

R. Martin
OPE 09-01

COMMENTS

ON THE

DRAFT ENVIRONMENTAL/SECTION 4(f)
STATEMENT TO COMPLETE I-40
THROUGH MEMPHIS, TENNESSEE BETWEEN
CLAYBROOK AND BON AIR STREETS

SUBMITTED

BY

THE CITIZENS TO PRESERVE
OVERTON PARK, INC.

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ENVIRONMENTAL IMPACT STATEMENT

Introduction

The Draft Environmental Impact Statement is a disappointing document. It fails to meet the most minimal requirements of the National Environmental Policy Act and it fails to give the Secretary a complete, up-to-date, impartial review of the proposed route and the available alternatives. It is a rehash of the positions taken by the defendants in the trial court and reflects the approach of an advocate. With the exception of one section on noise pollution (which disclosed that the route would not comply with the Federal Highway Administration Standards) the Statement contains no new studies, analyses or data. It is based almost exclusively on the evidence produced at trial.

There has been no attempt in this Statement to update the transportation planning documents on which this route was first selected sixteen (16) years ago. There is no attempt to ascertain whether the assumptions on which the location was first determined are now valid. Although there was testimony at the trial that developments within the Memphis area dictated a current study of the need for I-40 and a new, up-to-date study of alternative locations, no such studies were made.

The Statement is not even a fair reflection of the evidence in the trial record. It conspicuously ignores many of the adverse consequences of the Park route while dwelling upon the impact of the alternatives. It ignores much, if not most, of the evidence which would support the feasibility and prudence of an alternative. It ignores plaintiffs' evidence; it ignores many of the Court's findings and conclusions. In short, this Statement does not provide the Secretary with a fair, objective analysis of the alternatives to the route through the Park. It does not provide him with current information upon which to make a decision. It does not meet Secretary Volpe's request for a "complete analysis of the entire record that was before the court. . . ."

Discussion of the Memphis Transportation
Planning Process and the Alleged Need for I-40:
Pages 27 - 40 Draft Environmental Impact Statement

Although there have been many transportation studies prepared for the Memphis area, only one "A Report Upon Alternative Location Studies - FAI 505, Memphis and Shelby County, Tennessee", considered alternative locations for I-40. Every other study has taken as a given fact that if there were to be an east-west expressway, it would go through Overton Park. The effort of the Draft Impact Statement to suggest that later studies confirm or reaffirm the need to go through Overton Park is fallacious. Indeed since the park route was first proposed in 1956 there has been no effort to study the alternative of no route at all. Thus one cannot even fairly

say that these studies support the need for an east-west route. Although the Statement discusses the study of land use, population distribution, economic projections and the comprehensive transportation plan, one must bear in mind that there has never been an analysis of alternate locations in terms of those factors. Thus they do not dictate that an alignment through the park must be followed. The failure of the Statement to analyze alternatives in terms of those factors is one of the many critical defects.

It is helpful to analyze in terms of the highway user the consequences of building I-40. In fact, it turns out to have very little impact on east-west traffic movement. The Impact Statement says that the major "East-West trip generators are the central business district and the medical center." (Statement 36). The report on Interstate Highways of Memphis and Shelby County, Tennessee, dated August, 1958 (Report No. 9 of Appendix A) graphically illustrates what little effect I-40 would have on travel to the central business district. For instance, if I-40 is built, a person traveling from the extreme east end of Overton Park at East Parkway, to the central business district, will save approximately four minutes on his trip; from Highland Avenue to the central business district a motorist would save approximately nine to ten minutes. It is perhaps because there is so little benefit to the motorist that in September, 1954 Harland Bartholomew specifically recommended against an east-west expressway in the area of the proposed I-40. (See Report No. 2 in Appendix A). Two years later when the Interstate Highway System was established, and

large amounts of federal money were made available for highway construction Harland Bartholomew reversed its position and recommended the construction of I-40 through Overton Park. That recommendation is contained in the report "Interstate Highway Routes in Memphis and Shelby County, Tennessee." That report did not consider alternative locations for I-40. Thus, to the extent that the Impact Statement implies, on page 31, that the 1956 report analyzed alternative east-west routes in terms of the six factors listed on that page, the implication is false. Furthermore, there is nothing in that study to suggest that the factors there favor the selection of the park route over the L&N alternative or any other alternative locations. The authors of the study never gave the people of Memphis a choice of alternative locations for the east-west route. Their only choice was to go through the park or not have an east-west route at all.

It was only in 1958 that alternatives to the route through the park were considered. Following the 1958 Report there has been no consideration of alternative locations for an east-west route. For example, the Memphis Urban Area Transportation Study (MUATS) simply took as a given fact the location of an east-west route through Overton Park. That study in particular demonstrates the outmoded planning of the location of I-40. It proposed a second east-west expressway south of I-40. Despite the obvious effect that highway would have upon the

demand for and use of I-40, there was no attempt to reassess the need for I-40 nor the location presently proposed. In particular, there was no attempt to analyze whether a slight shift to the north to avoid Overton Park would be justified in light of the proposed Southern Expressway.

A second defect in all of the studies is the failure to analyze alternative modes of transportation and its effects on various highway systems and locations.

The discussion in the Statement of the "Metropolitan Need for I-40" demonstrates that in fact there is no need for I-40 and that there is no justification, even in purely transportation terms, for the expenditure of \$50 million of public monies to construct I-40. In the first place, even though this would be an interstate route, with the federal government contributing 90 percent of the cost, it would have practically no interstate use. Approximately 90 percent of the trips predicted for this road would be trips within the Memphis urban area. (Statement 36, 128-29). Only 1 percent of the trips would be through trips and 9 percent to and from the urban area. Thus this is a route designed almost exclusively to serve local traffic in Memphis. Actually we can pinpoint even more specifically the areas in Memphis which I-40 is intended to serve. The maps reproduced as Figures A-13 and D-19 at pages 35 and 129 of the Statement outline this area. Roughly the area is bounded

by the Midtown Interchange and Watkins on the east, Mendenhall on the west, Macon and Jackson on the north, and Central on the South. The Statement says that "the need in Memphis . . . is a result of population expansion." (Statement 27). It says that population has increased 25 percent in the last decade. On page 29, the Statement says that "rapidly increasing population" has congested streets and created the need for this highway and that the recommendation of I-40 was based on factors such as "population growth." The Statement goes on to say:

"Probably the most important factor influencing the continuing phase of the planning process is the rate of growth that has occurred in the urban area and the need to upgrade the existing facilities."

In order to create the appearance of a need for I-40 the Statement argues that there will be "significant population increase" in the area to be served by I-40 and "significant land use development for residences". (Statement 36). In addition the Statement cites widely exaggerated population forecasts for the Memphis Urban Area without attempting to break this down to the areas which I-40 would serve.

We do not quarrel with the emphasis on population as an important factor in predicting traffic movements. For the overwhelming majority of trips in an urban area have home as their origin or destination. In one study in Chicago 95% of trips had home as either the origin or destination. See Creighton, Urban Transportation Planning 24. We do dispute,

however, the claim that there has been or will be any "population increase" in the area that I-40 would serve. When one examines the factual data, it becomes immediately apparent that the Statement proceeds on inaccurate factual bases and ignores evidence, much of it presented at trial, as to the decreasing population in the area affected by I-40.

In analyzing the need for I-40 we begin with the chart which discloses the area which I-40 would serve if constructed (Statement 35, 129). It is within that area, and not within the city as a whole, that we must look to determine whether there are changes in population or land use that necessitate the construction of this six-lane interstate highway. Figure A-16 on page 39 shows the area of major population growth in the Memphis area. None of the growth areas are located within the area which I-40 is designed to serve. There are two small areas within the I-40 area for which apartment growth is predicted. However, the large growth areas are either to the south of the central business district, to the north, or the southeast. It is apparent that if the route location is determined by the population growth, there can be no justification for the location of I-40 as it is currently proposed.

We need not rely exclusively on Figure A-16 to measure the population changes within the I-40 area. Plaintiffs presented testimony at trial showing population decreases in that area. Dr. Monte Blair, a professor at Memphis State University with expertise in demography, testified as to the results the 1970 census for an area bounded roughly by Watkins and

Stonewall on the west, Chelsea on the north, the North-South L & N railroad tracks on the east (at approximately Scott Street) and Peabody and Central on the south. Those census tracts roughly approximate the area between Scott Street and the mid-town interchange which I-40 is designed to serve. Dr. Blair's findings are set forth in Exhibit 238. They show that for the census tracts in this area, the population in 1960 was 45,491. By 1970 the population for that area had decreased to 43,010. Thus contrary to the representations in the Impact Statement, there was a decrease of 2,481 persons between 1960 and 1970 in this area. This is a decrease of approximately 5 percent. The report of the Memphis and Shelby County Planning Commission entitled Population and Housing, 1940-1970, Interim Report also confirms this decrease. That report relies on 1970 census data and for the major tracts reflected on page 5 of the study that closely follow the area which I-40 is designed to serve, tracts 1, 4, and 7, one finds a decrease in population of 5 percent.

The Planning Commission Report also contains figures for the population of Memphis "within the Expressways," that is, bounded by the River, I-55, and I-240. Between 1960 and 1970 the population of this area decreased by 19,000 persons or a loss of 4 percent. On the basis of these statistics the report observed that "Memphians continue to migrate from the

inner city to suburbia.^{*/}

The fact that the population is decreasing in the areas which I-40 is designed to serve is particularly significant when one goes back to the 1955 Harland Bartholomew Report which first proposed an east-west expressway. It observed that "East-west desires are presently met fairly well by existing east-west streets from East Parkway to the central business district. . . ." ^{**/} Unable to justify the Route based on present needs, it used such factors as "estimated population increases" ^{***/} to project an increase in traffic demand in the area and thus give the appearance of a need for the route. It projected an increase in the use of I-40 of 33-1/3 percent between 1960 and 1970 and 25 percent between 1970 and 1980. In fact, however, the population in the area, and consequently the demand for highways, is decreasing rather than increasing

*/ It is necessary to correct some of the misleading impressions about the changes in population in the entire city. The Statement says that the "most recent 1970 census found a population increase of 25 percent for the last decade." (Statement 27). What the Statement does not say is that in that decade although the population increased by 123,000 persons, 120,000 were added by annexation of outlying areas. Thus in the city there was actually an increase of only 3,000 persons. The Statement also cites exaggerated projections for the future growth of Memphis. It quotes a 1969 study that forecasts a growth to 1,200,000 by 1985. A more realistic projection is contained in the Planning Commission Report published after the 1970 census data became available. It projects approximately a population of approximately 866,000 by 1985.

**/ Harland Bartholomew, A Report Upon Interstate Highway Routes in Memphis and Shelby County, Tennessee, 30.

***/ Id. 39.

and there is nothing to justify this large projected increase in use of this corridor. Rather than there being more people in the area to use the streets, there are fewer and the trend indicates that there will be still fewer in 1980. Thus since the east-west desires were "met fairly well" in 1955 by the present streets, and the population in the affected area has decreased since then,^{*/} it should be apparent that the Statement's attempt to justify construction of this route on a projected population expansion and therefore an increase in traffic must fail.

The forces presently at work in the area that I-40 would serve are apparent. As the Planning Commission Report observed, "Typical of large cities' populations in the nation, Memphians continue to migrate from the inner city to suburbia." Construction of I-40 will only accelerate that trend. As we point out below, the disruptive effect that this highway will have on the residential communities through which it will pass, with the noise and air pollution and congestion of streets leading to interchange, will downgrade existing residential areas.

^{*/} The population statistics cited above show a decline for 1960 to 1970. We have no precise figures for the change from 1955 to 1970, but the Planning Commission report indicates that there must have been a decline in that period. That report shows that, between 1950 and 1970 excluding annexations, the population of the city "within the expressway" increased from 396,000 to 408,282, or an increase of 3 percent in twenty years. However, since the period of the early 1950's was a period of rapid growth in Memphis (See chart on p. 4 of the Planning Commission Report) most if not all of the 12,282 increase occurred during that period and since 1955--the date I-40 was proposed -- there has been a steady decline in population in the area I-40 was intended to serve.

Construction of the highway will stimulate land use changes from residential to commercial. It will hasten the flight to the suburbs and will place Memphis firmly in the mold of so many other cities in the United States who have seen their inner cities die as residential areas and the people move out to the suburbs.

National Impact

(Statement 41)

The Impact Statement implies that the completion of I-40 through Overton Park will have a national impact by completing the interstate system and providing "the national citizenry increased safety, mobility, and security." In fact, there is no national need whatsoever to complete this segment of I-40. It has practically no interstate or through traffic usage. Only one percent of the trips on I-40 are through trips (Statement 36); the remainder are local. Memphis already has one half of a circumferential completed and the other one half will be constructed in the near future. A complete circumferential will provide the necessary linkage of interstate routes and a by-pass for all through traffic. Thus is no national need for the completion of this section.

The Statement conspicuously fails to mention that construction of the route through Overton Park will be inconsistent with the national policy, articulated in section 4(f) of the Department of Transportation Act, of preserving "the natural beauty of the countryside and public park and recreation lands."

Environmental Effect In The Memphis Area

(Statement 41-58).

The effects of I-40 described on page 42 are so general and unrelated to this highway that they need not be discussed here. These are simply statements, many of which have no factual basis, which could be made about any highway in any city in the country. There is no evidence to show that they relate to this highway.

Beginning at page 43, the Statement discusses the specific impact of the park route. The first of these is community disruption. The discussion of disruption is amazing in its naivete. The Statement suggests that the alignment was chosen to minimize "community disruption". While it may have been designed in such a way as to minimize any disruption caused by a route within this general corridor, the Statement surely does not intend to say that this route is the least destructive of any east-west corridor. As we show below, the L&N alternative would be less disruptive and, of course, the alternative of no route is the least disruptive of all.

In discussing community disruption, the Statement is limited to one short paragraph in which it sets forth merely the estimate of the number of residential units, commercial and industrial units, and churches which were acquired for right-of-way. Although those properties have already been acquired, their acquisition was illegal. They were acquired after section 4(f) was effective, yet before any 4(f) determination was made

and before there had been a valid decision as to location. The discussion of displacement is restricted solely to the number of units taken for right-of-way. This is, of course, a wholly inadequate basis on which to judge the effects of this highway on the community and provides no basis for any qualitative analyses of the disruption. For instance, if one chose to analyze disruption based on the figures used in the Statement, one would have to conclude that the "northern alignment" discussed on pages 115-25 is less disruptive than the route through the park since it would displace or affect fewer people. (Compare figures on p. 125 with those on p. 44).

The Statement intends to create the impression that there will be no community disruption from this route other than the destruction of the numerous residential units, commercial establishments and churches set forth on page 44. That of course is absurd. The effects of a highway on a community through which it passes are numerous. The highway immediately becomes a barrier separating the community. No effort is made to analyze whether the route through the park passes through any established or recognized communities, although it clearly does. It is widely recognized that construction of a freeway through a residential community will invariably cause deterioration of the quality of the residential area immediately adjacent to the highway. As this deterioration occurs, the residential area a block or two away from the highway will become a less desirable residential area. Thus the location of a highway

through areas such as those involved here is a catalyst for great land use changes. This is totally ignored in the Statement. In fact the Statement says: "Land uses in the vicinity of this highway section are not expected to change to any significant degree in the foreseeable future." (Statement 131). This can only be seen as an attempt to hide from the people of Memphis the great disruption and change that will occur in the area after the road is built. The effect of a highway on land adjacent to the right-of-way is a well recognized and documented phenomenon. The failure of the Statement to take that into account is a serious deficiency in describing the impact of the highway.

Other disruptive effects are ignored. The location of interchanges on non-arterial streets such as Avalon and Tillman will cause much congestion in those areas since the interchange will greatly increase the amount of traffic on those streets. This added congestion will lessen the quality of these neighborhoods. In addition, land values around interchanges tend to increase in value to the extent that there is great pressure to use the area for commercial development such as filling stations or shopping centers. Thus it can be contemplated that the location of these interchanges will invariably lead to replacement of the residential areas by commercial development. All of this is totally ignored by the Statement.

The failure to discuss these factors is not through ignorance. When the Impact Statement discusses the L&N alter-

alternative it goes to great length to characterize the communities through which that alternative would pass as "pleasing" or "significant not only to the Memphis area but to the nation as a whole." It refers to the highway along the alternative as a "very significant physical barrier" and indicates that the "impact that this could have on the future development of this community would be disastrous." Thus it is not that the authors of the Statement are unable to speak qualitatively about the impact on the community. It is only that they choose to ignore the impact on the communities through which the park route will pass and focus instead on the alternatives. Their particular criticisms of the alternatives will be discussed in some detail below. However, we mention these factors at this point to underscore the obvious bias in favor of the park route. The failure to discuss community disruption caused by the route through the park should be recognized for what it is: an attempt to hide from the Secretary and the public the full extent of the disruption that will be caused by this highway.

Air Pollution

(Statement 54-58)

The section on air pollution is so general and so devoid of basic factual data that it is impossible to assess the accuracy of the conclusions. It does not, for instance, contain the information required by Position Paper on Air Pollution issued by the Region IV EPA Office. Certain of the omissions can be

cured by reference to Dr. Adrian's testimony. However, even that does not provide all of the data necessary to judge the air pollution impact that will result from completion of I-40.

First, there are certain defects in Dr. Adrian's methodology which should be pointed out. Apparently he only made his calculations for pollution at the right-of-way boundary of the proposed I-40 in the park. Neither at trial nor in the Statement was there data for the pollution at various distances from the right-of-way; nor did he make any predictions for areas outside the park. Consequently the analysis does not consider pollution levels caused by the combination of pollution emitted from traffic on parallel streets and from the I-40 traffic. Thus, one does not get a complete picture of what the pollution levels of the entire area will be if I-40 is completed; nor can one assess the effect of completion on the area as a whole. One example discloses the way in which Adrian's technique understates the pollution which can be anticipated if I-40 is completed. Adrian testified that the carbon monoxide levels at the edge of the right-of-way would be below that permitted by federal ambient air quality standards (Tr. 4801); however, when one moves away from the edge of the right-of-way to a point equidistant between North Parkway and I-40, those standards would be violated (Tr. 4832). If this is true in the Park, then it is obvious that the violations will be greater outside of the park where I-40

would pass much closer to existing streets. Adrian's study ignores pollution in the residential areas through which I-40 will pass; but from his testimony one can readily see that when the carbon monoxide from the traffic using I-40 is combined with that of the side streets in the residential area, there will be significant violations.

A second defect in Adrian's methodology is his assumption, at least for the 1971 calculation, that the average speed of traffic on I-40 at peak hours will be 55 mph (Tr. 4834-35, 4841). It is obvious that at peak hours the highway will be too congested for the average to be anywhere close to 55 mph; this is particularly true given the close spacing of the interchange, which will mean there will be much slow moving traffic on I-40. Not only does this call into question Adrian's conclusions, but it casts doubt on whether this section can be called "free flowing" as the Statement characterizes it. (Statement 57).

The Statement concludes that the "concentration of carbon monoxide will remain within the National Standards" (Statement 57). As we set forth above, that conclusion is based on measurement at the edge of right-of-way in the park. Dr. Adrian himself conceded that the National Standards would be violated when measurements were taken at points removed from the right-of-way. The Statement does not analyze the pollution in these areas; it attempts to conceal the violations. This is particularly significant in view of the residential areas through which

'the road would pass and the great number of park users that would be exposed to these carbon monoxide levels. Finally, the Statement does not compare the predicted 1991 concentrations of carbon monoxide with I-40 and without I-40.

The Statement concedes that the level of hydrocarbon at the edge of the right-of-way in the park will exceed National Standards (Statement 57). Adrian so testified at the trial (Tr. 4805). The extent of the violation is not given; nor are we told whether, as with carbon monoxide, the concentrations, and consequently the violations, will be greater at some distance removed from the right-of-way edge where the pollution coming from I-40 traffic combines with that from traffic using other streets.

The Statement attempts to minimize the effects of the violation by stating that "the redistribution of traffic within the park area onto a high speed free flow facility should result in a condition no worse than at present." One is left to wonder exactly what that statement means. For instance, does "redistribution" mean the concentration of traffic within the Park; there will still be new traffic on the arterials. What will be the effect of the increased traffic with respect to hydrocarbons. We are not given an answer. As to whether I-40 in the area in controversy will be "high speed, free flowing" at peak hours, we have already pointed out Adrian's erroneous assumptions on

that score. The Statement provides no factual basis whatsoever for the conclusion that the construction of I-40 "should result in a condition no worse than at present." That should not be a matter of speculation. It is possible to measure the present concentrations of hydrocarbons and it is possible to project future concentrations. One must wonder why these calculations were not done here. Finally, we are not given a comparison between what the concentrations would be if I-40 were built and what they would be if it were not. Since by 1985 emission of hydrocarbons by automobiles will be reduced by 88 percent due to federal controls (Statement 56), it appears that the present hydrocarbon concentration will be significantly reduced by that date. If the most the Statement can say is that the 1991 levels will be the same as at present if I-40 is built, then they will be greatly in excess of the concentrations that would exist if I-40 is not built.

In discussing the concentrations of nitrogen oxide, the Statement first observes that present levels exceed the National Standards. It concludes, however, that completion of I-40 would result in a decrease in levels by 1991. Nothing is cited in support of this conclusion and Dr. Adrian's trial testimony was to the contrary. Adrian testified that present concentrations of nitrogen oxide are 170 micrograms per cubic meter. Federal Standards call for concentration no greater than 100 micrograms. Adrian was asked what the concentration would be in 1980 if I-40 were completed. He testified that

the concentrations would be "approximately 500 micrograms per cubic meter" (Tr. 4816) -- five times the federal standards and nearly three times existing concentrations. This is apparently true even though federal controls are supposed to cut nitrogen oxide emissions 79 percent by 1985. Thus the evidence at trial was that the completion of I-40 would result in a sharp increase in nitrogen oxide levels and a serious five-fold violation of federal standards. No explanation and no data is given for the conclusions to the contrary in the Statement. One is only left to conclude that this is a further effort to sweep under the rug that evidence which does not support construction of I-40.

The Statement attempts through sleight-of-hand tricks to create the impression that construction of I-40 will lessen air pollution in Memphis. That implication is thoroughly false, as the proof at trial showed. The Statement says that if I-40 is built air pollution will be no worse in 1991 with increased traffic volume than it is now. If that statement is true, and the evidence indicates it is not, the fact that there could be more cars without more pollution in 1991 does not mean that the highway lessens pollution. For, according to the Statement, between now and 1991 federal controls are expected to reduce auto emission of carbon monoxide, hydrocarbon and nitrogen oxides by 85, 88 and 79 percent respectively. Thus, what the Statement indicates is that if I-40 is built, despite those drastic reductions due to federal controls, there will be no

improvement in the Memphis area.

If the Statement had provided the information required by the Region IV EPA Position Paper, it would have given "estimated future air quality without the roadway in the area" and "estimated contributions of the proposed roadway to future concentrations of air pollutants." This data would show, we believe, that in 1991, or whatever future date is chosen, the air pollution in the area of I-40 will be significantly worse if I-40 is built than if it is not.

NOISE POLLUTION

(Statement 58-69)

The Statement demonstrates that if I-40 is constructed as proposed there will be numerous substantial violations of the federal highway administration (FHWA) noise standards incorporated in PPM 90-2. When the predicted noise levels are compared to the standards established by the Department of Housing and Urban Development (HUD) even more serious violations are evident.

Figure C-9 of the Statement contains predicted noise levels for 79 observation points. Under the most generous interpretations of the FHWA standards, in 18 instances, or 23 percent of the points studied, the noise levels will be at or above the highest permitted levels. Under a proper categorization of the land use, there are three additional violations within Overton Park; when interior residential standards are

considered, there are 20 additional violations. The upshot is that throughout practically the entire corridor for this section of I-40, the FHWA noise standards will be violated. This is merely further indication of the disastrous disruption which I-40 would have on the park and residential areas through which it would pass.

Beginning at the west in the figure C-9, one finds the following noise levels. In the residential area immediately east of Cleveland Street, the noise level reaches 69dBA in the area adjacent to the right-of-way and decreases to 67dBA at the stations slightly further from each side of the highway. Although these levels meet the exterior standards for residential areas, they do not meet the interior standards. Since the interior level standard is 55dBA, and for any house with a window open the noise is reduced by only 10dB, in the area of Cleveland Street the interior noise level will be 57-59dBA, or over the FHWA level. As we proceed to the east, the next measurements were at Stonewall Street. In the areas immediately north and south of the highway, the noise levels reached 70dBA, the highest acceptable level in the FHWA standards for exterior residential areas. The interior limits are exceeded for at least 700 feet south of the right-of-way and over 400 feet to the north.

Proceeding easterly toward the Royster Bayou, the levels there exceed the FHWA standards for the exterior levels in residential areas. Measurements to the north and to the south both reflect the noise level of 74dBA, or 4dB's above the

standards. Furthermore, the interior levels are exceeded 400 feet on either side of the right-of-way. Thus, it appears from Figure C-9 that the interior levels are exceeded for the entire residential area between Cleveland Street and the Royster Bayou and in much of that area the exterior levels will be exceeded.

As the highway proceeds to McLean Boulevard, the noise decreases to 64dBA's at McLean. At this point the levels are apparently in compliance with FHWA standards, although there is no way to tell at what point between McLean Boulevard and Royster Bayou to the west the standards will be exceeded. Apparently there would be a substantial area between Royster Bayou and McLean at which the levels would be exceeded.

In Overton Park itself, the figures themselves show that FHWA standards are exceeded in the zoo, the playground south of the zoo and in the area of Rainbow Lake. There the noise levels reach 75dBA and on one occasion 79. Even some 400 to 500 feet south of the right-of-way the noise levels will still be at 70dBA, or the highest permitted.

As we proceed westerly to the wooded area of the park, the noise levels at the points measured closest to the proposed right-of-way reach 64dBA. Only by a mischaracterization of the land we can one say that these levels do not exceed the standards. Table 1 to PPM 90-2 provides that parks or portions of parks which are dedicated "for activities requiring special qualities of serenity and quiet" come within the land category for which the noise levels should not exceed

60dBA. The wooded area in Overton Park fits within that description since one of its chief virtues is that it is isolated from the hustle and bustle of the surrounding urban area. Thus we see from this study that throughout the park, from the entire western edge through the eastern edge, the FHWA noise standards will be violated.

Once we move to the east of the park, the first measurements are within the permitted 70dBA for exterior noise levels in residential areas but they are considerably above the 55dBA for interior noise levels. Moving further east in the area of Hollywood Street, the guidelines are violated on either side of the right-of-way of both exterior and interior levels and the same is true moving even further east to Bingham Street. At the extreme easterly portion of Figure C-9, Scott Street, the area closest to the right-of-way shows a reading of 70dBA. Thus, for much of the area east of the park the exterior noise levels are exceeded and the interior noise levels for residential areas are exceeded throughout.

Thus there can be no question but that the route represented in C-9 fails to comply with the FHWA noise standards. We would also point out however, that even for those areas which there is compliance with those standards, there will be sharp increases in the noise in the area and the noise will be undesirable and unpleasant, even though it might meet the standards. Thus the noise pollution must be regarded as a serious adverse impact which will further deteriorate the residential area through which I-40 passes as well as Overton Park.

IMPACT ON OVERTON PARK

(Statement 70-87)

With respect to the sections discussing the impact on Overton Park we will be brief in our comments here because the effects on the Park have been pointed out at length in other submissions. The Statement ignores many of the adverse affects. It seeks to minimize and conceal much of the damage and destruction which would occur as a result on construction of this route. A more realistic assessment was provided by the Department of Interior officials who testified at the public hearing in 1969 that "once the park has been separated by the expressway its values have been seriously impaired" and "regardless of what type of surface design is followed there won't be much in the way of a wooded park left in Overton Park after an interstate highway is routed through it." Not only will a wide swath be cut through the park, but as we have pointed out before, the noise pollution will exceed FHWA standards throughout the park. The state's noise expert at trial testified that one would not want to get within 150 feet of either side of the right-of-way because of the noise levels which can be expected (Tr. 4978-80). He said that the noise level in that area would be 85dBA, 25dBA's above the FHWA levels for those portions of the park for which quiet is desired. Furthermore, as we pointed out above, the air pollution in the park will be significantly increased and violate federal standards.

With respect to the design of the highway through the park, there is no question but that all of the six designs set forth on p. 71 are possible of construction and that a totally depressed highway or tunnel would minimize the adverse effects on the park. In rejecting those designs, the Statement employs an erroneous standard. The law requires "all possible planning to minimize harm." The Statement attempts to substitute for that strong and rigorous standard the question of whether, in the opinion of highway planners, a proposal would be "prudent" (See Statement pp. 74, 77). The question under the law is obviously not what is "prudent" but what is "possible" to minimize harm. Furthermore, in discussing profile designs, the Statement totally ignores a partial tunnel which was discussed extensively at trial and about which much evidence was presented from the President of the Memphis Chapter of the American Institute of Architects. (See Tr. 2725-2877). Furthermore, all of the problems stated here with respect to inverted siphons or the necessity of pumping highways which are depressed below the water table can be overcome with standard engineering techniques already at use in the federal-aid highway system. The fact that these practices are presently used and the fact that tunnels such as those proposed here are presently being constructed belies any conclusions that these designs are not possible here.

The L&N Alternative

The Supreme Court held that in considering alternatives for highways through parks such as Overton Park, the preservation of parkland was to be given "paramount importance" over such factors as cost, directness of route and community disruption. It held that an alternative route which avoids the parkland is prudent within the meaning of Section 4(f) unless it involves "truly unusual factors or cost or community disruption of extraordinary magnitudes." The term feasible in section 4(f) was interpreted to mean "sound engineering."

At the trial, both the plaintiffs and the defendants produced substantial expert testimony as to the possibility and desirability of using a route in the corridor now termed the L&N route. The court summarized briefly the problems which the defendants claimed would be encountered in using the L&N alternative and the plaintiffs' expert opinion demonstrating that those problems are not unusual or unique and that they could be readily overcome. As a result, the court found that the Secretary could have determined, without being arbitrary and capricious and without committing a clear error of judgment, that the L&N route was a feasible and prudent alternative.

The Impact Statement completely disregards the testimony of plaintiffs' expert witnesses. It ignores the findings

of the court. It goes to great lengths to describe in the most exaggerated and factually inaccurate manner the problems which the state and federal governments claimed would be involved with the L&N route. In its effort to make the L&N route appear imprudent and infeasible, the Statement spends some 27 pages discussing the disruption which would be caused by that route. The obvious bias is demonstrated by the fact the Statement gives only one paragraph to a discussion of the disruption caused by the park route, which, as we show below, is much greater than what would be caused by the L&N route.

The evidence at trial showed that the problems in constructing an interstate highway in the L&N-Cypress Creek corridor are no different and no more substantial than those problems generally encountered in the construction of highways through highly developed residential and urban areas. Indeed many similar problems have been overcome in the construction of highways in the Memphis area. Mr. Robert Hart, a city planner experienced in highway planning, testified that the problems he observed, including those raised by the defendants' experts, were not unusual or extraordinary problems. (Tr. 986, 987, 1001, 1003, 6324-5, 6329, 6336, 6342-3, 6359). The problems that would be encountered here do not reach the level necessary to entitle the Secretary to reject the routes in the corridor as not being feasible and prudent.

The only written study of the corridor, the 1958 Harland Bartholomew Report, supports this analysis.^{*/} It is extremely important that it be recognized that the 1958 Report, coming some nine years before Section 4(f) was applicable, was not made for the purpose of determining whether feasible and prudent alternatives were available. The evaluation techniques utilized in the 1958 Report, and the 1955 Report for that matter, were those which 4(f) was intended to replace by requiring that paramount importance be given to preserving parks such as Overton Park. Thus the fact that the 1958 Report does not recommend adoption of an L&N alignment is not in conflict with the testimony of plaintiffs' experts, Hart and Conradt. To the contrary, when the information and the conclusions of that Report are evaluated in light of the standards set forth in the Supreme Court opinion, the Report supports the conclusion that those

^{*/} Prior to 1958, Harland Barthomolew had made no explicit study of the L&N-Cypress Creek corridor. (Tr. 3736). Mr. Pollard, the state's expert, testified that he did not in the course of the 1955 study go out and look at the L&N corridor (Tr. 3741-2). He undertook the 1958 study to determine whether there would be any benefit, either in terms of cost or of traffic service, in using the L&N right-of-way. (Tr. 3735, 3738). Thus it is obvious that the intention in that Report was to determine whether, according to the planning standards in existence in 1958 (which were significantly different from those imposed by Section 4(f) and the Supreme Court opinion), the alternatives were better from the overall standpoint than the route through the park, not whether there were any extraordinary or unusual problems with the alternatives.

routes are feasible and prudent. For example, that Report finds that traffic service provided by the C route and the M route (which are similar to those referred to as the L&N route in the Statement) is substantially the same as that provided by the route which goes through the park. With respect to disruption, if there was any difference between the disruption caused by the park route and that caused by the L&N routes, it was not sufficiently significant that Harland Bartholomew saw fit to mention it. Finally, there are simply no engineering problems discussed in the Report which would prevent construction of a route in the L&N-Cypress Creek corridor. Thus the 1958 Report strongly supports the plaintiffs' contention that there are routes in this corridor which are feasible and prudent alternatives.

The Impact Statement contends that the 1958 Report predicts a lower level of traffic service for a route in the L&N corridor. According to the 1958 Report, for the park route the total estimated miles per day for 1975 would be 870,000; for the two variations most closely resembling the proposed L&N route the estimated miles per day for 1975 would be 848,100 for the route designated in the Report as C, and 856,000 for the route designated as M. Thus there would be a difference of between 2-1/2% and 1-1/2% if a route in the L&N corridor were chosen. Of course, one must evaluate these projections in light of the knowledge that traffic projection

is a highly conjectural art and not by any means an exact science. Mr. Warpole, of the Tennessee Highway Department, testified that he generally expected his projections to be no more accurate than within a range of plus or minus 20%. Furthermore, the projections in the 1958 Report were made before the Southern Expressway and the Riverfront Expressway were planned. Thus the traffic assignments were based on assumptions different from those on which planning is currently being done in the Memphis area .

The primary objection raised in the Impact Statement to the L&N route is the disruption that would be caused. In judging disruption under the standards articulated by the Supreme Court, it is important to emphasize that the Supreme Court assumed, and indeed stated, that one would normally expect that the park route would be less disruptive in terms of people and institutions affected than an alternative. Thus the Court indicated that simply because an alternative might be more disruptive, it was not imprudent or infeasible. Rather, one would have to find disruption or other costs of extraordinary magnitudes or of some unique or unusual quality before the alternative route could be rejected.

We believe that if the disruption created by a route in the L&N corridor is compared to the disruption that is ordinarily found when an interstate highway is constructed through a heavily developed urban area, it would be found that the

disruption is no greater than that generally encountered. In this case there is absolute proof of that, for here the L&N route is even less disruptive than the park route. The Statement estimates that 412 residential units will be taken by the park route. This required the displacement of an estimated 2,292 people. (Statement 44). For the L&N route, the Statement estimated that "several hundred permanent homes" would have to be acquired. Although the Statement does not give a numerical estimate, we believe that Federal Highway Administration figures would show approximately 175 homes would have to be taken. This would require displacement of approximately 612 people, ^{*/} or 1680 fewer people than the route through the park. Thus we can see immediately that the number of houses which would be taken by the L&N route and the people displaced is substantially less than that taken by the park route. With respect to businesses, the figure is also less for the L&N route. The Statement estimates that 30 commercial and industrial units were taken by the park route while only 28 would be taken by the route using the L&N corridor. And finally the park route would take four churches whereas the L&N route would take but one. Thus it can be seen that not only does the L&N route avoid disturbing Overton Park, but it is also much less disruptive to the community as a whole than the route through the park.

^{*/} The Statement estimated that the L&N route would displace approximately 3-4 persons per home. The figure 612 was reached by multiplying 3.5 X 175.

Although one can readily determine from the figures discussed above the L&N route would be less disruptive than the park route, we answer here some of the charges made in the Statement with respect to disruption on the L&N route. The L&N route is generally less disruptive because it follows open space and existing divisions in the community. For instance as it follows Cypress Creek it goes through much vacant land, erroneously referred to in the Statement as industrial parks. One can readily see that there is already a division in the residential community on the north side of Summer in the area through which the creek flows and thus not only would the expressway not be a barrier in the community in this area but since much of the land is undeveloped it would take few residences.

In discussing the impact of the L&N alignment along the railroad, as shown at Figure D-9, the Statement goes to great length to describe these communities as "nicely kept", "pivotal", "pleasing." While we do not dispute that these are nice neighborhoods and indeed plaintiffs' witnesses so testified at trial, it is curious that the Statement avoids any characterization of the neighborhoods through which the park route would pass. Does the author of the Statement believe that those neighborhoods and communities are any less

nice or less pleasing or less important than the communities on the L&N route. That was surely not the testimony at trial, for the principal expert witnesses presented by the defendants, Mr. Barnes and Mr. Pollard, said they did not believe that the character of the neighborhoods through which the L&N route would pass was any different or of any greater value than the neighborhoods through which the park route passes (Tr. 3835; 3837; 4300). Thus the fact that the Statement attempts to make the neighborhoods which would be disrupted by the L&N route sound much more significant or much nicer than the neighborhoods through which the park route would pass is not a reflection of the facts or the evidence produced at the trial but rather of the biased and slanted nature of the Statement as a whole. There is further evidence of this. The Statement concludes that the highway through this area would be a "very significant physical barrier to these communities." (Statement 103). The Statement does not discuss whether the highway would be a barrier to the communities through which the park route would pass; although it clearly would. Wherever this highway is built, when it goes through established communities it will be a barrier. However, because the L&N route goes through many fewer residential communities than the park route, it will constitute much less of a barrier and much less of an intrusion than the park route.

We were later told that the highway alignment would "slash through" the Evergreen-Vollentine neighborhood and would have a "disastrous" impact on this community. Again it is curious that no attempt is made to discuss the character of the neighborhoods through which the park route would

pass or the effect of the route on those neighborhoods. There are well developed and well defined neighborhoods, such as the neighborhood immediately west of the park. There is an oblique suggestion that considerations required by civil rights laws should prevent construction along the L&N route. Of course, we do not know the racial effects of the park route because the Statement conspicuously avoids any comment on that factor.

A second objection raised to the use of the L&N corridor is that it would affect operations of the L&N Railroad. The Statement charges that service to customers in the area of Cypress Creek would be discontinued (Statement 109). That is not the case. The industries located between Hollywood and the Leewood Yards, discussed at the top of page 109 of the Statement, could continue to be served on the present track because it would not be necessary to condemn track east of Hollywood if the L&N route were used. Those customers from Sears to the west could also be served by using the presently existing track. The train would reach that track by going around and using Illinois Central track (over which L&N has rights) to get to the point where the L&N track reaches its western most point. At that point the train could proceed eastwardly to serve its customers.

A second solution to the problem of the railroad would be to integrate it with the design of the highway. This has been done in other areas in Memphis. For example, between Waring and White Station Road the state highway department persuaded the L&N to relocate over a mile of track to place it adjacent to I-40. Furthermore, Harland Bartholomew in its proposed Southern Expressway anticipates that for about 30,000 feet the Southern Railroad - much more heavily traveled than the L&N - will be relocated within the right-of-way of the Southern Freeway (Tr. 3856). Clearly if this can be done for 30,000 feet there, it would be possible to relocate the L&N within the right-of-way for 7500 feet, which is all that would be required here.

There was substantial testimony at trial that interchanges and grade separations in the area could be designed and would meet accepted geometric standards. It is difficult to understand why the Statement concludes that grade separations would be "monstrative" or unusually difficult to design or construct since they could clearly go under an elevated highway and the railroad as they will do in many instances if the park route is chosen.

The use of an L&N route might require a relocation of some of the waterwells which are shown in Figure D-11. Until a precise alignment is chosen, it is not possible to tell how many, although it appears extremely unlikely that

anywhere near all would be taken. At any rate, at trial a representative of the Memphis Light & Gas Company testified that the wells could be redrilled in about 30 days for approximately \$45,000 per well. He did not suggest, nor did any other witness at trial, that the relocation of any of these wells would present unique or unusual problems. A much more serious problem involving relocation of the water main was successfully overcome in construction of the North Parkway-Cleveland grade separation. There over a thousand feet of water main was relocated. Surely if that can be done, it is possible to redrill some of the wells which might have to be taken.

In several places in the Statement there are indications that construction of the route along the L&N corridor would be very expensive. While no specific figures are given in the Statement, we can refer to the 1958 Harland Bartholomew Report in which the park route was estimated to cost \$40.5 million. One of the routes using the L&N corridor, the C route, was estimated to cost \$39.9 million while another, the M route, was estimated to cost \$41.6 million. Thus the only cost figures so far developed for a route in the L&N corridor indicate that the cost of an L&N route would be substantially the same as the route through the park.

The Statement concludes on page 113 that a route on the L&N corridor has been "considered for approximately 15 years" but that no one found it "to have enough potential to warrant a detailed study." In fact, this route was con-

sidered only once, in 1958, and rejected on the basis of very small differences in projected traffic service. There is no evidence that it was considered subsequent to that time.

The lame attempt by the author of the Statement on p. 114 to turn plaintiffs' witnesses against them is hardly worthy of reply. Mr. Hart and Mr. Condradt did testify that the neighborhoods along the L&N route were nice; however, there is certainly nothing unusual about routing an interstate highway through a nice neighborhood. In fact, both Mr. Pollard and Mr. Barnes, who were responsible for planning the route through the park, testified that the neighborhoods through which the park route would pass are just as nice as those through which the L&N route would pass. And of course, as we showed above, there would be much less disruption in the residential areas with the L&N route. As for Mr. Bramen's answer, he was very clear in his testimony that he never considered alternatives to the route through the park (e.g. Tr. 5798-99).

Finally we should discuss the nine items listed on page 114 which the Statement claims present unique problems.

1. The Industrial Park -- As we have shown above, the area through which the L&N route would pass is not an industrial park but rather open space with a few industries located within it. The effect on those would be relatively minor and much less than the effect on commercial and residential establishments which the Overton Park route takes.

2. Cypress Creek -- As the court below found, testimony at trial indicated that problems with the drainage of the creek could easily be solved.

3. The L&N Railroad -- the evidence is that the L&N Railroad could continue to serve customers presently served on the track either by integrating the railroad with the highway, or by using other tracks.

4. The Water Well Sites -- The testimony at trial showed that these could easily be relocated in a very short time. To compare the mini-parks with Overton Park in terms of what would be lost by construction of this highway is fanciful.

5. Southwestern University -- The Statement does not indicate that there would be any impact on the University and there would not be with the possible exception of taking a small amount of unused land at the extreme rear of the campus if certain variations of the L&N route were used.

6. Woodmont Towers -- There is no indication what the impact would be on Woodmont Towers; we believe there would not be any.

7. Sears -- There is no indication what the impact on Sears would be. As we pointed out above, however, the impact on industrial and commercial establishments would be much less with this route than the route through Overton Park.

8. The North Parkway-Watkins Avenue Interchange -- Again, we are not told what the impact would be but the evi-

dence at trial showed that it was not necessary to destroy this interchange in order to build the L&N route.

9. Traffic Desires and Disruption -- The evidence at trial as well as that in the Statement indicates that disruption would be much less if the L&N route were used. Furthermore, the traffic service is, for all practical purposes, equal between the two routes. The interchange problems could easily be solved, as the Harland Bartholomew Report indicated.

The trial testimony of Mr. Hart, particularly his rebuttal testimony (Tr. 6316-6363), specifically refutes the suggestion that the problems outlined in the Statement are unusual or unique. Yet the Statement totally ignores that testimony.

The state and federal governments have been under an obligation since 1967 to consider alternatives; yet in the five-year period since the enactment of 4(f) they have failed to make a detailed study of the most obvious alternative to the route through the park. The failure to do so in this Impact Statement, which was some seven months in the making, clearly compounds that error. There was sufficient time and DOT has sufficient resources to make a detailed study of a route in the L&N corridor. By its own admission, it has failed to do so.*

* The Statement does not even consider all of the alignments which were presented at trial with respect to the L & N route. It does not consider, for instance, the C route described in the Harland Bartholomew 1958 Report or a variation thereof which would keep the expressway below Jackson Avenue rather than following Cypress Creek all the way to the L & N route. Those alternatives were specifically presented by plaintiffs at trial.

THE ALTERNATIVE OF NO HIGHWAY

(Statement 126-130)

We have set forth above the failure of the Impact Statement to justify the expenditure of \$50,000,000 of public money to construct I-40. Supra, pp. 5-11. The population in the area to be served by I-40 is declining rather than increasing, as the highway planners had erroneously projected. Furthermore, even if one goes beyond the area which would be served by I-40, to the areas east of I-240, even that area is not a rapidly growing area of Memphis. Instead, one can tell from Figures A-15 and A-16 that areas to the north and the south of Memphis, rather than to the east, are those of major land use development and population growth in Memphis. Thus there is nothing in the population or land use development which would justify the completion of this route.

The Statement contends that if this highway is not built congestion "would get so severe that all existing features of the area . . . would suffer." (Statement 126). No evidence is offered to support that conclusion. In fact there is no indication whatsoever that congestion would become any worse in the future than it is now. There is no evidence to support the contention that the schools, churches, hospitals, businesses and recreation facilities would suffer if the highway were not built. There are absolutely no specifics and one is left to conclude that there are none because the author of the

Statement did not have any in mind. Also the author disregards the fact that since a number of local streets will be dead ended, traffic circulation in the area of I-40 will be restricted and access to these institutions may be harmed rather than helped by construction of I-40. Perhaps the absurdity of this part of the Statement is best demonstrated by the indication that Overton Park would suffer if this highway were not built.

Having made the dubious assumption that there will be a great increase in traffic in this area even if I-40 is not built, the Statement, without providing any supportive evidence whatsoever, goes on to predict that there will be severe environmental and social effects upon the residential areas, economic activity, business activity and recreational facilities. Again we are provided with absolutely nothing in the way of specifics. If the author of the Statement really believes that it is "a very dangerous situation" to divert traffic to residential streets, one must wonder why interchanges were located at Avalon and Tillman, both non-arterial streets in the midst of residential neighborhoods, which will severely overload those streets. Furthermore, since if I-40 is built local traffic will be diverted from the streets on which businesses are now located, those businesses may in fact lose patronage and the effect may be to slow down business activity if in fact I-40 is completed.

The Statement of Mr. Robert Hart, demonstrates forcefully that there is no need nor any justification for this highway. As he points out, the area which the highway is designed to serve is already developed and there is unlikely to be any future development or increase in population of businesses in the area. Accordingly it would be a misuse of a tremendous amount of public money to build this highway where there is no more need or justification than that set forth in the Statement.

This section of the Statement concludes with the following sentence: "For the reasons discussed above, I-40 is contrary to sound engineering and therefore not feasible." The Citizens to Preserve Overton Park agree wholeheartedly with that statement.