

Courts of the several states are frequently called upon to decide whether or not certain alleged damages resulting from highway improvements are compensable. These alleged damages sometimes occur when land is actually taken, in which case the landowner argues that they should be taken into consideration in determining compensation, or they may occur when no land is actually taken. Many of them arise as a result of police power controls, such as the placing of a dividing strip in the middle of an existing highway to separate traffic lanes. Others involve the closing of a street at one end with the result that only one way traffic is possible. Decisions were noted in seven states during the year in which the courts ruled on whether or not compensation must be paid, as noted in the following paragraphs.

Circuity of Travel—In two decisions, one in Louisiana and one in Ohio, the courts held that circuity of travel caused by a highway improvement was not compensable. The Louisiana case involved a claim for damages by a corporation owning property at the intersection of Florida and Paris Avenues in the City of New Orleans. The city constructed an underpass at the intersection resulting in the dead-ending of Florida Avenue which the landowners claimed made travel to their property circuitous, since motorists traveling on either street must circle the block to enter the property.

The State Supreme Court noted that the landowners' building was still situated on the corner of Paris and Florida Avenues, pedestrian traffic around the corner was in no way interfered with, and vehicular traffic might still reach every part of the property, but by a circuitous route. This, the court held, was an inconvenience suffered by the public generally and not specially sustained by these particular property owners. It followed, said the court, that any loss suffered fell within the realm of "damnum absque injuria" (*Thomas and Warner, Inc. v. City of New Orleans*, 89 So. (2d) 885, June 29, 1956).

The Ohio action resulted from a claim by the Cleveland Boat Service, Inc., for damages allegedly resulting from the construction of a roadway through and adjacent to its leased premises. The corporation, a leaseholder, asked for \$100,000 for injury done its property and for interference with its business incident to the construction of the roadway. The trial court awarded \$50,000 in damages. Its decision was reversed and the cause remanded by the Court of Appeals. This decision was upheld by the State

Supreme Court, which held, among other things, that inconvenience of travel occasioned by being required to follow a more circuitous route due to a completed highway improvement was not a proper subject for a damage award (*Cleveland Boat Service v. City of Cleveland*, 136 N. E. (2d) 274, July 11, 1956).

Construction of Dividing Strip—Washington has now joined the list of states wherein diversion of traffic due to installation of a center-line curb is not considered a taking of property for which compensation is due. In a decision handed down on March 29, 1956, the State Supreme Court affirmed the judgment of a lower court dismissing a request for an injunction to prevent the State Highway Commission from installing the dividing strip until compensation was paid (*Walker v. State*, 295 P. (2d) 328).

The protesting landowners owned a motel on State Highway 2, where the dividing strip was to be installed, and their only access to the property was a 500-foot frontage along the south side of the highway. They claimed that tourists traveling in a westerly direction made up the bulk of their patronage, and these tourists must make a left-hand turn across the highway, against oncoming traffic, in order to enter the property. Deprivation of egress and ingress would severely damage the property and depress the fair market value thereof.

The Supreme Court held that the property owners would still have free access to their property. Once on the highway, they would be in the same position and subject to the same police power regulations as every other member of the traveling public. Re-routing and diversion of traffic, said the court, are police power regulations. Circuity of route resulting from an exercise of the police power was an incidental result of a lawful act. The court concluded that although an abutting property owner might be inconvenienced by one-way traffic regulation immediately in front of his property, he had no remedy if such regulation were reasonably adapted to the benefit of the traveling public.

The complaining landowners in this case also contended that the state had made an administrative determination that the highway was to be made a controlled-access facility, had initiated studies, prepared detailed plans and initiated hearings thereon pursuant to statutory authority. The center-line curb, they argued, was an integral part of, and a necessary step in the construction of the controlled-access highway. The state, therefore, should be required to follow the statutory procedure for establishing such a highway and award compensation to the landowners.

In reply to this argument, the Supreme Court held that the state's action was not sufficient to establish the highway as a controlled-access facility under the statute. Furthermore, as applied to the specific problem here presented, the court found nothing in the statute indicating a legislative intent to surrender or modify the right of the highway commission to install and maintain traffic-control devices under the police power.

The judgment of the lower court, dismissing the request for an injunction, was thus upheld<sup>7</sup>.

On the other hand, the Missouri Supreme Court, in a decision handed down on March 12, 1956, held that a trial court did not err in admitting evidence as to the effect on the property involved of a median strip constructed as a part of a highway improvement (*State v. Johnson*, 287 S. W. (2d) 835)<sup>8</sup>. A portion of the landowner Johnson's property was condemned in connection with the widening of US 40.

The property involved consisted of two lots located at the northwest corner of the intersection of US 40 and Carson Road. The roads intersected at less than a right angle on the northwest side. On one lot was a two-story brick building and on the other lot was a gasoline service station with a work shop to the rear. The brick building was on the property when Johnson's father bought it in 1929, but the other buildings were built after that time. The state took all the land upon which the brick building was located and a 17-foot strip off the front of the rest of the property.

<sup>7</sup>See Memorandum 90, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 328 (Oct 1956).

<sup>8</sup>See Memorandum 88, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 322 (July 1956).



The case reached the Supreme Court on an appeal by the State Highway Department on the grounds that the verdict was not supported by substantial evidence.

Concerning the median strip, the state claimed that if it had been installed or constructed after the condemnation suit had terminated, and after the original construction of the highway, Johnson could not collect damages. The Supreme Court took notice, however, that the state was claiming special benefits to this property to offset damages. These benefits, its witness said, were due to improvement in the property's adaption for use as a large filling station with better visibility from the east, and greater inducement for people to travel the road because of the kind of construction used. Also, since increased traffic was one of the factors which the state claimed would result in special benefits as far as filling station use was concerned, the court thought there was no error in permitting evidence as to the proposed construction and how it would tend to prevent part of the traffic from using the filling station.

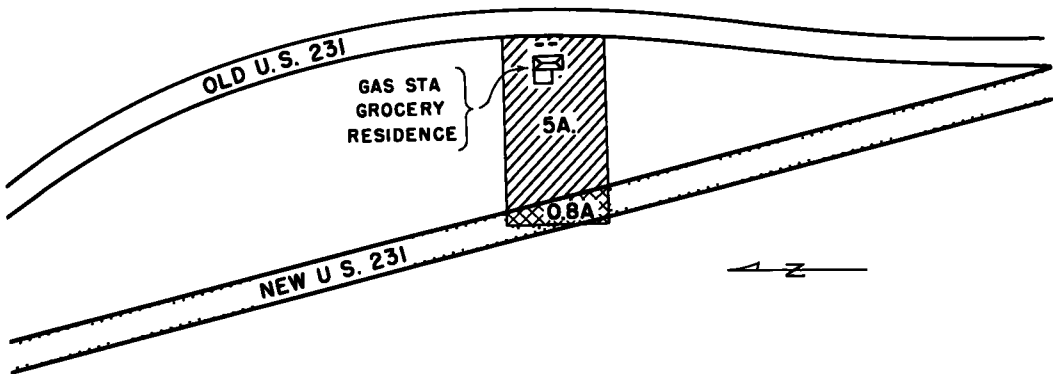


Figure 1. Alabama—Pike Co. v Whittington, 81 So. (2nd) 288, (1955).

The court conceded that while the state would have been entitled to an instruction to the jury limiting consideration of this evidence to the issue of special benefits, it did not ask to have this evidence so limited. The court concluded, therefore, that there was no error in admitting the evidence about the median strip as a permanent part of the highway construction.

**Relocation of Highway**—Courts generally have held that the diversion of traffic due to relocation of a highway is not compensable. The Alabama Supreme Court, in a decision handed down on May 12, 1955, held that relocation of a highway diverting the flow of traffic from in front of a landowner's place of business was a circumstance to enter into the question of the amount of the condemnee's damage. (Pike County v. Whittington, 81 So. (2d) 288, 1955).

This case involved the straightening of US 231 through Pike County. The protesting landowner had a 5-acre tract, the eastern boundary of which was old US 231. Improvements on the property consisted primarily of a combination residence, grocery store and filling station. When the highway was relocated, it traversed the western part of the five-acre tract. It was necessary for the county to acquire 0.8 acre of the landowner's property (Figure 1).

The jury awarded compensation and damages for the land taken in the amount of \$200. The landowner requested a new trial on the ground that the verdict of the jury was inadequate. The Circuit Court for Pike County granted the motion for a new trial, and upon appeal by the county, the State Supreme Court affirmed the lower court's action in granting the new trial.

The supreme court cited a number of previous decisions which it considered analogous, from which it concluded that although an abutter is not entitled to compensation merely by reason of the relocation of a highway, if such a relocation involves the taking of a portion of the abutter's land, the fact that the abutter's buildings and business enterprises are thereby made less accessible to the highway is a circumstance to be determined in assessing damages.

A dissenting justice, while agreeing with the decision of the majority in granting a new trial, pointed out the injustice that might result under certain circumstances under the court's ruling. This he illustrated by means of a hypothetical case in which two landowners, A and B, each fronted on a state highway. A's lot was 200 yards deep; B's lot was only 198 yards deep. Each had a filling station and grocery store facing the highway and did a comparable business. The highway was relocated so as to pass 199 yards behind their places of business. It thus took one yard of A's property but none of B's. A would be entitled to compensation because the flow of traffic on the old highway was taken away from him, while his neighbor B would, under practically all of the decisions in all of the states, be entitled to nothing. A is compensated because part of his land was taken, and accordingly, the question of damage due to diversion of traffic is permitted to be taken into account<sup>9</sup>.

**Loss of View**—In connection with the taking by the New York Department of Public Works of land along the shore of a bay for the construction of a state highway, a State Supreme Court upheld a trial court's award of damages for loss of view. A 1-foot strip of land was taken from the owners, together with riparian rights and certain structures. Before the taking the lot extended to the shore line of the bay. The taking deprived the owners of all access to the water. A pleasant view of the bay was replaced by a view of a 30-foot embankment.

The state contended that the effect upon market value of a loss of view was entirely speculative and should not have been considered in awarding compensation. The court, however, held that any factor having a bearing on the market value of the premises must be considered. A view, the court stated, augmented the value of the premises, and if a portion of it was taken and the view spoiled, the market value of the remaining property was reduced. The extent of the reduction was no more speculative than many other factors affecting value. It might be a matter of judgment but it was also a matter of dollars and cents, and such reduction in value must not be borne by the owner whose property was taken for a public purpose without his consent (*Keinz v. State*, 156 N. Y. S. (2d) 505, Nov. 14, 1956).

**Loss of Privacy**—Along somewhat similar lines was a Massachusetts case involving the appropriation by the Massachusetts Turnpike Authority of a strip of land across a camp owned by the Newton Girl Scout Council. An award of \$3 was made by the Authority, whereupon the scout organization petitioned the court for an award. The trial court awarded \$9,500 in damages and the Girl Scouts appealed, mainly on the ground that substantial testimony showing the extent and character of the damage to the property because of its particular use as a girls' camp was excluded.

On appeal, the Supreme Judicial Court of the state sustained the Girl Scout Council's argument inasmuch as the trial court should have made it plain to the jury that, in the case of property primarily adapted for specialized use and of a type not frequently bought or sold as such, damages were not to be measured solely by the effect of the taking on the value of the property for ordinary real estate development. The value of the property for every reasonable present and potential use, continued the court, was to be carefully considered, including its use for the special purpose for which it had been constructed and was being employed at the time of the taking. The evidence indicated that the highway had utterly destroyed the atmosphere of great privacy in a quiet New England countryside, which could be considered an intangible but very real value inherent in the property as it was before the taking. After the building of the expressway, the property could no longer be used for a young girls' residence camp; its value for that use would be "practically nil" (*Newton Girl Scout Coun. v. Massachusetts Turnpike Authority*, 138 N. E. (2d) 769, Dec. 13, 1956).

**Offset of Special Benefits**—In the majority of the states, special benefits accruing to a landowner as a result of the highway improvement may be offset against damage to the remainder when a portion of his property is acquired for right-of-way purposes. In a few states, such benefits may even be deducted from the value of the land taken. The deduction of such benefits, where they occur, can assist materially in reducing

<sup>9</sup>See Memorandum 85, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 311 (Apr. 1956).

the cost of the highway improvement<sup>10</sup>. The importance of recognizing such benefits and putting evidence of their existence before the court when condemnation proceedings are involved is demonstrated by a recent case decided by the Supreme Court of Georgia (State Highway Department of Georgia v. Andrus, 95 S. E. (2d) 781, Dec. 5, 1956).

In this case, no testimony regarding special benefits was introduced in the condemnation trial. The jurors were permitted to view the property, and in the judge's instructions were told to assess "consequential" benefits to the land not taken and deduct the amount thereof from the "consequential" damages.

In reviewing the case, the Supreme Court noted that it appeared from the record that there was evidence that there would be special benefits to the remaining property after the condemnation. The question presented, therefore, was whether the jury could be permitted to fix the amount of such benefits solely from their own knowledge and experience and from information acquired by them in viewing the premises. After reviewing previous decisions touching on this point the court concluded that they could not. The jury, said the court, must arrive at its verdict from evidence regularly produced in the course of the condemnation proceedings. They might use their own knowledge, learning and experience and any information gained from a view of the premises in weighing the evidence, but their verdict must be supported by evidence. The court, therefore, held that it was error for the trial court to instruct the jury that they should assess the special benefits to the condemnee's remaining land and deduct the amount of such benefits from the severance damages.

A South Carolina case is of interest inasmuch as the Supreme Court upheld the trial court's action in awarding no damages, based on a finding that the value of the remaining land was greater than that of the whole tract before the taking *Smith v. City of Greenville*, 92 S. E. (2d) 639, Apr. 23, 1956).

The case was brought before the courts by the landowner, J. B. Smith, who alleged that his land had been taken for a public street without just compensation. His complaint alleged that in 1938 he had purchased a tract of approximately 14 acres. Between 1942 and 1945, when the tract was under lease to the United States Government for military purposes, the government opened up a private road through a part of his land. Upon expiration of the lease, Smith closed and barricaded this road. But he alleged, the city thereafter ignored his signs prohibiting trespass, removed his barricade, and opened up the road as a public street, without paying him for the land so taken, the same being a strip 30 feet wide and about 1,000 feet in length.

The State Supreme Court in upholding the action of the trial court called attention to a state statutory provision directing the jury to "determine and fix upon the true and real value of such land and any damage to the residue of the land of such owner by reason of the opening, widening or extension of such highway, due regard being had, in assessing such damages, to any increased value of such residue by reason of the opening, widening or extension of such highway"<sup>11</sup>. The court interpreted this provision, in line with previous decisions cited, as meaning that damages to be assessed should consist of (a) the value of the land taken and (b) any damage to the residue of the land; and that in assessing such damages, due regard must be had for any increased value of such residue by reason of the opening, widening or extension of the highway.

#### Acquirement of Land Already in Public Use

An interesting court decision in New Mexico dealt with the matter of acquisition of land already devoted to public use for highway right-of-way. The case concerned the matter of whether the state must pay for right-of-way across lands granted to the state in trust for various state institutions and agencies when the state was admitted to the Union.

The enabling act under which certain lands were granted and confirmed to New

<sup>10</sup> See "Special Benefits and Right-of-Way Acquisition," by C. W. Enfield and William A. Mansfield, in *Activities of 1956*, for an excellent discussion on this subject.

<sup>11</sup> South Carolina Code of 1952, Sec. 47-1302.

Mexico specified that the lands were to be administered and the proceeds from the sales thereof, whether of the land itself or its natural products, must be employed solely for the purpose of the trust imposed; that is, for the benefit of the various state institutions for which the lands were granted. The Supreme Court noted that the Attorney General of the state had several times given his opinion to the effect that the Commissioner of Public Lands for New Mexico could grant rights-of-way for state highways across state lands without receiving consideration therefor. On the strength of these opinions, the Commissioner had apparently granted such a right-of-way to the State Highway Commission. However, the present court stated that after reading of the restrictive provisions of the enabling act, and applicable court decisions (cited), etc., it was forced to the conclusion that administrative interpretation of longstanding was not sufficient to overcome them. The court thus ruled that the State Highway Commission must henceforth compensate the trust for right-of-way (*State v. Walker*, 301 P. (2d) 317, Sept. 4, 1956).

### Right-of-Way Costs and Land Values

Market values of farm real estate continued the upward trend underway since 1954, with an over-all increase of 7 percent in the period from March 1, 1956, to March 1, 1957<sup>12</sup> (see Figure 2). This is the largest increase for any 12-month period since 1951-2 when the post-Korean peak in values was established. The national index as of March 1, 1957, stood at 147 (1947-9=100).

Increases for the period were noted in all states except those included in the drought area (Arizona, Colorado, Nebraska, New Mexico, Utah and Wyoming). Of these states, Colorado, Nebraska, New Mexico and Wyoming showed declines of 2 to 3 percent. Increases of from 6 to 9 percent took place in the eastern half of the United States, Florida leading with an increase of 17 percent.

The Department of Agriculture attributes most of the rise in farm real estate prices to factors having little if anything to do with farm income, such as the high level of business activity, a slowly rising general price level, and increasing needs for space for a growing population, as well as advances in farm technology and the resulting need for larger operating units. Because the acreage of land on the market is also restricted by these and other factors, strong competition exists for the limited market supply of land.

### **CONTROL OF HIGHWAY ACCESS**

As previously mentioned, controlled-access highway enabling legislation was enacted in Minnesota and New Mexico during the 1957 sessions of the state legislatures. Additionally, the Supreme Court of North Carolina handed down a decision early in 1957 holding that existing statutes provided authority for the state to acquire access rights to conform to Federal requirements for controlled-access highways (*Hedrick v. Graham*, 96 S. E. (2d) 129, Jan. 11, 1957).<sup>13</sup> At the present time, only Arizona has no specific legal authority to control access. However, the state has constructed expressways, proceeding under the broad general authority of the State Highway Department. An attempt to enact controlled-access legislation in 1955 failed, but it is expected the state will continue its efforts in this direction.

A number of court decisions pertaining to the control of access were handed down by state courts during the year, covering many phases of the problem, from the matter of compensation for access rights to expressways on new location to regulation of the use of access. These decisions are summarized in the succeeding sections.

### Access Rights to Expressways on New Location

A decision handed down on May 14, 1956, by the Supreme Court of Missouri adds<sup>12</sup> "Current Developments in the Farm Real Estate Market" Agric. Research Serv. U. S. Dept. of Agric. (May 1957).

<sup>13</sup> A digest of this decision appeared in Memorandum 92, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 336 (Apr., 1957).

this state to the list wherein the courts have held that access rights to expressways constructed on new location are not compensable.

The State Highway Commission instituted condemnation proceedings to acquire lands in Clay County for a relocation of a portion of US 69 as a controlled-access highway. One Harry A. Clevenger and his wife were awarded \$4,400 by condemnation commissioners, and after filing exceptions, were awarded \$15,000 by a jury. The State Highway Commission appealed.

The Clevengers owned a farm of 176.38 acres. The old Highway 69 bordered the farm on the south for a distance of approximately 150 to 200 feet. Under the proposed construction, the original roadbed was to be used for eastbound traffic, the highway to be of controlled-access design. A new roadway for westbound traffic was to be constructed north of the old road. This necessitated the taking of approximately 9.27 acres of the Clevenger land for the new roadway and for a relocation of the county road which bordered the farm on the east. Approximately 9 acres of the Clevenger land remained between the old and new roadways. The 9 acres were to be bisected by the relocated county road, which would serve as an access road for the property. Access to the highway property was denied the landowners. The new westbound roadway would be approximately 5 to 6 feet above the ground level. The relocated county road would gradually slope downward from that roadway, reaching the old ground level at its intersection with old Route 69.

The State Highway Commission contended that the trial court erred in permitting the landowners' witnesses to testify to an item of damage resulting from the "limitation of access" to the new route of the highway and in submitting this to the jury as an element of damage.

The Supreme Court after examining pertinent Missouri statutes and court decisions in other jurisdictions where this same point was involved, came to the conclusion that there could be no taking of an easement of access to the new roadway because no prior right of access existed. Therefore, supposed deprivation of the right of access to the new road would not constitute a compensable element of damages in the condemnation proceeding, in line with an Oregon decision (*State Highway Commission v. Burk*, 265 P. (2d) 783, 1954).

However, the present court held, evidence of the manner, nature and extent of the taking, the separation of the Clevenger land into different tracts, and the added inconvenience, if any, in going about the farm might be considered by the jury in assessing total net damages to the land, together with any other similar circumstances. And, continued the court, evidence of the presence of the new roadway, the modes of access provided, the relocated county road, and the reasonably probable uses of the remaining property, might and should be considered in determining the question of special benefits, if any, to the landowners.

The court deemed it necessary to reverse and remand the case for retrial because the element of access to the road was so thoroughly injected into the case as a specific and additional item of damage. At another trial, the court said, the jury would presumably consider the entire taking, balancing what the Clevengers owned prior to the appropriation against what they owned thereafter and compensate them in full for the difference in fair market value, less any special benefits. (*State v. Clevenger*, 291 S.W. (2d) 57, May 14, 1956).

### Loss of Direct Access

Quite a few of the court decisions handed down during the year concerned the matter of compensation for loss of direct access. In some of these cases, landowners sought compensation because, as a result of the highway improvement, their property had access only to a frontage road, rather than to the main highway. Other cases involved the closing, or barricading of streets at the point of intersection with the main highway, the result being that the landowner found himself on a cul de sac or dead-end street. These cases are summarized in the following.

### Access to Frontage Road

In theory, the construction of a frontage road in connection with a controlled-access

# CHANGES IN DOLLAR VALUE OF FARM LAND\*

Percentages, March 1956 to March 1957

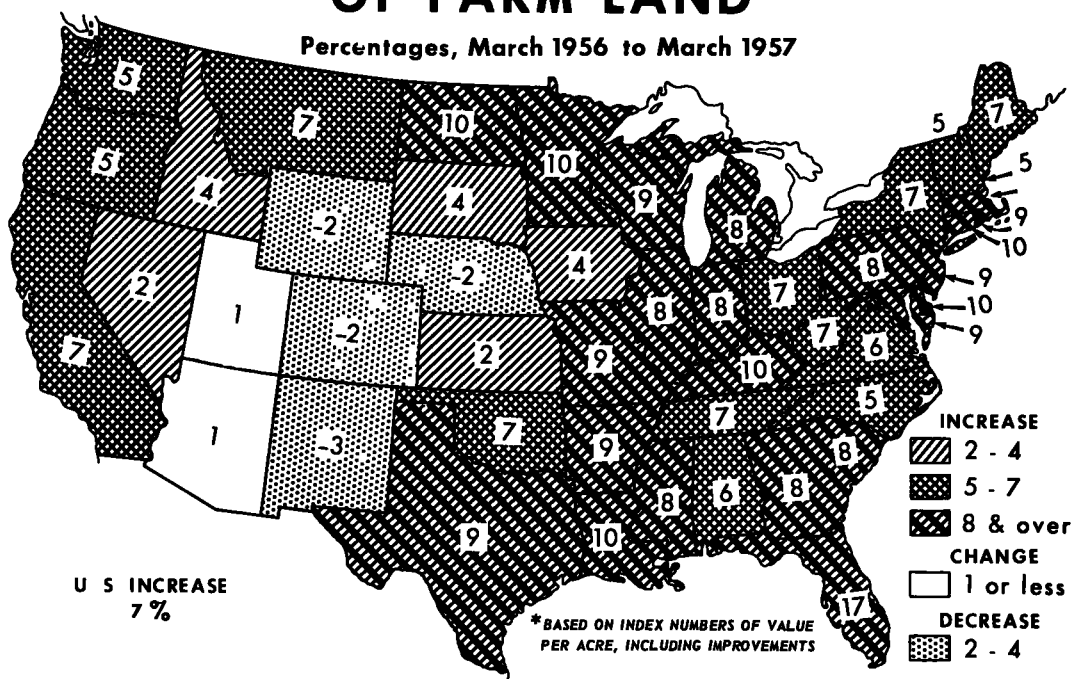


Figure 2.

highway is deemed to provide the abutting owner with adequate access to the main highway, and he is not entitled to compensation for loss of direct access. The frontage road, in other words, is a substitute for direct access.

In practice, this so-called loss of direct access often enters into the determination of compensation, particularly when a part of the abutting landowner's property is being acquired for the highway improvement. The following cases indicate how this may come about.

**Kentucky**—This case resulted from the action of the Commissioner of Highways in closing and obstructing certain streets in Louisville in connection with the construction of a toll road between Louisville and Elizabethtown. The new toll road cut through two residential areas which had access only by means of the Preston Highway running roughly parallel to the toll road. Access to this highway was cut off by the toll road construction. However, plans called for the construction of parallel frontage roads to take the traffic to other streets in the area. The Court of Appeals apparently treated this as a street-closing matter, and refused to consider proposed frontage roads as a substitute means of access. The court stated that the street closing and the opening of new access ways paralleling the toll road would require everyone to travel circuitous routes from three to six to eight blocks longer in order to get to and from Preston Highway. The affected landowners were thus entitled to compensation for the injury to their property rights (*Standiford Civic Club v. Commonwealth*, 289 S. W. (2d) 498, Feb. 10, 1956).

**Texas**—In this case, the State Department of Highways sought to acquire three parcels of land owned by one Jack Meyers and wife in connection with the construction of an expressway. Special condemnation commissioner awarded Meyers \$12,908, and upon the landowners' exception, a trial court awarded \$42,144. The state appealed.

According to the record, the Meyers' place of business, Jack's Steak House, was located directly on Highway 218 before the taking and was in clear view of and accessible to passing traffic. After the taking, the property abutted on a frontage road. Access to the main highway was by means of this frontage road some distance from the property.



The property was no longer in as clear view of passing traffic as it had been before. The court held that as a result access to the property was difficult and inconvenient, and as a result the owners' business was put out of operation.

A main point raised by the state was that the trial court should not have permitted a witness to testify that his property rented for less after the establishment of the frontage road. Ferrell, the witness, operated a tourist court near the Meyers' property. His right of access had also been condemned in connection with the expressway. The State Supreme Court held that Ferrell's testimony showed the effect of the loss of access on the value of the property and was admissible as such. The landowners were entitled to compensation for the value of the property taken and for damage to the remaining property, and might show loss of profits from their business if they could. The court held that the Meyers' right of access to the main roadway had been condemned, and that such right had a value for which they must be compensated (*State v. Meyers*, 292 S. W. (2d) 933, May 31, 1956).

In addition to the foregoing cases where some land was taken, there were at least two court decisions where the abuttor brought suit for damages due to the substitution of frontage roads alleged loss of direct access, although no property was actually taken. In a California case, the court held that a landowner was entitled to damages when as a result of a highway improvement his property abutted on an "access" road and he no longer had direct access to the main highway. On the other hand, a Missouri court held that where none of the complainants' land was taken, but the highway improvement involved resulted in his having access to a frontage road rather than direct access to the main highway, he was not entitled to compensation, since the damage complained of was consequential in nature. These two cases are digested in the following paragraphs.

**California**—Involved here was a property owner's claim to recover compensation for damage allegedly suffered by street reconstruction which "separated lot from street." No portion of the landowner's property was taken. A trial court awarded damages in the amount of \$5,000 and the City of Long Beach, the condemner, appealed.

The lots in question were situated at the northeast corner of West Anaheim Street and Harbor Avenue where the owner conducted a general auto parts business. He had direct access to Anaheim Street in front of his place of business. The city reconstructed the Anaheim Street bridge in the vicinity and an "approach" road to Anaheim Street on the side on which Blumenstein's property was located. Thereafter, Blumenstein's property was located. Thereafter, Blumenstein faced on the approach road only, making it necessary to travel some 300 feet before access could be had to Anaheim Street. The other end of the approach road connected with the Long Beach Freeway and not with Anaheim Street.

The State Supreme Court held that the landowner was entitled to compensation for reduction in value attributable to loss of ingress and egress to Anaheim Street, on the ground that his property no longer abutted upon the main highway as formerly. The approach road, said the court, was not a frontage road, which could under any stretch of the imagination be considered merely a lane of Anaheim Street. Nevertheless, the court cited the Ricciardi case (*People v. Ricciardi*, 144 p. (2d) 799, 1944), in support of its decision, and in that case, the court held that the fact that a "service" or frontage road abutting Ricciardi's premises which converged with the main highway on both sides of the underpass was not sufficient to overcome the diversion of the highway from its former position when contiguous to the injured land. As a result of the highway improvement, the Ricciardi property no longer abutted on the main highway as formerly but was removed from contact with the main highway. The court held that the doctrine announced in the Ricciardi decision clearly applied to the present situation, and the landowner was entitled to compensation for reduction in value of his lot attributable to loss of ingress and egress to the main highway (*Blumenstein v. City of Long Beach*, 299 P. (2d) 347, July 18, 1956).

**Missouri**—This case involved the improvement of US 66 in Pulaski County as an expressway with "granular type outer or service roads" on the existing right-of-way for entrance and exit thereto. The State Highway Commission had originally instituted condemnation proceedings against the complainants, Philip R. and Leat A. Lynch, but had later obtained an order of dismissal of the action as against the Lynchs, since it had

apparently been determined that none of their property would be necessary for the improvement. The Lynchs insisted that they were still parties to the condemnation action, since valuable property rights were being taken from them, inasmuch as they were to be deprived of the right of direct access to the expressway.

Following past decisions based on the constitutional provision requiring advance compensation, the State Supreme Court held that all damages were consequential with only two exceptions. These were (a) those resulting from the actual taking of land, and (b) those occasioned to the remainder of a tract by the taking of a part thereof. The Lynchs therefore were not proper parties to the condemnation action and their appeal was dismissed (*State v. Lynch*, 297 S.W. (2d) 400, Dec. 10, 1956).

**Cul de Sac**—In this group of cases involving the closing or barricading of a street at one end, as a result of which the abutting landowner in each case found himself located on a cul de sac or dead end street, the courts in Kentucky and New York held that the abutting owner was not entitled to compensation, and in Georgia that he was.

**Kentucky**—In this case, the authority of the Department of Highways to close a certain county road in connection with the construction of the Louisville-Elizabethtown Turnpike was upheld by the Kentucky Court of Appeals. The road in question, known as Hagan's Lane, was approximately 1 mile in length. There were six houses on it. The crossing of the turnpike at grade would leave the lane open to the north and to the south. Viewers appointed by the court reported that the inconvenience would be such that the road should not be closed. The property owners also protested the closing. When the county court nevertheless ordered that the road be closed, the property owners appealed to the Circuit Court, which dismissed the highway department's petition because of the great inconvenience that would result.

The Court of Appeals held that, although inconvenience was the determining factor in a road closing, the department had express authority to close a public road crossing a turnpike at grade. The court thought it would practically nullify the objective of the turnpike statutes if it were to be held that the question of whether or not the road was to be closed should be decided by some authority other than the Department of Highways. In other words, the court was of the opinion that the question was not to be litigated.

Considering the question of liability for damages, the court thought it fairly well established that a property owner on a road proposed to be closed was entitled to damages for depreciation in the value of this property only when the closing would deprive him of his sole or principal means of ingress and egress. The court distinguished this case from the *Standiford* case discussed in the previous section, where it held that a road closing would deprive the property owner of his sole or principal means of ingress and egress. In the present case, the court found it unnecessary to determine what procedure should be followed in cases where damages might be payable, since the record showed that none of the protesting property owners would be deprived of their sole or principal means of ingress and egress. These landowners would suffer only inconvenience, a detriment, according to the court, differing merely in degree, and not in kind from that which might be suffered by the public generally (*Ex Parte Commonwealth*, 291 S.W. (2d) 814, June 22, 1956).

**New York**—Two New York decisions involved practically the same point, and the courts' decisions were substantially the same. The first case resulted from the decisions of the Borough of Manhattan to build a junior high school on Avenue B extending from 4th to 6th Streets, thus occupying the bed of East 5th Street for approximately 118 feet easterly from the intersection of Avenue B (See Figure 3). All property taken for the school was condemned and compensation awarded. However, the owners of property on the remaining portion of East 5th Street between Avenue C and the school property filed claims for compensation for loss of use of the entire street.

In the opinion of the State Supreme Court, the only right involved in this proceeding was the right of easement of access. An abutting owner has two distinct easements in a street: As a citizen, a public easement common to all; as an owner of property, a private easement which may be due simply to contiguity with that street or by virtue of a special grant.

The court also said that the inconvenience suffered by an owner of land not abutting on, but adjacent to, the discontinued portion of the highway may be somewhat greater

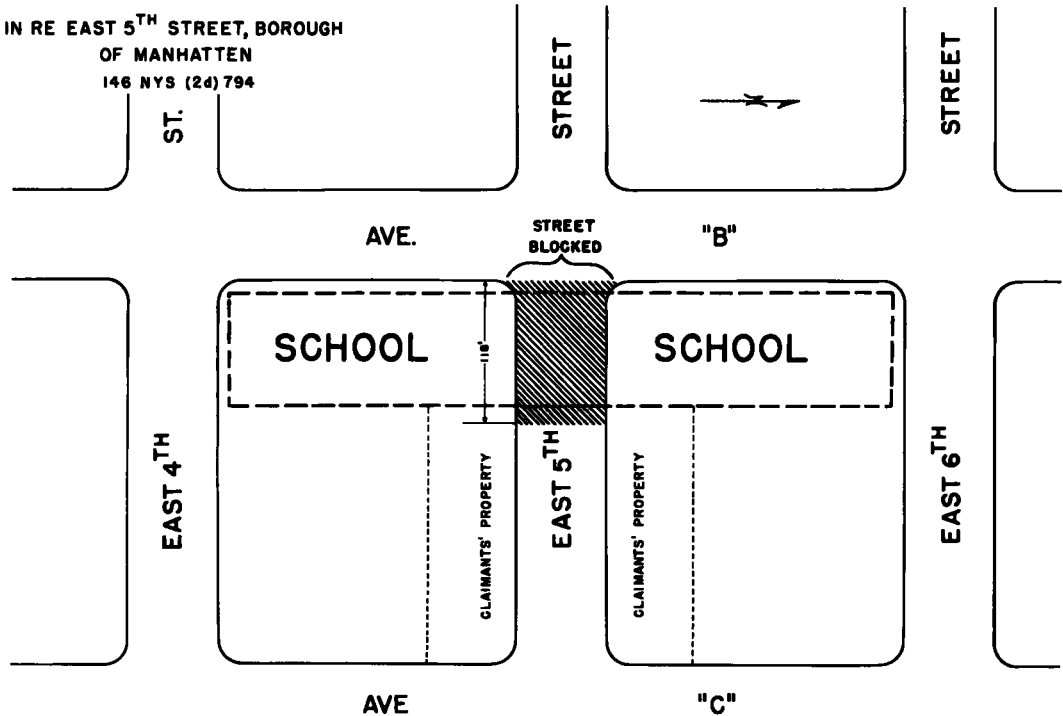


Figure 3.

in degree than that experienced by the general public, because of the greater frequency with which he used the highway in the past. However, the court emphasized that according to former decisions, this inconvenience did not constitute such special injury as to entitle the owner to compensation under the constitution.

The rule at common-law, according to the court, provided no remedy for damages arising from a street closing beyond the boundaries of the discontinued portion so long as some means of access was made available. Access had to be preserved, but not necessarily in both directions. Although the property might be somewhat less accessible than before, no actionable damage by virtue of such fact alone might be said to exist. According to this reasoning, the court concluded that the 5th Street owners obviously had no standing under the common-law. If they were to recover it would have to be under the New York condemnation statute. The court noted, though, that the question as to whether this statute authorized compensation for damages suffered by adjacent owners in a partial street closing had never been definitely settled. Nevertheless, the court declared that it was unnecessary to pass on this question since the claimants were entitled to damages under the "ancient street doctrine."

Under the "ancient street doctrine," when an owner lays his land out into distinct lots, with intersecting streets or avenues, and sells the lots with reference to such streets, his grantees or successors cannot afterwards be deprived of the benefit of having such streets kept open. When, in such a case, a lot is sold, bounded by a street, the purchaser and his grantees have an easement in the street for the purposes of access, which is a property right.

Where such "ancient" sale took place prior to proceedings by the city to open it as a public street, the street is said to have been dedicated by deed of the common grantor for use as a street for the benefit of all deriving title from him, and the city, being itself in such a case a grantee of the common grantor, holds title to the street subject to fulfillment of that dedication. When, in the public interest, the city closes such a street subsequently or impairs to some degree the easement of access of any such grantee, recompense for damages suffered thereby must be made, albeit conceding the city's para-

mount right to discontinue such street in a legal street closing proceeding.

In this case a certified copy of a deed made August 20, 1817, was presented and considered as part of the record. The land therein conveyed was described as bounded by streets including East 5th Street and Avenues B and C. The city opened 5th Street between East River and 1st Avenue as a public street on October 16, 1826, and confirmed it by court order on October 23, 1826.

The court concluded that the owners, having acquired a private easement by grant originating prior to the city's acquisition of the bed of the street, were legally entitled to recover damages, if any, suffered as a result of the closing of such street at Avenue B. However, the court held that the claimants' proof of damages was basically subjective. Their expert said the estimated damage was not a matter of statistics but rather the product of his feeling and knowledge in the real estate field that both tenants and prospective purchasers would avoid a cul-de-sac street; and that as time went on more and more vacancies would occur on this block, and the owners would find it unprofitable to continue. The economic useful life of the property would be shortened. The city's expert, on the other hand, testified that, in his opinion there was no damage, as no depreciation in value on account of the closing was to be anticipated.

On the basis of the evidence and a "statutory view" the court found no persuasive evidence that the property had diminished in value as a result of the partial closing. Furthermore, the increased safety to children and the enhancement to the owner's property produced by the school should, in the court's opinion, result in no depreciation in values on this block despite the changes made necessary by the closing. The court also called attention to the fact that this was not a busy thoroughfare having stores catering to a transient trade or wide-area clientele. If it were, special injury of a substantial nature would ensue from the limitation on access and drastically curtailed automotive traffic.

The court awarded nominal damages of \$1.00 with interest from the date of closing to each owner, except one, for the taking of their easement of access. No award was granted to one owner who acquired his property subsequent to the closing of the street, the former owner having made no claim for damages<sup>14</sup>.

The second New York case involved a claim for damages alleged to have resulted from a change in location of a state highway. The Court of Claims dismissed this portion of the claim. Upon appeal, the State Supreme Court found that the property involved, upon which was located a gas station and grocery store, was still accessible by means of the old road which had become a branch of the new highway, although the old road terminated in a dead end immediately beyond the property.

The Court of Claims relied upon a previous decision wherein the court held that "mere inconvenience does not stamp a means of access as unsuitable (*Holmes v. State*, 111 N. Y. S. (2d) 634, 1952). The high court, in the present case, was of the opinion that to grant an award in this case would require an extension of the doctrine of the previous case to include mere inconvenience of access which the court specifically held to be insufficient as the basis of a claim in the former case. The high court concluded that the claimant had not been deprived of a suitable means of access (*Crear v. State*, 152 N. Y. S. (2d) 727, June 14, 1956).

Georgia—The Georgia action was instigated by W. T. Long and wife, who sued Dougherty County for damages alleged to have been caused by the State Highway Department's construction of a new highway. The Longs claimed that this construction cut off access to the new highway to and from their lot, which was located on a street abutting the street running at right angles to the new highway and being within a city block of the new highway.

The Court of Appeals stated that the landowners had a cause of action for damages by reason of the cutting off of access from the street on which their lot abutted, the lot being within a block from the obstruction. According to the court the exact question was ruled on in an earlier decision (*Felton v. State Highway Board*, 171 S. E. 198, 1933), in which it was held:

<sup>14</sup>See Memorandum 88, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 322 (July 1956).

Where a street upon which a lot abuts is closed by an obstruction at an intersecting street, which, as respects the lot, makes the street upon which it abuts a cul-de-sac, although the obstruction is neither immediately in front of the lot nor touches the lot, and the obstruction thereby materially diminishes and curtails the right of the owner to the free and uninterrupted use of the street in front of the lot, as a means of access to and from different parts of the city, it constitutes a special damage to the lot, different in kind from that inflicted upon the community in general, and the owner has a right of action in damages therefor.

The court concluded that the county was thus liable for damages to the landowners (*Dougherty County v. Long*, 91 S. E. (3d) 198, Jan. 12, 1956).

### Regulation of Access

The term "regulation of access," is used in this connection to denote restriction of the number of entrances and exits to property and/or the use of such entrances and exits, as opposed to the actual taking of all access rights to the property involved. Restriction of access in this sense is generally held to be a police power regulation and not a taking by eminent domain. In some states, however, when land is actually taken under the power of eminent domain, any restriction of access to the remaining land is held to be an element of damages for which compensation must be paid on the theory that the market value of the remaining land is reduced thereby.

This is illustrated by a decision handed down by the Supreme Court of Kansas. The State Highway Commission sought to condemn some seven acres of land owned by one Emma Gebhart Simmons, for the purpose of widening US 81 south of Salina. Two tracts of land were involved, one referred to as the north tract, consisting of 72.10 acres of unimproved farm land, from which 3.84 acres were taken, and a so-called south tract of 156 acres, 2.58 acres of which were taken by the state. The south tract was improved with a dwelling house, barn, etc.

A county zoning plan prohibited the use of land involved for commercial purposes. The highway before improvement consisted of one lane. The landowner had one entrance to her property directly south of the farm house. After the taking, she was still to have a 40-foot roadway leading to the house.

The trial court rendered a verdict for the land taken and damages to the remainder in the amount of \$29,300, and the State Highway Commission appealed, claiming error, in that the witnesses for the landowner were basing their valuations on the theory that the land fronting the highway prior to the condemnation had substantially higher value than the land remaining.

The Supreme Court disagreed, holding that evidence of this character tended to establish one of the elements of damages subject to consideration in determining the value of the land taken. Although the landowner had but one regular roadway into the land before the condemnation, the court stated that at that time she had a common-law right of access onto the highway at any point, subject to compliance with regulations pertaining to entrances promulgated by the State Highway Commission. In addition to the strip of land taken (approximately 1,190 feet from the north tract, and one-half mile from the south tract), the court continued, the state actually took the landowner's right to use approximately 3,780 feet of access she had theretofore possessed. The opinion of the lower court was affirmed (*In Re Condemnation of Land*, 283 P. (2d) 392, May 7, 1955)<sup>15</sup>.

Something new in the way of controlled-access court decisions came from the Washington Supreme Court on September 8, 1955, when the court handed down a decision to the effect that under its statutory authority, the State Department of Highways had the right to limit access to and from a highway to such travel as would be used by a one-

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<sup>15</sup>See Memorandum 85, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 311 (Apr. 1956).

family residence (State v. Superior Court, 287 P. (2d) 494). This is a milestone which should do much to strengthen the state's authority to control access.

The state instituted condemnation proceedings to have all rights of ingress and egress to certain property in Cowlitz County declared necessary for public use, excepting the right of reasonable access at a specified location, with the stipulation that "access over said approach to and from said Primary State Highway No. 1 shall be limited to such travel as would be necessary to the above property as presently used, which is a one-family residence."

The landowners filed a protest, contending that the state sought not only to limit the means of ingress and egress, but also to control the use to which the remaining land might thereafter be put. They also challenged the jurisdiction of the court to proceed with the condemnation, claiming that it was unauthorized by any statute of the state.

The trial court sustained the objections of the landowners and dismissed the action, whereupon the state asked the Supreme Court to review the proceedings.

The Supreme Court pointed out that highway engineers had testified as to the necessity for controlling traffic entering and leaving the main highway, citing the high accident rate of one section of the state highway system where access was unlimited, as compared with that for the entire state system. The state further testified that in order to preserve the funds allocated for highway purposes and also as a safety feature for vehicles traveling on the main artery, it was necessary that the access rights be taken and limited.

The Supreme Court called attention to the "Declaration of Policy" included in the state's controlled-access statute (RCW 47.52.001), which declared it to be the policy of the state "to limit access to the highway facilities of the state in the interest of highway safety and for the preservation of the investment of the public in such facilities." The court considered that this and other provisions of the enabling statute cited gave the state rather sweeping powers in the acquisition of controlled-access facilities for the purpose of regulating traffic on its main highways.

The court agreed with the landowners that the state had conceived an ingenious device (one purpose of which the state freely admitted was to decrease the amount of damages) of controlling access to uses involving such travel as would be used by a one-family residence. Under the law the state had authority to take all of the property involved. It also had the right to take only that portion thereof which it considered necessary to carry out its purpose. It concluded that the Type A approach, limiting the number of vehicles that might enter and leave the highway, would better protect vehicles traveling thereon.

As to the question of whether the state's method of controlling access would result in damage to all or a portion of the property involved, the court stated that this was a matter to be decided by a jury in a subsequent step of the eminent domain proceedings.

The Supreme Court reversed the lower court's order of dismissal and directed that an order of public use be entered<sup>16</sup>.

### Acquisition of Land for Detours

In connection with the Cleveland Inner Belt Freeway, the Director of Highways of Ohio sought to acquire land to be used as a detour until such time as the expressway should be completed. Owners of land involved asked the court for an injunction to prevent the director from appropriating the land and demolishing the buildings thereon.

The land owner claimed that since the sole use of the property would be to provide a detour road for St. Clair Avenue traffic during the construction of a bridge spanning the Freeway at St. Clair Avenue, the director was without authority to make such appropriation, since this portion of St. Clair Avenue was not a part of the state highway system.

The Director of Highways, on the other hand, contended that both the bridge and the detour road were incident to the construction of the Freeway, and authority to ap-

<sup>16</sup>See Memorandum 85, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 311 (Apr. 1956).



propriate was conferred on him by specified sections of the state's statutes. Analysis of statutory provisions revealed that the director had authority to purchase or appropriate property for roads incident to any highway improvement which he was authorized to construct. The Director also had authority to lay out, establish, acquire, open, construct, etc., controlled-access highways in the same manner, and "all additional authority relative to such 'limited access highways' or 'freeways' as he possesses relative to highways." This latter provision the court interpreted as authorizing the Director to appropriate property necessary for detour roads incident to the construction of a controlled-access highway. Otherwise, the court said, such additional authority as he possessed relative to highways must be given a strained construction or held to be meaningless.

The court noted that there was credible evidence as to the volume and nature of traffic on St. Clair Avenue, and as to the characteristics of streets in the vicinity of East 30th Street and St. Clair Avenue. The court also considered from the evidence that it was sound from an engineering standpoint, and proper constructional procedure to locate the detour road on the south side of St. Clair Avenue, rather than the north side. The Director's decision to so locate it did not appear to be an abuse of the discretion vested in him by law, but contrariwise, a reasonable exercise of it.

The court thus held that the acts contemplated by the Director were not in violation of the state constitutional provision to the effect that "private property shall ever be held inviolate, but subservient to the public welfare." To the extent that the landowners' rights would suffer interference, it would be because of a lawful taking for public use (*Kekic v. Linzell*, 137 N.E. (2d) 581, June 6, 1956).

### Economic Impact of Expressways

Much successful work has been accomplished by state highway departments, or by them in cooperation with university groups, in studying the effects of highway improvements (particularly expressways and bypass facilities) on land values and land uses. A resolution adopted at the Atlantic City, N. J., meeting of the American Association of State Highway Officials in November 1956 recommends ". . . that every state highway department consider the initiation of such economic impact studies, to the extent deemed feasible in each state." In response to a recommendation contained in the same resolution, the Highway Research Board held a conference on March 18-19, 1957, of state highway and university personnel engaged in such studies or interested in them.

The importance of the economic impact studies has been heightened by the mandate, in Section 210 of the Highway Revenue Act of 1956, that non-user as well as user benefits from highway improvements be studied. Studies of the type that have been conducted will be most helpful in meeting this requirement, but to comply fully with the direction of Congress will require that they be widened in scope or that additional studies be organized to meet the broader objectives of the Act.

A new California study, "Tulare Bypass Study," by John F. Kelly, was completed and a report published in the May-June 1956 issue of *California Highways and Public Works*. An article entitled "Techniques of Making Land Economic Studies," by George T. McCoy, California State Highway Engineer, was published in the September-October 1956 issue of the same publication. The Texas Highway Department brought its Gulf Freeway Study up-to-date, and the results were published in 1956 in a report entitled "A 15-Year Study of Land Values and Land Use Along the Gulf Freeway."

At the open meeting of the committee held during the Annual Meeting of the Highway Research Board in January 1957, reports on two current studies were presented. In "Dallas Expressway Economic Impact Studies," Adkins reported some preliminary findings of a study of a section of the Central Expressway in Dallas completed in 1953, and outlined methods used in conducting the study. The study was made by the Texas Transportation Institute, of the Texas Agricultural and Mechanical College System. Its major objectives were to determine changes in selling prices of properties in affected and non-affected areas, changes in tax valuations and in land use in both areas and finally the attitudes of businessmen and residents along the expressway.

In "Washington Highway Economic Impact Studies" Hennes, Garrison and Wheeler

summarized the results of two studies made by the Washington State Council for Highway Research, and published as Parts IV and V, "The Benefits of Rural Roads to Rural Property" and "The Effect of Freeway Access upon Suburban Real Property Values," respectively, of a study entitled "Allocation of Road and Street Costs." As indicated by the titles, two different types of roads were studied. The two different methods used are explained. Both of these papers are reproduced in full in this report.

### REGULATION OF THE ROADSIDE

The most effective means of regulating the roadside, to maintain the efficiency of the highway plant, is control of access. However, since it is economically feasible to control access on only a small percentage of the entire highway mileage, other methods must be used.

There are a number of these other means—regulation of the number and perhaps the use of entrances and exits, establishment of zoned districts for highway service facilities, control of the size and location of outdoor advertising media, etc. These mechanisms have not been used to any great extent at the state level, due in large part to the difficulty in obtaining appropriate enabling legislation. Although the general public may recognize the desirability of such controls in general, it is hard to generate sufficient enthusiasm to convince the state legislatures that the public is behind such legislation.

There were a number of pertinent decisions handed down during 1956 in this field, most of which pertained to the action of local zoning boards in allowing or disallowing variances to permit billboards, drive-in theaters, gasoline stations, etc., in areas where such uses were excluded under existing zoning ordinances. In general, these reflect a tendency on the part of the courts to avoid rigid enforcement of zoning provisions, applying instead a rule of reasonableness in their interpretation. These court decisions are summarized in the discussion that follows.

On June 6, 1956, the Court of Appeals of Ohio handed down a decision (*State v. City of Bedford*, 134 N. E. (2d) 727) which permitted the erection of a gasoline filling station on premises zoned residential.

The property in question was located on the northeast corner of the intersection of Union Street and Northfield Road. That intersection was the busiest traveled of any street intersection in the City of Bedford. Both roads were access highways to the Ohio Turnpike. The northwest and southwest corners of the intersection were used for gasoline service stations, and such use conformed to the zoning restrictions. Since Northfield Road had been improved, and the Cleveland Electric Illuminating Company had acquired, by legal action, an easement over a strip along the entire Northfield frontage, the property involved here was reduced to almost an unusable remnant. Although it was possible to use each parcel for residence purposes with undesirable limitations, the probability of its use for that purpose had been almost completely destroyed.

The court held that according to the undisputed facts, it had to conclude that the landowners were entitled to a building permit. Any other conclusion, said the court, would put the decision in this case in direct conflict with the decision of the Court of Appeals for Warren County (First District) in the case of *State ex rel. Euverard v. Miller* (98 Ohio App. 283, 129 N. E. (2d) 209, 1954), where the court held in the second paragraph of the syllabus:

2. Where property is situated at the intersection of two heavily traveled thoroughfares, in the midst of commercial establishments, and has little suitability for residential use, but rather is a prime business site, the zoning thereof for residential uses only has no tendency to promote the public health, safety, morals, convenience, or general welfare, and bears no reasonable relation thereto and as applied to such property, is arbitrary, unreasonable and beyond the zoning power.

The court said that zoning was the application of the police power of the state or municipal corporation in the classification of the use of real property for the protection of

the health, safety, morals and the general welfare of the people. To completely destroy the value of the property of a citizen and at the same time provide no useful benefit to the people in the neighborhood to which it had application, the court continued, should not be permitted. Thus, the property owners had a clear legal right to erect a gasoline station on the premises, notwithstanding the residential zoning classification.

Connecticut—The facts of this case were not in dispute: The company owned a piece of property on the south side of Silver Lane, opposite Gold Street in East Hartford. The property was located in an industrial zone in which gasoline could be sold if permission were granted by the board. The highway consisted of two 10-foot concrete lanes with 10-foot shoulders. There was a bend in the road about 400 feet west of the company's property which would limit the range of a driver's vision.

The trial court permitted the company to call as a witness Charles O. Pratt, who testified as a civil engineer engaged in traffic work. On the basis of his testimony, the trial court concluded that a serious hazard would result from the granting of the special exception. The Supreme Court adopted the opposite view and held that the most that could be said of Mr. Pratt's testimony was that in his opinion a serious traffic hazard was not apparent. Furthermore, the court took notice that the zoning board had before it ample evidence, in the way of verbal testimony and exhibits, to support a conclusion that a gasoline station at the point in question presented a traffic hazard and involved a safety factor. The Supreme Court held, therefore, that the board's refusal of the certificate as a special exception was justified even if the zoning regulations permitted use of the property for a gasoline station.

The Supreme Court warned that courts must be scrupulous not to hamper the legitimate activities of civic administrative boards by indulging in a microscopic search for technical infirmities in their action. In the instant case, the high court held that the trial court was not justified in concluding that the action of the board was arbitrary, unreasonable and in abuse of its discretion.

The Supreme Court set aside the judgment of the trial court and remanded the case with direction to dismiss the appeal (*Silver Lane Pickle Company v. Zoning Board of Appeals*, 122 A. (2d) 218).<sup>17</sup>

### Outdoor Advertising

A significant law pertaining to billboards on expressways was passed by the General Assembly of the State of Georgia in its 1956 session. This law prohibits, with certain exceptions, erection or maintenance of any advertising device located within 300 feet of the nearest edge of the pavement of a controlled-access highway within the corporate limits of any city without a written permit from the governing authorities of the city. The general purposes of the act are: (a) to provide for maximum visibility along the limited-access highway and connecting roads or highways; (b) to prevent unreasonable distraction of operators of motor vehicles; and (c) to prevent confusion with regard to traffic lights, signs or signals or otherwise interfere with the effectiveness of traffic regulations.<sup>18</sup>

Measures designed to regulate outdoor advertising along the National System of Interstate and Defense Highways have been under consideration by the United States Congress during the early part of the 1957 session, but no law had yet been enacted at the time this report was prepared.

At least two decisions pertaining to regulations of outdoor advertising were noted during the year. These decisions, handed down by courts in Florida and Rhode Island, are summarized in the following:

Florida—The Supreme Court of Florida, in the case of *Smith v. Bus Stops of Greater Miami, Inc.* (89 So. (2d) 221, Aug. 8, 1956), held that the city had no implied authority to enter into a contract with Bus Stops of Greater Miami, Inc., to place advertising markers at bus stops under its general police power or express charter authority to

<sup>17</sup> See Memorandum 89, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 323 (July 1956).

<sup>18</sup> Georgia Local and Special Acts and Resolutions, 1956, No. 394, (House Bill No. 258).

regulate the use of its streets. The Supreme Court consequently reversed the lower court's decree dismissing the complaint.

The contract was entered into in order to place "distinctive markers" along the city streets, in consideration for which the corporation agreed to pay the city \$8 per year per marker. The markers were to be placed at stops along the regular bus routes and, in addition to indicating the stops, they would provide other information of interest to the public, such as weather forecasts, safety slogans, and schedules of public events. The contract also provided that the corporation would be able to use a small portion of the space on the marker, not to exceed 380 square inches, "for display advertising of a tasteful and suitable nature."

Clarence Smith and his wife instituted this suit in order to prevent the city and the corporation from erecting such markers on the street right-of-way abutting their premises on the ground that the city had no authority to contract for the use of its streets for private advertising purposes and the proposed marker would constitute a public and private nuisance.

The court noted that the city had no express legislative authority to enter into the contract in question; and the sole issue here was whether the authority to do so could be implied from its general police power or its express charter authority to regulate the use of its streets.

The court cited a long line of decisions in which it was held that, in the absence of express legislative authority, a city had no power to grant a private individual a privilege to use any portion of its streets or sidewalks for a special private purpose. In accordance therewith, the court reversed the decree of the lower court and the cause was remanded for the entry of a decree in favor of the Smiths.

Rhode Island—Newport Poster Advertising Co. v. City Council (122 A. (2d) 170, Jan. 17, 1956) was a case brought before the State Supreme Court, which held that the arbitrary action of the city council in denying the application for the erection of billboards on a lot in a commercial zone rendered their decision void.

The facts of the case revealed that the city council ordered a hearing on the application on February 2, 1955, but on that date the counsel for the advertising company requested a postponement to March 2, 1955, and it was so voted. On March 2, 1955, a hearing was held on the application during the course of which four witnesses were heard. Some of them apparently opposed the application, but the court noted that the grounds for such opposition did not appear in the record. The written objections were based on aesthetic grounds and probable depreciation in the value of adjacent property if the billboards were erected. No complaint was made that the billboards, as such, would be obnoxious to the health, safety, or morals of the public, nor was it contended that the plans and specifications failed to comply with the provisions of the ordinance governing the construction of billboards.

At the conclusion of the hearing, the city council reserved decision until their next regular meeting. However, no action was taken at that meeting, but at the following meeting on March 24, 1955, apparently without giving any reason therefor, they voted unanimously to deny the application. The court said it appeared to have been a purely arbitrary determination for which the council did not deem it necessary to assign reason notwithstanding Sec. 10.2 of Chap. 83 of the ordinance, which expressly provided that such an application should be granted unless "good and just cause" existed for denial.

The city council in their argument and brief frankly conceded that the denial of the application was arbitrary, but nevertheless contended that such action should not be quashed, since the company had not made application to the city council for a permit as provided in General Laws 1938, Ch. 375, § 3. The court ruled that there was no merit in this contention because it disregarded the procedure expressly prescribed in Sec. 10 thereof, which provided that an application for a permit must first be made to the building inspector. The court noted that the company had followed that procedure, and the city council could not now say that the company should have filed an application with the council.

The company raised the question of the constitutionality of the entire ordinance as being in violation of the due process clause of Article XIV of Amendments to the Constitution of the United States and Article 1 Secs. 10 and 16 of the State Constitution. In the circumstances, the court felt that it did not need to pass on this issue, since the admittedly arbitrary and capricious action of the city council denying the application rendered their decision

illegal and void and required that the record of such denial be quashed. The papers certified to the Supreme Court were sent back to the city council with the decision of the Supreme Court's decision endorsed thereon.

### Drive-in Theaters

**Massachusetts**—The Supreme Judicial Court of Massachusetts, Worcester, recently reversed the decree of a lower court which dismissed an appeal from a decision of the Zoning Board of Appeals of the Town of Leicester, granting a variance to operate a drive-in theater in a residential district on the ground that the appeal was not seasonably filed (*Spaulding v. Board of Appeals of Leicester*, 138 N. E. (2d) 367, Nov. 15, 1956). Thirteen owners of real estate, near or adjacent to the proposed theater site, brought this suit to prevent the Board from granting the permit.

On January 7, 1954, the Board of Appeals filed the following paper with the town clerk:

"The recorded vote of the Board of Appeals on petition of Stephen G. Minasian to construct and operate an open air theater on Main St. Leicester on property owned by him . . ."

Nothing else appeared upon the paper except the names of the members of the Board and their unanimous vote in favor of the petition.

Subsequent to the filing of the paper, some of the owners endeavored to learn from the Board the reasons for its decision. In some instances they were told that the Board did not have to give reasons, and in other instances, that the reasons would be filed later in accordance with the requirements of G. L. (Ter. Ed.), C. 40, § 30, as amended. This went on for some months until on August 17, 1954, a paper entitled "Statement of Facts" was filed with the town clerk. This paper stated that the Board conducted a public hearing on the petition for a variance on January 6, 1954, gave the names of the members of the Board present, and summarized the arguments of the proponents and opponents.

The court had to decide which of the two papers filed should be considered the decision of the Board in order to determine whether the appeal was seasonably filed.

The lower court ruled that the paper filed on January 7, 1954, was the decision, even though it did not fully comply with the statute (C. 40, § 30, as amended). Because it was not seasonably challenged by the plaintiffs, it could not be declared a nullity.

The Supreme Judicial Court held that it was error to rule that the appeal was not seasonably taken under the statute, because here the paper filed January 7, 1954, only purported to be a vote on a petition to operate an open air theater. There was no recital that a variance was granted. In fact, the word variance did not appear, and the court concluded that this obviously was not a decision to grant a variance.

Upon examining the Board's decision of August 17, the court was of the opinion that it failed to comply with that portion of C. 40 § 30, as amended, which authorized a variance:

". . . where, owing to conditions especially affecting such parcel but not affecting generally the zoning district in which it is located, a literal enforcement of the provisions of the ordinance or by-law would involve substantial hardship to the appellant, and where desirable relief may be granted without substantial detriment to the public good and without substantially derogating from the intent or purpose of such ordinance or by-law, but not otherwise."

The high court said that these statutory prerequisites to granting a variance were stated conjunctively and not disjunctively<sup>19</sup>, and that a failure to establish any one of them would be fatal. The court said there was no finding of substantial hardship here,

<sup>19</sup> When construing statutes which have a series of words, phrases or clauses, the courts often must decide whether the legislature intended that the listing should be treated jointly or separately. If jointly, they are said to be "conjunctive," and all items in the series must be read together. If separately, they are said to be "disjunctive," and the statements are used to indicate alternative choices.

and such an omission was enough to settle the matter. The court reversed the lower court's decision on the ground that the Board's action was in excess of its authority and would have to be annulled.

Missouri—This case (*State v. Randall*, 297 S.W. (2d) 586, Dec. 3, 1956) originated when James E. Fortmeyer filed application with the Jackson County Board of Zoning Adjustment for a special permit authorizing construction of a drive-in theater on a 55-acre tract of land. The Circuit Court reversed the order of the Board which had granted a special permit. The Board appealed the reversal.

The tract in question was located within a District D zone, which was an agriculture district in accordance with Section 9 of the Jackson County Zoning Order. Drive-in theaters were not permitted in such districts, and buildings therein were specifically limited to 35 feet in height.

However, Section 14 of the zoning order dealt with Special Classes, and was alleged here to permit construction of a drive-in theater. Section 14 provided:

Any of the following uses may be located in any district by special permission of the Board, after public hearing, provided that in their judgment such use will not seriously injure the appropriate use of neighboring property, and will conform to the general intent and purpose of this order; and further provided that such uses may be granted with a time limitation, and shall comply with the height and area regulation of the district in which they may be located.

Among the uses provided by that section, as amended, were drive-in theaters; and, as amended, the height of the structures authorized under this section could be whatever the Board might determine, without regard to such limitations as might be established in any of the districts established by the order.

The court summed up the meaning of Section 14 as a section which permitted the Board to disregard uses and height regulations in every district established, if it saw fit to grant a special permit for any of the uses mentioned in Section 14. The court noted that a refuse dump or a sewage disposal plant could be established in any district in the county, under the provisions of Section 14. The court, therefore, believed that the section had the effect of destroying the uniformity of an otherwise excellent zoning order. To allow this, the court felt, would permit rule by caprice rather than rule by laws applicable to all alike.

The court referred to an opinion of the St. Louis Court of Appeals by Judge Wolfe as a situation "on all fours" with the principal case. In that opinion, the St. Louis court held that the county council had no power to issue a special permit abrogating specific regulations as to uses and structural heights provided for the governance of a district wherein the special permit was to operate.

The Kansas City Court of Appeals believed that that ruling properly declared the law of Missouri and that it should be followed here. The court, therefore, held that, notwithstanding a section of the zoning order which allowed the Board to issue special permits which disregarded use and height regulations in every district established, the Board had no power to issue a special permit which authorized construction of a drive-in theater with a screen 74 feet high in a district zoned for agricultural purposes where the height of structures was limited to 35 feet. Consequently, the lower court's judgment refusing the permit was affirmed.

### Driveway Control

The Supreme Court of Colorado, in the case of *Richards v. Batterton* (298 P. (2d) 390, June 11, 1956), refused to grant a writ to prevent the completion of a curb cut and the establishment of a driveway across municipally-owned property for the purpose of furnishing ingress and egress to off-street parking in the rear of a medical clinic building owned by Rosenberg, et al. on Gilpin Street in Denver, Col.

The neighboring property owner who brought this suit contended that the action of the traffic engineer, in approving the curb cut, was arbitrary and capricious and ill considered, because a traffic hazard would be created. He also contended that there was no necessity for the project; that the cutting of the curb would create a nuisance

for him and the neighborhood; and that it would depreciate the value of his adjoining property. He asked the court to restrain the defendants from cutting the curb. A temporary restraining order was issued by the trial court and a hearing was set for October 21, 1955.

At the hearing, the trial court heard evidence adduced by both parties and denied the temporary injunction. The lower court held that:

"If they received a permit it's the contemplation of the court they may proceed to effect the curb cut, and the curb cut is the only thing in issue in this case."

From the judgment so entered the neighboring owner brought the cause to the Supreme Court, claiming that the judgment of the trial court was "contrary to the evidence."

The Supreme Court noted that there was no contention that the Manager of Improvements and Parks, or his agents, acted in excess of the scope of their lawful authority; neither was it contended that they did not, or would not, consider all applicable facts or failed to consider the interests and well-being of the general public before issuing the permit to install the driveway.

This case obviously fell into the area of discretion where honest men could reasonably differ, said the court, and inasmuch as no fraud or bad faith was suggested—and certainly none was shown—the discretion lawfully exercised by the manager and his agents would have to stand.

The lower court's judgment denying the temporary injunction was affirmed.

## PARKING

Although courts generally have upheld the authority of governmental agencies to establish and operate public parking facilities under adequate enabling legislation, various matters pertaining to this particular governmental function continue to be the subject of a great deal of litigation. The year 1956 was no exception, the committee having noted at least 13 decisions in 11 states concerned with the matter. Questions raised ranged all the way from the constitutionality of the enabling legislation to the authority of a city to use property acquired for a slum clearance project temporarily as a parking lot. Brief reviews of all the cases noted are included in the following.

### Parking as a Public Purpose

In at least two states (Massachusetts and Nebraska) there were court decisions holding that the provision of parking facilities was a public purpose.

Massachusetts—In the Massachusetts case of *Tate v. City of Malden* (136 NE (2d) 188, July 27, 1956), a privately-owned parking lot was taken by the city through eminent domain proceedings for the purpose of constructing a public parking place. The owners contended that the land was already devoted to a public use, and according to Article 10 of the Declaration of Rights, there was no necessity of exercising the extraordinary power of eminent domain. The Superior Court ruled that the taking was null and void, and the city appealed to the Supreme Judicial Court of Massachusetts.

The Supreme Court held that the decree was erroneous, because the special statute under which the city acted (ST. 1954, C. 600) did authorize the taking of the owner's land even though at the time of the taking it was being used for parking purposes. The court noted that among the several significant differences between private ownership of land being devoted to a public purpose and that of public ownership was the fact that the private owners at any moment could decide to sell the land for other purposes or to use it themselves for other purposes.

The court held that the provision of off-street parking spaces was a public purpose for which land could be taken under the statute. Such a provision was an essential concomitant of the provision of highways for the use of automobiles. The parking lot was a necessary public utility in a society which has so evolved that its functioning is dependent on the daily movement of much of the population in motor vehicles.

The court also noted that legislative findings on the question of what is a public use are significant. The court ruled that in serving this public purpose, the legislature and

the aldermen acting under the delegated power might lawfully plan for the long future and fix into the plan as parking areas lots deemed appropriate therefor, taking them at such time as appeared appropriate, whether or not they were devoted to like use by private owners.

The lower court's decree was reversed and a decree entered, adjudicating the validity of the taking.

**Nebraska**—The Nebraska case involved an action to determine the validity of the Parking Authority Law. The trial court found the law unconstitutional. The Omaha Parking Authority appealed to the Supreme Court and obtained a reversal of that decision (*Omaha Parking Authority v. City of Omaha*, 77 NW (2d) 862, July 6, 1956).

The Parking Authority alleged that it had requested the City of Omaha and the County of Douglas for the right to enter upon the streets surrounding the county courthouse site for the purpose of constructing parking facilities as provided by the law in question. Both the City of Omaha and the County of Douglas refused the requests on the ground that the Parking Authority Law was unconstitutional, because it was special legislation in that it applied only to the City of Omaha and the County of Douglas, and that the sole purpose of the act was the control of vehicular traffic, which was a matter common to all cities and counties of the state. The court was of the opinion that the legislature could properly deal with the traffic problems of metropolitan cities without violating Article III, Section 18, of the Constitution, which prohibited special legislation. If traffic problems existed in cities of other classifications, the remedy might be altogether different. The present law had application to cities of the metropolitan class and had none of the aspects of special legislation.

The city also contended that the Parking Authority Law, even if valid, had no application to the City of Omaha for the reason that the city operated under a home rule charter and that the use to which streets, including subway areas, were to be put was a matter of local concern. The court conceded that a provision of a home rule charter took precedence over a conflicting state statute in instances of local municipal concern, but when the legislature enacted a law affecting municipal affairs which were of state-wide concern, the state law took precedence over any municipal action taken under the home rule charter.

The court reasoned that the state had inherent power to establish, maintain, and control the highways of the state, including those within corporate limits of municipalities. While the legislature could properly delegate certain powers over streets, alleys, and highways to a municipality, it nevertheless retained the power to legislate with reference thereto, even in home-rule cities, where a matter of state-wide policy and concern was involved.

The court held that the major and primary object of the act in question was to facilitate and make safe the use of the highways. Its justification stemmed directly from the exercise of the police power, and it transcended any purely local concern and was one of state-wide interest. The power of a municipality over its streets was statutory and not exclusive. It was subject to the superior control of the state except where the Constitution prevented its doing so. There was no such constitutional prohibition when the subject matter was one of state-wide concern.

The County of Douglas asserted that the state could not take its property or direct its use to the benefit of another public corporation without its consent. It urged that such power did not exist unless it was for the benefit of the whole taxing district, and that mere incidental benefits would not fulfill the requirements of the law. The court was of the opinion that subway parking and off-street parking constituted a public use, and in providing them, a public function was being accomplished. The court also held that the state clearly had the right to direct the use, management, and disposition of the county property so long as it was done for the benefit of the public in the taxing district.

The County of Douglas next contended that the Parking Authority Law was unconstitutional in that it provided for the acquisition of public property for a private use, inasmuch as the authority was directed to lease or grant concessions for the use of the facilities to one or more operators to provide for the efficient operation thereof. The court said that the determination of this question was dependent upon the over-all pur-



poses to be accomplished in the leasing of public property to a private corporation. If the purpose to be accomplished in leasing the parking facilities to a private person remained a public one, the leasing was proper. The court also ruled that the statute in question afforded ample protection against converting the facilities to a private use. Any attempt to do so would subject the Authority and its lessee to a legal remedy.

In summary, the Supreme Court held that the Parking Authority Law was enacted for a public purpose; it involved a matter of state-wide concern and was controlling over the home rule charter of the city. The object sought to be reached by the statute could not be realized by the action of private individuals, for the statute indicated that the purpose could not be accomplished except by the use of streets and county courthouse areas. Adequate controls were provided in leasing such facilities to private persons for their operation to insure that they would retain their public character, and, therefore, the act did not authorize the use of public property for a private purpose. For these reasons, and others stated in the opinion, the court held the Parking Authority Law to be constitutional.

### Use of Parking Meter Revenue

In three States (California, Michigan and Ohio) questions as to the nature and the possible use of revenue from parking meters were answered by the courts. The California and Ohio cases involved the legality of using such revenue to finance off-street parking facilities. In Michigan, the litigation concerned the question as to whether fines and penalties imposed for violations of a parking meter ordinance might be regarded as revenue from a parking system.

**California**—The question as to whether cities in California might make a binding agreement to maintain parking meters on specified streets, the net revenues from which were pledged to the payment of principal and interest on bonds issued to provide off-street parking facilities, arose when the City of LaMesa published a notice of its intention to take such action. The city and the owner of the newspaper in which the notice appeared took the matter to court when the city clerk refused to countersign the warrant for payment of the cost of publication. The clerk's refusal was based on the ground that the publication was unauthorized and illegal and therefore, the charge for publication was illegal.

The city based its claims mainly on three points: (1) The majority rule in other jurisdictions upholds the validity of an agreement to maintain parking meters on specified streets. (2) Section 18½ of Article XI of the state constitution authorizes the type of agreement here involved. (3) Provisions of the Parking District Law of 1951 sufficiently preserve to the city the essentials of its police power.

The city cited numerous cases from many jurisdictions to uphold these points. The District Court of Appeal said that the majority of those cases tend to support, in principle, the validity of such an agreement as the one here in question, and that there was no surrender of the police power in such a case where reasonable reservations were made which permitted a change in the location of the meters whenever necessary for traffic regulation. The court then called attention to such reservations in the Parking District Act of 1951. For example, Section 35701 provided that any agreement of this nature shall not affect the right of a city under its police power "to control, regulate, or prohibit the parking of vehicles on any public way, or portion thereof, to the extent necessary to protect the public safety." The most important element of police power in connection with traffic control—the matter of public safety—was thus preserved.

The court noted that the Parking District Law of 1951 provided for the continued maintenance of on-street parking meters on specified streets, and for certain periods of time, when the revenue therefrom is pledged for the payment of the bonds authorized to be issued. By this Act the state, from which the city derives its police power to regulate traffic, had defined and limited one way in which the city might continue to exercise one of its powers; that is, traffic regulation. It would seem, the court said, that under general principles, it could well be held that the proposed agreement with the bondholders to maintain meters on specified streets, as authorized by the 1951 act, would not constitute an illegal surrender by the city of its police power. However, under the court's view of the constitutional provision directly involved it was unnecessary to so hold at this time.

The court recalled that two former state parking laws failed to meet the increasing need for off-street parking. Therefore, a proposed constitutional amendment was submitted to the voting public in 1950. This amendment was adopted as Section 18 $\frac{1}{4}$  of Article XI of the state constitution. So far as it is material here, the section provided that when a city is authorized to acquire public parking lots and issue bonds, secured in part by the revenue produced by parking meters, it "is also authorized to pledge ... or otherwise make available ... " as additional security for such bond "... any or all revenues from any or all street parking meters then owned ..." or to be acquired by the city. The court held that such language of the amendment clearly authorized the pledging of revenue from parking meters on specified streets.

It was argued, however, that the amendment did not expressly authorize a covenant to keep such meters on such streets for the life of the bonds. The court believed that authority to pledge revenues from particular parking meters then owned or later acquired on specified streets by implication carried with it the authority to agree to keep these meters on the streets for the life of the bonds.

While the authorization thus given might involve some interference with the exercise of the police power which would otherwise exist, the court continued, this interference resulted from and was permitted by the constitutional provision itself. Being authorized by the constitution, no unauthorized or illegal surrender of police power appeared.

In view of the language of the constitutional amendment, the court concluded that the proceedings here in question were valid, that the warrant was legally issued, and that the provisions of the 1951 Act sufficiently preserved to the city the essential elements of the police power in connection with its regulation of traffic on its streets (*City of LaMesa v. Freeman*, 291 P. (2d) 103, Dec. 16, 1955)<sup>20</sup>.

In a decision handed down by the Supreme Court of Ohio in the case of *Garrett v. City of Cincinnati* (139 N. E. (2d) 35, Dec. 19, 1956) it was held that a municipal corporation had the power to effectuate an increase in parking meter fees. The court made its decision in view of the fact that the increase bore no relation to the cost of regulating on-street parking and even though its sole purpose was for payment of part of the cost of the city's off-street parking program.

Garrett brought the case as a taxpayer to prevent the city from collecting certain on-street parking meter fees, on the grounds that they were excessive, and in violation of Section 5a, Article XII of the Constitution. This section limited the purposes for which revenue derived from fees relating to the registration, operation, or use of vehicles on public highways, or to fuels used for propelling such vehicles were to be expended. The Supreme Court held that the section was a limitation only on the use of state-imposed fees, and not applicable to fees imposed by municipal corporations.

The Supreme Court affirmed the lower court's judgment on the authority of *State ex rel. Gordon v. Rhodes* (107 N. E. (2d) 206, 207, June 25, 1952) in which the court said:

Where fees charged by a municipality for the parking of motor vehicles on and off the streets are not unreasonable in amount or designed to bring to the municipality revenue other than sufficient to cover the cost and expense of providing necessary parking facility for such motor vehicles on and off the streets of the municipality, the charging and collection of such fees will not represent the levy of a tax.

In a decision handed down December 28, 1956, the State Supreme Court held that a fine imposed on one convicted of violating the parking meter ordinance was not a fee or charge for service rendered (*Thomson v. City of Dearborn*, 79 N. W. (2d) 841, Dec. 28, 1956). It followed that fines and penalties imposed for violations of the parking meter ordinance were not to be regarded as revenue from the system. The court decided, therefore, that such monies would be required to be credited to the city's general fund, rather than to a special fund for the benefit of holders of obligations issued in connection with establishment of the municipal parking system.

<sup>20</sup> See Memorandum 89, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 323 (July 1956).

One James Thomson, a landowner and taxpayer, brought suit to test the validity of Ordinance 50-550 as amended, insofar as it related to the disposition of fines and penalties received by the city because of parking meter violations.

The landowner contended that fines collected for the violation of an ordinance should have been deposited in the general fund of the city, but the city deposited the funds in the special parking meter receiving fund for the benefit of that fund. The landowner also contended that, because the amount of money to be raised by taxation for city purposes each year was determined by reference, among other factors, to the estimated revenue from fines and penalties, and that withholding the collections in issue here from the general fund would necessitate the raising of an additional amount by taxation of property within the city to make up for the deficiency. It was claimed that this operated to the prejudice of the landowner.

The lower court's decree declared that the provision of the amended ordinance with reference to the crediting of fines and penalties imposed for violations of the ordinance to the parking meter fund was invalid, holding that the fines thus collected should be deposited with the general fund of the city.

In affirming the lower court's holding, the Supreme Court adopted the reasoning that, if money that should be credited to the general fund were diverted therefrom, that fund would suffer annually to the extent of diversion, and the raising of a like sum by taxation each year would be required. The court said that, as a practical proposition, the failure to properly credit the general fund with monies that should be used to augment it was tantamount to taking money from such fund and depositing it in a special fund to be used for the purposes for which such special fund had been created.

The court further declared that the holders of revenue bonds issued by the City of Dearborn in connection with establishment of a municipal parking system were not entitled to receive payment of interest and principal except from net revenues of the improvement and were not entitled to benefit of additional funds collected from other sources.

A fine imposed on one convicted of violation of a parking meter ordinance was not in any proper sense of the term a charge or fee for service rendered, the court continued. The purpose of the penal provisions of the ordinance was to enforce, for the benefit of the public generally, the regulations imposed by the city for the use of the facility. The fine was imposed by way of punishment, rather than as a charge for the service that had been rendered. The court concluded that the trial judge was right in holding that such fines and penalties were not revenue from the operation of the improvement, and should be credited and used in accordance with their true character.

### Financing of Municipal Parking

Two decisions regarding the legality of methods used to finance the provision of parking facilities were noted during the year. In a North Dakota case, the court held that a city could not use the front footage method in levying a benefit assessment, when such a method resulted in an assessment against property owned by a railroad of more than its proportionate share of the cost of the improvement. In Illinois, the court upheld the validity of a municipal off-street parking revenue bond ordinance.

**North Dakota**—The proposed off-street parking lot was intended to provide off-street parking facilities for the principal business district of Grand Forks. The city council approved the project, adopted a resolution of necessity, provided that 20 percent of the cost should be paid by a general tax upon the whole city and that the remaining 80 percent should be levied as a special assessment, and established a special assessment district within which the special assessments were to be levied.

The special assessment commission inspected the property to be assessed and attempted to work out an equitable method of levying the assessment. They finally concluded that the only way in which this could be done was on a front foot basis. The assessments worked out by the commission were approved by the city council.

One of the property owners against whom the special assessments were levied was the Northern Pacific Railway, which brought action to enjoin collection of the assessments levied against their property. The District Court dismissed the action and the railway appealed to the Supreme Court. The high court held that use of the front foot-

age method resulted in an assessment against the railroad's property of more than its proportionate share of the cost of the improvement, and, therefore, the railroad was entitled to have collection of the special assessments enjoined.

The railroad company claimed that statutory provisions authorizing financing of off-street parking facilities by special assessment were unconstitutional. The court held that the constitutionality of the statute depended upon whether property in the vicinity of the parking lot derived a special benefit from the improvement in addition to the general benefit in which the whole city shared. The court had no doubt that it did derive a special benefit, noting that the provision of parking space in the vicinity of a congested mercantile area, by making it conveniently accessible to trade, tended to reverse the trend toward decentralization and thus stabilized business in the area.

The question of whether the benefit to each parcel of land in the district had been determined with sufficient accuracy to avoid the constitutional prohibition against taking property without compensation or due process of law, continued the court, was one which must be determined according to the means used and the results achieved in each case.

The statutory provision under which the city was proceeding provided that (a) the special assessment commission must personally inspect all the property which might be subject to the special assessment and determine which would be benefited by the construction for which the assessment was to be made; (b) the commission must determine the amount in which each property would be benefited; and (c) the commission must assess against each such property such sum, not exceeding the benefits, as would be necessary to pay its just proportion of the total cost of the work. Compliance with these requirements, said the court, would undoubtedly remove all constitutional objections.

In line with previous court decisions cited, the court stated that the foot frontage method of apportioning assessments could only be used in cases where benefits conferred on the assessed property were equal and uniform, as in the case of water mains, sidewalks, pavements, sewers, etc.

In the present case, the court found that in general the properties owned by the Northern Pacific Railway did not benefit from the presence of the parking lot. A large area of the railroad property was used for tracks, other parcels where buildings stood had parking space, while still others were occupied by businesses which had little need for parking facilities. The court concluded that use of the foot frontage method of assessment in this case resulted in an assessment against the railroad company which was more than its proportionate share of the cost of the improvement.

The judgment of the trial court was reversed (*Northern Pacific Railway Company v. City of Grand Forks*, 73 N. W. (2d) 348)<sup>21</sup>.

**Illinois**—The point raised here concerned the validity of a municipal off-street parking revenue bond ordinance. The trial court refused to enjoin payment of bonds issued under the provision of the ordinance and dismissed the complaint. The State Supreme Court affirmed the lower court's decision (*Cherry v. City of Rock Island*, 132 N. E. (2d) 536, Feb. 28, 1956).

The sole contention in the complaint was that the City of Rock Island had surrendered its police power by virtue of certain specific covenants authorized and required to be in the bonds by the ordinance. It was specifically contended that the ordinance surrendered city control (a) over building and other facilities to be erected in the future on lots to be acquired, (b) over free parking thereon, and (c) over street traffic. It was further alleged that the city also surrendered power to finance and acquire future parking lots.

This ordinance was adopted by the city pursuant to authority granted by the Revised Cities and Villages Act (Ill. Res. Stat. 1953, Chap. 24, par. 52.1-1 et seq.), commonly referred to as the Parking Act. The act empowered corporate authorities to provide in the bond ordinance such "... covenants as may be deemed necessary or desirable to assure a successful and profitable operation of the project and prompt payment of principal of and interest upon the said bonds so authorized." It also authorized the municipality to covenant "to maintain the project in good condition."

<sup>21</sup> See Memorandum No. 86, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service Circular 312 (Apr. 1956).

The Supreme Court noted that it had previously held the enabling act valid in *Poole v. City of Kankakee* (94 N. E. (2d) 416, 1950). No question of statutory validity was presented here.

In the *City of Kankakee* case, the validity of a city ordinance adopted under the Parking Act was also an issue. Since the ordinance in the present case was patterned after and in many respects was similar to the *Kankakee* ordinance, and since the *Kankakee* ordinance was attacked on the ground that it surrendered police powers of the municipality, the city asserted that the decision of the Supreme Court in the *City of Kankakee* case resolved the issue presented in this case and was conclusive.

When the *Kankakee* case was presented to the Supreme Court for decision, two grounds of invalidity of the ordinance, among others, were asserted; viz., (1) the act granted no authority to pledge income of parking meters already installed as security for the bonds to be issued for the payment of the off-street parking sites and (2) the ordinance relinquished the city's right of police power until the bonds were paid. The court held that the pledge of income from existing facilities in the *Kankakee* case did not render the ordinance invalid.

After considering the provision preventing any change in the ordinance until the bonds were paid in full, in relation to other ordinance provisions concerning change of location of meters when necessary for traffic regulation and control, withdrawal of existing off-street parking facilities for erection of multiple-level parking structures, provision of limited free off-street parking and the right of redemption, the court held that there was no attempt on the part of the *City of Kankakee* to enter into a contract the effect of which was to prevent the exercise of police power by the state. The court concluded that "insofar as we can determine, the ordinance here commits the city only to the performance directed by the Parking Act, and as such does not constitute a surrender of its police power."

The present court decided that the *Rock Island* ordinance was identical with the *Kankakee* ordinance except that the right to provide free off-street parking was limited to 10 percent instead of 25 percent of such facilities. The court ruled that the parking system must be considered as an entirety, as was recognized in the *Kankakee* case. The court noted that in the *Kankakee* case, their remarks were directed to the pledge of revenues from existing facilities but the same reasoning applied with equal or greater force to facilities to be acquired in the future. The covenants complained or specifically followed the authorization contained in the act to provide such covenants as might be necessary to assure a successful and profitable operation of the project and prompt payment of the bonds, and to maintain the project in good condition, and concerning issuance of additional revenue bonds. The judgment of the city council within express authority as to what is necessary or desirable in that respect, continued the court, would not be overridden by the court in the absence of a clear showing of error or abuse of discretion.

The complainants in effect asked the court to overrule its prior decision in the *City of Kankakee* case. Considering the *Rock Island* ordinance in its entirety with the Parking Act, it did not appear to the court that the *City of Rock Island* had surrendered any of its police powers but on the contrary had retained wide discretion in that respect while reasonably protecting the interests of holders of its revenue bonds by covenants specifically authorized in the enabling statute.

The decree of the trial court was affirmed.

### Parking Facilities and Zoning Ordinances

The construction of parking facilities in areas zoned for residential use only was contested in the courts of at least three states during the year. The courts upheld the provision of such facilities to serve an American Legion post and an art association, but refused to approve a similar variance to provide parking space for a bottling concern.

Connecticut—The facts of this case indicated that an American Legion post owned the premises at 425 Orange and Trumbull Streets in New Haven. The building on the land was used as the post's headquarters. The property was located in a residence B zone, and it was in the center of a group of 86 medical and dental offices. The post sought a variance permitting the use of part of its property for a private parking place. It pro-

posed to rent part to neighboring physicians and dentists for daytime parking. Permission was also requested for the use of the parking space by members of the post on the evenings of its meetings. At the public hearing, there was testimony that because of the lack of parking space, automobiles often remained standing in the middle of a street, with resulting traffic jams in the area, while infirm patients, some on crutches or with casts, tottered from or into the cars.

The Zoning Board of Appeals granted the Legion post a variance on the ground that the proposed use of the space would not only tend to relieve the bottleneck which prevented the free flow of traffic, but also would afford greatly needed parking facilities for neighboring physicians and dentists. The Board contended that to deny permission to use the space for private parking would have the effect of rendering application of the ordinance arbitrary. The appearance and value of neighboring property would not be affected except possibly from an esthetic standpoint. It further claimed that the safety and general welfare of neighbors would be secured by avoidance of a traffic hazard, and finally that the granting of the variance was warranted under the provisions of subdivision (7) of §1033 of the zoning ordinance.

Subdivision (7) authorized the Board in a specific case to vary any provision of the zoning ordinance in harmony with its general purpose and intent, so that the public health, safety and general welfare would be secured and substantial justice done "where there are practical difficulties or unnecessary hardships" or "where the effect of the application of the Ordinance is arbitrary."

The State Supreme Court of Errors held that in its opinion decisions of zoning authorities were to be overruled only when it was found that they had not acted fairly, with proper motives, and for valid reasons. Where it appeared that an honest judgment had been reasonably and fairly exercised after a full hearing, the courts should be cautious about disturbing the decision of the local authority.

The court concluded that the Board had not exceeded its authority in considering the extent and urgency of the need for additional parking space, and granting the variance accordingly (*Devaney v. Board of Zoning Appeals*, 122 A (2d) 303, April 18, 1956).

The Chief Justice strongly dissented, on the ground that no variance should be granted unless one of two conditions was satisfied. The conditions he suggested were (a) that there were practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the ordinance and (b) that the effect of the application of the ordinance was arbitrary. The dissent stated that the fact that the granting of the variance would promote public welfare (by relieving traffic congestion) did not by itself warrant the variance unless one of the two conditions just recited obtained.

The dissent noted that one of the purposes of zoning was to assure the stabilization of property values. The reason for prohibiting the parking of automobiles in large numbers on lots in residence zones was that, if such parking were permitted, adjacent property would depreciate. The Chief Justice felt that that reason should apply with as much force to the land here in question as it does to any other land zoned residence B. Since there was sufficient reason for the prohibition of the use of the owner's land for parking, the Board could not reasonably conclude that the application of the zoning ordinance to this land was arbitrary. It followed, therefore, that in granting the variance the Board acted unreasonably and illegally.

New Jersey—A group of property owners in Montclair questioned a resolution of the Town Board of Adjustment approving the application of the Montclair Art Association to provide an off-street parking lot on its premises. The Association had owned an art museum on Bloomfield Avenue, in an R-O residential zone since 1914. Because of increasingly hazardous traffic conditions on Bloomfield and South Mountain Avenues, and the absence of any parking facilities for some 400 students and visitors at the rate of 22,000 per annum, the association asked permission to provide a 29-car parking lot on its property.

The protesting property owners resided within 200 feet of the museum property. They objected to the proposed off-street parking area principally because it would create a traffic hazard for children, a disturbance and discomfort to the neighborhood, a source of annoyance, and would depreciate the value of their property for residential purposes.

Section 19 of the applicable zoning ordinance provided:

## Regulations Controlling Garages and Parking Lots in Residence Zones.

**Garages and Accessory Parking Facilities:** In each R Zone there shall be permitted as an accessory use to any use permitted in such zone, a garage or group of garages or garage facilities for not more than three (3) vehicles, except . . . , where there are three or more family dwelling units built upon the same lot, a garage or group of garages for not more than one (1) vehicle for each family unit, and parking facilities, shall be permitted as an accessory use, if designed and constructed in one of the following ways:

\* \* \*

**Parking Lots:** Where deemed necessary, after a hearing before the Board of Adjustment off-street parking lots in private ownership, for other than accessory use only as approved by the Board of Adjustment, may be permitted in R Zones, if sufficiently landscaped, appropriately screened, and adequately surfaced as in the judgment of the Board of Adjustment, is necessary to afford protection to the surrounding residential properties. The Board of Adjustment shall also have authority to regulate the use of such parking lots as a condition for their establishment.

The owners who brought the suit contended that the above citation did not apply to the museum premises since its language did not embrace a nonconforming use situation. The Superior Court of New Jersey held to the contrary, however, noting that the first subsection of Section 19, "Garages and Accessory Parking Facilities" permitted three-vehicle garages as an accessory use "to any use permitted in such zone . . . ." The court contrasted that subsection with the portion of Section 19 which dealt with parking lots wherein the limitation as to permitted uses was significantly absent.

The court said it would appear, therefore, that the Montclair zoning ordinance expressly delegated to the Board of Adjustment the power to pass upon the necessity for off-street parking areas in residence zones.

In the instant case, the court held that the evidence before the Board of Adjustment supported its findings that curb parking facilities were inadequate, and that the off-street parking proposed was desirable and consistent with the intent and purpose of the zoning ordinance.

The court declared that in this era of congested traffic and inadequate parking facilities, a zoning ordinance of any urban municipality that contained no provision for off street parking would be outmoded. The authority granted to the Board under Section 19 constituted a valid method of dealing with off-street parking facilities that went beyond the category of mere accessory uses. The conditions for landscaping, screening and surfacing for the protection of surrounding residential properties, as well as regulatory features, as authorized in the ordinance, were attached to the Board's approval of the off-street parking area in question.

The court held that the evidence adduced before the Board of Adjustment supported its finding that the proposed off street parking area was necessary, and that it would not be detrimental to the morals, health, safety, or general welfare of the public nor injurious to property or improvement in the vicinity nor would it substantially impair the intent and purpose of the zone plan and the zoning ordinance.

The action of the Board of Adjustment was thus upheld by the court (*James v. Board of Adjustment of Town of Montclair*, 122 A. (2d) 660, May 10, 1956).

**New York** -- In this case the landowner operated a milk bottling and distributing plant on his land in an industrial or I district, which use was permissible under the building zone ordinance of the City of Yonkers. He also owned land contiguous to the industrial property, which was, however, in an M or residence district. The landowner applied for permission to use the M district land as a "parking lot for accessory use to" the

plant (that is, for his trucks), a use not permitted under the ordinance. Nevertheless, the Board of Appeals granted the application subject to certain depth and fencing conditions.

The Supreme Court annulled the variance, holding that there was no warrant for granting it in the absence of a showing that the land would not yield a reasonable return if used for a purpose allowed in the residential district.

The court acknowledged the fact that the Board might have acted upon facts within the personal knowledge of its members, but such facts and personal knowledge should have been set forth in the Board's answer to the petition for the variance or in its findings made in connection with its determination granting the variance. Since this was not done, the court held that the determination would have to be annulled.

The doctrine that one who "knowingly acquires land for a prohibited use cannot thereafter have a variance on the ground of 'special hardship'" was held not to apply, by a majority of the court; cases cited by the landowner in favor of the doctrine were distinguished by the court on their facts. The applicants for variance in the cited cases were not, as in the principal case, engaged in a lawful use of property contiguous to the subject land prior to the acquisition thereof, the landowner being compelled, by limitation of that contiguous land and because of its location in a residential district, to seek a way out of his plight occasioned by such limitations.

Three judges concurred in the opinion and two others concurred in the conclusion that the variance should be annulled, but on the further ground that the landowner knowingly had purchased the property for a purpose prohibited by the zoning ordinance, and hence could not have a variance on the ground of "special hardship" (*Bobrowski v. Feriola*, 153 N. Y. S. (2d) 157, June 25, 1956).

#### Authority to Condemn Land for Parking Facilities

Authority to condemn land for the establishment of off-street parking facilities is an indispensable attribute of adequate parking enabling legislation, but the rights of property owners are zealously guarded by the courts in interpreting this authority, as is the case when the power of eminent domain is used in connection with other public improvements.

Two decisions handed down during the year illustrate this point. In a Pennsylvania case, the court held that there was no manifest abuse of discretion or bad faith on the part of the Reading Parking Authority in selection of a site for off-street parking facilities, notwithstanding the fact that a member of the Authority was an officer and director of a corporation from which the Authority proposed to acquire land. On the other hand, a Kansas court held that a statute authorizing first- or second-class cities to acquire lands for off-street parking facilities in areas zoned as business, commercial or industrial did not entitle a city with no zoning ordinance to acquire land for such purposes. The salient points of the two decisions are included in the following paragraphs.

**Pennsylvania**—On December 29, 1956, the Reading Parking Authority entered into a lease with the City of Reading leasing to the city for 30 years the parking lots in Sites A, B, C, E and F, at a yearly rental of \$63,000, and pledged the lease under an indenture securing \$990,000 worth of Parking Authority bonds, which were delivered and paid for on December 29, 1954. The proceeds of these bonds were to be used for acquiring the properties enumerated in the named sites and the constructing of the parking facilities.

The Court of Common Pleas of Berks County held that the Authority abused its discretion when it eliminated Site D and selected Site F to be included in its primary program. Site D was eliminated by the Authority because:

. . . it was not a particularly desirable lot because of its location, because of its dimensions, and third it was eliminated on the advice of counsel because within the confines of the lot there were certain areas that there was some question as to our ability to acquire promptly. They were the three main considerations. . .



On appeal, the State Supreme Court held that since the Authority had considered the three basic factors of location, size and cost, it could not say that the Authority had abused the wide discretion vested in it.

The Supreme Court noted that the lower court held that the controlling reason for the inclusion of Site D came about solely because the Whitner Company offered to make a deal with the Authority to sell the property at a sum about \$9,800 less than its actual worth. The high court considered this conclusion unjustified by the evidence, adding a footnote to the effect that it certainly did not need to add that a purchase by the Authority of the real estate at less than its actual worth did not show an abuse of discretion.

The most important reason for the lower court's action, the court continued, was the fact that one of the members of the Authority who voted in favor of the resolution to incorporate Site F in the parking projects was also secretary and a member of the Board of Directors of the Whitner Company, owner of Site F. The Supreme Court strongly condemned the action of the member holding down the dual capacity, but could not agree with the lower court that the resolution to incorporate Site F in the off-street parking project rendered the resolution null and void.

The Supreme Court decided that, considering all the facts in the case, the evidence was insufficient to establish a manifest abuse of discretion or bad faith or fraud or illegal action by the Authority with respect to Site F. The lower court's decree was, therefore, reversed and the action by the Reading Parking Authority was upheld (*Eways v. Reading Parking Authority*, 124 A. (2d) 92, Aug. 13, 1956).

**Kansas**—This case arose under a peculiar wording of the enabling statute, which provided in part as follows:

Any city of the first or second class may, as hereinafter provided, acquire by purchase, lease, gift or condemnation any land or lands in any areas zoned as business, commercial or industrial districts in such city for off-street parking facilities (G. S. 1955, Supp. 13-1388).

Chanute was a second-class city without a zoning ordinance. The State Supreme Court was called upon to decide whether the governing body could proceed under the previously quoted section, none of the land in the city having been zoned as business, commercial or industrial.

The court was unable to accept the argument of the city commissioners to the effect that since there was no zoning ordinance, business and commercial buildings could be erected anywhere in the city, and hence the section in question would apply to any part of the city. Cities are creatures of the legislature, said the court. They can only exercise powers expressly conferred by that body. The fact that Chanute did not have any zoning ordinance at all, was an argument for the state, which was asking the court for an order to prevent the city from proceeding.

If the legislature desired to safeguard the acquisition of land for off-street parking by providing that it could only be acquired in districts zoned for business and commercial purposes, continued the court, it would seem strange if it should enact a statute providing that it could be acquired in cities like Chanute in any part of the city.

The court held that the city commissioners should be restrained from proceeding further (*State v. City of Chanute*, 292 P. (2d) Jan. 28, 1956).

#### Temporary Use of Slum Clearance Project Property as Parking Lot

In a taxpayers' action to prevent operation of a temporary parking lot on the site of a slum clearance project on the west side of Manhattan, known as the West Park or Manhattantown project, a Supreme Court of New York held that such temporary use was not prohibited by Section 72-k of the General Municipal Law of the state, nor by the terms of an existing contract with the city (*Biegel and Feig Realty Corp. v. City of New York*, 156 N. Y. S. (2d) 548, Sept. 19, 1956).

According to the court Section 72-k imposed no precise requirements and provided no exact specification. The Legislature, said the court, had evidently viewed the problem of slum clearance as one best left to the sound discretion of local authorities under the general guidance of state law and the supervision of the federal authorities cooperating

financially and otherwise. The section simply provided that a municipal corporation could acquire by condemnation or otherwise land necessary for or incidental to the clearance and reconstruction of substandard and insanitary areas, "together with adequate provision for recreational and other facilities appurtenant thereto"; that it could sell to the highest bidder such land for the purpose of having the purchaser clear and redevelop it "in such manner as may be prescribed by the Board of Estimate or other governing body"; and that the deed or instrument of transfer must contain such provisions, conditions or restrictions to insure the use of such real property for purposes consistent with slum clearance as might be prescribed by the Board of Estimate or other governing body.

All that was actually required by Section 72-k, continued the court, was that the deed or instrument should contain provisions insuring that the project when constructed would not be "substandard or insanitary," but that the specific facilities to be provided would be left to the local authorities. The taxpayers' complaint did not attack the right of the city under the statute to make provision for permanent parking lots in a slum clearance project. And insofar as temporary parking lots were concerned, there was nothing in the general statement of principles laid down in the statute which could be construed as a prohibition thereof.

The argument that such use would be unfair to competitors in the vicinity of the site because sponsors would be able to charge lower rates as a result of the reduced price paid by them for the land, the court considered irrelevant. Every slum clearance project, said the court, represented competition to property owners, and commercial enterprises conducted in the project competed with similar businesses in the neighborhood.

The prime intent of the law was to clear the slums. Unless the use complained of was expressly prohibited in the redevelopment contract or was inconsistent with its purposes or caused delay in the prosecution or the work, the court held that a taxpayer's action should not be invoked to restrain public officials from granting permission for a use which they regarded as beneficial to the project and in the public interest.

As for the contract, the court held that the provision dealing with revenue collected by the sponsor for the use of the land or structures thereon prior to completion of the redevelopment and requiring that the sponsor pay real estate taxes for the vacant land, but not explicitly stating what temporary use might be made of cleared land, did not prohibit the use of a small portion of the land as a parking lot, involving no interference with or deviation from the purpose of the project.

The court dismissed the complaint as insufficient to state a cause of action in view of the conclusion that such use was not prohibited by either the statute or the contract and was in fact impliedly authorized by the contract.

#### INFORMATION INTERCHANGE

The committee issued six monthly memoranda during the year 1956 through the Highway Research Correlation Service. These memoranda contain digests of new laws, court decisions, administrative practices, and other items of current interest. Memoranda numbers and the month of release are as follows:

Committee Memorandum No.	HRCS Circular No.	Month
85	311	April
86	312	April
87	318	June
88	322	July
89	323	July
90	328	October

# Dallas Expressway Economic Impact Studies

WILLIAM G. ADKINS, Associate Research Economist,  
Texas Transportation Institute, Texas Agricultural and Mechanical College System

This study of the influence of an expressway on land values is an attempt to add to the body of factual information on the economic effects of urban limited-access roads. Central Expressway in Dallas, Texas, was chosen for the research endeavor because it had been completed for a sufficient length of time to allow meaningful "before-and-after" measurements.

The section of the expressway selected for study stretches from near downtown Dallas 5.4 miles north to Loop 12, a major circumferential route. Data from city tax records were available for most of this section for the full 1941-55 time period used in the study. Properties along the facility have been divided for analysis into the following bands:

1. Abutting properties, designated as A properties.
2. Properties adjacent to A properties and averaging about 2 blocks in width, designated B properties.
3. C properties, located still further from the facility, are adjacent to B properties and average about  $2\frac{1}{2}$  blocks in width. Control areas (D properties) beyond the direct influence of the facility have been chosen for comparative purposes.

Sales and tax data were obtained for 100 percent of the abutting properties. In addition, a survey of businessmen and residents of A properties was conducted in the summer of 1956. This paper summarizes only the preliminary findings for abutting properties. Some of these findings are as follows:

1. The city tax valuation of abutting properties increased almost five-fold from 1947 when the facility was begun to 1955. Land tax valuation increased almost four-fold and improvement tax appraisals increased about 700 percent. (Tax appraisals are on the basis of 1941 values.)
2. Prices paid for unimproved abutting properties increased about 1,600 percent from 1947 to 1955. Deflated to allow for dollar-value change, this increase is about ten-fold.
3. About two-thirds of the 174 businesses from which information was obtained moved to the expressway from other parts of Dallas.
4. The businesses along the facility had almost 2,600 employees, most of whom traveled to work by automobile.
5. Residential property owners as a whole believed that the facility had increased the value of their properties, despite the fact that uses other than residential are precluded by zoning for many residences.

Although data collection is complete in the Dallas expressway study, final tabulations to compare A, B, C, and D properties and to test other variables have not been obtained.

● INFORMATION ON the impacts of expressways upon land values and land use broadens the base for predicting benefits of facilities to be planned in the future. Such economic information also may have important implications for the policies and practices of right-of-way acquisition and for the design and location of expressways.

The need for research in this field has become increasingly acute with the nation's expanding road building program. It is hoped that the study of the economic impacts of Dallas' Central Expressway will prove complementary to similar studies in other states in the building of a body of factual knowledge of the economic effects of limited-access roads.

Central Expressway was chosen for the research endeavor because it had been completed for a sufficient length of time to allow meaningful "before-and-after" measurements. Detailed planning for the studies was started in late 1955 and collection of data in the field began in February 1956. The research has been largely financed by the Automotive Safety Foundation. The major objectives of the studies are to determine: (a) changes in selling prices of properties in areas affected by Central and in non-affected areas, (b) changes in tax valuations in affected and non-affected areas, (c) changes in land use in affected and non-affected areas, and (d) attitudes of businessmen and residents along the facility. Each of these objectives, of course, has associated hypotheses.

This paper reports some preliminary findings of the expressway economic impact studies together with brief notes on methodology. More specifically, the paper presents: (a) introductory information on Central Expressway and Dallas; (b) a review of the determination of study areas and other method considerations; (c) preliminary tabulations of tax data for properties abutting the expressway and non-affected properties; (d) sales data for unimproved land along Central; (e) a summary of findings of a survey of business establishments and residents along Central; and (f) tentative conclusions.

### Characteristics of Central Expressway

Central Expressway now extends almost 30 miles from near the North Dallas County line through Dallas to the South Dallas County line. It has four or more traffic lanes, but is not in fact of expressway type throughout its length. It is US 75. Construction of the facility was begun in 1947 and it was opened to traffic in its entirety in late 1956 with the completion of the southern part.

Construction was started near the downtown business district and was completed in sections averaging perhaps a mile in length. The 5.4-mile portion chosen for the economic impact studies was fully completed in April 1953. The study area starts at a grade intersection (Live Oak Street) near downtown Dallas and terminates at the Northwest Highway (Loop 12) to the north and is all within the corporate limits of Dallas and the cities of University Park and Highland Park which are encompassed by Dallas. The design of Central through the study area is as follows: for the first 3.6 miles to the north, a three-lane freeway in each direction separated by a mall; one-way frontage streets with two traffic lanes and a parallel parking lane are provided. The next 1.8 miles are similarly designed except that the freeway is four rather than six lanes.

About two-thirds of the portion being studied lies on the previous right-of-way of the Texas and New Orleans Railroad which was relocated to make way for Central. A rough description of the areas transversed by the expressway from Live Oak Street to the Northwest Highway are as follows: an area of old established business houses that quickly give way to a larger negro settlement within the first mile; the second and third miles pass through an area of old lower- and middle-class apartments and residences with some new multiple-unit apartments and motels and office buildings; another negro settlement, rather small, touches the last quarter of the third mile; the next 1.4 miles bordered on the west by the highly developed middle- and upper-class residences of University Park and Highland Park and on the east by an area undeveloped in part but with a number of impressive new commercial buildings; the last mile to the Northwest Highway is primarily an area of undeveloped property. Sectionalizing of the areas studied along Central was based partially on the characteristics reviewed.

In early 1956, the average daily traffic count at a station located in the first mile of the study area was 60,000 vehicles.

### Characteristics of Dallas<sup>1</sup>

The setting of the Central Expressway as far as urban expansion is concerned is a dynamic one. The population of the Dallas Metropolitan Area increased by about 23 percent from 1950 to 1955 and now exceeds 750,000. Bordering the Dallas area on the west, Ft. Worth counts an additional 490,000 in its metropolitan area. The City of Dallas had a population of 575,000 in 1956 and an area of 282 square miles. In 1950 the city's population was 434,000 and its area 122 square miles. For 1960 the estimated population of the Dallas Metropolitan Area is about 900,000 (medium projection).

In 1955, Dallas tax valuations totaled more than a billion dollars in terms of 1941 values, 57 percent over the 1950 level. Construction under 1955 building permits was valued at \$167,000,000 in 1955 and has exceeded \$100,000,000 annually since 1950. On a per capita basis, this rate of construction has ranked Dallas among the nation's leaders in recent years.

Dallas is located on five federal-state highways and as many important state roads. It is served by seven railroads and excellent air facilities. It leads Texas cities in banking, insurance, and wholesale distribution. In 1955, almost 300,000 motor vehicles were registered in Dallas County. Adjoining counties accounted for another 220,000 registrations.

Such characteristics of change and growth remove the need for conjecture as to the Expressway's effects in a static area. For a long period, however, Dallas has had a closely administered zoning ordinance. Thus the potential for value change along Central Expressway likely is influenced by permissive uses despite intention by the city to keep zoning in harmony with desirable land use change. The zoning factor is receiving due consideration in the Central Expressway study and is given further attention later in this report.

### Choosing the Areas for Study

One of the problems that requires much further attention in the study of the economic impacts of public roads is that of delimiting the areas of influence of such facilities. This need was recognized early in the Dallas study and more than a little effort was given in searching for an objective and precise method of outlining areas in which Central Expressway likely had affected to a measurable degree uses and values of land.

The first step taken to fix the scope of the Dallas investigation was the decision to study only a 5.4-mile stretch of the northern portion of the expressway from downtown Dallas to the Northwest Highway, a major circumferential route. Two facts give the justification for this determination: (1) the southern portion of the facility was still under construction, its influence then likely being in early stages and (2) beyond the 5.4-mile stretch to the north source information on land values was extremely limited and comparatively little land-use change had occurred.

An attempt then was made to delimit the area of primary influence of the facility along the selected 5.4-mile portion. This step involved a study of expressway usage in relation to travel-time differential. The study involved the computation of times required to travel to the Central Business District from intersections of major thoroughfares in broad areas to each side of the expressway. Travel time assignments were obtained from the Traffic Control Section of the Dallas Traffic Department. The fastest route from each intersection to downtown Dallas was calculated via Central Expressway as was the fastest alternative route not using the facility. Time differentials were converted into usage percentages by use of an empirical curve of the relationship. (The curve used was from "Effect of Travel Time and Distance on Freeway Usage" by Darel L. Trueblood; page 18, Highway Research Board Bulletin 61, "Traffic Assignment".)

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<sup>1</sup>Population and area data were obtained from the Department of City Planning, Dallas; tax data from the Dallas Tax Department; building permit figures from Dallas Building Inspection Department; and vehicle registration from 1955 Texas Almanac.

Interpolations of usage then were made in order that 50, 60, 70, 80, and 90 percent lines of usage could be plotted. Figure 1 shows only the 50, 70 and 90 percent lines. The 50-percent line marks an irregular triangle about nine miles high with a base of about 14 miles at its terminals which were the limits of the data available for the study. It is concluded that within this triangle of about 60 square miles the vast majority of drivers to downtown Dallas would prefer to use the expressway on the basis of time saving and travel convenience. Using the Northwest Highway as the base of the triangle outlined by the 50-percent line, an area of about 14 square miles results.

It was felt that the areas of influence delimited by the 50-percent usage line and by the lines showing a higher propensity to use the expressway were either too large or too indeterminate to encourage a detailed study of land value changes. Other attempts were made to employ travel time to determine the area to be studied but more promising results were not obtained.

One useful guide was set up by the study of propensity to use the expressway: the bands of properties chosen for study along the facility are located well within the 50-percent usage lines and the control areas studied are located outside of these lines.

The determination of "affected" areas to be studied finally was made on the basis of distance from the expressway and natural barriers. Space does not allow for more than a summary of the selection scheme. Three bands of properties on each side of the facility were chosen for study. The first band, designated "A" properties, consists of properties abutting the expressway right-of-way. Properties that are similar to "A" properties but do not touch the right-of-way make up the second band or "B" properties. The third band, "C" properties, is immediately adjacent to second-band properties and was chosen to increase the possibilities for comparison. Types of properties and the existence of barriers such as a railroad, creeks and other traffic obstacles were considered in selecting the third band. Abutting properties range from 60 to about 1,000 feet in depth; the bands of "B" and "C" properties are typically about two blocks or 600 ft in depth but range but range up to six blocks.

Another important requirement in the studies was the selection of "non-affected" areas to compare with "affected" areas. Sixteen control areas were chosen for study. In addition to the 50-percent usage line, the selection was made keeping in mind characteristics of the study areas along Central Expressway. The following factors were considered: (a) the existence of a railroad, (b) zoning, (c) type of development, (d) racial influences and (e) distance from and accessibility to the downtown business district. Many persons well-acquainted with Dallas were contacted and independent opinions were obtained to aid in the selection of control areas. Exact comparability for areas chosen is, of course, not claimed but a fair yardstick for comparative purposes should result.

#### Other Decisions as to Scope and Method

The time period being used in the studies in 1941 to 1955. Although an expressway or other type of major thoroughfare had long been contemplated for the route taken by Central, definite steps were not made until the early 1940's. Construction of Central did not begin until 1947. The base period for values for affected and control areas is tentatively set as 1941-45. Preliminary analysis seems to validate this decision. Flexibility in the determination of later time periods to be used in the analysis has been retained in machine tabulations.

The problem of sampling is perhaps never a simple one. In the Dallas studies, an effort was made to take a very large proportionate sample. In fact, abutting properties were sampled 100 percent because of their fairly small number and the extreme variations in their characteristics. For the second and third bands from 20 to 100 percent samples were taken depending upon apparent homogeneity of various areas. Sample control was made difficult by ownership patterns through the influence on sales and tax records. Also, because of differential sampling, sample expansions must be made in order to combine data on properties from different sample strata.

The various types of information gathered in the Dallas studies and the sources are listed:

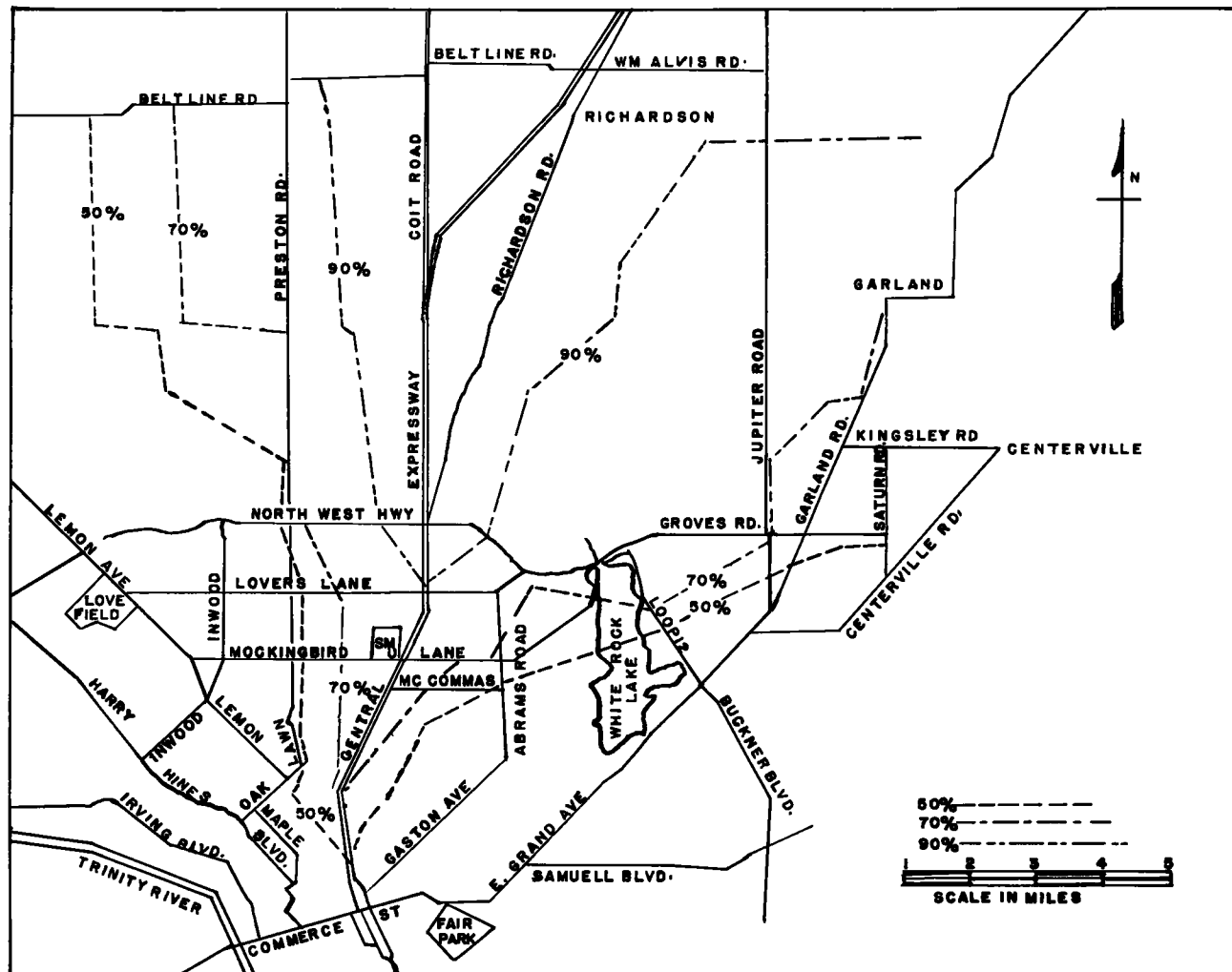


Figure 1. Traffic preferring use of North Central Expressway to downtown Dallas on basis of time differential.

1. Real estate sales data from Dallas County plat books, "take-off" cards and warranty deed records. Upper limits of prices were calculated from Internal Revenue stamps on deeds not giving sales prices.
2. Tax appraisal data (true values) derived from assessed valuations from city tax records. (Tax data were obtained only for selected odd years that had special significance in relation to the planning and construction of the expressway.)
3. Land area from county plat books and verified in city tax records.
4. Land use from interviews, tax records and by inspection.
5. Permissive use from city zoning maps.
6. Information on incentives for location and attitudes toward the facility (for abutting properties only) by interview.
7. Traffic data as needed from Dallas Traffic Department and Texas Highway Department's Dallas Expressway Office.
8. Dollar value index from consumer price index for Dallas as published by the National Industrial Conference Board. (The index of wholesale prices, United States, is used in this report.)
9. Construction cost factor for Dallas (to be used with sales data to isolate land values from improvement values) from E. H. Boekh's published reports.

The use of tax valuations in addition to real estate sales requires explanation. First, such data if dependable may be used as an index of value change. Secondly, whereas market prices reflect the movement of tax ratables, tax valuations indicate the extent to which changes in ratables have been recognized for tax revenue purposes. Another use for tax data is that it may be employed in a statistical test of the comparability of properties for which sales occurred with properties as a whole. Also, tax valuations may be used to reflect and measure land-use change through changes in values of improvements and in addition may be used to estimate that portion of purchase prices which might be assigned to land only.

#### Tax Valuations along Central Expressway and for Non-Affected Areas

Changes in tax valuations of real estate usually lag behind and are smaller than changes in market values to a marked degree. It would be expected, therefore, that tax data at best would serve as a conservative indicator of the movement of real estate values. The accuracy of tax data as such an indicator depends, of course, upon the frequency and method of tax reappraisals. Fortunately, the tax appraisal policies of Dallas, Highland Park and University Park have been consistent through the study period. These cities use very similar tax manuals and have programs of frequent reappraisals in addition to immediate appraisals of new improvements. Each city uses 1941 construction costs for improvements and "normal day" (1940-41) land values for appraisal purposes. Thus, the tax valuations obtained in the Dallas studies already are deflated to an appropriate level of dollar value.

Special hand tabulations for use in this paper were made for properties abutting Central and for control or non-affected properties. The tax valuations of abutting properties increased sharply after the construction of the expressway began in 1947 (Table 1).

Based on 5,746,620 sq ft in corporate limits in 1941, total tax valuations rose from \$1,138,040 in 1947 to \$5,886,220 in 1955, an increase of 417 (517-100) percent. Land valuations increased 250 (350-100) percent during the period with increases coming in the early years. This quick upward movement of land valuations reflects perhaps the quality of work of the tax assessors. It is to be expected that some delay would be experienced in the construction of new improvements on abutting properties. Tax valuations of improvements rose 632 (732-100) percent with the major absolute increase occurring in the later years of the 1947-55 period.

Table 2 shows the increase in tax valuations of abutting properties annexed by the City of Dallas in 1946. This property came into the city at a rather low tax value. The expressway was not complete in the area until 1952. Tax valuations in 1949 may be more comparable to those in other areas than the 1947 data; therefore, 1949 is used as the base for value changes for these properties. The increase in total



TABLE 1

**TAX VALUATION OF ABUTTING PROPERTIES (IN CITY PRIOR TO 1941),  
CENTRAL EXPRESSWAY, DALLAS, TEXAS, 1941 TO 1955<sup>a</sup>**

Year	Tax Valuation of Land		Tax Valuation of Improvements		Total Tax Valuation	
	Actual	Percent of 1947	Actual	Percent of 1947	Actual	Percent of 1947
1941	\$ 466,970	73	\$ 447,200	90	\$ 914,170	80
1945	480,440	75	488,880	98	969,320	85
1947	639,060	100	498,970	100	1,138,040	100
1949	778,400	122	753,650	151	1,532,050	135
1951	2,284,100	357	1,333,970	267	3,618,070	319
1955	2,235,050	350	3,651,170	732	5,886,220	517

<sup>a</sup>Based on 303 properties and an area of 5,746,620 square feet. Tax valuations are in terms of 1941 land and improvement values.

valuations was 424 (524-100) percent and there is little doubt that land tax appraisals lag far behind market values. Improvements were valued 1,344 (1,444-100) percent higher in 1955 than in 1949. Properties in this area are held in large, mostly undeveloped ownerships. Over nine million sq ft are held in 34 properties but multiple ownership makes the number of owners still smaller. Construction continues on some properties at a rapid rate but many properties are being withheld from immediate development.

Table 3 is based upon total tax valuations obtained for areas presumably not influenced by Central Expressway. (The resulting yardstock is not the one which will eventually be used because the tax data for the 15 control areas must be manipulated to adjust for differentials in size of control areas and sampling.)

The tax data indicate that valuations in control areas increased by only 55 (155-100) percent from 1947 to 1955. Land and improvement evaluations moved upward simi-

TABLE 2

**TAX VALUATION OF ABUTTING PROPERTIES ANNEXED BY CITY IN 1946,  
CENTRAL EXPRESSWAY, DALLAS, TEXAS, 1947-1955<sup>a</sup>**

Year	Tax Valuation of Land		Tax Valuation of Improvements		Total Tax Valuation	
	Actual	Percent of 1949	Actual	Percent of 1949	Actual	Percent of 1949
1947	\$ 97,200	34	\$ 51,270	54	\$ 148,470	39
1949	286,740	100	94,660	100	381,400	100
1951	286,880	100	108,360	114	395,240	104
1955	631,840	220	1,366,670	1,444	1,998,510	524

<sup>a</sup>Based on 34 properties and an area of 9,053,670 sq. ft. Tax valuations are in terms of 1941 land and improvement values.

**TABLE 3**  
**TAX VALUATIONS OF AREAS PRESUMABLY NOT INFLUENCED BY CENTRAL EXPRESSWAY, DALLAS, TEXAS, 1941-1955<sup>a</sup>**

Year	Tax Valuations of Land	Tax Valuations of Improvements	Total Tax Valuations
	Percent of 1947	Percent of 1947	Percent of 1947
1941	106	101	102
1945	102	103	102
1947	100	100	100
1949	131	117	121
1951	146	149	148
1955	150	157	155

<sup>a</sup>On basis of 404 properties and 7,211,870 sq ft in fifteen different areas. Tax valuations are in terms of 1941 land and improvement values.

**TABLE 4**  
**SALES OF UNIMPROVED ABUTTING PROPERTIES, CENTRAL EXPRESSWAY DALLAS, TEXAS, 1941-1955**

Year	Number of Sales	Actual Sales Price per sq ft	Sales Price per Sq Ft Deflated to 1941-45 Dollar Value <sup>a</sup>	Actual Sale Price as Percent of 1947	Sale Price Deflated as Percent of 1947
1941-45	22	\$ .1412	\$ .1412	86	129
1946	15	.1940	.1591	119	145
1947	11	.1634	.1095	100	100
1948	3	.1899	.1177	116	107
1949	11	.4333	.2816	265	257
1950	19	.3684	.2321	225	212
1951	15	.7174	.4017	439	367
1952	20	1.2380	.7180	758	656
1953	18	1.5162	.8794	928	803
1954	10	1.9444	1.1278	1190	1030
1955	13	2.4747	1.4353	1514	1311

<sup>a</sup>Actual sales price per square foot multiplied by deflation factor. Deflation factors are: 1941-45 = 1.00; 1946 = .82; 1947 = .67; 1948 = .62; 1949 = .65; 1950 = .63; 1951 = .56; 1952 = .58; 1953-55 = .59. Wholesale prices for United States are basis of deflation factors.

larly in manner and degree.

Total tax valuations for abutting properties in corporate limits before 1941 and for control properties are brought together in Figure 2 to allow a more direct comparison. Both types of properties experienced increases in value after 1947 but the rise in tax valuations along the expressway was strikingly greater. (The tops of the bars in Figure 2 should not be considered points on trend lines since the time intervals are not of equal length.) Note that there is an indication that values of abutting properties were rising prior to 1947. That this early increase may be attributable to the expressway requires further testing.

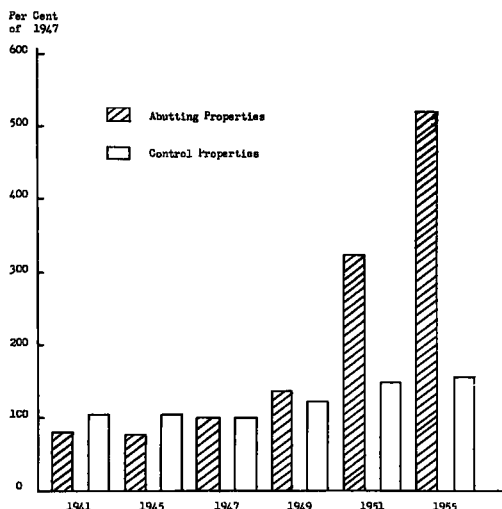


Figure 2. Comparison of total tax valuations for properties abutting Central Expressway with control properties, Dallas, Texas, 1941-1955, (percentages of 1947 valuations with area held constant).

yielded 147 sales of unimproved land from 1941 to 1955. By single years and with much variation in location and size, the properties sold are not numerous enough to assure representativeness of all unimproved abutting land. In spite of this qualification for the data, a definitely steep trend in land values is indicated in Table 4.

Undeclared sales prices of unimproved abutting lands averaged \$.16 per square foot in 1947, the year during which construction began on Central. In 1955, unimproved land sold for \$2.47 per sq ft, an increase of 1,414 percent (1,514-100) over the 1947 average price. Most of the increase occurred during 1951-55. Turnover of unimproved property was highest during the 1950-53 period.

Deflated in terms of the 1941-45 dollar, prices reflect a much smaller absolute increase from about \$.11 to \$1.44 from 1947 to 1955 but the percentage gain remains high at 1,211 percent (1,311-100).

Further combining of data for individual years and analysis of sales of unimproved control properties are planned for later in the studies.

### Findings of the Survey of Residents and Business Establishments along Central Expressway

The major objectives of this survey were to determine (a) the numbers and characteristics of businesses and residences (b) the motivations for locating along the facility and (c) the attitudes and experiences of businessmen and residents. Only properties abutting Central Expressway were included in the survey. Field work was

### Value Changes along Central Expressway Reflected in Sales of Unimproved Abutting Properties

Special attention has been given to identifying and analyzing sales of unimproved properties as one method of determining the influence of Central on values of land only.<sup>2</sup> The validity of this approach may be questionable, however, because of the relatively small number of sales. Abutting properties, the only area for which sales data have been tabulated,

<sup>2</sup> Another approach to be used in this regard is the subtraction of tax valuations of improvements multiplied by construction cost factors from sales prices to leave "prices paid for land." This method was employed by H. W. Elder in "A Study of Land Values and Land Use along the Gulf Freeway", Houston, Texas, 1951. Texas Highway Department.

conducted in the summer months of 1956.<sup>3</sup>

For the 211 businesses located along the expressway, 174 questionnaires were completed. Major findings for businesses were:

1. Types of business: services, 26 percent; wholesale trade, 24 percent; retail trade, 20 percent; finance, insurance and real estate, 20 percent; other, 10 percent.

2. Only 22 percent of the businesses owned their sites as many went beyond their own space requirements and provided extra space to be rented.

3. Sixty-six percent of the business establishments moved to the facility from other locations in Dallas, primarily from the downtown area. Newly established businesses with the expressway as their first location accounted for 22 percent. Business establishments located along the route before expressway construction comprised the remaining 12 percent.

4. The 174 business establishments employed 2,566 persons most of whom reportedly traveled to and from work by automobile.

5. None of the businesses that located prior to expressway construction reported a decrease in business volume. Fifty percent estimated the amount of increase, a few reported no change in business volume and the remainder indicated increases but without estimating the magnitude.

6. Fifty-nine percent of the businesses located after construction considered other locations. All of the 174 businesses studied expressed satisfaction with expressway locations.

7. Some of the major advantages given for business locations on the expressway were: accessibility for employees; parking facilities; escape from downtown traffic congestion; opportunity to expand business; prominent advertising; accessibility to more customers; association with a rapidly growing area.

8. Some of the major disadvantages of business locations on the expressway were: traffic congestion at peak hours; poor bus service; absence of post office, banking, and shopping facilities.

There were 145 occupied single-family dwellings on property abutting the expressway. Schedules were completed for 68 residents (47 percent). Thirty-three of the 68 owned their places of residence, 35 were renters. Principal findings were:

1. Of the 26 owner-residents that located before expressway construction, more than three-fourths stated that the facility had increased the general attractiveness of their properties. Eighty-eight percent said that the value of their properties increased.

2. Less than half of the residence owners expressed a willingness to sell their property. Several additional owners would sell provided their neighbors were willing to unite for greater bargaining power.

3. The major advantages accorded residence ownership on the expressway were convenience of transportation and reduction of time in travel. Persons who had lived along the railroad right-of-way before the facility was constructed named "more attractive area" and "paved street replaced dirt road" as "advantages" of the expressway.

4. The major disadvantages of residence ownership on the expressway were noise and severance of streets by the facility.

5. The listing of advantages and disadvantages of location for residence renters was similar in the uppermost rankings to that of the owners.

Twenty-two schedules were completed for residents of 250 occupied apartment units. Attitudes of apartment dwellers differed from those of other residents in one important respect. They rarely mentioned slum clearance and area improvement in their responses. Many of these renters were not familiar with such changes wrought by Central Expressway.

### Tentative Conclusions

The point has not been reached in the Central Expressway studies where positive and final conclusions may be drawn. However, it is perhaps worthwhile to list some

<sup>3</sup>Interviewing and tabulations of findings were accomplished by Dan R. Davis, Department of Agricultural Economics and Sociology, A & M College of Texas.

of the impressions that have thus far been gathered:

1. Central Expressway has had a marked influence on values of adjacent lands and a definite although not complete recognition of this increment is reflected in tax valuations.

2. The imperfections of a land market are pointedly illustrated along Central Expressway. The facility cut through areas varying widely in types and intensity of land use. Few persons anticipated the changes the facility would induce. The spectacular rises in site values were far from uniform. Many owners cashed-in their windfalls early only to watch their erstwhile properties double in value in a short time. Other owners rejected early prices and have waited in vain for their ownerships to ripen for other uses.

3. Comparatively little (perhaps not more than 10 percent) of the land that appeared to be subject to immediate change in use has experienced that change. One implication of this conclusion involves generation of traffic by the facility. Many of the 2,566 employees of the businesses studied drove their automobiles to work. Realization of the potential for change along the expressway could bring this group of users to a very high number.

4. General factors conducive to land-use change have been present. Economic prosperity of the nation, the dynamic growth characteristics of Dallas and the pressure for building and parking space in downtown Dallas, should encourage further development along the expressway.

There are, however, some very real and powerful factors resisting change along the facility.

(a) An over-riding factor of land use is the zoning ordinances of Dallas and the cities of University Park and Highland Park. (Variations in permissive uses also are of importance, of course, in the land market imperfection mentioned.) Zoning restrictions act as a deterrent to land-use change over and above rightfully precluding undesirable uses. Changes in zoning to permit uses no longer undesirable take time and cooperative effort on the part of several and sometimes many individuals. The process of obtaining special permits becomes such a tortuous process in the minds of individual owners that they may be discouraged from action.

(b) Another over-riding factor that apparently has stymied land-use change to some extent is the over-pricing of properties together with prohibitive costs of supercession. The highest price paid for properties to the knowledge of owners has had a tendency to become the standard asking price. Effective demand may be well below the supply price for most properties.

(c) There are several areas in which a combination of factors operates to resist land-use change. One such area is the large residential area for negroes, traversed by the expressway near downtown Dallas. In addition to a stable business center, the old settlement's resistance to change is re-enforced by racial solidarity, its depth on either side of the facility, a major public housing project and public parks. Although present zoning for the area is favorable for change, attempts to alter land use in this section may have limited success.

(d) Much of the land in the last mile of the expressway portion being studied is undeveloped and is owned in large parcels. There are some indications not completely affirmed that the future use of these abutting properties may be acquired only by lease. This prospect of conditional land usage conceivably may constitute a major resistance to change for a large section of abutting properties.

# Some Sociological Considerations In Highway Development

THEREL BLACK and JERRILYN BLACK, Department of Sociology,  
Utah State College, Logan, Utah

This paper brings out the importance of the human element in highway development and use. It emphasizes that roads are for people and that it is important to consider the needs of people in a broad social context as a basis for highway planning. The paper raises a question: "Will our concern for factors of time, speed, and economy cloud our vision to other social or human needs which highways can help fulfill?"

Such needs as the following are given consideration: The need for relaxation on the highway, the need for simple and personalized road signs, the need for beauty and esthetic feelings, the need for contact with nature, the need for group experience, the need for national defense. Also the concept of social life as being a life lived in neighborhoods and communities is brought into focus. Emphasis is placed on the importance of highway planners taking this fact into consideration.

Thus, it is proposed in a preliminary way that consideration be given to the idea of planning highways in a close functional relation to all other aspects of social life; and that in such planning the personnel from various walks of life be included, in an advisory way at least, on the planning team. In the first phase of the planning, perhaps the technical problems of building and financing the road should not be given the predominant position. After due consideration has been given to the potential place of highways in meeting human needs, then the economics and the technical engineering aspect of the planning can be brought more strategically into the picture. Admittedly the technical and economic aspects of highway building are paramount, but if the thinking is begun with these questions in mind, they may automatically close vision to the broader social and economic possibilities inherent in highway development.

●WHAT is there about a highway that is sociological? If nothing, highway planning could be much more simple. The objective of planners could more easily be to accommodate the most traffic in the shortest time at the lowest cost.

Sociologically, however, the highway is more than a huge conveyor belt of people, goods, and services on the national economic assembly line. It is more than so many cars, so much space, so much structure and material. It is more than a connecting link between places. It is also a social place in which a network of relations and activity attempt to meet a wide variety of personal, social, and cultural needs of human beings.<sup>1</sup> (For simplicity, throughout this paper the personal-social-cultural needs of people are referred to as "social" needs. Occasionally personal needs may be mentioned, but when they are, they are usually within a social context.)

So often people and their social needs make up the least known but most important elements in technological endeavors. If these needs of people could somehow be

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<sup>1</sup>After this paper was nearly finished, the authors discovered several chapters by William L. Slayton and Richard Dewey in which human need was highlighted as an important key to urban redevelopment. While their report is concerned with planning of cities instead of highways, it was a pleasure to see the congruence in the thinking on the importance of considering human need in the planning process. For a more detailed account of the nature of human need than space will permit presenting here, see their Chapter 2, "Needs and Desires of the Urbanite" in Coleman Woodbury (Editor), *The Future of Cities and Urban Redevelopment*, The University of

ignored, highway planning would be a lot less complicated.

It appears that there are at least two ways planners in highway agencies may treat sociological factors. On the one hand there is the planner who, becoming uneasy of their presence, tosses them as an untidy housewife tosses parcels into a brimful closet, slams the door, and then leans against it in hopes of keeping the stuff from falling out. He calls these factors "intangibles" that give him "mental indigestion," and since they cannot be ascertained in money-terms, he proceeds as if they didn't exist at all.

On the other hand there is the planner who realizes that sociological factors in such technological endeavors need clarification. Many highway planners realize, however, that these factors cannot be reckoned in the same terms as benefit-cost formulas and other economic measuring devices. Such mature planners wish to take a good look at these factors in an attempt to identify, weigh, and utilize them in production of more effective and satisfying highways.<sup>2</sup>

If these factors could somehow be translated into dollars-and-cents it might appear simpler to incorporate them into plans. Yet, why do such factors need to be translated into money terms to judge their value? Dollars-and-cents, after all, constitute only one index to measure human value.

To illustrate, suppose a physician used the regularity of the heart beat as the only index of health. What about the possibility of chronic infection, low metabolism, low iron content of the blood, or the use of any other index of health? Some rather serious errors might be made if he were to go by the heart-beat index alone.

### INDICES OF HUMAN VALUE

In the same way, dollars-and-cents provide an index of human value in highway building that may be too restrictive if used alone. Money is a very convenient index when it can be applied. It must be kept in mind, however, that money is not the value itself, but a reflection of value.

Likewise, in other areas of living, human valuation is going on even though ways of reflecting values are different. For example, a person who attends all the free concerts in his city places a certain value on them. The index of this value is not monetary, because there is no admission charge. Instead, it is attendance. Such an attendance index may be as objective as one using dollars-and-cents. However, no one would advocate trying to convert some type of dollar-and-cents value into an attendance value. It would also be futile to try to translate an attendance or other intangible value into dollars-and-cents.

Perhaps one reason some planners and highway researchers get "mental indigestion" when they attempt to consider intangible social factors is that they are trying to do the futile - trying or wanting to assign monetary value to values that are reflected and measured in non-monetary ways.<sup>3</sup> It is desirable to ascertain each

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Chicago Press, Chicago, 1953. Also for accounts of human needs as such see any of the following textbooks in sociology or social psychology; Rimbald Young, *Social Psychology*, F. S. Crofts and Co., Inc., New York 1946; Gardner Lindzey (Editor), *Handbook of Social Psychology*, Addison Wesley Press, Cambridge, 1954; Ronald Freedman, et al., *Principles of Sociology*, Henry Holt and Co., New York, 1952.

<sup>2</sup>The tendency of the Highway Research Board in recent years to invite sociologists, architects, and others to participate in its annual meetings is one evidence of this viewpoint.

<sup>3</sup>See John W. Gibbons and Albert Proctor, "Economic Costs of Traffic Congestion," *Urban Traffic Congestion*, Bulletin 86, Highway Research Board, Washington, D. C., 1954, pages 9, 10, and 14 for brief discussion of attempts to convert time, comfort and convenience into monetary terms.

different value by means of its own measurement device. The resulting measurements (indices, judgments, ratios, etc.) can then take their proper places as aids to final human judgment of over-all value.

The challenge, then, is to create new or use existing methods, techniques, and indices to measure the wide range of human values that relate to highways. Fortunately, some economic techniques and indices have already been developed, such as the benefit-cost ratio.<sup>4</sup> Methods to facilitate judgment about non-economic values are less developed; undoubtedly fewer attempts at deriving such methods have been made. Nevertheless, it is known that intangibles about people can be and have been measured. Witness the various measurements of differential abilities in intelligence, personality adjustment inventories, socio-economic indices, attitudes, etc. Thus there is room to believe that something more can be accomplished than is now being done on evaluation of human needs in relation to highways.

For example, an economically oriented person might try to attach money values to time saved, to comfort or convenience, and to reduction of costs of accidents. A sociologically oriented person on the other hand might look at time saved in terms of opportunities for more family life, for rest, for reading, for recreation. Comfort or convenience to the sociologists would be examined not in terms of worth measured in pennies per mile, but in terms of how the traveler interprets and rates these qualities. Accidents would be viewed not in terms of reduced or increased insurance payments on life or automobile, or even in loss of work days, but perhaps in terms of disruption of family life, loneliness of surviving persons, and in terms of inadequate group or community participation of disabled persons.

Researchers need to continue to discover and synthesize previous social research that may apply to highway development, from which new hypotheses will emerge. Such hypotheses about social factors need testing, just as it is necessary to test the strength of concrete, the tension of materials, or relative costs of construction. It is obvious that a successful highway system is based not only on economy, efficiency, and safety, but also on how these and many other social factors promote happiness by filling a wide range of human needs.

### USE RESEARCH TO IDENTIFY NEEDS

In the identification of social needs, the research approach can help. Perhaps the highway planner in this day of specialization is too far removed from the "common man" and various types of "uncommon man" to fully understand and evaluate their needs. If he assumes that what has been done before is acceptable, he has no assurance that a sufficiently wide range of needs is being met. If he assumes that such needs will be taken care of intuitively when problems "come to a head," he may be no further. He can hardly set himself up as a judge of people's wants and needs by relying on what he thinks they wish or need. Neither can he conclude upon the basis of his own needs that he knows their needs. Many people tend to think that needs of others are like their own. However, if they were to interview every third or fourth householder on a block or every fifth or sixth auto-

<sup>4</sup>For example, see the following: American Association of State Highway Officials, Committee on Planning and Design Policies, "A Policy on Road User Benefit Analyses for Highway Improvements," Washington, D.C., 1951; C.B. McCollough and John Beakey, "The Economics of Highway Planning," Revised Edition, Oregon State Highway Department, Technical Bulletin No. 7, 1938; Richard M. Zettel, "How Shall Highway Costs and Benefits be Apportioned?", Roads and Engineering Construction (Canada) Vol 91, No. 1, January 1953, pp. 102, 104, 106; R.A. Moyer, "An Analysis of Highway User Benefits on the California Interstate System Resulting from Completion of a 10-Year Full Freeway Program," Institute of Traffic and Transportation Engineering, University of California, Special Report May 1955; A.R. Abelard, "Benefit-Cost Ratio Method of Computing Priorities of Construction," Colorado University, Highway Series No. 22: 46-49, 1949.



mobile driver, they would soon realize that they cannot judge needs of others in this psychologically projective way.

For instance, what mental picture of a driver on the highway might be had if it were assumed that economy is what he is seeking? One would probably think of a time-conscious individual anxious to reduce his time and distance on the road because of threats of economic loss. Such thinking would lead quickly to research that would show how to cut such losses. Used as one guide to policy, such an approach cannot be questioned.

However, such a limited picture of man is too frequently used to determine over-all policy. One wonders if policies so formulated are adequately based upon reality. For instance, people are sometimes advised on how to use the telephone. They are advised to state their business, speak briefly, and hang up. If telephones were used in this efficient economical way, a greater accessibility to them and an increased volume of calls might be possible. However, for every person who uses the telephone in this restricted way, there are many who use it for a much broader social purpose; to visit with neighbors, to strengthen family ties, to exchange pleasantries and greetings. If telephones were to serve only economically rational man, they would serve only a segment of his needs.

A more realistic picture will consider a broader social view of man's nature. Thus a more rounded-out and real picture of a person using a telephone or a driver on the highway is that his economic life constitutes only a segment of his experience, yearning, and activity. In addition to being a producer, servicer, or consumer of economic goods and services, man is also a husband, father, uncle, church member, neighbor, citizen. If roads are built for economic man they serve only a segment of his needs. What are some of these needs?

### INDIVIDUAL DIFFERENCES

Needs of people are in many ways alike and in some ways different. In addition, the same person has many different needs. At one time on the highway a person may wish speed and economy; at another he may want relaxation and sociability. A highway plan that is diversified enough to make available a range of choices allows different needs to be filled simultaneously, and also allows the same person to satisfy different needs at various times.

#### Need for More Freedom to Choose Travel Speed

One of the more obvious needs is in relation to speed and tension on the highway. There may be as many reasons why people drive slower as why others drive fast. These may include physical, as in age;<sup>5</sup> emotional, as in a newly licensed driver; social, as in a family outing; or esthetic. Yet a driver who does not drive at a fast pace seems out of place on many highways. He becomes an object of hate, ridicule, and even police punishment. This tends to be true, it appears, even where there are certain lanes designated for slower speeds. The slower-driving motorist is coming more and more to be accused of endangering life and limb of his fellow travelers. On highways where slower drivers are "pushed from behind" by fast-moving traffic or by minimum speed laws, they are being tailored to fit the highway rather than the highway being designed to fit the drivers.

On the highways, of course, rules and regulations must be more standardized than rules governing members of society off the highway. In ordinary daily life when

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<sup>5</sup>Many older people wisely recognize their slowing reactions by cutting the speed at which they drive. By 1980 about one of every five people in the United States will be 60 years of age or older. (See Paul H. Landis, *Population Problems*, Second Edition, American Book Co., New York, 1954, page 87.) What will happen to this large segment of highway users if they are not given the right to choose the speed that seems wisest to them?

individuals come into conflict involving blows, usually only the strength of the human body is involved. On the highway when interaction moves into conflict or when there is accidental "conflict", the individuals are at the command and mercy of tremendous machine power great enough to kill.

If there is conflict between a slow and a fast driver on the highway, the operator of the faster car carries the more destructive power. Such a conflict would be comparable to a small child fighting a large powerful bully. People would have much sympathy for the small child; yet on the highway are not sympathies often reversed? If research found that a disproportionate amount of resentment was centered toward the slower driver as compared to the fast driver, isn't there a mix-up of values somewhere? Naturally the fast drivers will "win" in either the enforced or laissez-faire war of speed on the highway unless planners intervene with more democratic solutions in the building and management of highways to allow for differences of speed.

Much research seems to have been done in testing the tension of materials that go into highways. It seems just as important to test tension of the human beings who travel upon them. As tests are being made it would be well to consider the point that a person who wishes to go fast but has no choice because of slower drivers is under tension, just as is the person who wishes to but cannot drive slower. The more the highway provides for individual differences, the more freedom there will be from health damaging tension and its many consequences.

Perhaps the idea of the French architect Le Corbusier of traffic lanes made up of seven types of roads varying from throughways down to bicycle and pedestrian paths needs study – not for copying, but for suggestions.<sup>6</sup>

#### Need for Sociability

#### NEED FOR SOCIABILITY

Another human need that differs among individuals as well as within the individual at different times is that of sociability. In one way social needs are filled because the highway exists. One can attend a football game or visit friends 40 miles away because of good highways.

In addition, other social enjoyments occur on the highway. In this respect it is a social place. In fact, it might well be that family or friends are more closely knit when in an automobile on the highway than at any other time. In an automobile people are physically close; their attention is upon or among themselves. There is nothing to split them into different activities; no television, no telephone calls, no ringing doorbell, no newspaper. In a car on the highway people are together in a unique way. (That makers of automobiles are sensitive to this need is evident in the small number of autos that are made with one seat, despite the fact that drivers on many occasions are alone.) In fact, the going and coming via the highway are the most important social parts of a trip to spectator events such as movie, game, or meeting. At the event, the interest is attracted outside the group, while enroute the interest is more likely on each other.

The social interaction in an automobile, like small-group interaction in the home, school, church, and community, is very important to the individual.<sup>7</sup> In fact, small-group face-to-face interaction is the germ of life in the sociological sense. This type of group experience is badly needed, yet not always easy to get in modern large-group urban civilization. Planners can promote this interaction by creating highway

<sup>6</sup>Ernest O. Hauser gives a popular treatment of the various architectural ideas of Le Corbusier in "Rebel in Concrete," *The Saturday Evening Post*, 229, No. 23, December 8, 1956.

<sup>7</sup>George C. Homans, *The Human Group*, Harcourt Brace and Co., New York, 1950; A. Paul Hare, Edgar F. Borgatta and Robert F. Bales (Ed.), *Small Groups: Studies in Social Interaction*, Alfred A. Knopf, New York, 1953; Charles H. Cooley, *Social Organization*, Charles Scribners Sons, New York, 1909.

environments which have wide enough scope to serve sociability needs and which are conducive to relaxation and freedom from fear of other drivers.

Even when there is only one person in a car, the highway may satisfy a need closely related to social needs. This is the opportunity to withdraw into temporary solitude and thought. It may be that being alone on the highway in a car is a person's main respite between two very busy social worlds. Here is another reason why roads need to contribute to relaxed enjoyment.

### Need for Esthetic and Recreational Enjoyment

Highway travelers will likely find more satisfaction when the routes they take are beautiful, where conscious attempts have been made to preserve and augment nature by landscaping, provision of roadside camping, eating, and resting places, and by preservation of natural treasures before irreparable damage has been done to them.

Recreational and esthetic elements in highway planning are rather abundant in national and state parks far away from home. On highways that provide for differences in individuals and groups, might not these elements be more fully developed on roads nearer home, where Sunday afternoon and other recreational driving attracts thousands upon thousands of local drivers each week?

### Need for Legibility in Road Signs

Another way individuals differ is in the meanings they attach to words and also in their ability to read accurately and rapidly. America is a mobile nation where thrills of travel and desire for "greener pastures" cause large numbers of people to move from one part of the country to another. Under these conditions, it is important that the highways be easy to follow, that road signs, markings, and symbols of all kinds be clear, simple, and personalized.

This can be illustrated by referring to an article entitled "Expressway Signs in the Chicago Metropolitan Area."<sup>8</sup> The expressway signs finally used were selected on the basis of research on size of letters, color combinations, reflectorization, and illumination. Also, study was given to placement and sign erection. Although almost everything about these signs looks good, an important human element, the message in the sign, was not subjected to research.

Let it be assumed that an out-of-state traveler is coming down US 30 toward Chicago. He sees this particular sign: 159TH STREET EXIT. KEEP RIGHT. The sign has legible letters in effective colors and is well placed; but what does it mean? To one driver it may mean a route to be taken by those who want to exit from 159th Street. The driver might then wonder if by mistake he is now on 159th Street instead of US 30, and that he is approaching a way to get off 159th. To another it may mean that an exit from 159th Street will shortly pour forth its contents of cars on the road he is now traveling. To another it may mean (as it was intended) that it is a route to be taken to get off US 30 and onto 159th Street.

To someone in the Chicago area who has become adjusted to such signs there may be no confusion. But what about people from other places, especially the portion of the population whose lower scholastic aptitude prevents them from extensive verbal manipulation? Does this particular expressway sign miss the social psychology of the traveler? If drivers are actually looking for 159th Street, would it be more appropriate to say something as follows: FOR 159TH STREET, KEEP RIGHT. These words tell a driver where he wants to go, not where he wants to get off. The point is that meanings cannot be omitted from research, because they are closely tied in with human needs.

On highways over the country, lines are painted down the center — double, single,

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<sup>8</sup>A paper by William F. Bauch, Jr., and John T. Nagel presented at the Thirty-Third Annual Meeting of the Highway Research Board, and published in Highway Research Board, and published in Highway Research Abstracts, May, 1954.

yellow, white, yellow and white, smooth, broken. Would more uniformity throughout the whole highway system in signs, road markings, color, types of interchanges, simplify meanings for the driver?

### NEIGHBORHOODS, COMMUNITIES, AND SPACE

Another sociological aspect of highways is that they can create or break up residential patterns of social life. Such patterns are called neighborhoods and communities, and are very important to the individual.<sup>9</sup> A highway that boldly slices through neighborhoods and communities can destroy some of the sociological germs of life. If highway planners would ascertain the boundaries of these groupings, and (where feasible) place needed highways near, at, or beyond the boundaries rather than through the centers, much neighborhood and community social life could remain intact.

By providing access to new areas, highways can also create sociological life. Failure to recognize this creative power may lead to short-range planning. Because neighborhoods and communities frequently spring up along highway ribbons, long-range planning can prevent current or future zoning for business of strips adjacent to the highway, so that at no future time can local business traffic interfere with regular traffic. Entries to the highway from yet-to-be communities can be regulated beforehand. Thus, long-range planning can help forestall chaotic development of all adjacent strips.

Long-term planning can also provide permanent open space by regulating what will lie on either side of the highway or by the buying up of green belts as part of the right-of-way before land values increase. If space is not provided at the outset, it may forever be gone. The entire Manhattan Island was bought from the Indians for \$24. In 1811 the city commission reserved only minimal open space for public use because the price of additional land was "uncommonly great." Yet only 45 years later, land purchased for Central Park cost \$5,500,000.<sup>10</sup>

### PUBLIC RELATIONS

Still another sociological aspect of highways has to do with communication of ideas among groups. Because the function of any public official tends to be created by his culture, it may be that opinions held by the layman have been in part responsible for the highway planner's greater emphasis on economic valuations. It is possible that the layman is not aware of the extent he and others use the highway for varied social purposes. He may tend to think of the highways primarily as conveyor belts or connecting links, in which economic motivation is high. He may not be aware of ways other than by dollars-and-cents to measure value. Thus he may not be willing to approve expenditure of public money to make the highway an effective social place. One often hears the word "frills" to describe indiscriminately both less-important artifacts as well as very important social factors.

Yet the layman is willing to spend money for intangibles in transportation. When he buys a car (even if in the low-priced field) does he buy the one that transports him with maximum efficiency for smallest expenditure? Few men do. Instead, he will spend as much, if not more, than he can for any automobile, paying quite heavily for the extras of comfort, convenience, beauty, sense of personal worth, and prestige that

<sup>9</sup>Rudolf Heberle, "The Application of Fundamental Concepts in Rural Community Studies," *Rural Sociology*, 6, No. 3, 1943; Baker Brownell, *The Human Community, Its Philosophy and Practice for a Time of Crisis*, Harper and Bros., New York, 1950; John H. Kolb and Douglas G. Marshall, "Neighborhood-Community Relationships in Rural Society," *Wisconsin Agricultural Experiment Station, Bulletin 154*, Madison, 1944; Arthur B. Gallion, *The Urban Pattern*, D. Van Nostrand Company, Inc., New York, 1950.

<sup>10</sup>*Ibid.*, page 58.

the extra expenditure brings. You would probably find that although some users of the turnpikes use them to save operating costs, a great many more use them for their comfort, convenience, and beauty, not knowing or stopping to think of any economic advantage. Furthermore, they are willing to pay for these conveniences. Perhaps those who desire to convert intangible values into monetary terms have here a monetary measure, though crude, of how badly people want the intangibles in highway service.

If people are willing to pay additional private money for added values in transportation, why are they reluctant to pay for added social benefits in highways via public taxation?

How will the layman become informed about road needs? Who is going to convince him that what is economical in today's budget may not be economical in the long-term perspective? Who is going to define what is "money well spent" in terms of many kinds of human needs?

It appears that a vital program needs to be undertaken by highway departments and agencies to create in the layman more awareness of these and other values that he wants and which, if available, he will pay for on a private basis. Such a program seems particularly important in relation to those people, such as federal and state legislative bodies, who make major decisions about highways and highway appropriations. Even though ideas for technical improvement and development should and do come from highway and other specialists, decisions on appropriations do not.

#### AGENCY- VERSUS SOCIETY-ORIENTED ECONOMICS AND PRODUCTS

Human needs may sometimes conflict with agency needs. If highway planners and builders consider themselves an agency to spend "well" what money is provided on the short-term basis, who will have the vision to deal preventively and creatively (rather than curatively) with highways of the future? Who is going to see highway economics in terms of social costs and benefits beyond those now calculated in benefit-cost ratios? The manufacturing of the "best" highways at the least cost must not dominate over the long-term society-oriented economics.

Agency-oriented thinking is too restrictive. An example of agency-oriented thinking is the county extension agent who was having difficulty getting farmers to come to meetings at the county seat. Although the farmers hesitated to come to the county seat they were willing to attend meetings held in their own communities. But the county agent regarded as "not economically sound" a suggestion to hold meetings locally, on the grounds that meetings held in the county seat would save transportation costs for the agency. Society-oriented thinking, however, would have considered the much larger total transportation costs when each farmer drives his own car to the county seat.

Agencies of course, are necessary because a certain structuring of relationships is needed in society. Human society is a network of structured (that is, socially defined) relations of persons to persons, of persons to groups, and of groups to groups. The advantage of such structuring is that day-to-day human relations with others can move with a minimum of friction. If every human situation or relation with others had to be defined anew and in all details every time individuals or groups have contact, human behavior would be in a constant state of chaos. Thus society defines the relation of the Bureau of Public Roads to the Congress, the relation of the Bureau to the state highway departments, the relation of the state departments to local highway agencies. Although specific details in these relations are sometimes undefined, the general structure is present.

Even though such a structuring is needed, there are problems relating to it. Agencies in a network of relationships with other agencies may fail to realize their responsibilities to others in and beyond the network; that is, fail to be society-oriented. For example, because county and municipal governments tend to be "creatures" of the state, state highway departments have a superordinate position in the structure of a state highway system. However, agencies with a superordinate position in a democratic society have great responsibility to use democratic pro-

cedures. In society-oriented thinking, people are not forced to passively accept decisions made by some person or agency, for the democratic process will have helped shape the plans as they were being drawn up.

Victor Jones, who has written on metropolitan government, says that "the initiative should be taken by the state not only to coordinate state and local activities but also to foster the integration of local government in metropolitan areas."<sup>11</sup>

Yet he says: "All too often interested parties are said to have been consulted when they have only been presented with a plan or a decision already wrapped up."<sup>12</sup>

As highway building programs unfold, the need and opportunity for coordination on a federal, state, and local level are ever present. Particularly would such coordinated planning be desirable where metropolitan and other intra-state highways connect or relate to the super inter-state system.

Agency-oriented thinking makes it difficult for agencies working for the same society to pool their creative thought. Society-oriented thinking breaks down artificial barriers between departments and agencies. One way to open communication among these groups might be to hold informal unofficial sessions with selected representatives of various agencies. In such informal meetings no one speaks officially. Yet this type of interaction may produce favorable society-oriented benefits that would not be possible without it.

### IMPETUS TO PLANNING

Can federal and state highway planners consciously stimulate a more widespread planning spirit so badly needed in many towns, cities, counties and regions? City planners in general agree that the cities were built for a pre-automobile age which is long passed.<sup>13</sup> They are anxious to begin or accelerate urban redevelopment so that modern economic and social needs can adequately be served.<sup>14</sup> Many development and redevelopment designs are largely on paper awaiting an impetus. War destruction has been such an impetus in certain European cities. Can national readiness to build roads on a rather gigantic scale become this impetus in the United States? Highway planners could encourage regions, cities, villages, and suburban areas to evolve master plans in order to set up better master highway plans. Highway agencies might thus bring about a revolution in outworn concepts and structures in urban America without taking the responsibility themselves. Such an approach would be an example of fruits of society-oriented thinking.

### RECOMMENDATIONS

If concern for construction materials and for time, speed, and economy is not to cloud vision to other social needs that highways can help fill, it is recommended that:

1. Scattered research and ideas on social aspects of highway planning be brought together into a single synthesis, and that further sociological research opportunities be made available.
2. Administrators and specialists in highway agencies take the initiative to include specialists from other fields on highway planning teams.
3. In the early planning stage, major consideration be given to how highways can most effectively meet the wide array of human needs. If thinking is begun with technical and monetary problems, although they are obviously of great importance, vision may automatically be closed to the broader possibilities inherent in highways.

<sup>11</sup>See Coleman Woodbury, *op. cit.*, page 539.

<sup>12</sup>*Ibid.*, page 539.

<sup>13</sup>Gallion, *op. cit.*, chapter 14.

<sup>14</sup>Coleman Woodbury, *op. cit.*, particularly Part 1.

# Washington Highway Economic Impact Studies

ROBERT G. HENNES, BAYARD O. WHEELER, and WILLIAM L. GARRISON,  
University of Washington, Seattle

The improvement of roads and streets exerts an influence on the value of real property which merits consideration in any inquiry into the proper distribution of responsibility for road and street costs. During the past three years the Washington State Council for Highway Research has been investigating highway cost allocation for the Legislature's Joint Fact-Finding Committee on Highways, Streets and Bridges (1). A substantial part of this effort has been directed toward ascertaining the highway influence on land values.<sup>1</sup>

The project included two separate studies of land values, differing from each other not only with respect to the type of road under study, but also in the methodology employed. Rural road benefits were estimated for farmland and non-farm residential sites using both road utilization data obtained from interviews and value data obtained from sales records. In a separate study, the influence of freeway access upon suburban property values was measured in time, space and property characteristic in control areas and in the survey areas, before and after the betterment of survey area access.

## THE IMPORTANCE OF ACCESS

● THERE is something anticlimatic in the pitch of many popular pleas for better roads. So often people seem to be saying, "Good roads make driving much more pleasant and, besides, they are indispensable to our social and economic well being; prerequisite to the full utilization of land, rural and urban; and vital to our national defense." Failure to base popular approval of a better roads program upon an elementary appreciation of the relative importance of various road benefits is not an inconsequential matter. Enthusiasm without understanding can lead to imprudent investment, inequitable taxation, and discriminatory policy decisions.

Almost invariably the local merchant is pleasantly startled to find his business improved after construction of the bypass which he had bitterly opposed. Only after the construction does the freighter discover that his time savings in operating trucks over the new toll road are more valuable than his share of the added cost of the seemingly extravagant facility. The advocate of a new freeway does not often clutter his arguments for a superior route location with details of any accompanying inflation in the value of his suburban acreage.

More roads would be built sooner and built better if there were better public understanding of highway functions and of their bearing on the justification of highway improvement expenditures.

## Highway Cost Allocation

Expanding highway needs stimulate interest in the subject of highway taxation. Present tax support for roads and streets has developed over the years in response to generally held notions of what is an equitable and expedient method of paying for an evolving public transportation system. The propriety of these concepts should be re-examined whenever the character of the highway system has changed appreciably from what it was when the prevailing taxation practices were being formed. The appearance of

<sup>1</sup>In the cost allocation study the impact of highways is treated within a property value and taxation context. It is important to note, both to do justice to the breadth of the subject and the general applicability of the findings, that the subject is much wider in scope than is indicated in that discussion. The problem is within the general scheme of location theory, especially theory relating to the internal structure of the city, the size and spacing of cities and consequent arrangement of transportation routes, and agricultural location (2, 3).

entirely new road types, like the urban expressway, and the development of radically higher design standards for some old road types, such as those which follow the feeling that local rural roads regularly should be hard surfaced, provide strong arguments for a new look at the nature of the highway function, and at its bearing on tax policy.

### Justification of New Construction

"A road user benefit analysis for highway improvements is a comparison of annual costs of alternatives. For each alternative the annual road user costs and the annual cost of improving, maintaining, and operating that portion of the highway are determined for a selected period of time. Then alternates are compared arithmetically to express a benefit ratio or quotient of the cost differences as follows:

$$\text{Benefit Ratio} = \frac{\text{Benefits}}{\text{Costs}} = \frac{\text{Difference in Road User Costs}}{\text{Difference in Highway Costs}} \quad (4).$$

The report from which the foregoing excerpt is quoted was written to fill an "increasing need for analysis to indicate justification of the expenditure required and the comparative worth of proposed improvements, particularly when comparing likely alternatives." The same report also recognizes that attention should be given to land and community benefits, although the authors did not find it possible to treat these in detail at that time.

Emphasis on road user benefits to the neglect of land and community benefits should furnish adequate guidance either in evaluating the justification for proposed highway betterments, or in choosing between alternate proposals, so long as the pending decision relates to ordinary rural state highways. It should be apparent, however, that many local roads and streets are built primarily to provide access to agricultural land, to other natural resources, or to suburban residential areas. Here also decisions on whether the road should be built, which route it should follow, and what design standards should be required, properly should depend upon full exploration of the services which the new facility is intended to provide. Where the provision of access is the road function neither the economic justification of the new facility nor its engineering design can be performed without taking cognizance of associated benefits to real property. Moreover, those persons for whom the road is built should not be overlooked when revenues are sought to pay the bills.

### Land Acquisition and Severance Value

Aside from its influence on highway policy, as discussed in the preceding paragraphs, the value of access demands attention as a factor to be considered in the appraisal of land to be acquired for highway right-of-way. The utility of a given parcel of land may be injured by the intrusion of a roadway in singular ways which are beyond the scope of this paper; but superimposed upon this individual effect is a general increase or decrease of value associated with the over-all influence of access upon location.

Variations in road service have the effect of varying the locations of places served by roads. In turn, the value of places may vary. Stating the problem in this manner recognizes that property value is, at least in part, the outcome of competitive bidding for locations and recognizes that roads function by connecting places. Following this line of thinking, a change in road quality occasions a concurrent change in the locations of places served by that road. Because location has value, a change in road quality would be accompanied by a change in the value of places served by that road. These value changes thus serve as a measure of the over-all influence of access on location mentioned in the paragraph above.

The road system may be viewed as a net focused on urban centers. Looking from the urban center outward and considering gross patterns of change, two main aspects of the measurement problem may be seen. First, modern expressways are linking suburban areas more closely with the center of the city. The land is changing in location and the main determinates of change are the expressway itself and the status of the urban real estate market. Looking further into the countryside, the land becomes more sparsely settled and takes on a rural character. Here the determinates of change



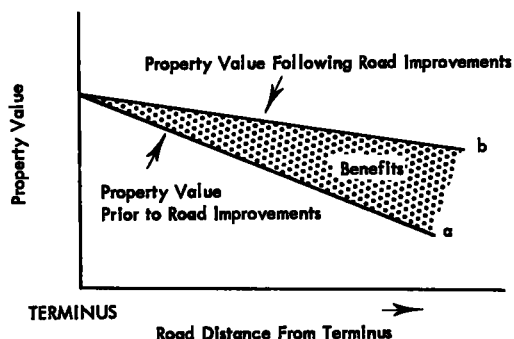


Figure 1. Positive benefits.

a period of road improvements the property values diminish less rapidly with distance from town and this is shown by the line marked b. The shaded area shows the distribution of benefits.

Not all property receives positive benefit from a general improvement of access. Stated in the language of Figure 1, line b need not lie wholly above line a (Figure 2). The demand for land near a terminus may decline when better roads make distant land more accessible. Possibilities as those illustrated by this concept provide additional incentive for the more rigorous analysis of the nature of highway impact on land values.

### The Washington Studies

The investigation which is reported in subsequent sections of this paper was motivated by an interest in the financing of highway improvement. The preceding discussion, however, purports to show that these studies have reference beyond the financing problem. Specifically, the two investigations here reported are concerned with the economic impact of urban expressways and of improved rural roads on property values. In both cases the influence of the expenditures is not confined to highway user benefits and costs. In both cases, also, the highway administrator faces problems of route location and the justification of expenditures in which prudent decisions require consideration of land and community benefits.

### IMPACT OF EXPRESSWAYS ON SUBURBAN AREAS

The urban expressway duplicates the function of existing city streets; the expressway provides access from residential areas to the central business district and access between other termini of urban traffic.<sup>3</sup> But the expressway differs from present routes, investment requirements per mile of route are extremely high and, being new, no generally acceptable pattern for financing expressways has evolved. Needs for expressway construction are great, thus, implications for construction and financing policies from studies of the impact of expressways are urgently needed.

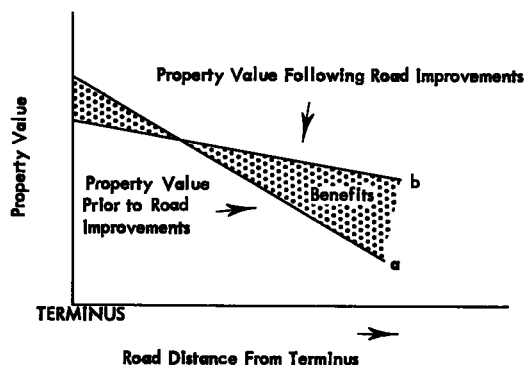


Figure 2. Positive and negative benefits.

<sup>2</sup> Looking far enough away from the city the road net is seen to form interurban connections and these connections would change when roads are changed. By and large this aspect of the problem was not considered in the research reported here.

<sup>3</sup> Too, the expressway may link cities, each to the other. The present study, however, is limited to intra-urban area impact of the expressway (1) Part V.

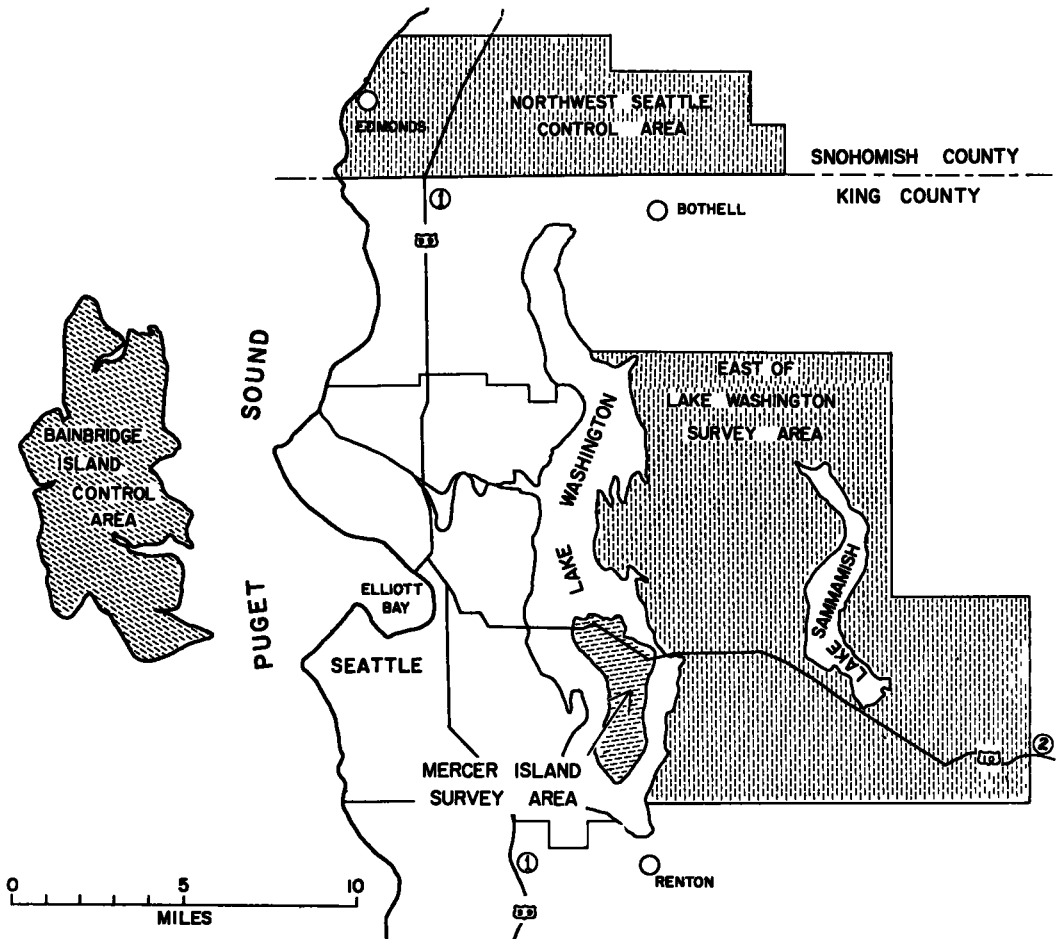


Figure 3. Survey and control areas.

### Measuring the Impact of Expressways

Since expressways connect places, it is logical to look to these places to find the impact of expressways. Many ways come to mind that a place may change because of the development of expressway service (or the lack of the development of expressway service when that service is provided elsewhere), the type of land use may change, the intensity of land use may change, the value may change, and the like. Whatever the change may be it is a result of the expressway. The expressway provides improved access; the change is in response to the change in opportunities at affected places due to change in the relative position of the places. The value that places command on the market is a function of the opportunities for use they offer and when the opportunities change the value changes. This sequence—a change in access followed by a change in land use opportunities followed by a change in property value—provides a measure of the impact of expressway construction.

The value measure is a logical, widely accepted measure in its own right. It is especially useful as a measure of impact for the users of such information. As mentioned previously, information is urgently needed for the development of construction and taxation policies. Information in value terms gives direct evidence of advantages of the expressway and consequent improved access for the property owner.

### Scope of the Expressway Impact Study

The type of route with which this study deals is the limited access urban expressway

serving suburban lands, in this case the Lake Washington Floating Bridge connecting the City of Seattle with suburban Mercer Island and the mainland to the east (Figure 3). For many years Mercer Island has been connected with the mainland to the east by a bridge, but until 1940 ferries provided the only direct connection between the island and Seattle to the west. To reach Mercer Island by land from Seattle it was necessary to drive around either the north or the south end of Lake Washington, a trip taking ap-

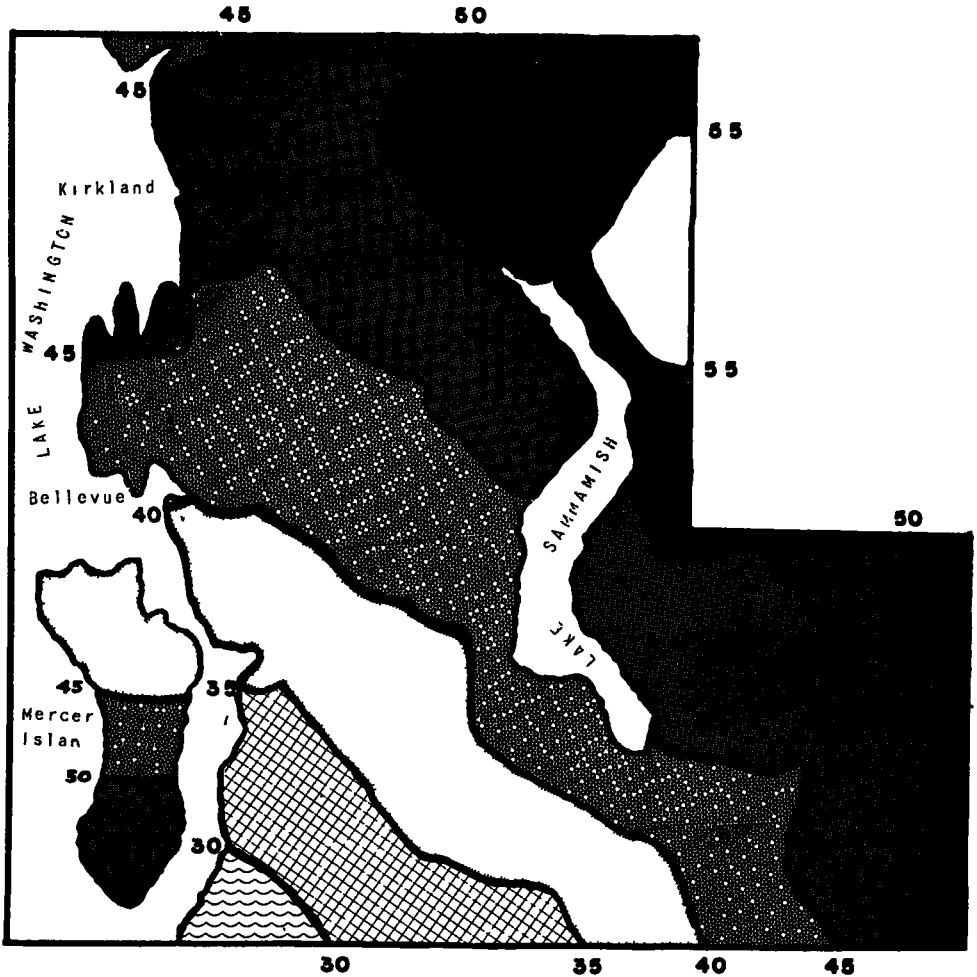


Figure 4. Pre-bridge travel time zones in minutes from 4th and Madison, Seattle.

proximately three-quarters of an hour (Figure 4).

The construction of the Floating Bridge in 1940 reduced the travel time from downtown Seattle by two-thirds; from approximately forty-five minutes to twenty minutes (Figure 5). With such a drastic improvement in access it could be expected that Mercer Island's development and settlement would be accelerated, and that values of Mercer Island real estate would advance; probably more than in most other sections of the Seattle metropolitan area. Relatively similar benefits also could be anticipated for the mainland area immediately east of Mercer Island through which the freeway extension of the Floating Bridge passes.

The selection of Mercer Island and the larger area to the east (East of Lake) for study was dictated not only by the convenience of their location, but also by the singular fact that these are the only suburban areas in the State of Washington which have experienced improved access through freeway construction over a relatively long period

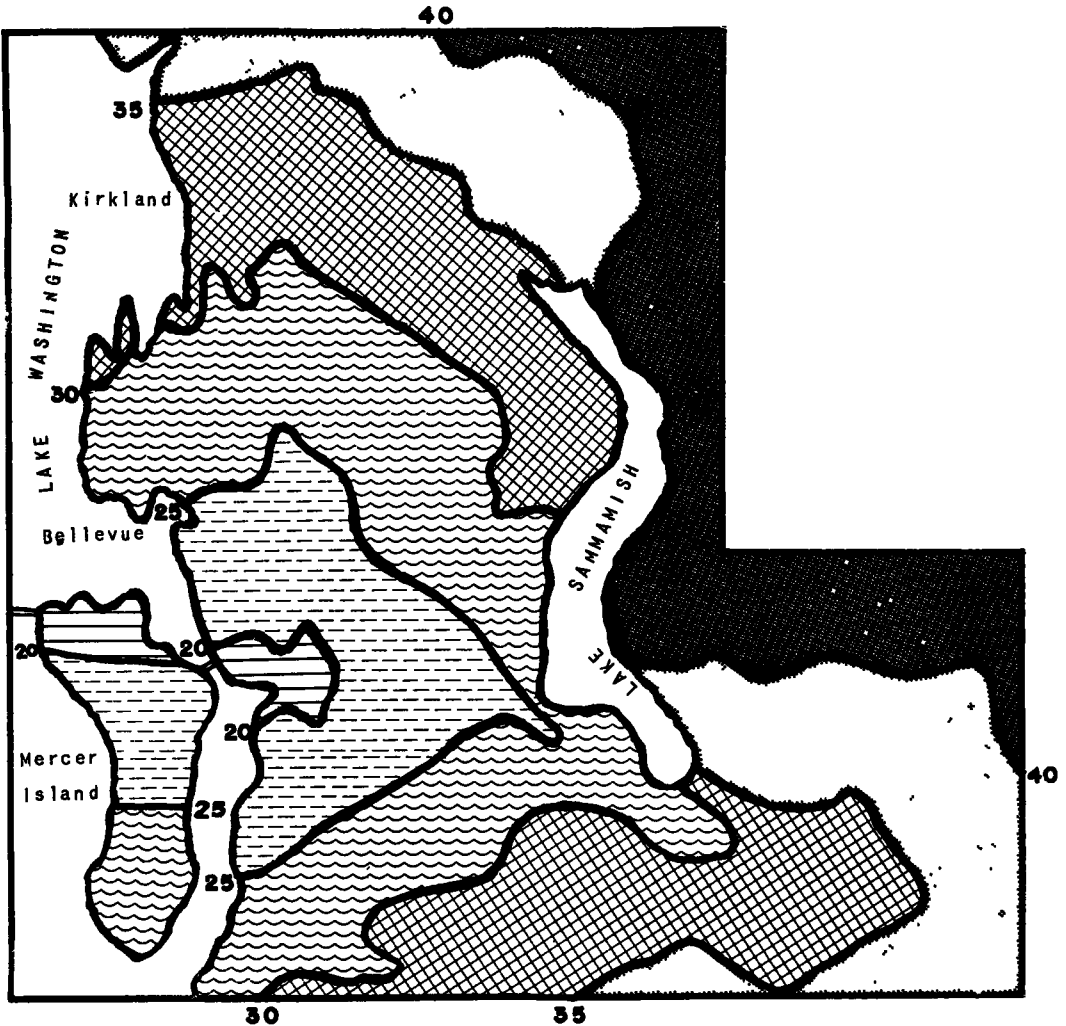


Figure 5. Post-bridge travel time zones in minutes from 4th and Madison, Seattle.

of time. The span of 15 years since the construction of the Floating Bridge covers sufficient time to yield a useful model of the effect of improved access upon property values.

#### Measurements

The study recognizes three significant time periods. The pre-bridge period extends from 1935 to 1940, the interim or toll charge period extending from 1940-1949, and the toll free interval since 1949. In the Mercer Island study, value data were collected for these three periods, but the findings for the toll charge period did not contribute sufficiently to the objectives of the study to warrant their use, and similar information was not collected for the subsequent study of the suburban area lying east of Lake Washington and Mercer Island.

To measure the change in property values, records of actual sales were compiled for both the "before bridge" and "after bridge" time periods. The type of real property covered in the study is improved residential and unimproved land suitable for residential development, whether platted or unplatted. Agricultural, commercial, and other types of land use are excluded. The relatively long period of time covered required the selection of a type of property that predominated throughout the entire time period.

The strictly suburban, even semi-rural, character of the survey areas prior to 1940 precludes consideration of commercial and industrial properties as reliable sources of information on changes in land value representative of the survey areas.

The unique objective of the study required a depth of coverage and analysis not common to other studies. The isolation and measurement of access influence alone, among the many variables affecting property values, dictated the careful identification and evaluation of other influences so far as possible. Topography, community facilities, changing local road patterns, inflationary effects and other factors were recognized as contributing to property values. The Mercer Island pilot study revealed that some of these factors were measurable within a range of acceptable reliability only at great cost. In the survey area East of Lake, as well as Mercer Island, those variables were considered which appeared to be dominant in affecting property values: location on waterfront or inland, degree of capital investment shown by improvement or non-improvement, and the level of economic activity in the Seattle urban area.

Some of the new or unusual problems encountered at the outset were the insular nature of Mercer Island and its topographical affinity for waterfront development; the multiple access approaches to the survey areas from Seattle both north and south of Lake Washington, before and after construction of the bridge; and, most difficult of all, the collection of reliable value data for a twenty year period spanning deep depression with limited real estate activity and high level prosperity with unprecedented growth in the area.

Of the several available sources of property value data, the best was found to be the record of sales transactions in the office of the county auditor, as recorded by title insurance companies. Only those sales were listed which buyers chose to have recorded, but unrecorded sales are estimated to constitute only a relatively small fraction of the total. Since title insurance companies classify these public records by location of property, this source was used with favorable results in coverage, time and expense.

The sales data were sampled by a predetermined sample pattern designed to yield property value information for selected categories of property at different periods of time. Resales of the same property in both time periods were infrequent.

Economic and other conditions were dissimilar in the two time periods (pre-bridge and post-bridge). Market activity in real estate and suburban development was slow in the pre-bridge period, while activity in the post-bridge years assumed boom proportions. Moreover, land availability, building methods, and consumer preferences have all undergone change in the interim. Accounting for all such divergencies would be difficult, if not impossible. Expressing values in constant dollars at least corrects the data for one of the most important differences between the two periods.

Few previous studies have attempted to isolate the influence of access from the other factors affecting property value. When undertaken, it has been through the use of comparative control areas. While this method commends itself, and was used in this study, a more precise measure is desirable in seeking results which may be useful in the allocation of highway cost responsibility. Multiple regression analysis offers the possibility of achieving greater precision in isolating the value of access. Both of these methods were used in this study, and their use is discussed in the following paragraphs.

### Survey and Control Areas

For all metropolitan areas reported by the United States Census in 1950, population increases since 1940 amounted to 13.9 percent inside the central city and 35.5 percent outside the central city. Comparable figures for Seattle are 27.0 percent and 46.5 percent, respectively. It is necessary, however, that the suburban study areas be compared not only with the city as a whole, but, more pertinently, with other suburban areas of similar characteristics not experiencing access betterment since 1940. With this in mind, the Mercer Island survey area was compared with Bainbridge Island as a control area; and the East of Lake survey area was compared with the southwest Snohomish County control area.

TABLE 1  
LAND VALUES IN CONSTANT (DEFLATED) DOLLARS

	Pre-Bridge Values		Post-Bridge Values		% Increase	
	Mercer	Bainbridge	Mercer	Bainbridge	Mercer	Bainbridge
Waterfront (\$/front ft)	\$50. 11	\$24 12	\$137. 82	\$48 39	175	101
Inland (\$/sq ft)	0. 103	0. 064	0. 319	0. 092	210	44
	East of Lake	Snohomish	East of Lake	Snohomish	East of Lake	Snohomish
Waterfront (\$/front ft)	\$44. 12	\$51. 37	\$139. 37	\$110. 13	216	114
Inland (\$/sq ft)	0. 049	0 063	0 241	0. 225	392	257

Mercer Island is an area of some 4,000 acres located in southerly Lake Washington, approximately one mile east of Seattle. The island divides itself naturally into three main areas: a gently rolling plateau with occasional steep hillsides in the north; a rugged narrow central portion; and a larger flat area to the south. The development of the area has been impeded to some extent by an inadequate water supply, and by the handicap which the impervious clay soils place on septic tank operation. The rugged shoreline provides beautiful estate settings; but difficult road building terrain. State Highway 2, an extension of the Floating Bridge freeway, crosses the northern end of the island.

Bainbridge Island lies west of Seattle in Puget Sound. It is topographically similar to Mercer Island, but is 3.5 times larger. Like Mercer Island, the water supply is limited. Like pre-bridge Mercer, it is reached from Seattle by ferryboat. About three-fourths of the area is suitable for agricultural use and residential development. In 1940 Bainbridge had a population density of 124 persons per gross square mile, compared with 187 for Mercer Island. Between 1940 and 1950 the growth in population amounted to 34.5 percent for Bainbridge, 232.6 percent for Mercer Island. Both islands were 50-60 minutes travel time from downtown Seattle in the pre-bridge era.

The East of Lake survey area includes 128 square miles in a tract extending twelve miles eastward from Lake Washington. State Highway 2 provides expressway service to the west over Mercer Island and the Floating Bridge to Seattle. The entire area was accessible from Seattle in the pre-bridge period by roads around the lake, but the bridge has made possible a time savings of from 5 to 20 minutes in the trip from Seattle.

The southwest Snohomish County control area comprises 43 square miles lying north of Seattle, and is similar to the East of Lake survey area. In 1940 this control area had a population density of 140 persons per gross square mile, which had increased 124 percent by 1950. The entire East of Lake survey area experienced a 109 percent population increase in the same decade, from its 1940 population density of 283 persons per gross square mile; but the more comparable 15-20 minute time saving zone, East of Lake, had a more significant population increase of 141 percent. Both the survey area and the control area were 30-55 minutes from downtown Seattle in the pre-bridge era.

### The Impact

The preceeding paragraphs give the bases for comparative studies of expressway impact and comparative studies were made for both the Mercer Island and East of Lake area (Table 1). In addition to these comparative studies, a regression study was made in the East of Lake area.

In the regression study the value of property was related to the expressway as well as qualities of land (e. g. , steep or not steep) which relate to value. The multiple correlation was found to be 0.34; significantly different from zero, and showing a positive correlation, although notably less than a perfect correlation of 1.0.

TABLE 2  
PERCENTAGE INCREASE IN ADJUSTED LAND VALUES  
ATTRIBUTED TO ACCESS

Method	East of Lake	Mercer Island
Regression	70%	-
Comparative <sup>a</sup>	78%	154%
Comparative <sup>b</sup>	118%	120%

<sup>a</sup> Comparison of survey and control area dollar increases, expressed as percentages of pre-bridge values.

<sup>b</sup> Excess of survey area value increase over control area increase, in percent

Holding the other variables constant, it was found that the construction of the bridge was responsible for a 69.8 percent increase in the average value of land, with a computed standard error of 29.1 percent.

Finally, it is now possible to tabulate the study findings according to the analytical procedures employed (Table 2).

It is clear from this table that the value impact of the expressway is great, the expressway approximately doubles the value of tributary residential lands. The general implications of this finding are not previously defined. The implications require thoughtful evaluations of road improvement problems and additional evidence of the nature of change.

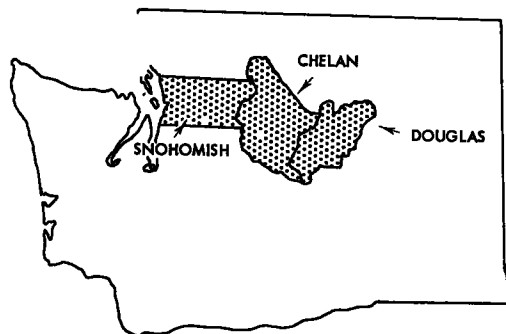


Figure 6. Study areas.

### IMPACT OF HIGHWAY IMPROVEMENTS IN RURAL AREAS

The impact of highway improvements in rural areas differs in several ways from the problem of the expressway and suburban areas just discussed. In the problem before us now the farm business is the predominate kind of land use to be considered.<sup>4</sup> But residential uses continue to be important; in the typical rural area there are many non-farm rural residences and, of course, the farm itself generally serves as a residential site. Too, types and lengths of service roads vary over a wide range. In some directions, say toward a large city, a residential site may be served by a modern expressway. Towards other trip termini, say the place where day to day grocery shopping is done, the rural site may be served by a route of only poor quality.

The distinctive features of the rural problem are, then, (1) the likelihood of highway improvements of many kinds (referring here both to changes in route quality, e. g., paving a dirt road, and to the selective orientation of changes, e. g., the route serving a rural site may be improved to place A but not to place B) and (2) the predominance of agricultural land uses.

### DATA USED IN THE RURAL IMPACT STUDY

How do highway improvements affect rural areas? It has already been noted that the impact of improvements may be measured by the value placed on property (or locations), thus a series of observations of property values were needed to answer the question. Another requirement was the association of highway improvements with these values, but this presented real operational difficulties. In the first place, the countryside is unlike a laboratory; it is not practicable to vary road improvements and observe following variations in values. In the second place, it is not always clear what road improvements relate to what places and in what degree. The ruralist usually uses several routes in day to day travel. If one of these routes is improved, say the route one travels to church, how does this relate to improving another of the routes, say the route used for convenience goods shopping? At any rate, a travel survey is needed to find the places tributary to a road improvement.

The idea in the paragraph above specified the data used in the research. Data collection began by observing a series of values of parcels of land. The resident or user of each parcel was then interviewed to determine travel patterns. This interview step allowed each parcel to be located on the highway system in terms of the routes used

<sup>4</sup> Other kinds of activities are also typically rural in location, for example, forestry. In the present study chief interest was in the farms and non-farm residences of agricultural areas and the study was limited to such areas. It might be pointed out, however, that agriculture generally appears first in the succession of land uses outside of built-up urban areas.

and the frequency of travel. Studies were made of farmland in three areas—Snohomish, Chelan, and Douglas Counties, Washington—and in two of the counties studies were also made of non-farm residential sites (Figure 6). Thus, the basic information consisted of five sets of data. Each data set contained observations of property value matched with routes used by the users of the land.

The routes were grouped into six classes:

- (a) the route to the place of usual household shopping or "convenience goods" shopping, for example, the place where food is usually purchased.
- (b) the route to the place of usual seasonal or "shopping goods," for example, the place most frequently visited for the purchase of clothing.
- (c) the route to the place most frequently visited for purposes of amenities. Trips to church and grange activities are examples of trips used to define this type of terminal. Amenity travel when the travel was the amenity (pleasure driving) did not enter into analysis.
- (d) if the study parcel of land was a farm, the route to place of usual or most frequent purchase of supplies used in the operation of the farm business.
- (e) if the study parcel was a farm, the route to place of usual sale of products of the farm business.
- (f) if the study parcel was the site of a non-farm residence, the route followed to work and return.

For each place each one of these routes varied in length, quality of highway used, and in the frequency of travel or use. Thus the travel information for each place was by type of trip, with each type of trip divided into use of routes of different quality. There was a problem here in that interview respondents could make only crude identifications of differences in route quality. The best that could be done was recognize paved versus gravel versus dirt surfaced routes and these were the quality classes. In addition, we knew the length of each route and the frequency of use.

To make this travel or location information clear, consider a hypothetical example (Table 3). A value observation was made from sales records. Matched with this observation was information on the length and quality of the route to each of several trip terminal. In addition, the frequency of travel or use of each route was known. It is easy to see that two measures of location were available, the simple distance to terminal measurements and each of these distances multiplied by frequency of travel (hereafter termed travel measurements).

For each parcel observations were also made of such variables as land capability and this information was also matched with the value data. These variables varied from study to study. Although inclusion of these variables were important in the measurement problem, they will not be discussed here because they are beyond the scope of the present analysis topic.

## STATISTICAL ANALYSIS OF THE RURAL IMPACT PROBLEM

### The Estimates

Estimates of the value impact of highway improvements were made by multiple regression methods using inverted matrices. This method is not new, but the large amount of computational labor involved has discouraged its use on as extensive a scale as that in these studies. However, the use of electronic highspeed computers made the inverted matrix solutions practicable here. The use of inverted matrices simplified the calculation of errors of the regression coefficients, the tests for significant

TABLE 3  
HYPOTHETICAL EXAMPLE OF TRAVEL AND VALUE INFORMATION FOR A NON-FARM RESIDENCE

Value (\$)	Travel to Place of—															
	Convenience Goods Shopping				Shopping Goods Shopping				Most Usual Amenity				Employment			
	$P^a$	$G^b$	$D^c$	$F^d$	$P^a$	$G^b$	$D^c$	$F^d$	$P^a$	$G^b$	$D^c$	$F^d$	$P^a$	$G^b$	$D^c$	$F^d$
3,000	3.2	0.8	0.1	3.1	8.3	0.9	0.0	1.0	7.2	3.1	0.2	0.8	8.3	1.1	0.0	5.0
<sup>a</sup> Miles of paved road.				<sup>b</sup> Miles of gravel surface road.				<sup>c</sup> Miles of dirt surface road				<sup>d</sup> Frequency, trips per week				



differences among the coefficients, and the deletion of independent variables from the regressions in order to simplify the presentation and use of the findings of the study.

In general, the postulated relationships took the form:

$$Y = a + \sum_{i=1}^n \beta_i x_i$$

$Y$  is property value,  $a$  is a constant, and the  $x_i$ 's are the variables of travel via different routes.

For each data set, the data were arrayed on punch cards and matrix transposition, multiplication, and inversion steps yielded the net regression coefficients (the  $b_i$ 's are estimates of the  $\beta_i$ 's), the variance-covariance matrix, and the error variance.

### Decision Criteria

These materials were then used to resolve each regression into its principal components. Terms were deleted using  $t$  criteria for the hypotheses  $\beta_1 = 0$  and  $\beta_1 = \beta_j$  and on the basis of the contribution of each deleted term to the error variance. This deletion process decreased the quality of each estimating equation. On the other hand, each full regression equation contained eleven or twelve terms and in many of the studies a number of the terms had little effect on the error variance. In addition, the large number of terms in each study limited the potential uses of the measurements in practical applications.

Criterion of the size of the error variance was also used to select among the estimating equations utilized in the studies. As mentioned before, measurements of routes were made in two ways—simple distance measurements and travel measurements. In each study the regression using the travel measurements gave a lower error variance than the regression using simple distance measurements and the distance measurements were discarded.

In addition, criterion of the size of the error variance was used in two studies to select the "best" functional relationship between travel measurements and property values. Theoretical considerations suggested that property values would vary with the inverse of distance.<sup>5</sup> Regressions using this function were compared with linear functions and "best" function was taken to be that with the least error variance. Of course, this procedure did not yield a known "best" function. The procedure allowed the selection of the "best" function of the functions considered.

In general, the regression coefficients were of two types. Some of the coefficients related to dichotomized observations of land utilization and the like. In these cases the hypothesis tested took the form  $\beta_1 = 0$ . As would be expected from the nature of observations and the problem, these hypotheses were rejected in almost every instance.

The remainder of the coefficients related to the travel measurements. In these cases we were interested first in the hypothesis  $\beta_i = 0$ . For one of the trip types (amenity travel) this hypothesis was rejected in almost every case. For the remaining trip types the hypothesis was not rejected for the paved routes terms in about half the cases. Next, for the trip types where the hypothesis  $\beta_1 = 0$  was rejected for poorer than paved routes, the hypothesis  $\beta_i = \beta_j$  was tested to compare the paved route coefficients with the nonpaved route coefficients. This hypothesis was rejected for the paired coefficients in at least one of the trip types in every study area. Hypotheses were tested at the five percent level of significance.

### FINDINGS OF THE RURAL STUDIES

The regression analysis applied to each set of observations yielded what may be

<sup>5</sup>Based on the observation that costs of transfer are concave downward over distance (5). In one cast it was found that a non-linear regression was "better" than a linear one. The difference between the two was not great, however, and for convenience the present paper presents only linear findings.

thought of as the average contribution of travel to property value. The term travel is used because in every case it was found that simple distance measurements did not yield usable findings, usable findings were based on the travel per unit of time measurements. In general, it was found that travel via paved routes had little or no effect on value placed on property. But travel via roads of poorer quality depreciated value, the greater the travel the less the value of the property.

What is the impact of highway improvements? In general; the impact varies depending on the uses of the route. In terms of the data and findings of the present study, the impact is the same as removing the depreciation of value associated with poor quality routes. As a case in point, consider a mile of gravel road which depreciates value at five cents per tributary acre per mile traveled per year. Say that 100 miles are traveled over the road each year. Paved roads in the same area have no effect on property values. If the road is paved, depreciation of value in the amount of  $(0.05)(100)$  or \$5.00 is removed. The value of the paving of the gravel road is, thus, \$5.00 per acre. The total impact in the area is of course much greater, because likely the route serves many acres of property.<sup>6</sup>

Five studies were made and findings varied among areas and among kinds of land uses. The study areas represent (1) three agricultural areas of the state and (2) two cases where rural non-farm residences occur.

### The Non-Farm Residences

Non-farm residential sites were studied in Snohomish County and in Chelan County. Although belonging to the same class of land use, the properties studied in the two counties were quite different. The Snohomish County observations were representative of a farming area where alternate employment opportunities have occasioned the retirement of lands and structures from agricultural uses, the parcels studied were previously marginal farms (Figure 7).<sup>7</sup> In Chelan County the parcels were typical of the encroachment of urban-type residences on agricultural lands. The typical residence was a post World War II home on a small lot.

In both Snohomish and Chelan Counties it was found that the routes used in the journey to work exerted the strongest influence on property values and in both cases the percentage effects were about the same. The average parcel not now served by a paved road would increase in value about 7 percent if the road were paved. The monetary units in which the value impact was measured varied from area to area.

In Snohomish County, where properties were formerly farms, per acre value measurements were made (Figure 8). Travel via routes with a poorer than paved surface decreased values at three cents per acre for each mile traveled per year more than did travel via paved routes. It is this difference of three cents that is shown on Figure 8. The figure indicates that if routes were improved by paving, tributary lands would increase in value (the diminishing of value by gravel routes would no longer be present), but the amount of increase would vary depending on the amount of travel over the improved routes.

The Chelan monetary rate of increase was much greater than the Snohomish County rate (Figure 9). In this case, the non-farm residence was typically a new home on a small lot. The rate of increase refers to a relatively valuable parcel of property and, as mentioned before, the percentage change here was about the same as in Snohomish County.

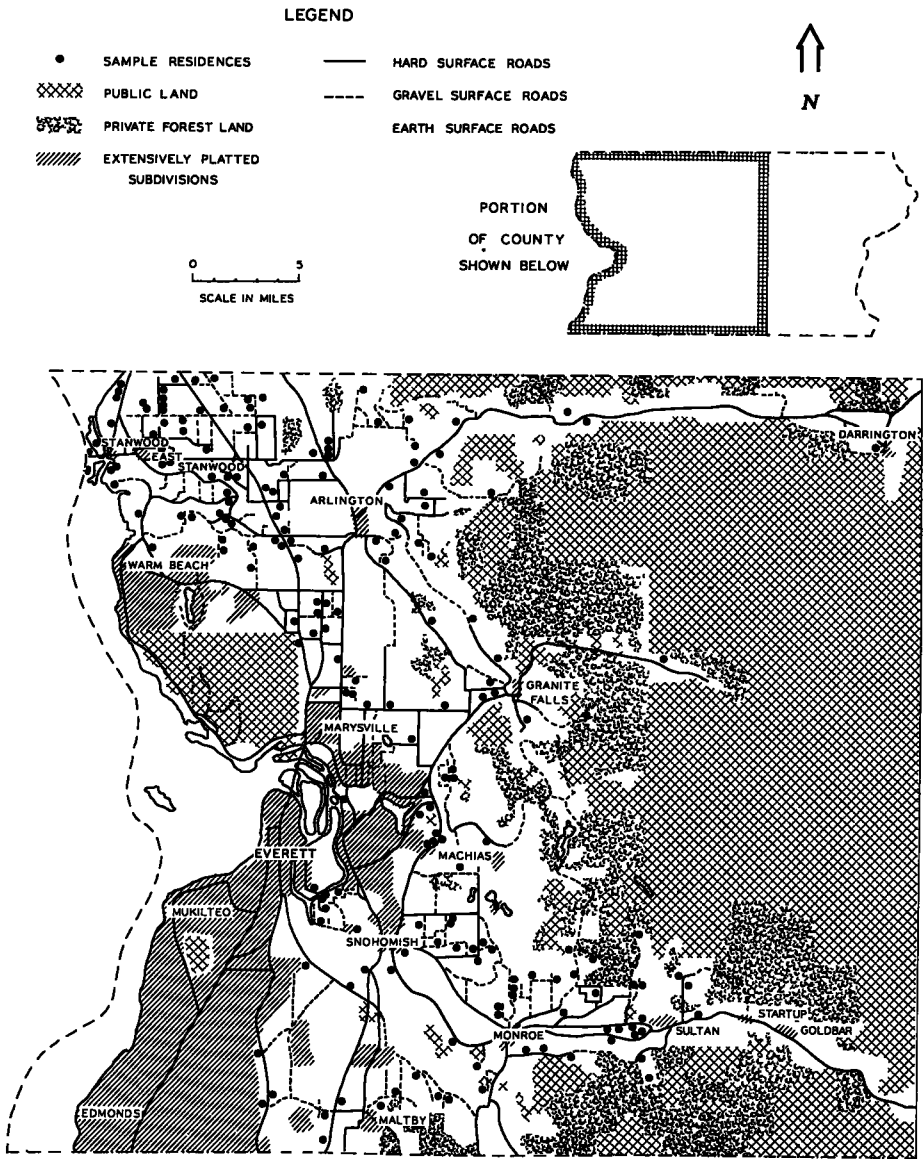
### Farmland

Studies of the value impact of route improvements on farmland gave results that

<sup>6</sup>Using measurements in this way requires that the structure generating the present values will not change when the routes are improved. Here this general requirement refers both to the supply and demand equilibrium setting the price of land and to the patterns of travel (1) Part IV, especially pp. 77-82, and (6).

<sup>7</sup>Figure 7 illustrates the arrangement of land uses, roads, and study parcels in one of the three study areas.

varied from area to area. The monetary rates of change and percentage aggregate changes for average parcels varied as did the type of trip of greatest importance in determining change. It is interesting, however, that in each case trips related to the farm as a residential site were more strongly related to property value than were trips relating to the farm business.<sup>8</sup>



Cartographic Laboratories University of Washington 1956

Figure 7. Snohomish County.

In both Snohomish and Chelan counties routes used for the journey for shopping goods, shopping exerted the strongest influence on property values. In the Snohomish County case where dairying is the predominate land use the expected increment to

<sup>8</sup>Current farm location theory postulates that locations are bid for on the basis of the location of the farm relative to markets for farm products (7, 8). In connection with implications for theory from the present study see (9).

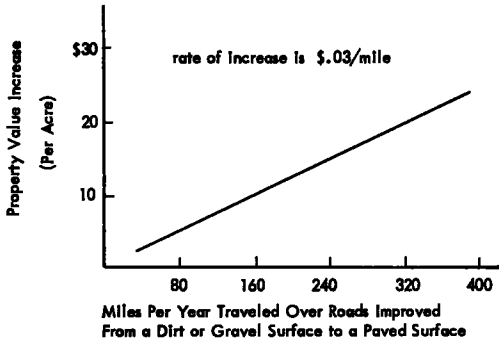


Figure 8. The value of non-farm residential sites in Snohomish County and the journey to work.

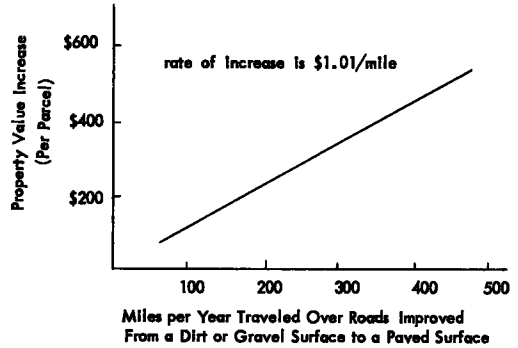


Figure 9. The value of non-farm residential sites in Chelan County and the journey to work.

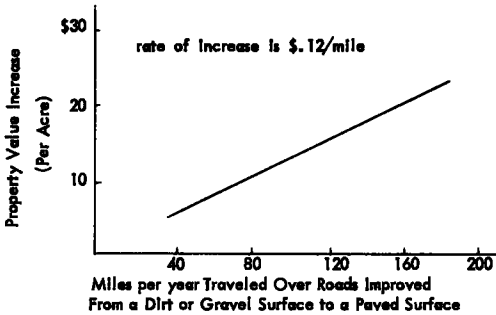


Figure 10. The value of farmland in Snohomish County and travel for shopping goods shopping.

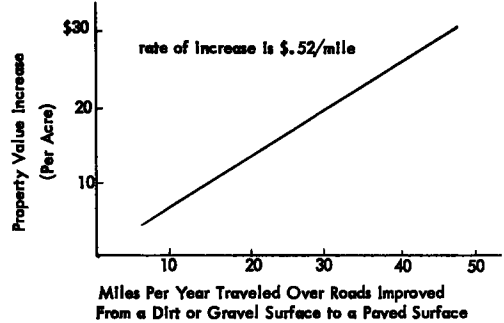


Figure 11. The value of farmland in Chelan County and travel for shopping goods shopping.

value was 12 cents per mile (Figure 10). This figure means that each acre tributary to the improved road would increase in value at a rate of 12 cents per mile traveled over the improved road per year.

Chelan farms are largely irrigated orchards. Under this intensive use the value of the land is high as is the contribution of road improvements to value (Figure 11). The rate of expected change here was 52 cents per mile traveled over the improved road. On the average, properties not served by paved roads would increase in value by 3 percent of present value if roads were improved. This is in contrast to Snohomish County where the average increase would be 7 percent. The apparent contradiction between monetary rates and percentage changes largely reflects differences in the levels of land values in the two areas.<sup>9</sup>

Farmland in Douglas County was the subject of the fifth study. This county is characterized by extensive land uses, largely grazing and wheat farming, and a dispersed pattern of settlement. Here the journey for usual household shopping exerted the

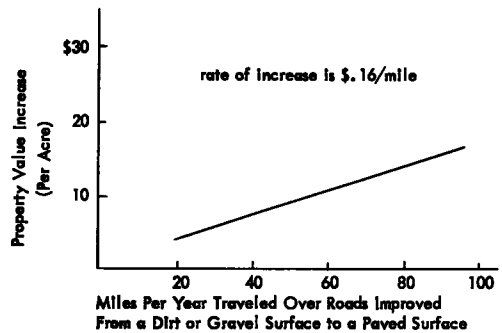


Figure 12. The value of farmland in Douglas County and travel for usual household shopping.

<sup>9</sup>The differences also reflect differences in the current road systems as well as differences in travel.

greatest influence on values (Figure 12). The expected change in value was 16 cents per mile and the average place not now served by paved roads would increase in value by 23 percent if roads were improved to a paved surface.

In Douglas County it was practicable to compare the diminution of value due to travel via dirt routes with that due to travel via gravel routes. It is interesting that in this case the effects were exactly the same. Travel via dirt routes decreased value at the same rate as travel via gravel routes. This is not what would be expected from common knowledge, but the writer can offer no good explanation for the finding.

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# The New Land Acquisition Law of Maryland

LEROY C. MOSER, Right-of-Way Engineer  
Maryland State Roads Commission

●THE MARYLAND LEGISLATURE, in its 1956 Session, enacted a new land acquisition law, applicable only to acquisitions for highway purposes. This law is a radical departure from the methods and procedures previously used in land acquisition by the State Roads Commission.

One of the principal intensions of this new law is to try to eliminate land speculation in the face of highway projects by freezing land values and by directing that tentative plats and plans are not to be matters of public information. It further sets up provisions whereby right-of-way for an entire project is made available for construction purposes at once. By the creation of the Boards of Property Review, it was hoped to decrease the heavy load of condemnation cases. At the time of the enactment of this law, some 350 cases were pending in the several Circuit Courts throughout the state.

The law, adding eleven new sections to the existing condemnation law, is as follows:

## CHAPTER 59 OF THE ACTS OF THE 1956 SESSION OF THE GENERAL ASSEMBLY OF MARYLAND

An act to add eleven new sections to Article 89B of the Annotated Code of Maryland (1951 Edition).

SECTION 1. Be it enacted by the General Assembly of Maryland that eleven new sections be and they are hereby added to Article 89B of the Annotated Code of Maryland (1951 Edition), title "State Roads," said new sections to be known as Section 9A through 9K and to follow immediately after Section 9 of said Article and to read as follows:

9A. In cases where the State Roads Commission decides to construct a new highway or decides to make a major improvement to an existing highway, the Commission shall adhere to the hereinafter described procedure for acquiring, by condemnation, land and property rights for such highway construction or improvement. Insofar as practicable, the Commission shall use such condemnation procedure in acquiring rights of way and property rights for major highway construction or reconstruction, but in cases where the Commission deems the procedure inappropriate, it shall not be precluded from acquiring property under the provisions of the appropriate sections of Article 89B and Article 33A of the Annotated Code of Maryland (1951 Edition).

9B. When planning to construct a highway or a portion thereof on a new location, or when planning to make a major improvement to an existing highway or a portion thereof, the Commission after appropriate engineering and other studies shall determine the location of the highway to be constructed or reconstructed and it shall also determine the length of the construction as well as the width of the right of way necessary for construction. This construction plan shall be shown on plats or maps prepared by the Commission, which plats or maps shall show the center line of the proposed construction as well as the length and termini of the construction and the width of the necessary right of way on either side of the proposed center line, thereby showing the fee simple and easement area necessary for acquisition by the Commission. The plats shall also show thereon the property lines of the several property owners whose property will be affected by such acquisition. The Commission shall make such engineering and real estate studies, evaluations and investigation as may be necessary to establish in its opinion a fair value of the property and of the rights to be acquired, and the resulting damages to the remainder of the property, if any. Said property lines shall be established from information obtained by the Commission and

may include metes and bounds survey information if such information is available in the Commission's file.

9C. When acquiring land and property rights under these sections for the construction or reconstruction of a State highway, said highway shall, in the alternative, have (a) both of its termini at or within the limits of a city or town of this State, which city or town is recognized by the Commission as a principal traffic generating center, (b) one of its termini at or within the limits of a city or town of the State, which city or town is recognized by the Commission as a principal traffic generating center and the other terminus at or near a public road within this State, (c) both of its termini at or near a public road within this State, or (d) one of its termini at or within a city or town of the State or a public road of the State and the other terminus at the boundary of another State or the District of Columbia connecting with a highway recognized by the Commission as a principal traffic distribution, collection or dispersal artery.

9D. Upon the adoption by the Commission of the location, the length and width of the right of way necessary for the proposed construction or reconstruction in accordance with the conditions prescribed in sub-sections (1) and (2) above, the said Commission shall estimate and determine the fair value of each property taken and damage done, if any, to the remaining property of the owners along the entire route as shown on the above referred to plats or maps, and the Commission shall then make provision to pay said amount to the owner or owners thereof or make provision to pay said amount into the Circuit Court of the County or the Superior Court of Baltimore City, in which the property is located, as the case may be, for the use of the owner or owners thereof. The Commission's estimate of the fair value of the property taken in each case and the damage, if any, to the remainder of the owner's property shall be kept among the permanent records of the Commission, and such information shall not be considered public information, any statute or statutes to the contrary notwithstanding, until such time as all of the property along said section of the highway shall have been finally acquired or the price therefor determined or agreed upon between the parties except in cases being heard by the Board of Property Review, hereinafter created, or by a Court. Plats or maps showing the above engineering and technical information shall be finalized by appropriate resolution of the Commission and the above referred to plats or maps shall be filed among the Commission's records, and made a permanent part thereof. However, said plats or maps shall not be considered public records of the Commission, and shall not be open to public inspection except by permission of the Commission, or its duly constituted officer, any statute or statutes to the contrary notwithstanding, until said plats or maps have been recorded as hereinafter prescribed.

9E. Upon the completion of the aforementioned plats or maps, and upon ascertaining the amount to be paid to the property owners affected thereby, or into Court for their use, the said plats or maps shall be signed by the Chairman of the State Roads Commission, and then recorded with the Secretary of said Commission, with the office of the Secretary of State of Maryland in his office at Annapolis, Maryland, and with the Clerk of the Circuit Court of the County or Counties through which the proposed new highway or reconstructed highway traverses, or with the Clerk of the Superior Court of Baltimore City, as the case may be, and it shall be the duty of the Secretary of the State Roads Commission, the Secretary of State of Maryland and the several Clerks of Court of the State of Maryland, to record the above referred to plats or maps and keep same as permanent public records of their respective offices. The Commission shall forthwith pay to the property owners, whose property is to be taken as shown on the aforementioned plats or maps or into the Circuit Court of the County or the Superior Court of Baltimore City, as the case may be, in whichever jurisdiction the property

is located, such amount as the Commission has theretofore determined to represent the fair value of said property accompanied by a petition stating the name or names and addresses of the property owners, the location of the property and the fair market value of the land and property rights to be obtained as determined by the Commission. Upon the payment of said amount into Court or to the property owner and the recording of the plats or maps as aforesaid, the Commission may thereupon take possession of the property designated on the above mentioned plats or maps for the purpose of proceeding with the contemplated highway construction, and said construction shall proceed without any delay caused by the property owner. However, if a dwelling house or commercial establishment is required to be taken the resident or occupant thereof shall not be required to vacate said building until said property has been condemned in the appropriate Court and an inquisition returned by the jury as provided by law, unless the Commission and the owner otherwise agree.

When said sum is so paid into Court the property owner upon written request to the Clerk of the said Court shall be entitled to receive the said sum without prejudice to any of said property owner's rights if the said property owner agrees to pay back to the Commission the difference between the said sum and the final award, if said final award be less than the sum paid into Court; such payment to the property owner or into Court, however, shall in no wise limit the amount to be allowed under subsequent condemnation proceedings hereinafter provided, and the Commission shall make payment to the owner or owners of said land and property rights, from any funds in its possession or under its control, any further sum that may subsequently be finally awarded in subsequent condemnation proceedings, including interest at the rate of six percent (6%) per annum upon such further sum.

9F. Upon the recording of the plats or maps and the payment of the money as aforesaid, the Commission shall proceed to negotiate with the property owners whose property is affected in an effort to obtain by amicable negotiation such right, title and interest of the owner's property as is necessary for the proposed new construction or reconstruction as shown on the plats or maps heretofore provided. The value of the land and rights to be acquired shall be determined as of the date the plats or maps are recorded and the monies heretofore provided paid to the property owner or into Court, and if both be not done on the same date, the value of the property shall be determined as of the date of the latter.

9G. If the Commission and the property owner be unable to agree as to the fair value of the property taken and the resulting damage to the remainder, if any, within six (6) months after recording the plats or maps and the payment of the money as aforesaid, and the Commission is not able to acquire the title to the property affected by negotiation, it shall then, unless it deems it desirable before that time and unless the property owner requests it to so do prior to that time, certify each dispute to the Board of Property Review, hereinafter created, before the expiration of thirty (30) days from the said six (6) month period and said Board shall promptly hear and determine the issues in the manner and form hereafter set forth.

9H. There is hereby created in each of the several Counties of the State and in the City of Baltimore a Board of Property Review. Said Board shall consist of three (3) members, one of whom shall be an engineer or a person with engineering background and knowledge, one of whom shall be a lawyer and one of whom shall be a person other than an engineer or a lawyer. The said members shall be appointed by the Circuit Court Judges of the several judicial circuits within the State and the said Judges shall appoint a Board for each County within their respective Circuit. In Baltimore City the Board shall be appointed by the Supreme Bench of Baltimore City. Should it be deemed necessary more than one Board may be appointed in any County or Baltimore City. The Board members shall serve for a term



of 2 years from the effective date of this act, and if a vacancy or vacancies shall occur on any Board the appointing authority shall appoint another qualified person to fill the unexpired term of the vacant member or members and shall be compensated on a per diem basis, said compensation to be determined by the appointing authority. The compensation shall be uniform throughout the State; however, members of the General Assembly shall not be eligible to serve on said Boards during their tenure of office. The compensation of the Board members shall be paid monthly by the State Roads Commission upon presentation of vouchers approved by the Clerk of the Court of the respective county, or the Superior Court of Baltimore City. The said Board members, in the performance of their duties, shall be under the jurisdiction of the said Courts and shall be considered as officers of said Courts. It shall be the duty of the local governing bodies to provide suitable space for the Boards to meet, and the Clerks of the several Courts shall, whenever possible, provide suitable clerical assistance. If, from time to time, such assistance is not available the Commission shall, upon request of the Board, provide such assistance. Each Board so appointed shall select its own Chairman and make its own rules not inconsistent herewith. It shall be the power and duty of said Board to promptly hear all cases certified to it by the Commission and determine the amount of the award to be paid by the Commission and it shall also have the authority to determine what portion of said award, if any, shall be paid to any tenant, lessee, mortgagee, or other person having any interest therein. The Board shall hear representatives of the Commission and representatives of the property owner and the owner if said owner desires to be heard. Each side shall have the right to be represented by legal counsel and each side shall have the right of cross-examination. After hearing the witnesses and counsel and reviewing the exhibits offered the Board shall then view the property effected and promptly place a value upon the taking. Strict rules of evidence need not be adhered to in the hearings before the Board; however, legal counsel for either side or the property owner, or a representative of the Commission may make an oral statement to the Board at the conclusion of the view and before the Board reaches its findings. When one or more members of the said Board shall be disqualified, for any reason, from hearing and determining any case or is unable to be present, then the appointing authority shall designate another person or persons with similar qualifications as the absent member or members to so serve; all cases shall be heard and determined by a full Board unless all parties involved agree to the contrary. In cases where the Commission determined that valid and marketable title cannot be obtained without a Court proceeding, and the return of an inquisition by a jury, then and in those cases the Board shall not hear and determine such cases, but same shall be filed as a condemnation case in the appropriate Court as provided by law. In cases where some person having an interest in the property to be acquired is a non-resident of the State and will not accept service and agree to the Board's jurisdiction said cases shall also be filed directly in the appropriate Court for judicial determination. All cases certified to said Board shall be disposed of and terminated not more than five (5) months after being certified to said Board unless a longer period be agreed to in writing by both parties and approved by the Chairman of said Board. and in such cases the value of the property shall be determined as of the date of the filing of the plats and maps as aforesaid.

9I. In the event either the Commission or the property owner shall be dissatisfied with the findings and award of the Board of Property Review either shall have the right, within thirty (30) days therefrom, of appeal to the Circuit Court for the County or the Superior Court for Baltimore City, as the case may be, in whichever jurisdiction the property is situated. Upon appeal the case shall be heard and determined under the procedure

set forth in Article 89B and 33A of the Annotated Code of Maryland (1951 Edition). In cases where the appeal is sought by the property owner he shall so notify the Commission in writing and it shall be the duty of the Commission to prepare and file the condemnation case in the proper Court, as aforesaid, and the case shall be heard de novo and as if there had been no hearing before the Board of Property Review. If the Commission shall have failed to acquire title to the property and ascertained the amount to be paid for same within one year from the date the plats or maps are recorded, as aforesaid, or have failed to file a condemnation suit in the proper Court, as aforesaid, then, and in such case, the value of the property shall no longer be determined as of the date the plats or maps were recorded but shall be determined as of the time of acquisition unless the value be less at the time of acquisition and then, in such cases, the value shall be determined as of the recordation date.

9J. The Commission is hereby empowered to acquire, under the procedure set forth in the foregoing sections or under the appropriate sections of Articles 89B and 33A of the Code (1951 Edition), property other than needed for highway purposes along controlled or limited access highways when such property is cut off from suitable access to a public road because of the construction or reconstruction of any controlled or limited access highway. The said Commission is further empowered to acquire by condemnation land and property rights necessary to provide a right of way or entrance to a public road from any property that has been denied access because of the construction or reconstruction of a controlled or denied access highway.

9K. Condemnation cases pending in the Courts on or after the effective date of this Act in which the State Roads Commission is the plaintiff, may, with the written approval of the Commission and the property owner, and with the consent of the Court having jurisdiction of same, be certified to the Board of Property Review for their determination, as above prescribed, and either party shall have the right to an appeal as above set forth and in cases where the Commission is in the process of acquiring rights of way and has commenced negotiations with the property owners under methods other than prescribed by this Act, the Commission shall, unless requested to do so sooner by the property owner, within sixty days from the effective date of this Act, in all cases where the Commission and the property owner are unable to agree, certify the case to the said Board and it shall be the duty of said Board to hear and determine the case within five months from the date the case is so certified, and either party shall have the right of appeal as above set forth. The value of the land and rights to be acquired in this matter shall be determined as of the time the case is certified to the said Board and so remain until the Board has heard and determined the case and for the appeal period thereafter; however, if there has been no final determination and a condemnation case not filed within said six month period the value of the property shall no longer remain determined as of the time of certification but shall be determined as of the time of acquisition.

SECTION 2. And be it further enacted that if any sub-section, subdivision, paragraph, sentence or clause of this Act is held invalid or unconstitutional, such decision shall not affect the remaining portions of this Act; it being the legislative intent that this Act shall be considered severable.

SECTION 3. And be it further enacted that this Act shall take effect on June 1, 1956.

Approved March 2, 1956.

Verbatim.

### SYNOPSIS OF THE ACT

Stripped of their legal verbiage, the eleven new sections of Article 89B of the Annotated Code of Maryland (1951 Edition) set forth the following provisions.

1 - (9A). The State Roads Commission shall adhere to the provisions set forth in this act when acquiring rights-of-way for major highway projects; however, in those cases where the Commission deems this procedure inappropriate, it is not prohibited from acquiring rights-of-way through previously existing procedures.

2 - (9B). As the first step in land acquisition, the Commission shall prepare plats and maps defining the right-of-way to be acquired; the minimum information to be shown thereon shall be the centerline and width of the fee right-of-way, any and all easements which may be acquired. Property lines shall be shown, delineating the various ownerships, and such lines may be the result of metes and bounds surveys, but such surveys are not obligatory. The Commission shall also make such engineering studies and right-of-way appraisals as may be necessary to determine the fair market value of the right-of-way taking and any damages to the remainder of the property resulting from the taking for each of the several properties affected by the project.

3 - (9C). This sub-section establishes terminin requirements for projects, the right-of-way for which is to be acquired under the provisions of this act. In substance, it prohibits the Commission from terminating a project at any point other than a traffic generating center or traffic dispersal artery.

4 - (9D). This sub-section provides that during the period of highway design and right-of-way appraisal, the Commission records shall not be considered public records and shall not be open to inspection.

5 - (9E). Provides that, upon completion of plats, maps and appraisals and the determination of the amounts to be paid the various property owners, the plats shall be finalized by the signature of the Chairman of the State Roads Commission. There then shall be paid to the various property owners, or posted with the Clerk of the Circuit Court for the County in which the property is located, the money estimated as the value of the right-of-way takings. At this time, copies of the plats shall be filed among the permanent records of the Clerk of the Court, the Secretary of State of Maryland and the Secretary to the State Roads Commission.

Upon completion of these acts, the Commission may take possession of the right-of-way and proceed with construction. If an occupied dwelling or business establishment is within the right-of-way taking, these improvements may not be disturbed until a final settlement is made either by negotiations or condemnation proceedings.

This section also provides that the property owner, upon written request to the Clerk of the Court, shall be entitled to receive the amount deposited to his credit, without prejudice, provided he agrees to refund to the Commission any amount in excess of the final award. In the event that the case goes to condemnation, interest at the rate of six percent per annum shall be paid on the excess amount of the final award over the original deposit.

6 - (9F). Directs the Commission to proceed with negotiations following the recording of plats and payment of money to the Clerk of the Circuit Court. This section further provides that the value of the right-of-way taking is fixed as of the date that the plats or maps are recorded and payment of money made to the Clerk of the Circuit Court. In the event the plats are recorded and the money posted on different dates, the value of the property is fixed as of the latter date.

7 - (9G). Specifies that the Commission shall have six months to complete negotiations. In the event negotiations are not successful, the case must be certified to a Board of Review for hearing and award within thirty days from the expiration of the six month period.

8 - (9H). Creates in each of the several counties and in Baltimore City a Board of Property Review. These Boards are to be constituted of one lawyer, one engineer and a third member of some other occupation. These Boards are to be appointed for each county by the circuit court judges in the several counties and by the Supreme Bench of Baltimore City. These Board members are to be considered as officers of

the said Courts, but are compensated on a per diem basis by the State Roads Commission. Board members are appointed for two year terms, and each board selects its own chairman.

These boards are charged with conducting hearings under rules which they are at liberty to establish and the making of awards. The board is required to make an award within five months after a case is certified to it.

In cases where the Commission determines that a good and merchantable fee simple title can only be obtained through condemnation proceedings, the Commission is authorized to institute such proceedings directly with the court, and the Board of Property Review shall have no concern with such cases. Where non-resident owners are involved, who will not accept service and agree to the board's jurisdiction, the Commission is likewise authorized to proceed directly with condemnation proceedings.

9 - (9I). Prescribes that either the Commission or the property owner shall have the right to appeal from an award made by the Board of Property Review, but such appeal must be taken within thirty days from the date of the award. The case is then instituted as a formal condemnation proceeding by the Commission with the appropriate County Court or Superior Court of Baltimore City. The case shall be heard as though there had been no hearing before the Board of Property Review and the value of the property shall be determined as of the date the plats or maps were recorded or money posted, provided that the condemnation case is filed within one year of the date of original filing under this act.

10 - (9J). This section is foreign to the rest of the act in its provisions for the condemnation of excess land on controlled and limited access highways where such land is severed without access to any public road. This section also empowers the Commission to condemn for right-of-way for access entrances to properties landlocked by the construction of controlled or limited access highways.

11 - (9K). Authorizes the Commission to certify condemnation cases pending as of June 1, 1956 to the Boards of Property Review, providing that the property owner and the court, having jurisdiction, consent. It also provided that rights-of-way then under negotiation were to be certified to Boards of Review within sixty days from June 1, 1956.

#### RESULTS OF FIRST SIX MONTHS EXPERIENCE WITH NEW ACT

Although the effective date of this act was June 1, 1956, it was not until the middle of July, 1956, that the first project was filed under its provisions. During this time and, indeed, for some time before and some time after, series of conferences were being held throughout the state by members of the Commission's Legal Staff, the Right of Way Division and the judges of the various circuit courts, as well as the several clerks of the county courts. These conferences were designed to set up uniform methods of recording, filing, etc., and to suggest uniform rules of procedure by the several boards.

As of January 1, 1957, boards have been appointed in Baltimore City and in 21 of the 23 counties. For the most part, these boards have adopted the following rules of procedure, which were determined in the conferences mentioned.

1. That the Boards sit a full day (at least six hours) in order to be eligible to receive a full day's per diem.

2. If a Board should sit less than three full hours, the members thereof be entitled to receive one-half of the daily per diem.

3. That the several Boards, insofar as possible, sit on regular scheduled days and that a notice of that schedule be furnished the Special Assistant Attorney General for the State Roads Commission. If the Board shall determine that it should be necessary to sit on special days, that the said Special Assistant Attorney General be notified of those days at least a week in advance.

4. Should it appear evident in any County that a single Board is unable to promptly hear and determine all of the cases certified to it, that the Chief Judge of that Circuit be promptly notified in order that an additional Board may be appointed.

5. That the aforementioned Special Assistant Attorney General be notified by the several Boards of the proposed hour for commencing the hearings, as well as the scheduled time of adjournment or recess.

6. That the State Roads Commission and the property owner or owners be notified at least one week in advance of the date each case is set for hearing.

7. That all witnesses testifying before the several Boards shall testify under oath (the several Clerks have agreed to administer the oaths to all witnesses at one time prior to the opening of the hearing and supply each witness with a statement to that effect in order that it might be presented to the Board Chairman before the witness testifies).

8. That strict rules of evidence not be followed in the conduct of the hearings; however, hearsay evidence should not be allowed.

9. That, upon conclusion of the hearings and determination by the Boards, a dated report of the Boards' findings be mailed to the State Roads Commission and the property owner or owners, and in addition filed with the Clerk of the Circuit Court for the County, in order that it might be entered on the "State Roads Commission Land Acquisition Docket." (Report forms will be furnished by the State Roads Commission.) Also, it is contemplated that each Clerk will keep and maintain a "State Roads Commission Land Acquisition Docket."

10. The proceedings before the several Boards will not be reported by a Court Stenographer. However, should either side wish the proceedings reported, there will be no objection to same, provided the party making the request provides the stenographer and pays the cost thereof.

11. The Boards will hear and determine all cases certified to them as expeditiously as possible, and in each instance, cases so certified will be heard and determined within five months from the date of certification to the Board. However, the Boards will give precedent, when so requested by either side, to cases where a dwelling house or a commercial building is affected by the land acquisition.

12. The Board Chairman and a representative of the State Roads Commission will, at the conclusion of each day's hearing, certify, on vouchers supplied by the State Roads Commission, that the Board sat on that particular day, and on or before the 10th day of each month, the Chairman of the Board will submit to the Clerk of its respective Court, the vouchers bearing the approval as aforesaid for each day's service of the preceding month in order that the Clerk may approve said bill and submit same to the State Roads Commission for payment.

13. Should any Board member be unable to sit in any particular case, the Chairman or another Board member shall notify the Chief Judge of the Circuit as much in advance of the scheduled date as possible in order that a replacement may be designated.

14. In case any of the several Boards should modify, change or enlarge its rules, it will notify the Special Assistant Attorney General for the State Roads Commission of said changes.

Compensation for board members has been set at \$60.00 per diem.

Up to January 1, 1957, 991 cases were filed on 27 projects, and the Commission had approved the filing of 148 cases on three additional projects. Of the 991 cases, 507 were filed during the month of December on eight projects.

Of the 484 cases filed prior to December, 1956, 131 were settled by negotiation and 149 were certified to Boards of Property Review. The remainder, 204 cases, are in various stages of negotiation at this time.

The Boards of Review have held 59 hearings out of the 149 cases certified and have made awards in 56 cases. Of these awards, the Commission has agreed to accept 26 and has appealed 30. Of the 26 acceptable awards, 11 have been settled, 9 decisions by property owners are being awaited and 6 awards are being appealed by the property owners. In addition, 53 pending condemnation cases were referred back to Boards of

Property Review; 28 hearings have been held and awards made, of which the Commission has accepted 18 and appealed 10 cases. Of these 18 acceptable awards, 8 have been settled, 5 await decisions by the property owners and 5 are being appealed by the property owners.

All of the 87 cases heard were limited to four counties, except for five cases—four in Baltimore City and one in another county. They were also limited to a very few projects in these counties. Therefore, it is obvious that there is no statewide cross-section of results on which to base any valid conclusions, either favorable or unfavorable regarding this act.

A further limitation lies in the fact that the experience to date, as revealed by the foregoing statistics, is not by any means a fair test of the merits of the new act, because all of the cases which have been heard by the Boards of Property Review are cases which, on June 1, 1956, were either pending condemnations or had been under previous negotiations which had failed and were about to be condemned. These last were deliberately filed under the provisions of the new act so that they could be brought before Boards of Property Review. That there would be wide areas of disagreement in the valuation of these takings was fully understood before certification to the Boards Review. The large percentage of appeals taken from board decisions reflects these original disagreements. It would, therefore, be totally incorrect to draw adverse conclusions as to the efficiency of the operation of the new act because of these relatively few debatable decisions.

There are, however, a number of rough spots to be ironed out. These are, for the most part, details of administrative procedures and a recital of them would be, to say the least, quite boring. However, in the conduct of the few cases heard, two problems have developed which will have to be solved.

**Problem 1** is the attitude of some attorneys for the defendants in treating Board of Property Review hearings indifferently and as opportunities to gather ammunition for condemnation trials, following appeal from the board.

Since there have, as yet, been no jury trials following appeals from awards by the boards, there is no way of telling what effect this attitude will have in the outcome of such trials. It could be completely negative, and it could be disastrous to the Commission's case, especially if the defendants withheld any pertinent information in the course of the board hearing. This can become an extremely serious problem. Much thought is being given to ways and means to overcome it, but as of now the solution has not been developed.

**Problem 2** is the occurrence of last minute requests for postponements of board hearings, after the board has convened. Since board members are entitled to compensation for all time spent in the conduct of hearings, these postponements result in unnecessary extra costs to the Commission. This problem is purely administrative and a solution should readily be found. So far, most of the thinking about this problem is along the lines of charging costs to the property owners, when such costs are occasioned by their failure to appear or by their seeking eleventh hour postponements. To put this into effect will require a change in the rules of the several boards, and perhaps, an amendment to the act itself.

The present session of the General Assembly of Maryland will be asked to make a number of amendments to the act. These, for the most part, will be minor amendments for the clarification, correction and implementation, without changing any of the basic intentions, of the original act.

Some of the major amendments, which it is felt would be desirable, are:

1. Authority to get possession of occupied dwellings and business establishments within a reasonable time after the posting of the estimated compensation with the Clerks of the Circuit Courts and thus eliminate long delays in clearing these properties for construction purposes.

2. Increase time allowed for appeals of awards handed down by the Boards of Property Review from thirty (30) days to sixty (60) days. To accomplish this, the negotiating period would be reduced from six (6) to five (5) months, unless the over-all time was extended to one year and one month, an alteration which it is not felt to be required.

3. Authority to permit utilities to install new facilities, as well as relocate and adjust existing facilities, as soon as the Commission obtains possession of the right of way under the terms of this Act.

4. Authority to compel a property owner to make conveyance to the Commission after the expiration of the time limit for appeal of a Board of Property Review award, if no appeal has been previously noted.

Until these suggested amendments are enacted into law, it would be presumptuous to discuss them in any further detail. However, it is felt that amendments, such as these, are necessary and needful for the successful operation of this law.

As has been stated before, the body of experience to date is inadequate for the drawing of valid conclusions as to the merits of Chapter 59. It is possible to say, however, that the indications are that at least two of its intentions are being accomplished. The freezing of values and the removal of advance information from the public eye seem to be eliminating the widespread land speculation which plagued the Commission for so long. The making of an entire project available immediately has been a benefit and will be greater once a solution to the occupied improvements problem is solved.

As was discussed previously, the effect of the creation of the Board of Property Review is yet to be evaluated. The basic idea is sound. It remains to be seen whether or not the results of its operation measure up to the essential soundness of the theory.

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**T**HE NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL is a private, nonprofit organization of scientists, dedicated to the furtherance of science and to its use for the general welfare. The ACADEMY itself was established in 1863 under a congressional charter signed by President Lincoln. Empowered to provide for all activities appropriate to academies of science, it was also required by its charter to act as an adviser to the federal government in scientific matters. This provision accounts for the close ties that have always existed between the ACADEMY and the government, although the ACADEMY is not a governmental agency.

The NATIONAL RESEARCH COUNCIL was established by the ACADEMY in 1916, at the request of President Wilson, to enable scientists generally to associate their efforts with those of the limited membership of the ACADEMY in service to the nation, to society, and to science at home and abroad. Members of the NATIONAL RESEARCH COUNCIL receive their appointments from the president of the ACADEMY. They include representatives nominated by the major scientific and technical societies, representatives of the federal government, and a number of members at large. In addition, several thousand scientists and engineers take part in the activities of the research council through membership on its various boards and committees.

Receiving funds from both public and private sources, by contribution, grant, or contract, the ACADEMY and its RESEARCH COUNCIL thus work to stimulate research and its applications, to survey the broad possibilities of science, to promote effective utilization of the scientific and technical resources of the country, to serve the government, and to further the general interests of science.

The HIGHWAY RESEARCH BOARD was organized November 11, 1920, as an agency of the Division of Engineering and Industrial Research, one of the eight functional divisions of the NATIONAL RESEARCH COUNCIL. The BOARD is a cooperative organization of the highway technologists of America operating under the auspices of the ACADEMY-COUNCIL and with the support of the several highway departments, the Bureau of Public Roads, and many other organizations interested in the development of highway transportation. The purposes of the BOARD are to encourage research and to provide a national clearinghouse and correlation service for research activities and information on highway administration and technology.

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