# FINAL ENVIRONMENTAL STATEMENT 

# relocated uss. ROUTE 140 (NORTHWEST EXPRESSWAY) baltimore city line to reisterstown <br> and <br> PHASE 1 RAPID TRANSIT <br> BALTIMORE CITY LINE TO OWINGS MILLS IN BALTIMORE COUNTY, MARYLAND 

```
                                    prepared by
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                            and
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## Volume I of II

RELOCATED U. S. ROUTE 140 (NORTHWEST EXPRESSWAY)
Baltimore City Line to Reisterstown and
PHASE I RAPID TRANSIT
Baltimore City Line to Owing Mills
in
BALTIMORE COUNTY, MARYLAND


- ADMINISTRATIVE ACTION - $3678 \cdot 0.470$ FINAL ENVIRONMENTAL IMPACT STATEMENT

SECTION 4(f) STATEMENT
$*$
$*$
U. S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration
Urban Mass Transportation Administration
and
MARYLAND DEPARTMENT OF TRANSPORTATION
State Highway Administration
Mass Transit Administration

Submitted pursuant to 42 U.S.C. $4332(2)(\mathrm{c}), 23$ U.S.C. $128(\mathrm{a})$, 49 U.S.C. $1653(f)$ and 16 U.S.C. $470(f)$


Bernard M. Evans, Administrator State Highway Administration

BY:


Office of Planning \& Preliminary Engineering

1. Federal Highway Administration Administrative Action Environmental Statement

( ) Draft (x) Final<br>( x ) Section 4(f) Statement attached

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## 3. Description of Action:

The proposed improvements are located in Baltimore County, Maryland, and consist of the construction of a multilane divided highway on new location for both Relocated U. S. Route 140 (Northwest Expressway) and Relocated Maryland Route 30 (Reisterstown Bypass). Also included is a 2 -track rapid transit line jointly developed with the highway from the Baltimore City Line to Owing Mills, a distance of approximately 6.1 miles. The project begins at Wabash Avenue in Baltimore City and terminates at U. S. Route 140 and Maryland Route 30, north of Reisterstown, a total length of approximately 12.0 miles.
4. Summary of Environmental Impact:

A safe, bi-modal efficient transportation system will result from the proposed project, with increased social and economic opportunities. The displacement of residents, land requirements from historic sites, and decreased air quality appear to be the major adverse environmental effects. . The effects on the potential stream valley park along Gwynns Falls and from increased noise levels adjacent to the project are minimal. Relocation assistance services and payments, noise barriers and the implementation plan to improve air quality will minimize these impacts. Mitigation measures approved by the Advisory Council on Historic Preservation have been developed to reduce the impacts on historic sites.
5. Alternatives Considered:

Alternate 1 proposes the construction of the Phase I Rapid Transit jointly with Relocated U. S. Route 140 and Relocated Maryland Route 30 on new location. The project is located generally southwest of Reisterstown Road and north of I-695 follows Gwynns Falls on the west side of the Wester: Maryland Railway.

Alternate 2 proposes the construction of the Phase I Rapid Transit jointly with Relocated U. S. Route 140 and Relocated Maryland Route 30 on new location. Alternate 2 is identical to Alternate 1 , except between I-695 and Painters Mill Road, where the project crosses to the east side of the Western Maryland Railway.

Alternate 3 proposes only the reconstruction of existing U. S. Route 140 (Reisterstown Road).

Alternate 4 is the "Do-Nothing" alternative.
A number of additional modified alternates were studied as a result of comments received at the Public Hearing and to avoid or minimize adverse impacts at historic sites.
6. Entities from which Comments have been Requested:

Distribution List
Draft Environmental Statement (FHWA-MD-EIS-73-01-D)
(See following pages iii thru vi)

## Distribution List

Supplement to Draft Environmental Statement -
Section 4(f) Statement (FHWA-MD-EIS-73-01-DS)
(See following pages vii thru xi)
7. Date that the Draft Statements were mailed to CEQ:

Draft Environmental Statement - Mailed to CEQ on February 26, 1973
Supplement to Draft Environmental Statement -
Section 4(f) Statement

- Mailed to CEQ on October 10, 1975


## DRAFT ENVIRONMENTAL STATEMENT <br> (FHWA-MD-EIS-73-01-D)

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SUPPLEMENT TO
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## INTRODUCTION:

The following report presents a Final Environmental Impact Statement/Section 4(f) Statement for the proposed Combined Northwest Express way/Rapid Transit Project in Baltimore County, Maryland. The Study has been prepared in compliance with Section $102(2)(c)$ of the National Environmental Policy Act of 1969; Section 4(f) of the Department of Transportation Act of 1966; Section 106 of the National Historic Preservation Act of 1966; and in accordance with guidelines and regulations of Volume 7, Chapter 7, Section 2 of the Federal-Aid Highway Program Manual. The original Draft Environmental Impact Statement (FHWA-MD-EIS-73-01-D) was made available for comment in February of 1973, and a Corridor Public Hearing was held in April of 1973.

Two months later, on June 19, the Sudbrook Park Historic District was placed on the National Register of Historic Places. Subsequent revisions in the "Procedures for the Protection of Historic and Cultural Properties" were established by the Advisory Council on Historic Preservation and published in the Federal Register on January 25, 1974. These revised procedures are applicable, therefore, to historic properties that are currently included in or eligible for inclusion in the National Register. As a result of several historical surveys and other research in 1974 and early 1975, a total of 133 sites of historical, architectural and cultural value have been identified within the general project corridor. A supplementary draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS) was circulated in October, 1975 in order to comply with the revised procedures for the protection of historic and cultural properties.

Alternate studies were made in relation to historic sites, both inside and outside of the Baltimore Beltway, in addition to a number of other studies resulting from issues raised at the Corridor Public Hearing in April, 1973. All of these studies were presented for review at the Public Information Meetings held in December of 1974.

Traffic studies, projections and analyses originally developed for studies presented at the Public Hearing in 1973 and included in the Draft Environmental Statement have been superseded by the traffic data developed with the Baltimore Regional Environment Impact Study (BREIS) in 1974, and refined for use in the Northwest Corridor. The updated traffic data resulting from the BREIS study, as included in this Final Statement, has been utilized in a re-evaluation of both the noise impact. and effect on air quality resulting from the project. This updated traffic data was included in the Supplemental Draft Statement circulated in October, 1975, where it was used to determine the impact on historic sites located in the vicinity of the project.


WASHINGTON For More Ducal Sm e Washington Map T
(NORTHWEST EXPRESSWAY) BALTIMORE CITY TO REISTERSTOWN VICINITY MAP

## A. PROJECT DESCRIPTION AND AREA PROFILE:

1. History of Project and Current Status -

The extension rf Wabash Avenue from Baltimore City to Reisters town generally following the Gwynns Falls Valley to bypass communities along Reisterstown Road (U. S. Route l40) was conceived by the Baltimore County Planning Commission, and was initially suggested to the State Highway Administration (then State Roads Commission) by the Department of Public Works of Baltimore County in a letter dated June 16, 1948.

The Northwest Expressway (extension of Wabash Avenue) was recognized in the 12 -year road construction and reconstruction program, dated October 27, 1952, of the then State Roads Commission for the fiscal years 1954 to 1965. The location was originally approved by the State Roads Commission and Federal Highway Administration (then Bureau of Public Roads) in 1960. Ground surveys, construction plans and right-of-way plats, were also completed in 1960. Funding problems, the tentative joint development with rapid transit, and the proposed new safety standards for highways, all contributed to delay the project during the 1960's. By January, 1976, right-of-way for the project was acquired on the basis of these plans to the following extent:

Baltimore City Line to Baltimore Beltway - approximately $85 \%$ Baltimore Beltway to Painters Mill Road - approximately 5\% Painters Mill Road to U. S. Route 140 - approximately $16 \%$ Relocated Route 30, Berrymans Lane to North of Butler Road approximately $27 \%$

Two highway bridges spanning the Northwest Expressway were built during construction of the Baltimore Beltway in 1962 (Interstate Route 695 and Relocated Old Court Road).

The Northwest Rapid Transit Line was originally recommended in 1965 in a federally funded study "Baltimore Area Mass Transportation Plan". A later study, completed in 1968, also federally funded, known as the MD T9-1 Project recommended that the Northwest Fapid Transit Line be located in the nedian of the proposed Northwest Expressway.

The adoption of new safety standards, and the joint development of the highway with rapid transit, required the redesign of the highway portion of the project for the most part within the previously acquired rights-ofway. The general alignment of the revised Northwest Expressway project on new location, as developed in 1971 and 1972, is in conformance with the

General Development Plan of the Baltimore Regional Planning Council, and is essentially that appearing on the 1980 Guideplan for Baltimore County, published 1972, which is being used by the County along with the Northwest Sector. Plan as a basis for planning and zoning; and the proposed Comperehensive Plan for Baltimore County, April 10, 1975. Drawing No. 1 is a vicinity map showing the general location of the pronosed transportation corridor.

Since the project has been reviewed by the State Clearinghouse and developed through coordination with County staffs and accepted by local elected officials whose advice has been solicited during participation in annual reviews of the continuing five-year State Highway Improvement Program, it is believed that it is consistent with local, regional and state plans. The coordination process has been completed as required at that time by Policy and Procedure Memoranda 20-8 and 90-1. A coordina ton letter with attached map was circulated March 29, 1972 to 134 agencies, groups and officials resulting in receipt of 33 replies.

On February 21, 1973, the U. S. Department of Transportation, through the Federal Highway Administration as the lead agency, and the Urban Mass Transportation Administration and the Maryland Department of Transportation, issued a Draft Environmental Statement (Report No. FHWA-MD-EIS-73-01-D) concerning the Combined Northwest Expressway/Rapid Transit Project to 13 federal agencies, 25 state agencies and 18 local agecies, elected officials and community groups. Interested parties were requested to review the Draft Statement and submit written comments. The Statement presented four alternatives, two alignments for U. S. Route 140 (Northwest Expressway) on new location, the reconstruction of existing U.S. Route 140 (Rcisterstown Road), and the "Do-Nothing" alternative. The probable impacts of this project on the environment were assessed, and proposals for minimizing unavoidable adverse effects were presented.

Subsequent to the distribution of the Draft Environmental Statement, the Maryland State Highway Administration and Mass Transit Administration conducted two Public Informational Meetings designed to provide the public with information on the proposed Expressway/Transit Project and the Corridor Location Hearings. The Public Informational Meetings were held on March 21, 1973 at Sudbrook Junior High School, and on March 29, 1973 at the Franklin Senior High School. Maps, drawings and the Draft Environmental Statement were available for public inspection.

The Corridor Location Public Hearing was conducted by the State Highway Administration and Mass Transit Administration of the Maryland Department of 'Transportation for the Northwest Expressway from Patterson Avenue in Baltimore City to the Baltimore Beltway, and a portion of the Phase I Rapid Transit on April 4th and Eth, 1973 at the Sudbrook Junior High School in Pikesville, Maryland. A separate Corridor Location Public Hearing
for the section of the Northwest Expressway from the Baltimore Beltway to Reisterstown, and a portion of the Phase I Rapid Transit, was held at the Franklin Senior High School in Reisterstown, Maryland on April lith and 12th, 1973. These hearings afforded all interested parties an opportunity to present their views orally, or in writing, relative to the need for and locadion of transportation facilities, including highways and rapid transit modes, in the Northwest Transportation Corridor in Baltimore County, Maryland as it pertains to U. S. Route 140 (Reisterstown Road) and the Northwest Expressway, and a portion of Phase I of the Baltimore Region Rapid Transit System. Informational materials available at each public hearing included maps of the proposed alternate highway routes, data about rapid transit stations located within the median and proposed parking areas, the Draft Envoironmental Statement, and data on the Relocation Assistance Program. The public hearing testimony was carefully reviewed and, as a result of various comments and suggestions concerning specific aspects of the project, further studies were undertaken.

In response to the coordination letter of March, 1972, the Maryland Historical Trust submitted to the State Highway Administration a "Report of Historic Sites Along Alternate Corridors Proposed for Relocated U. S. Route 140 (Northwest Expressway), Baltimore County, Maryland", dated February, 1973. This report revealed the following information:
a. The National Register of Historic Places has been consulted, ar required by Section 106 of the National Historic Preservation Act of 1966. No buildings or sites are presently listed on the National Register along the above-mentioned Northwest Expressway Corridor.
b. Sudbrook Park has considerable historical interest and has been brought to the attention of the Givernor's Consulting Committee for inclusion in the National Register of Historic Places.
c. Many sites of historical significance are located in the Northwest Expressway Corridor, particularty along Reisterstown Road.

Part I of this report was handed to the State Highway Administration at an Informational Meeting held on March 21, 1973, and Part II at the Corridor Public Hearing held on April 4th and 5th, 1973.

On June 19, 1973, the Sudbrook Park Historic District was placed on the National Register of Historic Places. On January 25, 1974, subsquant revisions in the procedures for the protection of historic properties, as established by the Advisory Council on Historic Preservation, were published in the Federal Register. Consideration previously given to historic sites listed on the National Register of Historic Places was broadened to cover all historic sites eligible for inclusion in the National Register. Accordingly, a Supplemental Draft Section 4(f) Statement (Report No. FHWA-MD-EIS-73-01-DS) was prepared as a supplement to the Draft Environmental Impact Statement and circulated in October, 1975, as required by Section $4(f)$ of the Department of Transportation Act of 1966; Section 106 of the National Historic Preservation Act of 1966 and Executive Order 11593 . The Statement identifies properties located within the area of the undertakings potential environmental impact that are included in or eligible for inclusion in the National Register; documents alternatives studied to avoid the use of Section $4(f)$ lands; and describes the studies and planning that has been utileied to minimize the adverse effect on Historic Sites. The Final Section 4(f) Statement has been included as Volume II of this Final Environmental Impact Statement. The additional studies and evaluations developed as a result of comments made at the Public Hearings held in April of 1973 were presented at two Public Information Meetings held at the Franklin Senior High School on December 2, 1974 and at the Sudbrook Junior High School on December 5, 1974. The presentation included alignment studies to remove or minimize adverse effects on the Sudbrook Park Historic District and other studies in the vicinity of McDonogh Road, Owing Mills and Reisterstown.

Inflation and the reduction in the amount of gas tax funds available for highways have caused the entire Northwest Expressway project to be delayed until the 1980's. The current Primary Highway Program (19761980) makes funds available in F. Y. 1976 for planning and engineering. Projected revenues indicate that right-of-way and construction funds could be programmed in 1979 and 1980. It is estimated that the entire project will be constructed and be available to the traveling public sometime after 1985.
2. General Description and Need for the Project -

## - General Description -

The highway portion of the project is part of the State Primary System, as designated in the Maryland Department of Transportation Consolidated Transportation Program. The proposed improvements are located in Baltimore County, Maryland, and consist of the construction of Relocated U. S. Route 140 (Northwest Expressway) and Relocated Maryland Route 30 (Reisterstown Bypass). The proposed project begins at the western boundary line of Baltimore City, and extends generally parallel to and west of Reisterstown Road to the Westminster Pike (U. S. Route 140) northwest of Reisterstown, Maryland, a distance of approximately 12.0 miles. Relocated Maryland Route 30 begins at the proposed Relocated U. S. Route 140, in the vicinity of Reisterstown, and terminates at the Hanover Pike (Maryland Route 30) north of Butler Road, a distance of approximately 1.0 mile.

Joint highway-transit development of the transportation corridor has been proposed by combining a segment of the Northwest Line of the Mass Transit Administration's rapid transit facility with the highway. The Northwest Rapid Transit Line is part of MTA's adopted Phase I Plan, and extends from Charles Center at Baltimore and Light Streets in downtown Baltimore City, to Owings Mills in Baltimore County, a distance of approximately 14 miles. The rapid transit portion of this project begins at the western boundary line of Baltimore City, where it is located between Wabash Avenue and the Vestern Maryland Railway, and extcnds morthwesterly in the vicinity of the railroad for a distance of approximately 6.0 miles to its proposed terminus in Owings Mills. Wherever feasible, the transit lane is $10-$ cated in the median of the Expressway. Station sites, with park and ride facilities, are proposed at Milford Mill Road, Old Court Road, McDonogh Road and Painters Mill Road. Federal funds in the amount of $\$ 573,000,000$ for the design, construction and land acquisition of an 8.5 mile portion within Baltimore City of the Phase I System, identified as Section A, were approved on October 31, 1972 by the Urban Mass Transportation Administration.

The total Phase I Plan, as originally proposed, consisted of approximately 28 miles and 21 stations of double-track line serving the Northwest and South Corridors of the region. (See Drawing No. 2.) The South Line, extending into Anne Arundel County, was removed from the Phase I Plan on October 30, 1975 by the Maryland Department of Transportation. A re-analysis of this line in the Phase II Study will reconsider the mode, alignment and need for rapid transit in the south segment of the Baltimore Metropolitan Area.

Relocated U. S. Route 140 and Relocated Maryland Route 30 are proposed as Expressways (Freeway by American Association of State Highway Transportation Officials definition), with complete control of access and geometric and safety features based upon a


# NORTHWEST TRANSIT LINE IN NORTHWEST TRANSPORTATION CORRIDOR 

design speed of 70 miles per hour. The improvements are proposed as basic six-lane dual highways, consisting of a 36 -foot roadway and 10 -foot paved shoulder in each direction, separated by a variable width median. The typical right-of-way width would be 300 feet.

The project is wholly within the 1990 defined urbanarea as determined by the 1970-1990 Federal Functional Clas sificäion and Needs Study and within the recommended Baltimore Urban Area Boundary authorized under Section 105 of the Federal-Aid Highway Act of 1973.

The project recommendation, including the basis for selection of the alternates, is described in detail in Section A-7, page A-27, of this Final Environmental Statement.

## - Need for the Project -

The purpose of this project is to provide safe, reliable and convenient bi-modal transportation to the many thousands of residents living in the northwestern part of the Baltimore region, and to substantially relieve very severe peak-hour traffic tie-ups on Reisterstown Road and other principal arterials. Present and future development in the northwest corridor of Baltimore County is dependent on this facility to safely accommodate the resulting travel desires. The proposed alignment has been coordinated with local governments to accommodate road and transit users, as well as local, commercial and industrial interests. By offering the potential for joint development with the Northwest Rapid Transit Line, the project will provide an efficiont and high-capacity transportation system, connecting the central metropolitan area of Baltimore City to Northwest Baltimore County and to Carroll County.

Existing Reisterstown Road (U. S. Route 140), built originally as a toll road in the early 1800 's, generally follows a ridge line from the Baltimore City Line at Pikesville to Reisterstown. North of Pikesville, a bridge carries Reisterstown Road over the Baltimore Beltway (Interstate 695), with a diamond interchange at this location. Another bridge, having restricted side clearances, carries the mainline tracks of the Western Maryland Railway Company over Reisterstown Road at Owings Mills. The grade and site distance on Reisterstown Road, approaching the Railroad underpass from the south, are undesirable. At Reisterstown, the road divides with the left fork, U. S. Route 140 (Westminster Pike), extending northwesterly to Westminster and beyond; with the right fork, Maryland Route 30 (Hanover Pike), extends northerly to Hanover, Pennsylvania.

The cxisting roadway consists of four 10 -foot travel lanes with minimal shoulders and turning lanes at major intersections. The pavement has been widened to 5 lanes at the following locations in order to provide leftturn lanes: Old Court Road to Baltimore Beltway; McDonogh Road intersection; Maryland Route 130 to Owings Mills Fire House; Tollgate Road
intersection; Virginia Avenue to Franklin Senior High School and south of Berrymans Jane to south of Stocksclale Avenue. The pavement.is, for the most part, substandard in capacity, cross-section, alignment and gradient. The existing route can be described as hazardous with culvert headwalls, trees, utility poles and drainage ditches located within a few feet of the traveled roadway. A total of 24 traffic signals ar: in operation, many at locations with limited sight distance. The existing load is generally contained in a 66-foot uncontrolled right-of-way, together with overhead and underground utility services such as gas mains, electric power, telephone, water mains, sanitary sewers and storm drains. Extensive residential and commercial development has resulted in numerous entrances along the facility. Posted speed limits are 25 to 40 miles per hour.

The Mass Transit Administration provides local and express bus service on its routes 5, 7 and 47, respectively; on Reisterstown Road from Baltimore City to Pikesville, Owings Mills, Reisterstown and Glyndon. Because of excessively long travel times caused by traffic congestion, bus ridership to the Owings Mills, Reisterstown, and Glyndon areas is extremely low and averages less than 1,000 passengers per weckday. The rush hour travel time from Glyndon to downtown Baltimore is 85 minutes on local buses and 63 minutes on express buses. The entire corridor from Baltimore City to Reisterstown is vehicle-oriented. School students are transported by bus, and the majority of residents commute to work and shopping arcas by private passenger car. Except for certain properties fronting on the Western Maryland Railway Company right-of-way, the commercial and incustrial develupmeni is serviced by truck. The Western Maryland Railway is a freight line and its major operation is hauling coal from Western Maryland to Port Covington in Baltimore City, and iron ore from Port Covington to the west. Passenger service is not provided.

Reisterstown Road is the only arterial road serving the northwest corridor and, at the present time, is unsafe as a modern traffic facility. Poor sight distances and lack of left-turn lancs, coupled with the parking and marginal friction in the arca of the many businesses located along Reisterstown Road, create unfavorable conditions for highway safety, as indicated in the following statistics.

During the years of 1973 and 1974, the study section of U.S. 140 experienced 826.20 (Rate) accidents on a 100 million vehicle miles of travel basis (Acc/l00MVM). This experience (rate) is far above the statewide average of 536.27 accidents / 100 MVM of travel for all similar design highways now under state maintenance. If no improvements are made on the subject roadway, we can expect in addition to the normal traffic growth, an increase in vehicular conflictions which are normally associated with congestions on highways of this design. The accidents will undoubtedly continue to increase with a corresponding increase in motor vehicle accident cost that exceeds the present cost of approximately $\$ 1,930,919.46 / 100 \mathrm{MVM}$ of travel for the motorist now using U.S. 140.

The accident costs as indicated, includes present worth of future earnings of persons killed or permanently disabled, as well as monetary losses resulting from injury and property damage accidents. The unit costs utilized in the above computations were based on actual cost values obtained from three independent accident cost studies conducted in Washington, D. C., Illinois and the California Division of Highways and were updated to 1973 prices.

The average daily traffic volumes on the existing road in 1973 are as follows:

Baltimore City Line to Old Court Rd. 24, 800 ADT
Old Court Rd. to Baltimore Beltway 30,000 ADT
Baltimore Beltway to Md. Rte. 130 42,000 ADT
Md. Rte. 130 to Reisterstown 25,000 ADT

The heavy peak-hour volumes consistently overload the existing road, caus ing unsatisfactory operating conditions at many locations. Any type of friction or interruption, such as a vehicle breakdown, accident, bad weather or a malfunctioning traffic signal, results in a breadkown of traffic operations with unstable flow, low operating speeds and queues of vehicles backing up at the restriction. Existing Reisterstown Road operates at a Level ' $F$ ' Service during peak hours, generally in the vicinity of the Baltimore Beltway. Level ' $F$ ' Service represents forced flow or stop and go driving conditions.

The Baltimore Beltway (Interstate Route 695) is a 6 and 8-lane circumferential expressway extending around the City of Baltimore, and is located an average of 7 miles from the Central Business District. The Beltway is the most significant highway in the Baltimore region, acting as distribution route for traffic approaching the City from all directions, and as a principal arterial route for the employment and population centers located in clusters around the City. Traffic volumes range from 60,000 to 110,000 vehicles per day with operating conditions approaching capacity during peak hours at a number of locations. Traffic signals on Reisterstown Road at the Beltway ramp termini cause daily backups onto the Beltway proper during peak hour periods. Reconstruction of this interchange has been recommended by the State Highway Administration over the years to remedy this unsafe condition; however, the improvement was delayed because of the anticipated relief to be provided by the proposed construction of Relocated U.S. Route 140 (Northwest Expressway). Work on the reconstruction of this interchange was initiated in April of 1975 and is scheduled for completion by the summer of 1976.

Traffic volumes on existing Reisterstown Road should continue to increase with construction of residential and commercial development. Additional traffic signals would be required, causing delays to the motorists and, as the traffic volumes increase, operating speeds would be reduced, and stoppages would occur at more frequent intervals and for longer periods of time. If the rapid transit facility is not built, public transportation in the northwest corridor would bave to be a continuation of the present inadequate bus service, which would be totally unable to meet future transportation needs because of excessively long travel times caused by buses having to operate on trafficcloggedstreets.

Population growth and commercial development in the Northwest Corridor have been anticipated, projected and planned in both Baltimore County's "l 980 Guideplan", adopted in 1972 by the Baltimore County Planning Board, and in the General Development Plan for the Baltimore Region, prepared and adopted in December, 1972 by the Regional Planning Council. The Baltimore County Planning Board adopted a "Comprehensive Plan" on October 13, 1975, for the purpose of anticipating and projecting growth and development, as well as accommodating existing development in Baltimore County. The Northwest Corridor is one of the planned growth areas indicated in the County's Guideplan because of the current availability of water service, and the proposed Gwynns Falls sanitary sewer system reinforcement which is scheduled to be constructed and in operation from the Baltimore City Line to Reisterstown by 1978. The travel desires resulting from this growth have been projected for the indicated design year as follows:

## Rapid Transit $\quad-48,500$ total patrons per day (1990)

Northwest Expressway - Average daily traffic of 28,000 to 85,000 vehicles (1995)
Reisterstown Road - Average daily traffic of 20,000 to 40,000 vehicles (1995)
The Northwest Corridor is completely dependent on highways for all necessary life functions of the people in that area. Work, food, clothing, schools, health services and recreation are available in a reasonable manner only through the use of automobiles and buses and a safe, efficient highway system. All three proposals, Northwest Expressway; Rapid Transit Facility; and some improvement to existing Reisterstown Road, are needed to meet the current and future transportation requircments. The improvement to most of the arterial roads crossing the corridor, particularly those providing access to the Combined Northwest/Rapid Transit Facility (see page C-10, this Volume), are also needed to serve existing and projected growth.

## 3. Transportation Service in the Corridor -

Transportation is a public service necessary for the development of commerce and human activities and is the responsibility of the State and County Governments. Expansion of the regions economic base will depend to a large degree on the ability of the transportation system to move people to their homes and places of employment, and to move freight between terminals and their markets. In addition to economic reasons, the availability of services such as medical care, education and recreation are equally important. The total transportation plan should make safe, rapid and convenient travel possible for all people in the Baltimore Region. Transportation service in the Northwest Corridor includes two major systems; highways and public transportation.

Existing Reisterstown Road (U. S. Route 140), built originally as a toll road in the early 1800's, is the only arterial highway in the corridor connecting Baltimore with Westminster, Hanover and Gettysburg, In the section between Da!timore and Reisterstown, the roadway consists of four 10 -foot travel lanes with minimal shoulders, additional turning lanes at major intersections, and is generally contained in a 66 -foot uncontrolled right-of-way.

North of Pikesville, a bridge carries Reisterstown Road over the Baltimore Beltway (Interstate 695), with a diamond interchange at this location. Another bridge, having restricted side clearances, carries the mainline tracks of the Western Maryland Railway Company over Reisterstown Road at Owing Mills. The grade and sight distance on Reisterstown Road, approaching the Railroad underpass from the south, are undesirable. At Reisterstown, the road divides with the left fork, U. S. Route 140 (Westminster Pike), extending northwesterly to Westminster and beyond; while the right fork, Maryland Route 30 (Hanover Pike), extends northerly to Hanover, Pennsylvania. The road is, for the most part, substandard in capacity, cross-section, alignment and gradient. The existing route can be described as hazardous with culvert headwalls, trees, utility poles and drainage ditches located within a few feet of the traveled roadway. A total of 24 traffic signals are in operation, many at locations with limited sight distance. Extensive residential and commercial development has resulted in numerous entrances along the facility. Posted speed limits are 25 to 40 miles per hour. The current State Secondary Highway Program (19761980) indicates that construction funds could be available in 1978 for resurge. facing existing Reisterstown Road from the Baltimore Beltway to Charley Boulevard.

Average daily traffic volumes (ADT) on existing Reisterstown Road during 1973 are as follows:

| Baltimore City Line to Old Court Rd. | $24,800 \mathrm{ADT}$ |
| :--- | :--- |
| Old Court Rd. to BaltimoreBeltway | $30,000 \mathrm{ADT}$ |
| Baltimore Beltway to Md. Rte. 130 | $42,000 \mathrm{ADT}$ |
| Md. Rte. 130 to Reisterstown | $25,000 \mathrm{ADT}$ |

The heavy peak-hour volumes consistently overload the existing road causing unsatisfactory operating conditions at many locations. Any type of friction or interruption, such as a vehicle breakdown, accident, bad weather or a malfunctioning traffic signal, results in a breakdown of traffic operations with unstable flow, low operating speeds and queues of vehicles backing up at the restriction. Existing Reisterstown Road operates at a level ' $F$ ' service during peak hours, generally in the vicinity of the Balimore Beltway. Reisterstown Road is the only arterial road serving the
northwest corridor and, at the present time, is unsafe as modern traffic facility. Poor sight distances and lack of left-turn lanes, coupled with the parking and marginal friction in the area of the many businesses located along Reisterstown Road, create unfavorable conditions for highway safety.

Existing State and County roads intersecting the corridor are listed below with average daily traffic volumes (ADT) during 1971:

## Road

Milford Mill Road Sudbrook Road
Old Court Road
Baltimore Beltway Mount Wilson Lane McDonogh Road
Painters Mill Road Dolfield Road
Pleasant Hill Road
Church Lane
Cherry HIll Road Nicodemus Road Berrymans Lane Stocksdale Avenue Cockeys Mill Road Gores Mill Road
Westminster Pike
Hanover Pike
Butler Road

Type
2-lane County' arterial
2-lane County road
2-\& 4-lane County arterial
6-lane Interstate Route
2 -lane State road
2-lane County arterial
2-\& 4-lane County arterial
2-\& 4-lane County road
2-lane County road
2-lanc County road
2- \& 4-lane County road
2-lane County arterial
2 -lane County road
2-lane County road
2- \& 4-lane County road
2-lane County road
2-\& 4-lane State road
2-\& 4-lane State road
2-lane State road

* ADT (1970)

NA ADT Not Available

AD T
(1971)

8,950
3,900
8,800
63,700
1,750
2,950
6, 390 *
1,070 *
NA
NA
1,580 \% NA
3,500
NA
1,650 \%
NA
11,000
11,000
8,200 the anticipated relief to be provided by the proposed construction of Relocated
U. S. Route 140 (Northwest Expressway). Work on the reconstruction of this interchange was initiated in April of 1975, and is scheduled for completion by the summer of 1976 .

Local and regional plans of the State Primary System and the State Highway Administration's Twenty-Year Highway. Needs Study propose the extension of U. S. Route 29 as a freeway from Howard County to Relocate U. S. Route 140 (Northwest Expressway) in the vicinity of Pleasant Hill Road. Because this extension is contemplated in the distant future, no consideration has been given the interchange at this time; however, future planning and engineering studies will determine the capability for this connection.

The widening of the Baltimore Beltway (1-695) to 8 lanes, from the Anne Arundel County Line to I-83, is included in the Twenty-Year Needs Study.

Baltimore County contemplates the following county highway improvements in the northwest corridor:

Milford Mill Road - Wilder Drive to Cloudyfold Drive
Tentatively programmed for construction as a $\dot{4} 4$-foot street.

Cherry Hill Road - Reisterstown Road (U.S. Route 140) to the Proposed Relocated U.S. Route 140

Plans are complete as an urban divided highway (38foot roadways, 16 -foot median, 120 -foot right-of-way). To be constructed concurrently with the proposed Redocation of U. S. Route 140.

Glyndon Drive - West of the Proposed Relocated U. S. Route 140 to Nicodemus Road

To be constructed in conjunction with residential development as a 48-foot street.

## - Public Transportation System -

The backbone of public transportation requirements in the Northwest Transportation Corridor is the proposed rail rapid transit "Northwest Linc', which is part of the Mass Transit Administration's adopted Phase I Plan. The total Phase I Plan, as now proposed, consists of approximately 14 miles of double-track line and 12 stations serving the Northwest and South corridors of the region. Fcderal funds for the design, construction, and land acquisition of an 8.5 mile portion within Baltimore City of the Phase I System, identified as Section A, was approved on October 31, 1972 by the Urban Mass Transportation Administration.

The Northwest Line will extend from Charles Center, in downtown Baltimore City, to Owings Mills in Baltimore County. Proposcd station sites in Baltimore County are located at Milford Mill Road, Old Court Road, and a terminal station in Owings Mills. Current construction schedules indicate that rapid transit service will be available in the corridor in the early l980's.

## - Local Bus Service in Northwest Corridor -

The Mass Transit Administration provides local and express bus service on its routes 5, 7 and 47, respectively; on Reisterstown Road from Baltimore City to Pikesville, Owings Mills, Reisterstown and Glyndon. Because of excossively long travel times caused by traffir congestion, bus ridership to the Owings Mills, Reisterstown and Glyndon areas is extremely low and averages less than 1,000 passengers per weekday. The rush hour travel time from Glyndon to downtown Baltimore is 85 minutes on local buses, and 63 minutes on express buses.

## - Thru Bus Service to Northwest Corridor -

$B \& B$ Bus Lines operate between Baltimore and Gettysburg, Hampstead, etc., with local service on both U. S. Route 140 (Reisterstown Road and Westminster Pike) and Maryland Route 30 (Hanover Pike). Bus doors are closed between Baltimore City and Glyndon because the Mass Transit Administration operates buses in this area.

Clyde Charter Bus Service, Inc. operates between Baltimore City and Gettysburg using U. S. Route 140 from the Baltimore Beltway northerly.

Near Baltimore City - All city-based cabs. Pikesville area - Pikesville Taxicab Service. Baltimore City to Reisterstown - Glyndon area - Valley Cab, Inc.

- Railroad Service in Northwest Corridor -

The Western Maryland Railway is a freight line and its major operation is hauling coal from Western Maryland to Port Covington in Balimore City, and iron ore from Port Covington to the west. Passenger survice is not provided.

## 4. Inventory of Social and Economic Conditions -

The data contained in this section was obtained from two sources: (1) "Maryland Population 1930-1970 By Election Districts, Cities and Towns", publication No. 171, dated August 1971, by the Maryland Department of State Planning, and (2) "A Comprehensive Plan for Baltimore County", a preliminary draft dated April 10, 1975 by the Baltimore County Office of Planning and Zoning.

Baltimore County's population increased between 1960-1970 at approximately the same rate as did the State of Maryland, and almost twice the rate of the United States. While the U. S. population increased about $13.3 \%$, the State of Maryland's population increased about $26.5 \%$ (from 3.1 million people to 3.9), and Baltimore County's population increased from 492,428 to 621,077 , or about $26.1 \%$.

From 1950 to 1960 , net in-migration amounted to 152,054 and played a major role in Baltimore County's population. During these 10 years, the excess of births over deaths accounted for 32 percent of population growth, while net in-migration was responsible for 68 percent of growth. Between 1960 and 1970, net in-migration declined to 63,367 , half that of the previous decade, and accounted for approximately 50 percent of the total population growth. Analysis reveals that this trend of dwindling net. inmigration should continue throughout the current decade.

The other component of population change experiencing radical transformation is the fertility rate. Baltimore County's birth rate has decreased over the past twenty years, paralleling a similar trend State and Nationwide. Total fertility rates for the State, the only available breakdown, ranged from 3.69 in 1960 to 1.75 in 1972 , indicating that indigenous populadion growth presently is less than the replacement rate. As a result of the simultaneously decreasing levels of net in-migration and natural increase, the rate of population growth in Baltimore County should continue to subside.

The 1970 Census figures for Baltimore County show that 26.1 percent of the people were less than 14 years old; 12.5 percent were 14 to 20 ycars old; 50.2 percent were 20 to 59 years old; and 11.2 percent were over 60. 3.2 percent of the population was black. Median family income in 1970 was $\$ 12,081$. per year - slightly more than $\$ 3,960$. per capita. Of the County's 162,375 families, only 5, 610 (3. 6,7 . had an income below the poverty level, as classified by the Bureau of the Census. Nine out of every ten citizens lived in the eleven town-planning areas of the urban-suburban belt surrounding Baltimore City.

The proposed Northwest Expressway is situated in the 3 rd and 4th Election Districts in Baltimore County. Election Districts used in this Statement are synonymous to the minor civil divisions, as defined by the Burcau of Census, and do not conform to current election boundaries. The $3 r$ d District, which borders on Baltimore City to the southeast, includes the greater part of the Pikesville community. The 3rd District had a population of 38,305 in 1970, and a density of 1526.1 persons per square mile. The 4th District, which borders on Carroll County and includes Owings Mills and Reisterstown, had a population of 30,691 in 1970, and a density of 499.0 persons per square mile. District 4 had the second highest growth rate in the County during the $1960^{\prime}$ s. Significant population centers in the vicinity of the project are Pikesville, with a population of 25,395 in 1970, and Owings Mills-Reisterstown, with a population of 21,397 in 1970.

## - Economic Conditions -

Baltimore County is one of the fastest growing and most prosperous counties in the United States and is centrally located in the east coast megalopolis, which extends from Boston, Massachusetts to Richmond, Virginia. This area contains one-third of the total population of the United States. The County lies at the hub of the Baltimore Metropolitan Area, which is the eleventh largest in the nation. The dynamic economic growth of Baltimore County is a result of its strategic marketing location, being central to one of the largest consumer markets in the world; and its strategic transportation location, being situated on an excellent network of highways with available air, rail and port facilities.

Baltimore County is a diversified industrial center with employment distributed fairly evenly throughout most sections of the County. The economy has progressed from predominantly heavy manufacturing to the preeminence of retail, wholesale and selected services industrics. In 1950, manufacturing industries employed 49 percent of the County's total labor force and the service sector employed 50 percent. By 1970, 33 percent was engaged in manufacturing, while 66 percent were in the service sector.

Although the growth in goods manufacturing has been slight, significant gains have been made in retail and wholesale trade and in selected services. The number of retail trade establishments grew from 2,006 in 1958 to 3,416 in 1967 , increasing by 70 percent. Sales volume expanded by 155 percent from $\$ 326$ million to $\$ 830$ million. Cash receipts from services rendered rose from $\$ 37$ million in 1958 to $\$ 92$ million in 1967 , an increase of 149 percent. The number of wholesale trade establishments increased from 146 in 1958 to 441 in 1967 , a 200 percent rise. During the same period, revenue from wholesale sales rose from $\$ 105$ million to $\$ 897$ million, a 754 percent increase, moving this industry into second place, behind manufacturing, in contribution to the County's economy.

The County produced a cash value of $\$ 13.5$ million in farm products in 1967. Forty percent of the revenue is derived from all crops, 27 percent from dairy products, 10 percent from poultry products and 23 percent from livestock products. Agriculture is one of Baltimore County's basic indus tries and an essential part of the economic base, since many industries are agriculture-related.

The changes in Baltimore County's economy have been reflected by changes in the occupation of the labor force. Employment in some indus tries declined such as mining, quarrying and durable goods manufacturing. Moderate increases in employment wore made in finance, real estate, transportation, construction and in the non-durable goods manufacturing sector. Considerable employment increases were made in the service industries and the wholesale and retail trade sector. Approximately one-half of the residents of the County are employed in other political jurisdictions, such as Baltimore City, Howard County or Harford County.

During the sixties, the employed labor force increased 41 percent, from 183, 700 to 259,400 , almost double the 26 percent growth in population. This was precipitated by a substantial influx of women and young persons into the labor market. The seventies will duplicate this trend toward a rate of increase of the labor force that exceeds the rate of population growth.

The growth in the number of employed women is one factor contributing to the risc in median family income from \$7,098 in 1960 to $\$ 12,081$ in 1970 , an increase of 70 percent. However, there was a simultaneous escalation in the consumer price index for the Baltimore SMSA, using 1967 on the base year, from 89.1 in 1960 to 117 in 1970, so that real wages in terms of families' purchasing power gained by 31 percent in the County.

The family income distribution curve reveals that in 1970, 7 percent or 11,744 corned more than $\$ 25,000 ; 24$ percent or 39,798 earned between $\$ 25,000$ and $\$ 15,000 ; 34$ percent or 54,939 earned between $\$ 15,000$ and $\$ 10,000 ; 34$ percent or 55,894 earned, less than $\$ 10,000$; and 8 percent or 12,967 earned less than $\$ 5,000$.

While most heavy industry is concentrated on the river necks near the tidewaters of the Chesapeake Bay, light industrial activities are located throughout the County, particularly along railroads and new highways. There are over 20,000 acres zoned for industrial use, of which 8,000 acres are currently available for industrial development.

The Owings Mills Industrial Park (181 acres) is located at Owings Mills, east of the proposed Expressway, and the 25-acre Milford Industrial Park is located in Pikesville, south of Milford Mill Road. Five other indus -trially-zoned sites are situated along the Western Maryland Railway between Owings Mills and Reisterstown. Major shopping centers are located at Patterson Avenue in Baltimore City, in Pikesville, at Cherry Hill Road, and in Reisterstown. Strip commercial development is almost continuous along Reisterstown Road between thesecenters. See land use map - Drawing No. 7.

The 1975-1976 real property tax rate for Baltimore County is $\$ 3.11$ per $\$ 100.00$ of assessed value at $50 \%$ assessment, plus a State rate of $\$ 0.21$ per $\$ 100.00$ of assessed value.
5. Public Facilities and Services -

- Educational, Medical and Other Facilities -

The educational system in Baltimore County consists of 108 elementary, 24 junior (middle) high, 17 senior high, one junior-senior high, one vocational center and 7 special education schools. Total enrollment of the school system as of September, 1974, was 126,337 students; 63,002 in elementary, 31, 492 in junior and 31, 158 in senior high schools. This represents a decrease of 1,873 students from the enrollment of the 1973 school year. Public and private schools located in the Northwest Corridor are as follows:

| Bedford Elementary School | - Kahn Drive |
| :--- | :--- |
| Sudbrook Junior High School | - Bedford Road |
| Ner Israel Rabbinical College | - Mt. Wilson Lane |
| McDonogh School | - McDonogh Road |
| Garrison Forest School | - Garrison Forest Road |
| Owings Mills Elementary School | - Ritters Lane |
| Cedarmere Elementary School | - Nicodemus Road |
| Franklin Senior High School | - Cherry Hill Road |
| Hannah More Academy | - Acadcmy Lane |
| Franklin Elementary School | - Cockeys Mill Road |
| Franklin Junior High School | - Cockcys Mill Road |

There are four general hospitals located in Baltimore County Baltimore County General in Randallstown, Franklin Square in Essex, Greater Baltimore Medical Center and St. Joseph's Hospital both in the Towson area. A total of 1254 beds are available with these facilities.

Public health services in Baltimore County are administered through regional, community and neighborhood centers. The public health center, located in Towson, primarily houses administrative functions. Sixteen auxiliary health centers provide outpatient and clinical service on a local level throughout the County. Baltimore County maintains five comprebensive community mental health centers, providing outpatient service as well as inpatient services, partial hospitalization, emergency service, consultation and education.

Public health facilities in the Northwest Corridor are, the Mt. Wilson State Hospital, an inpatient facility treating tuberculosis and respiretory disease, and auxiliary public health centers at 1111 Reisterstown Road in Pikesville and 22 Main Street in Reisterstown.

There are thirty-four post offices in Baltimore County. Post office facilities in the City of Baltimore also serve some areas in Baltimore County. The U. S. Postal Service has branch offices in Pikesville (21208), Garrison (21055), Owing Mills (21117), Reisterstown (21136) and Glyndon (21071), all within the Northwest Corridor.

Libraries in the vicinity of the project are the Pikesville Branch, 1111 Reisterstown Road and the Reisterstown Branch on Cockeys Mill Road.

## - Emergency Facilities and Services -

The Baltimore County Police Department operates out of 10 district stations, with the main headquarters located in Towson. The Department is composed of 1,069 police personnel and 360 civilians. In addidion to the patrol divisions, the Department contains a traffic bureau, investigative bureau, jail and civil defense bureaus, crime lab division and an education and training division.

Police protection is maintained in the Corridor, with a County Station (Garrison District) at Reisterstown Road and Kenmar Avenue, and the Maryland State Police Headquarters at Reisterstown Road and Sudbrook Lane.

Baltimore County's Fire Department has a staff of 713 personnoel, of whom 419 are firefighters. The Department operates 81 pieces of equipment out of nineteen fire stations located throughout the County. The headquarters housing the administrative services are located in Towson. In addition to the firefighting division and administration, the Fire Departmont maintains a fire inspection division, arson division, school of instruction, repair shop, and communications and ambulance divisions.

In the vicinity of the Northwest Corridor, there are six fire stations, three of which provide ambulance service located as follows:

- Pikesville Station, 1212 Reisterstown Road
- Pikesville V.F.C.lnc. Sudbrook Lane (near Reisterstown Road), ambulance service
- Garrison Station, 15 Kenmar Avenue
- Owings Mills V.F.C., 10401 Reisterstown Road, ambulance service
- Reisterstown V.F.D. lnc., 108 Main Street, Reisterstown, ambulance service
- Glyndon V. F.D. Inc., 17 Butler Road, Glyndon

Ambulance service for the entire county is controlled and dispatched by the central alarm located in Fire Department Headquarters, York Road and Bosley Avenue.

## - Public Utility Services -

Natural gas and electricity is supplied to Baltimore County by the Baltimore Gas and Electric Company. The electric generating capacity of the Company's system is almost $3,400,000$ kilowatts, and the Company's supply of natural gas is furnished through transcontinental pipeline connections supplemented by its own liquified natural gas plant and by underground stozage of liquid propane.

Telephone service is available to the entire County through the Chesapeake and Potomac Telephone Company of Maryland.

Treated water is supplied to most of the urban areas of Baltimore County by Baltimore City, including all of the developed areas along Reisterstown Road.

Sanitary sewerage from most of the developed areas in Baltimore County is discharged into the Baltimore City System. Treatment is provided at the Patapsco Treatment Plant at Wagner's Point or the Back River Treatment Plant located in Baltimore County. A major sewer line follows Gywnns Falls north to Glyndon and provides service throughout the Northwest Corridor.
6. Description of Existing Natural Environment -

## - General Ecology -

Baltimore City Line to the Baltimore Beltway
This is a well-settled, established neignborhood, typical of those directly adjoining the City Limits of a Metropolitan Area. It encompasses sectors of the following subdivisions:

Brighton
Campfield Gardens
Mellinee
Howards ville

Williamsburg
Sudbrook Park

- Scotts Hill

Gwynnvale

The general area is defined as Pikesville. Between the City Line and Milford Mill Road, the homes are generally of post World War II vintage with a medium density. The area is aesthetically attractive with such amenities as an abundance of mature trees and a well-established ccological balance. Between Milford Mill Road and the Baltimore Beltway, the homes are somewhat newer and the density is somewhat greater. Within the area are two neighborhood playgrounds (Sudbrook Park and Gwynnvale Park). There is a scattered band of light industry adjacent to the railroad and Reisterstown Road.

## Baltimore Beltway to Painters Mill Road

The surroundings in this section change from the above section as there is an abrupt drop in population and the corridor follows along the Gwynns Falls Valley containing a viable ecological inventory. There is a series of large land tracts devoted to such institutions as Mt. Wilson State Hospital, Nex Israel Rabbinical College, Woodholme Country Club and McDonogh School. This is generally open space, containing a wooded floodplain for almost its entire length. The McDonogh School area includes a posted reserve which contains, in varying number, game such as pheasant, rabbit, opossum, raccoon, squirrel, and deer. There is also a pond with geese and ducks. In addition, there is a significant quantity of undeveloped wooded acreage.

## Painters Mill Road to Berrymans Lane

The area alters somewhat in this section in that east of the proposed corridor there are new suburban developments which are expanding in size and number. New apartment complexes are being built and there is a continuing trend in the development of new industrial areas
serviced mainleyby Retsterstown Road. There are several existing subdivisions including Tollgate, Belltown, Ceclarmere and Hathaway. The western section of the corridor is primarily undeveloped with pastures, agricultural acreage and some heavily wooded area. The Pikesville Sportsmen's Club also lies in this section.

## Berrymans Lane to Reisterstown

On the west, the area contains grazing land and undeveloped land in a wooded, rolling landscape. The greatest farming activity occurs in this area of the corridor. On the cast is Reisterstown and the usual development of a suburban community.

## - Gcomorphological Conditions -

The following description of the geomorphological properties of the area traversed by this project was prepared by the State Highway Administration Bureau of Soils and Foundations.

## Baltimore City Line to the Baltimore Beltway

I. Topography: Varies from nearly level to steeply sloping. Arca is within Piedmont Plateau Physiographic Province. Surface elcvations above sea level vary from approximately 390-470 feet.
II. Slopes: Generally within a range of $0 \%-25 \%$.
III. Ground Water Conditions: Depths to seasonally high water table vary from less than 4.0 feet in depressions, floodplains, and footslopes, to greater than 20 fect on upper slopes, hilltops, and plateaus. Major water problems may be encountered during construction in stream bottoms.
IV. Rock Conditions: Depths to rock vary from 412 fect. Types of available rock include: diabasc, diorite, mica schist, and granodiorite. Ripping should be sufficient to handle most rock encountered during construction.
V. Soil Conditions: Depths of overburclen (soil) vary from 4-12 fect. General characteristics of soils in arca: (l) moderate erosion hazard;
(2) poor stability in floodplains and depressions; fair to good stability on upper slopes, hilltops, plateaus; (3) high susceptibility to frost action in floodplains and depressions; low susceptibility to frost action on higher topography; (4) seasonally high groundwater table in floodplains and deprocessions; perennially deep water table on higher topography; (5) soil textures vary from silty to clayey.

## Baltimore Beltway to Painters Mill Road

I. Topography: Varies from nearly level to steeply sloping. Area is within Piedmont Plateau Physioographic Province. Surface elevations above sea level vary from approximately 390-500 feet.
II. Slopes: Generally within a range of $0 \%-30 \%$.
III. Ground Water Conditions: Depths to seasonally high water table vary from less than 4.0 feet in depressions, floodplains, and footslopes, to greater than 20 feet on upper slopes, hilltops, and plateaus. Major water problems may be encountered during construction in stream bottoms.
IV. Rock Conditions: Depths to rock vary from 4-20 feet. Types of available rock include: diabase, diorite, granodiorite, granite gneiss, and three types of schists: (1) soft, micaceous, muscovitic schist: (2) harder micaceous and chloritic schist; (3) granitized schist. Ripping should be sufficient to handle any rock encountered during construction.
V. Soil Conditions: Depths of overburden (soil) vary from 4-20 feet. General characteristics of soils in area: ( 1 ) moderate to high erosion hazard;
(2) poor stability in floodplains and depressions; fair to good stability on upper slopes, hilltops, plateaus; (3) high susceptibility to frost action in floodplains and depressions; low to moderate susceptibility to frost action on higher topography (4) seasonally high groundwater table in floodplains and depressions; perennially deep water table on higher topography; (5) soil textures vary from silly to clayey.
I. Topography: Varies from nearly level to steeply sloping. Area is within uplands of Piedmont Plateau Physiographic Province. Surface elevations above sea level vary from approximately 460-730 feet.
II. Slopes: Generally within a range of $0 \%-30 \%$.
III. Ground Water Conditions: Depths to seasonally high water table vary from less than 4.0 feet in depressions, floodplains, and footslopes, to greater than 20 feet on upper slopes, hilltops, and plateaus. Major water problems may be encountered during construction in stream bottoms.
IV. Rock Conditions: Depths to rock vary from 4-20 feet. Types of available rock include: granite gneiss and three types of schists: (i) soft, micaceous, muscovitic schist; (2) harder micaceous and chloritic schist; (3) granitized schist. Ripping should be sufficient to handle any rock encountered during construction.
V. Soil Conditions: Depths of overburden (soil) vary from 4 to 20 feet. General characteristics of soils in area: (l) moderate to high erosion hazard; (2) poor stability in floodplains and depressions; fair to good stability on upper slopes, hilltops, plateaus; (3) high susceptibility to frost action in floodplains and depressions; moderate susceptibility to frost action on higher topography; (4) seasonally high groundwater table in floodplains and depressions; peremially deep water table on higher topography; (5) soil textures are generally silty.

The average annual precipitation in the project area is 43.05 inches per year.

The primory interest in regards to water quality within the scope of this study is the Gwynns Falls which travels through a section of the area under consideration and closely parallels the proposed corridor from Old Court Road to a point beyond Painters Mill Road. Within the study area this normally moderate stream has a profile sloping between $.07 \%$ and $0.8 \%$, with few riffles or pools and ranges from 10 feet to 40 feet wide, with a six to twelve inch depth during the normal flow period. The water is not potable and, therefore, is not used for human consumption. The majority of residents and businesses depend on water supplied through Baltimore City's water system.

The waters of the State have been classified into the following four categories, based on their intended usage:

> Class I - Water Contact Recreation and Aquatic Life
> Class II - Shellfish Harvesting
> Class III - Natural Trout Waters
> Class IV - Recreational Trout Waters

The Gwynns Falls, through the project study area, has been classified by the Maryland Water Resources Administration as. Class I waters. Acrordingly, the following water quality standards apply to this stream:

Dissolved Oxygen Standard: The Dissolved Oxygen concentration must not be less than $4 \mathrm{mg} / 1$ at any time, with a minimum daily average of not less than $5 \mathrm{mg} / \mathrm{l}$.

Temperature Standard: Temperature elevations above natural must be limited to $5^{\circ} \mathrm{F}$, and the temperature must not exceed $90^{\circ} \mathrm{F}$, outside of the designated mixing zone.
pH Standard: Normal pH values must not be less than 6.5 nor greater than 8.5, except where and to the extent that -pH values outside tinis range occur naturally.

Turbidity Standard: Turbidity in the receiving water resulting from any discharge shall not exceed 50 Jackson Turbidity Units (JTU) as a monthly average, nor exceed 150 JTU at any time.

Bacteriological Standard: There shall be no sources of pollution as determined by a sanitary survey, and the fecal coliform content of these waters shall not exceed a log mean of 200/100 ml.

Examination of water quality data, supplied by the Maryland Department of Water Resources, establishes that the water quality of Gwynns Falls from Owings Mills to the Baltimore Beltway is of reasonable good quality, as related to pollution content and established water quality.

The streamlife includes the folliwng species in varying number as of 1970-71:

Small-mouth Bass
Large-mouth Bass
Rock Bass
Attractive Minnows
Stoneroller Minnow
Swallow Tail Shiner
Creek Chub
Central Johnny Darter
Carp

Hogsucker
White Sucker
Sunfish
Cutlips Minnow
Common Shiner
Satinfin Shiner
Longnose Dace
Mad Tom
as well as a supporting ecological system.
Samples reviewed were taken from three locations within the study area, as indicated on the map designated as Drawing No. 9, which follows page D-l in this Final Environmental Statement.

Station 1, bridge on Bond Avenue near Reisterstown
Station 4, bridge on McDonogh Road near Garrison
Station 5, bridge on Milford Mill Road near Pikesville

Some evidence of pollutant discharges in the headwaters of Gwynns Falls is indicited by concentrations of dissolved solids, Bio-chemical Oxygen Demand (B.O.D.) and coliform levels found at Station 1 near Reisterstown. These can be attributed to a combination of septic overflow, local livestock and development activities. However, this condition is adjusted by the time the water reaches Station 4. Any small traces of nitrate is the result of agricultural activity.

In the area near Station 4, B.O.D. values range from 2.0 to $4.0 \mathrm{mg} / 1$, whereas the natural stream B. O. D. range is 1 to $2 \mathrm{mg} / 1$; coliform concentrations range from 750 to 43,000 per 100 ml , whereas coliform standards for swimming facilities range from 1000 to 2000 per 100 ml ; and dissolved oxygen levels range from $80 \%$ to $150 \%$ of oxygen saturation. During the months of April and May, 1971, coliform concentrations actually approached those levels amenable to water contact recreation activities. Concentration of nitrogen and phosphorus forms are low, but could be sufficient to support the growth of periphyten and aquatic weeds.

Water quality in the stream deteriorates markedly as it travels through the populated areas downstream of the Baltimore Beltway and south of Station 5. Increases are found in B. O. D., coliforms, nitrogen and phosphorus.

There is evidence of the growth of photosynthetic form by the super-saturated levels of dissolved oxygen in the Owings Mills to Baltimore Beltway area. This situation could be aggravated by a significant influx of silt as this abets the potential growth of rooted aquatic plants. Such excessive growth can cause severe fluctuations of the dissolved oxygen which, in turn, affect stream biota and cause fish to depart for more stable conditions. Existing levels of nitrogen and phosphorus could support such growth. The stream morphology, however, indicates a significant capacity of reacration. This, coupled with the fact that parts of the stream are shaded, which acts to minimize growth, could generate the reversal of a growth process. Current conditions indicate that dissolved oxygen levels are sufficient to support an aquatic life system as evidenced by the fish population.

This site was visited in June, 1972, shortly after the passing of Tropical Storm Agnes. At that time, Gwynns Falls contained a high silt load with additional material in significant amounts being provided by the construction sites in the industrial park adjoining the stream near Owings Mills at Dolfield Road. Damage due to the storm and subsequent flooding included, within this study area, erosive action, destruction of several foundations, embankment failure and collapse of the Western Maryland Railway

Bridge, the partial collapse of the Reisterstown Road Bridge, the collapse of a bridge on Mount Wilson Lanc, and widespread flooding in the floodplain. The Brittany Apartments adjacent to the Beltway Interchange and Gwynnvale Park were inundated to varying degrees.

Stream banks in the area from Mt. V'ilson Hospital to Painters Mill Road are fairly stcep and devoid of vegetation, making them susceptible to erosive action. It appears that the soils in the floodplain were readily erodible and that the stream banks were somewhat unstable. Therefore, any major construction activity, including highway projects in the immediate vicinity of Gwynns Falls, could produce sheet erosion and siltration as well as bank erosion where the proposed project crosses the stream.

There is located within the study area and near the proposed alignment a unique water supply for the McDonogh School. Approximately 50,000 gallons of potable water per day are required. The system consists of four or five springs, approved by the Health Department. This water travels by gravity flow to a central cistern. The water is then pumped by power gencrated from a water wheel to the School, where it is stored in a fifty-thousand gallon clevated tank until needed.

## - Noise Levels and Air Quality -

Existing ambient noise levels and air quality are discussed in Sections C-11 and C-12, respectiveiy, of this Final Environmental Statement.

## 7. Project Recommendation -

- Recommended Alternate and Basis for Sclection -

The following information has been reviewed in completing the evaluation of the Combined Northwest Expressway/Rapid Transit Project.
a. Written comments received during the coordination process - March 29, 1972.
b. The Draft Environmental Statement (FHWA-MDEIS - 73-01-D) for the combined project from the Baltimore City Line to Reisterstown.
c. Written comments received by the State Highway Administration regarding the Draft Environmental Statement.
d. Input received at the Public Information Meetings that were held on March 21, 1973 at Sudbrook Junior High School, and on March 29, 1973 at the Franklin Senior High School.
e. The transt--ipt for the Corridor Location Public Hearing that was held for the section of the combind project from Patterson Avenue in Baltimore City to the Baltimore Beltway on April th and Fth, 1973 at the Sudbrook Junior High School.
f. The transcript for a separate Corridor Location Public Hearing for the section of the Northwest Expressway from the Baltimore Beltway to Reisterstown and a portion of the Phase I Rapid Transit held on April lith and 12 th, 1973 at the Franklin Senior High School in Reisterstown, Maryland.
g. Input received at the Public Information Meetings that were held on December 2, 1974 at the Franklin Senior High School and on December 5, 1974 at the Sudbrook Junior High School. These meetings were held to present to the public the additional studies and evaluations developed as a result of comments made at the public hearings held in April, 1.973 and studies made to remove ox mitigate adverse effects on historic sites located in the corridor.
h. The Supplement to the Draft Environmental Statement/ Section 4(f) Statement (FHWA-MD-EIS-73-01-DS). This supplement included the identification of sites of historic interest in the corridor, the effects of the proposed alternatives on these historic sites, and the planing proposed to mitigate any adverse imppacts.
i. Written comments received by the State Highway Administration regarding the Supplemental Section 4(f) Statement.
j. The informational data available to the public at the Informational Sessions and the Public Hearing:

1) Maps showing the proposed alternate highway routes.
2) Data on rapid transit stations and parking areas.
3) Relocation Assistance Data.
4) Informational Brochure.
k. The Regional Planning Council's - General Development Plan.
1. The Baltimore Area Mass Transportation Plan.
m. Baltimore County's - 1980 Guideplan (June 15, 1972).
n. Baltimore County's - Comprehensive Plan for Baltimore County (Preliminary Draft of April 10, 1975).
o. Maryland Department of Transportation Planning Data:
1) 20-Year Highway Needs Study (1975-1994).
2) State Primary Highway Improvement Program (1976-1980).
3) Consolidated Transportation Program (1976-1980).
p. Air Quality Report for the Northwest Transportation Corridor.

As a result of the review of the above information developed in conjunction with the proposed project and the evaluation of its social, economic, environmental, historical and cultural effects, the following conclusions were reached:
a. The proposed Northwest Expressway/Phase I Rapid Transit Project is in accord withState plans, programs and objectives and is consistent with the Baltimore Region's General Development Plan. It is also in conformance with the 1980 Guideplan, Baltimore County's plan for future development of the community and the preliminary draft of the Comprehensive Plan for Baltimore County.
b. The construction of the project would provide safe, reliable and convenient bimodal transportation to the northwestern part of the Baltimore region. The Northwest Expressway would provide substantial relief to traffic tieups on existing Reisterstown Road and other arterials in the corridor. By offering joint development with the Rapid Transit Line, the project would provide a high-capacity transportation system connecting the central metropolitan are of Baltimore City to northwest Baltimore County and to Carroll County. The improvement of Reisterstown Road is needed in addition to the proposed Northwest Expressway
and Phase I Rapid 'Transit Line to meet the transportaton requirements in the corridor.
c. Present and future development in the Northwest Corridor of Baltimore County is dependent on this facility to safely accommodate the resulting travel desires. The Northwest Corridor is one of the planned growth areas indicated in the County's 1980 Guideplan because of the current availability of water service, the proposed Gwynns Falls sanitary sewer system reinforecment, which is scheduled to be in operation by 1978. The improved accessibility offered by the proposed Northwest Expressway/Rapid Transit Project is also necessary for these County plans to materialize.
d. Alternate studies made subsequent to the Public Hearing have resulted in the development of several feasible alternates to avoid or minimize the effects of the projest on historic sites in the corridor.
e. Judging by public hearing testimony of several community spokesmen in the area from the Baltimore City Line to the Baltimore Beltway, there was opposition to the Expressway portion of the combined project south of the Beltway at the Corridor Public Hearing. Support fico the Northwest Expressway was indicated north of the Beltway, and most comments received were favorable to the Rapid Transit proposal. Considerable public opposition was expressed at the Public Hearing to the planned interchange and rapid transit station at McDonogh Road.
f. In addition to providing better accessibility to employmont areas in the corridor, the project supports commercial and industrial development with increased employment opportunities.
g. The construction of the project will also improve access for national defense, reduce the travel time of amergency vehicles and reduce the transportation users' costs.
h. Conclusions regarding Air Quality are included in Section C-12 of this Volume.

In vicw of the above conclusions, the following project recommendations are proposed: (See Drawings No. 4a through 4g.)
a. The Northwest Expressway be constructed from the Baltimore Beltway to Reisterstown. The section of the Expressway south of the Beltway to the Baltimore City Line has been eliminated from this project in order to minimize the adverse effects of the project on the Sudbrook Park Historic District, and to reduce impacts on adjacent communities and parks. This would also reduce the impact on the Gwynns Falls floodplain and achieve a cost savings.
b. The Rapid Transit Line be constructed from the Baltimore City Line to the Owings Mills area. The transit alignment has been located immediately adjacent to the Wcstern Maryland Railway through the Sudbrook Park Historic District in order to minimize the cffects of this facility on the historic site. South of the Beltway, the rapid transit tracks are located in the right-of-way previously obtained or reserved for highway use. North of the Baltimore Beltway, the rapid transit tracks are located in the median of the proposcd Northwest Expressway.

The selection of the recommended alternativc has been complicated by the intricate nature of the project and the large number of alternatives developed with varying alignments and design features or for the consideration of historical preservation. For this reason, the project has been divided into the following segments for a more specific description of the recommended alternate.

Baltimore City Line to Mount Wilson Lane
Within these limits, Alternates 1, 2, 5, A, B, 7, 8, 9 and 9A were devcloped for considcration. Alternatc 9 is recommended from the Baltimorc City Line to Greenwood Road, and Altcrnate 7 from Greenwood Road to Mount Wilson Lane. Alternate 9 proposes the construction of the Rapid Transit Facility generally along the west side of the Western Maryland Railway, from the Baltimore City Line to Sudbrook Road, with a transit station and parking lot located south of Relocated Milford Mill Road, which overpasses the rapid transit line and railroad and connects into Reisterstown Road at Slade Avenue. Alternate 7 proposes the construction
of the Rapid Transit Facility generally along the alignment originally proposed for the combined facility from Greenwood Road to the Beltway, and includes a transit station and parking lot located on the north side of Old Court Road. Alternate 9 is modified as it passes through the Sudbrook Park Historic District so that the alignment will be as close as possible to the railroad. Retaining walls are proposed to minimize right-of-way requirements, and new bridge structures will be constructed over the transit tracks and railroad tracks at existing Sudbrook Road and over the transit tracks at Greenwood Road in lieu of a cut and cover tunnel. A directional interchange at the Baltimore Beltway is proposed as the southern terminal of the Northwest Expressway, and at this location the rapid transit tracks enter the median of the Expressway. North of the Beltway, the proposed Expressway and Rapid Transit Line would continue northerly as a combine facility to Mount Wilson Lane.

The selection of Alternates 7 and 9 was based on the following reasoning:
a. The adverse effects of the project on the Sudbrook Park Historic District have been minimize by the elimination of the Expressway portion of the project south of the Baltimore Beltway. A taking is still required for which a Section 4(f) Statement has been prepared. See Volume II.
b. Most of the communities in this area expressed strong opposition at the Public Hearing to the construction of any highways south of the Balimore Beltway.
e. The adverse impact in the Gwynns Falls floodplain south of Old Court Road has been reduced by the removal of the proposed Expressway and by an adjustment in the alignment of the Rapid Transit Facility.
d. Impacts on Sudbrook Park and Gwynnvale Park are also reduced.
e. Elimination of the Expressway in this area resuits in a savings of $\$ 31.5$ million, which is now a significant factor because of the current lack of funds for all projects in Maryland's consolidated transportation program.

In this section of the project, Alternates 1, 2, 2A, 2B and 2C were developed for consideration. Alternate 2 C is recommended and proposes an alignment for the combined facility on the east side of the Western Maryland Railway fro.. Mt. Wilson Lane to north of McDonogh Road. At this point, the project crosses to the west side of the railroad and passes to the west of the Owing Mills Industrial Park. The Rapid Transit Facility terminates on the north side of Painters Mill Road, with a transit station and parking areas on both sides of the Northwest Expressway. Direct access is provided from the Expressway to the rapid transit parking areas at this location. A semi-directional interchange is proposed at Relocated Dolfield Road, which extends from the proposed Red Run Boulevard easterly to an interchange with existing Reisterstown Road. Relocated Dolfield Road, with the two interchanges noted above, will provide a direct connection for the exchange of traffic between Reisterstown Road and the proposed Northwest Expressway.

The selection of Alternate 2 C was made on the basis of the following rationale:
a. During the A95 review process and other phases of project development, a number of State and County agencies commented on the planning of the highway in order to protect the Gwynns Falls stream valley and to minimize any effects that might be adverse regarding future park development. Alternate 2C was selected because the alignment has the least impact on Gwynns Falls, removing approximately 9000 feet of expressway and transit completely away from the stream valley.
b. The alignment avoids taking any land from the McDonogh Railroad Station and McDonogh School Historic District, both of which are eligible to be placed on the National Register of Historic Places. It does require the relocation of the Owing Mills Railroad Station (New) which is also eligible for the National Register. This historic site is discussed in the Section 4(f) Statement, see Volume II.
c. The interchange and rapid transit station are both located in the commercial and industrial Owing Mills area, which will tend to encourage future development and help to protect the residential and institutional areas around McDonogh Road. Alternate 2C also provides for the separation of Expressway and rapid transit traffic approaching the combined facility in the Owing Mills area.

## 

Within this section of the project, only one alignment and design was developed for the proposed Northwest Expressway. This section of Expressway was labeled as both Alternate 1 and Alternate 2; however, for the purpose of this Statement, Alternate 2 has been designated as the selected alternate and is located approximately 4,000 feet west of existing Reisterstown Road, with a full cloverleaf interchange proposed at Relocated Cherry Hill Road.

## Berrymans Lane to Reisterstown

For the northern end of the project, Alternates 1, 2, 6 and 6A were developed for consideration. Alternate 6 is the selected alternate and consists of the proposed Northwest Expressway generally following the alignment originally proposed for Relocated Maryland Route 30 from Berrymans Lane to a wye interchange south of Westminster Pike. The wye inter change separates the Northwest Expressway which ties into Westminster Pike, and Relocated Maryland Route 30 which connects to existing Hanover Pike. Also included is a westerly extension of Glyndon Drive, with a partial interchange at the Northwest Expressway, and the westerly extension of Butler Road with a diamond interchange at Relocated Maryland Route 30.

Alternate 6 was selected as the recommended alternate because it requires considerably less land acquisition than Public Hearing Alternate 2 , and provides the needed inter change facilities as the Glyndon Drive Externsion and Butler Road Extension to adequately serve the Reisterstown community. The Extension of Glyndon Drive does require some land in the Reisterstown Historic District, which is eligible to be placed on the National Register. A Section 4(f) Statement has been prepared for this historic site. See Volume II.

The Northwest Expressway is proposed as an Expressway (Freeway by A.A.S.H.T.O. definition), with full control of access. The roadway geometry and safety features will be based upon a design speed of 70 miles per hour, although the posted speed will be lower. The maximum horizontal curvature is $3^{\circ} 00^{\prime}$, and the maximum vertical gradient is $3 \%$.

The proposed highway construction will consist of dual 36foot roadways, separated by a median varying from a minimum of 64 feet to 80 feet or greater at rapid transit station sites. Between and beyond transit stations, the median will be 64 feet in width. The tracks of the Rapid Transit Facility in the median will be separated from the Expressway roadways by 12 to 14 foot paved median shoulders and reinforced concrete safety barrier walls. North of the rapid transit terminal at Painters Mill Road, the 64 -foot median will be graded with flat $6: 1$ slopes and will provide a safety recovery area of 30 feet for each roadway, thereby minimizing the potential for vehicular head-on collision. Extension of the rapid transit line in the median of the Expressway beyond Painters Mill Road is physically possible should the need arise sometime in the future. Paved shoulders, 4 -feet in width, will also be constructed along the median edge of each roadway pavement. Outer shoulders for the entire length will be paved for a 10 -foot width, with an additional 20 feet beyond the outer shoulders graded with flat $6: 1$ slopes to provide a safety recovery area. The provision of $30-$ foot safety recovery areas along both sides of each roadway conforms to nationally recognized criteria to minimize accidents and injuries when a vehicle strays from the travelway. The proposed Expressway will be fenced through built-up areas, and lighting will be provided at designated interchanges, rapid transit stations and parking lots. A minimum right-of-way width of 300 feet is planned north of the Baltimore Beltway. South of the Beltway, the right-of-way width for rapid transit by itself varies from 58 feet to 150 feet.

Bridge structures with pedestrian walkways as required are proposed to carry existing streets either over or under the Expressway or rapid transit and at all major stream crossings. The bridges over Gwynns Falls would be lengthened where feasible so that 200 feet of undisturbed land would remain on both sides of the stream for future park development. The typical sections for the Combined Northwest Expressway/Rapid Transit Facility are shown graphically on Drawing No. 3. Also shown on this drawing is a section of the Rapid Transit by itself south of the Beltway, and of the Expressway itself north of Painters Mill Road.


A series of drawings showing the plan and profile of the recommended alternate is included in this Final Statement after the detailed written description.

The project begins at the Baltimore City Line as an extension of the proposed Phase I Rapid Transit Facility. The two tracks of the Rapid Transit Facility cross into Baltimore County approximately 50 feet west of the Western Maryland Railway, and continue parallel to the railroad tracks to Sudbrook Road, except in the vicinity of Milford Mill Road, where the transit line separates from the railroad to provide space for a parking lot at the proposed Milford Mill Station site. The Milford Mill Station platform is located 700 feet south of Relocated Milford Mill Road, with parking areas situated on both sides of the station platform between Rockland Avenue and the Western Maryland Railway. Local access to the west parking lot is proposed from Relocated Milford Mill Road and to the east parking lot via existing Milford Mill Road. In addition to parking for 800 cars, a special area adjacent to the Station would be reserved for bus parking, for the discharge of kiss-n-ride passengers, and for bicycle stalls.

South of Milford Mill Road, the station cuts off access to the homes on Howard Avenue and Mellinee Avenue. Access will be provided to the homes not taken by the project by extending Cedar Avenue westerly to Walnut Avenue, a distance of approximately 500 feet.

The relocation proposed for Milford Mill Road begins at Woodside Road, crosses over the proposed Rapid Transit Line and Western Maryland Railway and, curving to the north, connects to Reisterstown Road at Slade Avenue. A connection from Relocated Milford Mill Road to existing Milford Mill Road is also proposed in the vicinity of Deerfield Road. Relocate Milford Mill Road would be constructed as a 50 -foot curbed street, with widening for left-turns in the vicinity of the Rapid Transit parking lots. The intersection at Reisterstown Road will also be improved.

The transit alignment passes through the northeast edge of the Sudbrook Park Historic District, as close as possible to the Western Maryland Railroad tracks. (See Drawings No. Sa and Bb.) Retaining walls are also proposed in order to further minimize right of way requirements. The Sudbrook Road Bridge will be replaced with a new structure over the Western Maryland Railway and the proposed Rapid Transit Facility. North of Sudbrook Road, the rapid transit alignment curves to the west away from the railroad, underpasses Greenwood Road, and follows the original Expressway alignment as proposed at the Public Hearing. After crossing over Gwynns Falls and under the existing structures at Old Court Road and the Baltimore Beltway, the rapid transit tracks enter the median of the proposed Northwest Expressway and remain in the median to the northern terminus


Maryland Department of Transportation NORTHWEST TRANSPORTATION CORRIDOR
STATE HIGHWAY ADMINISTRATION MASS TRANSIT ADMINISTRATION $\qquad$

| NORTHWEST EXPRESSWAY \& RAPID TRANSIT |
| :---: | :---: |
| PROPOSAL TO MINIMIZE EFFECT ON |
| SUDERROOK PARK HISTORIC DISTRICT |

at Owing Mills. The Old Court station platform is proposed to be located north of the existing Old Court Road Bridge. The parking lot for the Old Court Road station would be located at ground level on the east side of Gwynns Falls and north of Old Court Road. Vehicular access to the parking lot is via Old Court Road which would be widened for a left turn lane. A pedestrian bridge over Gwynns Falls would conrace the parking lot with the station platform.

The Old Court station would provide parking for 550 cars, as well as special discharge areas for kiss-n-ride passengers and buses. Bicycle stalls will also be provided.

The southern terminus of the Northwest Expressway would be a directional interchange with the Baltimore Beltway. The Beltway interchange is located west of the Western Maryland Railway within the right-ofway previously purchased by the State Highway Administration, and is the same location proposed for this interchange at the Public Hearing. Diractional ramps are provided to permit southbound traffic on the proposed Northwest Expressway to turn in either direction on the Beltway and for the return movements. North of the Baltimore Beltway, the proposed Express way would continue northerly as a dual highway, with rapid transit in the median. The alignment curves to the north, crossing over Gwynns Falls and over the Western Maryland Railway approximately 1200 feet south of Mount Wilson Lane. Paralleling the east side of the railroad, the project passes through the undeveloped southwest corner of the Woodholme Country Club, and overpasses Mount Wilson Lane and underpasses McDonogh Road, with no access facilities provided at either road.

The combined project passes to the west of the Lyon Acres subdivision, and 5000 feet north of McDonogh Road the alignment curves to the west to recross the Western Maryland Railway. West of the railroad, the project passes to the east of the McDonogh Historic District and west of the Painters Mill Music Fair and the Owing Mills Industrial Park, crossing Gwynns Falls and existing Painters Mill Road on a viaduct approxmately 2000 feet west of the railroad. Continuing in a northwesterly direction, the Expressway interchanges with Relocated Dolfield Road and, passing to the west of the Tollgate subdivision, underpasses Pleasant Hill Road 200 feet west of Tollgate Road. In the Owing Mills area, the centerline has been located to provide the necessary space for the increased parking requirements at the terminal rapid transit station near Painters Mill Road, and for the semi-directional roadway interchange at Dolfield Road. Relocate Dolfield Road would be constructed generally to the south of the existing road from the proposed Red Run Boulevard, west of the Northwest Expressway, easterly through the interchange area to the Gwynns Falls crossing of existing Dolfield Road. Relocated Dolfield Road would continue easterly from Ciwynns Falls on new location to underpass the Western Maryland Railway and Reisterstown Road and terminate at a future connection to Bonita Avenue. The dual highway proposed for Relocated Dolfield Road
consists of two 24 -foot roadways separated by a 16 -foot median. Dolfield Road would be terminated with cul-de-sacs on both sides of the Northwest Expressway. South Dolfield Road would be terminated with cul-de-sacs on both sides of Relocated Dolfield Road, and Ritters' Lane would be extended to connect with Relocated Dolfield Road. The interchange at Relocated Dolfield Road has been designed to accommodate all turning movements at the Northwest Expressway, with directional ramps for traffic turning south on the Expressway toward Baltimore from Dolfield Road and for the returning northbound movements. The interchange at Relocated Dolfield Road and Reisterstown Road proposes turning ramps, which will permit traffic from the north or south on Reisterstown Road to turn toward the west on Relocated Dolfield Road. Relocated Dolfield Road, with the two interchanges described above, will provide a direct connection for the exchange of traffic between Reisterstown Road and the proposed Northwest Expressway.

Red Run Boulevard is a new 24-foot street proposed as part of this alternate and is located approximately 3000 feet southeast of the Northwest Expressway. Red Run Boulevard begins at Painters Mill Road, proceeds northwesterly generally parallel to the proposed Expressway and terminates at Dolfield Road.

The Owings Mills Rapid Transit Station is proposed to be located in the median of the Expressway 700 feet north of existing Painters Mill Road. The rapid transit tracks in the median of the Expressway terminatc approximately 1300 feet north of the station platform. A parking lot is situated on both sides of the Expressway adjacent to the station site, with two pedestrian bridges to connect the east and west parking lots to the station platform. The parking lot on the west side would have direct access from the Expressway via a southbound off-ramp. Northbound return from the parking lot would be provided by a road-crossing under the Expressway adjacent to Painters Mill Road. Vehicles would use the parking lot on the east side of the project in order to gain access to a northbound on-ramp leading to the Expressway. The parking lot on the east side of the Expressway would accommodate locally-oriented vehicles from Reisterstown Road with access from Painters Mill Road. Painters Mill Road would be rebuilt above the floodplain as a 24 -foot street under this proposal from South Dolfield Road to the transit parking lot. The parking lot on the west side of the Expressway would accommodatc locally-oriented vehicles from the Liberty Road area via Painters Mill Road, or via the proposed Red Run Boulevard and a future access road leading to the parking lot. The actual location of the access road, which is not part of this project will depend on development patterns in the proposed Sector Center, which is a high-density residential and commercial development.

In addition to parking for 3800 cars at the Owings Mills Station, a special area adjacent to the station would be reserved for bus parking, for the discharge of kiss-n-ride passengers and for bicycle stalls.

Relocated U.S. Route 140 (Northwest Expressway) continues in a northwesterly direction from Pleasant Hill Road and overpasses Church Lane 1500 feet west of Delight Road. A service road on the west side of the Expressway, connecting to Church Lane, provides access to the Pikesville Sportsmen Club.

A full cloverleaf interchange is proposed at Relocated Cherry Hill Road in the vicinity of Nicodemus Road. Relocated Cherry Hill Road would be constructed as a 4-lane dual highway with a 16 foot median from Tarragon Road westerly to its intersection with Church Lane, a distance of 1.0 mile, and Nicodemus Road would be relocated around the interchange and be connected to Cherry Hill Road on both the north and south side of the interchange.

The Expressway procecds in a northwesterly direction from Cherry Hill Road, paralleling the Westminster and Baltimore Electrical Transmission Line, and underpasses Berrymans Lane 2300 feet west of Reisterstown Road. The project then underpasses Glyndon Drive (existing Stocksdale Avenue) 2300 feet west of Reisterstown Road, where an interchange is planned to provide access and service to the Reisterstown area.

Glyndon Drive would be constructed with two 24 -foot roadways, separated by a 16 -foot median through the interchange area and connect to Reisterstown Road as a 50-foot curbed street. Existing Stocksdale Avenue would be closed by the proposed construction of Glyndon Drive and a teeturnaround provided at the terminus.

North of the Glyndon Drive Interchange, the Northwest Express way underpasses a 2 lane relocation of Cockeys Mill Road and parallels the Gas \& Electric Company transmission line through the proposed directional interchange with Relocated Maryland Route 30. Chatsworth Road would be terminated at the Northwest Expressway with cul-de-sacs as required. North of the Route 30 Interchange the Expressway swings to the west, crosses under the transmission line and ties into Westminster Pike approximately 1000 feet east of Nob Hill Park Road, with full control of access ending just north of the proposed interchange with Relocated Maryland Route 30. Vehicles on Westminster Pike, travcling away from Reisterstown, would continue on the existing road and connect to the Expressway just west of the electrical transmission line. Southeasterly traffic on Westminster Pike, with a destination in Reisterstown proper, would use a left-turn lane and proposed road, which bridges over the northbound lane of the Expressway and connects to Westminster Pike in the vicinity of the Gas \& Electric Company!s power line at a common grade intersection with the proposed extension of Butler Road. The Butler Road Extension from the Hanover Road to the Westminster Pike is proposed as a dual highway with two 24 -foot roadways, separated by a 16 -foot median.

Relocated Maryland Route 30 diverges from Relocated U.S. Route 140 (Northwest Expressway) via a directional interchange 1500 feet south of Westminster Pike and, bearing toward the north, underpasses

Westminster Pike 1500 feet west of Hanover Road. Relocated Maryland Route 30 would terminate as a controlled access freeway under this proposal at the extension of Butler Road. Connecting ramps to Butler Road Extended are proposed as part of a diamond interchange planned at this location to provide access to the northern part of Reisterstown. A temporary road from the But.tr Road ramps to existing Hanover Road (Maryland Route 30) would provide a direct connection for Hanover Road traffic to the northern terminus of the proposed Relocated Maryland Route 30. The future extension of Relocated Maryland Route 30 northerly to the proposed Piedmont Highway near Arcadia, Maryland is planned for some time after 1995.

Access to Relocated U. S. Route 140 (Northwest Expressway) is proposed by interchanges at the Baltimore Beltway, Relocated Dolfield Road, Relocated Cherry Hill Road, Extension of Glyndon Drive and the Extension of Butler Road. Rapid transit stations are proposed at Milford Mill Road, Old Court Road, and Painters Mill Road, with direct access from the expressway to Owings Mills Station at Painters Mill Road.

The estimated costs of the transportation system, described as the recommended alternate, are as follows. The costs are based on 1974 prices.

| Highway Construction | 10.6 mi. | $\$ 68,427,000$. |
| :--- | ---: | ---: |
| Rapid Transit Construction | 6.1 mi. | $46,837,000$. |
| Right-of-Way Costs |  | $\underline{35,211,840 .}$ |

Total Project Cost . . . . . . . . . . . \$150, 475, 840.

In summary, the recommended alternate will result in definite transportation and economic benefits to the community as a whole, with unavoidable displacement of approximately 132 persons, 29 residences and 18 businesses. The recommended alternate would impact 3 historic sites from the Baltimore City Line to Reisterstown, all of which are on or eligible to be placed on the National Register of Historic Places. The Section 4(f) Statement for these historic sites is included in Volume II.

NORTHWEST EXPRESBWAY












Maryland Department of Transportation
NORTHWEST TRANSPORTATION CORRIDOR
PROFILE

OWINGS MILLS TO DELIGHT ROAD


B. RELATIONSHIP TO LAND USE PLANNING:

The 1980 Guideplan for Baltimore County, Maryland, adopted on June 15, 1972, is the official master plan for the County and was presented "as a culmination of the County's planning efforts to date". The preliminary "Comprehensive Plan for Baltimore County", daict April 10, 1975, was prepared by the Baltimore County Office of Planning and Zoning. The following is an excerpt from the Preliminary Comprehensive Plan, citing the purpose of the Plan, and listing a summary of major recommendations made in the Plan.
"The plan has been prepared with the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the County and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity and general welfare, as well as efficiency and economy in the process of development and the maintenance of property values previously established.
"This comprehensive plan tempers and synthesizes many policies resulting from projects begun before the Guideplan was adopted in 1972. Among these projects (in addition to the Guideplan itself) were the eight area plans approved in the 1956-66 decade; the 1966 recreation and open-space plan; the central Jowson planning project begun in the mid 60's; the Phase I rail rapid transit studies of the 60 's; establishing the north-western and southwestern legs of the future transit system; a series of "sector" plans drafted in the $1967-72$ period; the comprehensive sewer and water plans of 1970-73; the 1971 Countywide zoning map; the 1971-74 and 1973-76 overall program designs for planning activities in the County; and the annual capital-program studies.
"Among the more recent efforts serving as a basis for this plan are a natural-resources inventory; the housing studies of the County's Interagency Planning Group; the Phase II transit study, and numerous additional ongoing studies under the aegis of the Maryland Department of Transportation; a plan for trails, proposed by an ad hoc citizens' committec; the solid-waste-management plan prepared in cooperation with the Regional Planning Council; detailed plans for four stream-valley parks; and studies of historic areas and landmarks.
"The Preliminary Comprehensive Plan will become the subject of formal public hearings to be held in a number of County locadions. Furthre revicw and revision by the Planning Board will follow the Fublic licarings, and the Planning Board will
then give its final approval to the plan, forwarding it to the
County Council. The County Council may then hold its own pubtic hearings on the plan, make revisions it deems necessary, and adopt the plan as part of a bill. Such a bill will be forwarded to the County Executive for enactment into law.

## Summary of Major Recommendations:

"1. Reaffirm the location of the Urban-Rural Demarcation Line to separate rural from urban land, with urban development to take place only within this line.
2. Encourage development only in areas served by adequate public and commercial facilities, discourage "leapfrogging" and encourage infilling. Study County development controls and formulate a comprehensive development code. Update mobile home, office and commercial zoning regulalions.
3. Enact the proposed resource conservation zones to protect our natural resources.
4. Enact the proposed State Agricultural Land Preservation Bill, incorporating the revisions recommended by the Office of Planning and Zoning to bring the legislation into line with existing legal procedures and the traditional responsibilities and prerogatives of local government bodies.
5. Institute assessment and taxation policies that would encourage the preservation of rural areas. Establish a study commission with citizen membership and technical advisors to examine tax policy. Land assessments for taxation purposes should be used to direct land use patterns and guide development.
6. Revise Public Works policy so that the extension of public facilities may direct rather than follow development, and enact the proposed adequate public facilities legislation. No public funds should be used for non-agricultural development in agricultural districts.
7. Institute policies to provide for a system of scenic easements by reserving open space, and establish a lincar park system. Make funds available for completion and publication of the "Natural Resources Inventory" and a Comprehensive Plan for Open Space and Recreation. Designate '"ritical areas of State concern'. Fund the acquisition of a stream valley park system.
8. Institute policies to control subdivisions in areas unsuited for development through legal and economic sanctions against such subdivisions.
9. Locate areas reserved for future urban development in vacant land of slight natural-resource value and in proximity to already developed areas.
10. Sct up a task force of citizens and County officials to study and develop a plan of action for waterfront area problems.
11. Enact the proposed historic-preservation bill.
12. Enact pending State legislation to make plans for State roads subject to approval by locally elected officials. Make more rescurces available to County transportation planning, and develop a plan for future energy/gasoline shortages.
13. Establish a substantial, ongoing community design program.
14. An accelerated open space acquisition program which will require Baltimore County funds.
15. An active program to discourage use of the automobile and encourage the following transportation modes: Pedestrian, bicycle, bus, carpooling, dial-a-ride and rail.
16. Adoption of comprehensive plans in a way which will require that the plan related aspects of the zoning maps, sewer and water plan, proposed development staging map, capital program and budget and all other County programs are to be in conformance with the comprehensive plan objectives. This document is proposed as the first Baltimore County Comprehensive Plan."

Both the 1980 Guideplan and the Long-Range Transportation Plan (See Drawing No. 6) of the Preliminary Comprehensive Plan for Baltimore County, dated April 10, 1975, have included the Northwest Expressway from the Baltimore City Line to Reisterstown and the Phase I Rapid Transit from the City Line to Owings Mills as an essential part of the planning for the Northwest Sector of Baltimore County. This takes into consideration the Comprehensive Plan policies concerning conservation, urban growth and land use, public services including transportation, development control and fiscal concerns.

## Northwest Corridor Land Use -

Existing and proposed land use in the project corridor, including a brief summary of the significant man-made features and their relationship to Relocated U. S. Route 140 (Northwest Expressway) is described below. Impacts on these existing land uses are discussed inSections C and D of this volume. Refer to Section H, this volume, and to Volume II (Section 4(f) Statement) for impacts on historic sites. The following maps supplement the written description:

## Existing Land Use Map (Drawing No. 7)

This map was developed from Baltimore County's "1975 Existing Generalized Land Use Map", prepared by the County Office of Planning and Zoning.

> Proposed Land Use Map (Drawing No. 8)

This map was reproduced from Baltimore County's "Comprehensive Plan", adopted in 1975 by the Planning Board.

- Baltimore City Line to Baltimore Beltway -

This area is almost completely developed with medium density residential housing. Commercial interests are scattered along existing Reisterstown Road and along Milford Mill Road adjacent to the Western Maryland Railway. The Suburban Golf Club of Baltimore County, the Maryland State Police Headquarters, and the Druid Ridge Cemetery are situated on the east side of Reisterstown Road. A Maryland National Guard Armory is located on the west side of Reisterstown Road. The Bedford Elementary and Sudbrook Junior High Schools are located in the Williams burg subdivision, west of the proposed Expressway.

At the approximate halfway position of this portion of the corridor and abutting the western boundary of the Western Maryland Railway right-of-way, is the unique local community of $207 \pm$ acres known as Sudbrook Park. This development, which from its beginning until February 17, 1957 enjoyed railroad passenger service, was one of Baltimore's first planned


suburban communities and was designed as a summer resort circa 1889 by the architectural firm of Frederick Law Olmsted, who is best known for his design of Central Park in New York City. The original 76-acre portion of this area has a charming atmosphere characteristic of an affluent late 19th Century suburb, wherein large distinctive homes occupy maturely landscape 1.5 acre lots. Since World War II less pretentious homes have surrounded the older section.

Two public playgrounds are owned and maintained by Baltimore County's Department of Recreation and Parks, and are situated on the north and south side, respectively, of the proposed Expressway right-of-way between Sudbrook Road and Old Court Road, as shown on Drawing No. 4b beGwynnvale Park is loeated in the Gwynnvale subdivision with cess from Shamrock Lane and Gwynnvale Road. Approximately 6 acres have been mmproved with one ball diamond, a multi-purpose court, water fountain and pienic areas. Sudbrook Park is located in the Sudbrook subdivision with aecess from McHenry Street and Silver Creek Road. It is a nicely landscaped 6-acre playground with one ball diamond, a multi-purpose court, asmall pond, water fountain, pienie area and a tot-lot with swings, seesaws, several jungle-gyms and a sandbox. The proposed project does not require land from either play ground, as right-of-way for the Northwest Expressway was acquired 10 -years prior to their construction. No parkland from either Sudbrook Park or Gwenvale Park would be required to eonstruet the presently planned design. Appropriate noise abatement teehniques will be employed to assure that the predicted noise levels resulting from the project will not exceed the design criteria.

- Baltimore Beltway to Owing s Mills -

The existing land use in this area consists of scattered residential development of low to medium density, strip commercial areas along Reisterstown Road, institutional development, and industrial sites between the Western Maryland Railway and Reisterstown Road in the Owing Mills area. The proposed land use adds additional residential development in the vicinity of MeDonogh Road and north of Painters Mill Road. The Northwest Sector Center, as planned by Baltimore County, is a high-density residentidal and commereial development loeated north of Painters Mill Road and west of the proposed Northwest Expressway. Reservation for the proposed Expressway through this area is recognized in land planning and has been maintained up to the present time.

Between the Western Maryland Railway and Reisterstown Road is the Woodholme Country Club, a privately-owned 18-hole golf course, and the Ne Israel Rabbinical College. The Mount Wilson State Hospital is a 550 -bed facility, owned and operated by the State of Maryland, Department of Health and Mental Hygiene. The Hospital grounds, consisting of approximately 210 acres, are loeated west of the Western Maryland Railway.

The McDonogh School, a historic property comprising approximately 750 to 800 acres, is located between McDonogh Road and Painters Mill Road on the west side of the Western Maryland Railway. It is a private school, having approximately 900 boarding and day students, with classes through the 12 th grade. It has horseback riding with bridle trails through the property, in addition to the normal athletic fields and courts. A major portion of the school property is utilized for agricultural and dairying activitics. The portion of the school property located south of McDonogh Road has been posted as a wildlife refuge and is registered with the Maryland Ornithological Society. The School's private water supply system, which is fed by springs, is situated in the Gwynns Falls floodplain on the northern edge of the School property adjacent to the Western Maryland Railway. East of Reisterstown Road is the Green Spring Valley Hunt Club, the Garrison Forest School for Girls and the Rosewood State Hospital.

In the vicinity of Painters Mill Road and north to Dolfield Road, a 181-acre Owings Mills Industrial Park is being developed west of existing Reisterstown Road. Space has been reserved for the proposed Expressway, and buildings in the Industrial Park should not be affected.

Typical commercial-industrial enterprises in this area include the Western Auto Warehouse, Maryland Cup Company, Malco Plastics, Baltimore Spice Company, Scotts Corporation, Baltimore Broadcasting, Bendix Field Engineering Corporation, automobile dealerships, restaurants, electric companies, plumbing and heating companies, etc.

Baltimore County has tentative plans for the development of a stream valley park along the bed of Gwynns Falls from the Baltimore City Line adjacent to Leakin Park to Owings Mills and from that point along the bed of Red Run to the area of the proposed Soldiers Delight State Park. The recreational trail system in Baltimore County, as proposed by the Baltimore Area Trails Council, also follows the Gwynns Falls and Red Run stream valleys in the Nortbwest Corridor.

The Gwynns Falls Interceptor Sewer is located along the stream for its entire length from the Baltimore City Line to Reisterstown and ranges in size from 8 inches in the Glyndon area to 42 inches in the vicinity of the Baltimore Beltway. The interceptor is intermittently overloaded in certain locations and studies have been made by Baltimore County to determine the reason for these surcharges. The latest study recommends enlargement or relicf facilities and a construction schedule to accommodate the residential increases and commercial growth anticipated in the Northwest Corridor. The proposed supplementary sewers range in sizes from 18 inches in the Glyndon area to 60 inches at the Baltimore City Line.

Within these limits, land development has been essentially confined to the corridor along Reisterstown Road and consists of high, medium and low density residential housing with strip commercial areas along the existing road. Proposed development west of Reisterstown Road will be residentil in nature, with planned community centers serving the needs of the area.

North of Pleasant Hill Road, the proposed Expressway passes through the privately-owned Pikesville Sportsmen Club, Inc. from which right-of-way was acquired in 1957.

The Franklin Senior High School and an apartment complex are located on the north side of Cherry Hill Road between the proposed Express way and Reisterstown Road.

The Baltimore Hebrew Cemetery, consisting of 74.29 acres, is located on the north side of Berrymans Lane 2500 feet west of Reisterstown Road. The proposed Expressway passes through the cemetery property and requires approximately 0.24 acres for highway purposes. There are no burials in the area where right-of-way is required for the project.

Soldiers Delight is proposed as a 2000 acre natural environment area and is located approximately 4000 feet west of Relocated U. S. Route 140 (Northwest Expressway) between Pleasant Hill Road and Church Lane. Soldiers Delight is scheduled for development as a recreational area by the Maryland Department of Forests and Parks and is not affected by the propest.

A large and complex Northwest Electric Sub-station, owned by the Baltimore Gas \& Electric Company, is located on the south side of Cockneys Mill Road. The sub-station is situated west of the proposed Relocated U. S. Route 140 and will not be affected by this project.

Reisterstown Road, between Owing Mills and Reisterstown, has been extensively built up with residential, commercial and industrial development, including churches, apartments and shopping centers. Owing Mills Elementary School, Franklin Junior and Senior High Schools and the Hannah More Academy front on the existing road. The U. S. Postal Service has branch offices in Garrison (21055), Owing Mills (21117), and Reisters town (21136).

In accordance with the project notification and review system established under the Intergovernmental Cooperation Act of 1968 and Bureau of Budget Circular A-95, the State Clearinghouse has revicwed the project and has determined that it is in accord with State plans, programs and objectives. It is also in conformance with the General Development Plan of the Baltimore Regional Planning Council, the 1980 Guideplan, Baltimore County's plan for future development of the community, and the Comprehensive Plan for Baltimore County, adopted October 13, 1975.

The coordination process with appropriate local, state and federal agencics has resulted in the recognition of valuable natural areas and the identification of agency and public concerns, all of which has helped to establish the significant environmental consequences of this project. A coordination letter with attached map was circulated March 29, 1972 to 134 agencies, groups and officials resulting in receipt of 33 replies.

The Draft Environmental Statement (Report No. FHWA-MD-EIS-7301 -D) was issued on February 21, 1973, and the Corridor Location Public Hearing was conducted on April 4, 5, 11 and 12, 1973. A Supplement to the Draft Environmental Statement concerning Section 4(f) Historic Sites (Report No. FHWA-MD-EIS-73-01-DS) was circulated in October, 1975. In addition, public information meetings were held, prior to the public hearing, on March 21 and 29, 1973 and again on December 2 and 5, 1974 to acquaint the public with additional studies and evaluations developed subsequent to the public hearing. All comments received having a significant bearing on the environment or relating to the project location and design have been considered in the preliminary studies and in evaluating the environmental impact of the improvement.

1. Regional and Community Growth (Population and Employment) -

Transportation improvements of the magnitude of the proposed Northwest Expressway and Northwest Line of the Phase I Rapid Transit Sys tem will not only encourage development in the immediate vicinity of the project, but will influence growth patterns in the surrounding area for many years in the future. Areas that may be affected by the proposed project are the Liberty Road corridor to the west, the Park Heights-Green Spring Avenue corridor to the east, the Carroll County area north and west of Reisterstown, and the northwest section of Baltimore City along Wabash Avenue.

The Reistcrstown Road-Northwest Expressway corlidor has a projected growth rate of more than twice that estimated for the Liberty Road corridor bascd on Regional Planning Council population projections. It should be pointed out, however, that even with the rapid growth in the Northwest Corridor, the population density in 1990 will only be $65 \%$ of the density in
the Liberty Road corridor. These statistics indicate that the Liberty Road corridor without an expressway or rapid transit will experience a severe strain on transportation and other public facilities and services. The completion of the proposed Northwest Expressway and Phase I Rapid Transit should have a beneficial affect on the Liberty Road area with respect to transportation services. Vehicles with origins west of Randallstown, who nov uilize Liberty Road to go north on the Baltimore Beltway, would be attracted to the Northwest Expressway for these trips via the interchange in the Owings Mills area. Rapid transit would have an even greater effect, attracting patrons via feeder roads and buses for the entire length of the Liberty Road corridor to the proposed rapid transit stations.

The Park Heights-Greenspring Avenue corridor, located to the east of Reisterstown Road, passes through the Greenspring Valley and Worthington Valley. Both of these valleys have low density zoning classifications with large estates and open space and will probably remain in that category. A spirit of "no growth" is sprcading in this country, and this is one of the locations where the residents are actively promoting the status quo. Assuming that the low density and rural atmosphere will prevail in this area, the Northwest Expressway should have very little effect on the corridor, even though it is within the sphere of influence of the proposed Expressway and Rapid Transit. Residents in this corridor will have the advantages of these improved transportation facilities; however, any pressure generated for increased growth can be controlled by proper planning and zoning at the County level.

The Carroll County area, north and west of Reisterstown, should not be significantly affected by the proposed Expressway. However, one of the factors necessary for the growth of any area (adequate transportation) would be provided by the project for those Carroll County residents who wish to travel to Baltimore. Using the 1970 census as a source, approximately 6000 residents of Carroll County work in Baltimore County or Baltimore City, of which $30 \%$ are located in the Liberty Road corridor and the remaining $70 \%$ in the Reisterstown Road corridor. Assuming these sane percentages would apply in the future, better than two-thirds of all Carroll County residents working in the Baltimore area would receive the benefits of the improved transportation service offered by the proposed Northwest Expressway and Rapid Transit projects.

The northwest section of Baltimore City would also be impacted by the proposed transportation facility. Because the area has already been densely developed, very little population growth has been projected for the northwest section of Baltimore City. The impact on this area would be primarily in the form of increased rapid transit service with no improvement to highway facilities. The overloaded peak hour traffic conditions at the present time on Reisterstown Road and Liberty Road would be further aggravated by future increases in traffic, resulting fromgrowth along Liberty Road
and Reisterstown Road, which have destinations in Baltimore City. The
proposed Phase I Rapid Transit System follows along the Western Maryland
Railway and Wabash Avenue and provides an excellent alternate travel mode
for residents with destinations in the Central Business District. The rapid
transit is consistent with MDOT policy to encourage peak-hour travel by
transit.
A thorough study and analysis of the secondary impacts of the
project regarding urban development and growth patterns in the Northwest
Corridor of Baltimore County resulting from the proposed Northwest Ex-
pressway and Northwest Line of the Phase I Rapid Transit System was also
conducted by the Regional Planning Council and their entire report, "Tech-
nical Service Report $9^{\prime \prime}$, has been ineluded in this Final Statement as Attach-
ment No. 1. The findings and conclusions reached in this report are includ-
ed here for the convenience of the reader.
"In summary, it has been found that the Northwest Corridor
in Baltimore County has experienced extremely high growth
over the last fifteen years (about $20 \%$ per year increase in
population) despite deteriorating traffic conditions and de-
creasing accessibility levels. This growth rate is expected
to be severely curtailed by the building moratorium imposed
by the State Department of Health and Mental Hygiene in re-
sponse to the overloading of the sewer trunk line serving
the corridor. With the lifting of the moratorium, expected
in 1979: it is anticipated that growth in the corridor will
return to about the same rate experienced over the past
fifteen years. This would be consistent with activity pro-
jections previously made by the Regional Planning Council.
"It is plausible that increases in accessibility levels pro-
vided to the Northwest Corridor could result in corridor
growth rates which are even higher than the high growth
rates experienced over the past fifteen years. Potentially,
the construction of the Northwest Freeway and the North-
west Line of the Phase I Rapid Transit System could bring
about such an increase in accessibility. However, travel
analyses indicate that, at best, construction of these facil-
ities would allow system capacity to just keep up with in-
creases in traffic resulting from corridor growth. In
fact, some deterioration in the level of peak highway serv-
ice is projected near the Beltway. In other words, over-
all accessibility will be neither improved nor decreased
if expected growth occurs and the Northwest Freeway is
constructed. Accessibility will decline if growth occurs
without the Northwest Freeway.
"It should be emphasized that these preliminary conclusions apply to the overall growth likely in the corridor. It is recognized that development patterns within the corridor could be influenced by the location of specific access and terminal facilities. Local development plans, zoning, and other local factors, could also have a significant effect on shaping local development patterns.
"Another concern of this analysis is the effect of decisions to either delay or not build major transportation facilities in the corridor. It is clear from travel analyses conducted by the 3-C Process that travel conditions would continue to worsen through time should this happen. Although sophisticated techniques are not available at this time to fully assess the growth implications of this possibility, past experience in the corridor indicates that corridor growth would continue at a high rate. The question, how high will future growth rates be, cannot be answered until a new growth forecasting technique is available, although one likely result of a "no-build" decision would no doubt be more scattering of development within the corridor."

Baltimore County's "1980 Guideplan" recommends the development of selected, easy-to-service areas of land in several locations adjacent to present development for new population growth in the County. These areas, coupled with the vacant land inside the 1972 Urban-Rural Demarcation Line, offer a total land area more than sufficient to house the anticipated population expansion in the next decade. This provides a comfortable margin for growth while allowing Baltimore County time to evaluate other potentials and patterns for outlying rural portions of the County likely to become urban in the years beyond 1980. One of the planned growth areas indicated in the Guideplan is the Sector Center which is located at Painters Mill Road on the west side of the proposed Relocation of U. S. Route l40. The proposed Relocation of U. S. Route 140 will provide fast, safe and efficient vehicular transportation to this growth area with access provided at Dolfield Road. Mass transportation in the form of rapid transit in the median of the Expressway supplemented by feeder buses will also provide service to the area with a station site located at Painters Mill Road. The project dovetails both in location and timing with County plans and goals for the development of the Northwest Sector Center.

The social and economic opportunities for employment, religion, education, recreation, health and safety are expected to be enhanced in the Northwest Sector of Baltimore County as a direct result of the accessibility offered by the project. Baltimore County's economy is firmly based on
diversificd primary industrics and a wide range of service industries. Employment growth will be reflected in the significant increase in service and distribution industrics, the continued growth of industrial output and the necessary services required at all levels of government. The vitality of the corridor can readily be assessed by the forecasts shown in the following table:

Number of Employees
Current Estimatc (1970)
Future Projection (1990)
Industrial \& Commercial Zoning
Developed Acreage (1970)
Undeveloped Acreage (1970)
Population
Current Census (1970)
Future Projection (1990)

- Regional Planning Districts -

| Pikesville | Reisterstown |
| :--- | :--- |
| Lochearn | Owings Mills |
| Randallstown | Fowblesburg |


| 13,273 |
| :--- | ---: |
| 29,400 |$\quad 5,853$

29,400
16,900

1,147
443
385
810

92, 882
29, 756
138,000
60, 000 .

The total population of Baltimore County was 621,077 in 1970, a $26.1 \%$ increase since 1960 . The total estimated population in the County, as projected by the Baltimore Regional Planning Council, is 739, 000 in 1980 and 862, 000 in 1990.

Property values will generally increase in the vicinity of a modern and efficient transportation system with significant increases possible in areas adjacent to interchanges and rapid transit stations. These increases in property values and the acceleration of residential and commercial development will broaden the County's tax base throughout the corridor. The initial loss of assessable land and buildings required by the project right-of-way will be replaced by the inevitable increase in property development adjacent to the proposed improvement.

## 2. Transportation Effectiveness -

The entire Northwest Corridor from Baltimore City to Reisterstown is vehicle-oriented. School students are transported by bus and the majority of residents commute to work and shopping areas by private passenger car. Except for certain properties fronting on the Western Maryland Railway Company right-of-way, the commercial and industrial development is serviced by truck.

The quality of transportation offered by the project as a Combined Expressway/Rapid Transit System is superior to that which could be developed by separate facilities. The Northwest Expressway and Rapid Trans it System are both required for a balanced transportation system in the Northwest Corridor and are in conformance with the General Development Plan for the Baltimore Region prepared by the Reienai Planning Council and with the Comprehensive Plan for Baltimore County. Access ramps have been incorporated into the expressway design leading directly to specific transit parking areas in order to encourage the usage of this mode of travel and, in return, heavy transit patronage would alleviate peak-hour highway operations. Other advantages to the bi-modal transportation system as presently planned are in a letter dated May 16, 1972 from the Mass Transit Administration to the State Highway Administration in response to the coordination process. Part of this letter is quoted below to show how each mode complements the other -
"The location of rapid transit in the median has many significant advantages to the general traveling public in the Northwest Corridor:

- use of common right-of-way to reduce the total highway/transit land requirements,
- efficiency in the design and construction process,
- joint use of access arterials and interchanges to promote casy mode transfer,
- structuring of development potential with both highway and transit accessibility,
- use of transit in the highway median to protect peak-hour highway operations."

The population density in the vicinity of the project reduces in proportion to the distance from Baltimore City. In the area between Baltimore City and Owings Mills, most of the residents have individual homes built on separate lots with some apartment developments built in quiet residential areas. North of Owings Mills, a good percentage of open land remains with individual homes and apartments located along existing Reisterstown Road. Comparatively speaking, the residents are spread out with privacy, a prime concern. The entire lifestyle of these citizens has been oriented around the automobile, on which they are almost completely dependent for transportation to work, for shopping and for recreation. The Expressway and Rapid Transit were planned with interchanges and station sites at major crossroads along the route to provide convenient access for residents in the corridor. Rapid transit planning has recognized the low density in the area and
automobile dependency of prospective transit riders by providing large parking areas at the station sites for kiss-n-ride and park-n-ride patrons. It has been estimated that approximately 48,500 patrons will ultimately be using the Rapid Transit Facility by 1990. Transit patronage in the County is, to a great extent, dependent on the Expressway and feeder roads to station sites. System analyses made by the Maryland Department of Transportation show that transit patronage would not increase if the Expressway System was not built in the Baltimore Region.

## - Traffic Simulation -

In general, traffic was simulated by computer methods utilizing planning and policy information supplied by regional and local agencies. The information included socio-economic factors, land use patterns, utility expansion, highways, transit, and general operating plans and policies. The area covered by the traffic simulation study included Baltimore City, as well as Anne Arundel, Baltimore, Carroll, Howard, and Harford Counties. The assumptions and techniques, used in the traffic simulation are too complex to be fully described in this Final Environmental Statement; however; a complete, non-technical outline of the regional traffic simulation and impact analysis is available in the Baltimore Regional Environmental Impact. Study (BREIS) Technical Memorandum No. 2, "Travel Simulation and Impacts." This Study is on file at the State Highway Administration.

Traffic data originally developed for studies presented at the Public Hearing in $J 973$ and included in the Draft Environmental Statement have been superceded by the traffic volumes developed for the BREIS Study in 1974, and refined for use in the Northwest Corridor. Simulated traffic volumes for the Northwest Expressway and intersecting roads for the 1995 design year, Average Daily Traffic, are shown in the table on page C-8, and are typical of those in the computer output data.

North of the Baltimore Beltway, the proposed six-lane expressway has a capacity of 90,000 vehicles perday, assuming a Level ' $D$ ' Service, a volume which is not expected to be reached until after 1995. Levels of Service, as used throughout this Environmental Statement, aredefined on page C-8 $\frac{1}{2}$. Based on the projected traffic volumes in the 1995 design year, the proposed Northwest Expressway would operate at the following Levels of Service:

Expressway Section
Baltimore Beltway to Painters Mill Road Painters Mill Road to Reisterstown

Level of Service No. of Lanes
D
6
A

The additional vehicular and rapid transit trips made available by the project will encourage the implementation of the Sector Center at Painters Mill Road as well as other development proposed in the " 1980 Guideplan'. 'The project, designed as a modern, controlled access Express way, should divert nany trips from Reisterstown Road, and provide a needed supplement in the corridor for national defense and during emergencies resulting

Relocated U.S. Route 140
(Northyest Expressway)
Baltimore City Line To Milford Mill Road
Milford Mill Road To Baltimore Beltway Baltimore Beltway To McDonogh Road McOonogh Road To Painters Mill Road Baltimore Beltway To Painters Mill Road Painters Mill Road To Cherry Hill Road Cherry Hill Road To Relocated Md. Route 30 Cherry Hill Road To Glyndon Orive Relocated Ho. Route 30 To Glyndon Orive Glyndon Orive To Westminster Pike Glyndon Orive To Relocated Md. Route 30 Relocated Md. Route 30 To Hestminster Pike

## Relocated Maryland Route 30

Relocated U.S. Route 140 To Glyndon Orive Glyndon Drive To Hanover Pike
Relocated U.S. Route 140 To Hanover Pike
Reisterstown Road
Baltimore lity Line To blad Gourt Road
-25,000
Old Court Road To Baltimore Beltway
Baltimore Beltway To Nd. Route 130
Md. Route 130 To Painters Mill Road

Painters hill Road To Cherry Hill Road
Cherry Hill Road To Mo. Route 30
Intersecting Roads


| Alternate 2 <br> Public Hearing <br> Proposal |
| :---: |
| 27,800 |
| 29,200 |
| 85,500 |
| 77,350 |
| $*$ |
| 40,800 |
| 27,800 |
| $*$ |
| 11,600 |
| 12,775 |
| $*$ |
| $*$ |


| niecommended Alternate | "Oo-Nothin Alternat |
| :---: | :---: |
| * | * |
| * | * |
| * | * |
| * | * |
| 85,500 | * |
| 40,800 | * |
| 27,800 | * |
| * | * |
| * | * |
| 26,500 | * |
| 10,300 | * |
| * | * |
| * | * |
| 16,200 | * |


| 16,200 | $*$ |
| :---: | :---: |
| 13,725 | $*$ |
| $*$ | 16,200 |


| 35,000 | 32,000 |
| :--- | :--- |
| 42,150 | 40,000 |
| 40,000 | 53,000 |
| 30,000 | 34,000 |
| 20,000 | 34,000 |
| 30,000 | 34,000 |


| - | $+16,000$ |  |
| :---: | :---: | :---: |
| - |  |  |
| 131,100 |  | $+132,900$ |
| 144,800 |  | - |
| - | $+8,000$ |  |
| 17,350 |  |  |
| 15,000 |  |  |
| 17,350 | $+8,000$ |  |
| 15,000 |  |  |
| 13,900 | $+6,000$ |  |
| 1,900 |  |  |
| 3,389 |  |  |
| 2,400 |  |  |

Level of Service is a measure of the traffic conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy and, of course, the volume of traffic.

For interrupted flow conditions, such as major highways and arterial with traffic signals, Levels of Service are ranked from A to $F$ (best to worst) as follows:

> Level 'A': free flow, no delay at traffic signals.
> Level_'B': occasional delays at traffic signals.
> Level 'Ci: increasing volumes, moderate delays at traffic signals.
> Level 'D': lower speeds, increasing volumes, frequent delays at traffic signals.
> Level_'E': low speeds, high volumes, signal backups almost to previous signal.
> Level 'F': forced traffic flow, successive backups between signals.

For expressways and freeways with uninterrupted flow conditions, the following Levels of Service apply:

> Level_'A': free traffic flow, low volumes, high speeds.
> Leyel_'B': stable traffic flow, some speed restriations.
> Leyel_'C': stable flow, increasing traffic volumes.
> Level_'D': approaching unstable flow, heavy traffic volumes, decreasing speeds.
> Level_'E': low speeds, high traffic volumes, approaching roadway capacity, temporary delays.
> Level 'F': forced traffic flow at low speeds, low voluses and high densities, frequent delays.

$$
C-8 \frac{1}{2}
$$

romnatural causes. The recent Tropical Storm Agnes ripped through Maryland on June 22, 1972, causing death and destruction of property in a five-state area. Bridges on Reisterstown Road and the WesternMaryland Railway over Gwynns Falls in the Owings Mills area were destroyed by the subsequent flooding, resulting in the stoppage of transportation. The need for the Northwest Expressway during this disaster was obvious. Civil Defense Headquarters for the entire State of Maryland, and Headquarters for the Maryland State Police are located in Pikesville at Reisterstown and Sudbrook Roads. The project will provide a direct modern expressway connection from these headquarter agencies to the network of Interstate and Defense Highways throughout Maryland. With a diversion of traffic to the proposed expressway, the communities along Reisterstown Road would benefit by an increase in the level of service on the existing road, thereby providing safer, easier and more pleasant access to businesses, schools and churches. Traffic in 1995 would be reduced by approximately $25 \%$ from that predicted for Reisterstown Road without the Northwest Expressway. It should be noted, however, that the approaches to the Reisterstown Road-Baltimore Beltway Interchange would not operate at a satisfactory level of service until three lanes are provided for each approach roadway.

The termini of Relocated U. S. Route 140 (Northwest Expressway) consist of the Baltimore Beltway, the Westminster Pike (U. S. Route 140) northwest of Reisterstown and the Hanover Pike (Maryland Route 30) north of Reisters town. Hanover Pike is a two-lane highway, with good alignment and sight distance, and without improvement would operate at Level ' $E$ ' Service in the design year. The reconstruction of this road to a 6-lane freeway on new location is included in the critical section of the 1975-1994 Twenty-Year Highway Needs Study. Westminster Pike is a 4-lane highway, without control of access. It is capable of accommodating projected traffic at Level 'A' Service in the design year. The State Highway Administration has included the reconstruction of this highway to a 4-lane divided highway in the non-critical section of the TwentyYear Highway Needs Study. The Baltimore Beltway in the vicinity of the proposed Northwest Expressway is a 6-lane freeway with an ADT of 73, 000 in 1973 and projected traffic increases would eventually exceed its capacity. TheState Highway Administration has foreseen this possibility and has included the widening of the Baltimore Beltway to 8 lanes as part of the critical mileage in the 19751994 Twenty - Year Highway Needs Study. Assuming that the Beltway will have been widened to 8 lanes by 1995, it would be operating at a Level 'E' Service, with a predicted average ADT of 145,000 .

With the decision to terminate the project at the Beltway, traffic on the Northwest Expressway with destinations in Baltimore City would be required to turn onto the Beltway and utilize existing arterials into the City. The affects on the corridor road system and suggested proposals to minimizing these affects arediscussed on page D-33 and J-13 in this Final Statement.

An analysis of the adequacy of County highways leading to the proposed Rapid Transit stationsites and Expressway Interchanges has been included as follow's:

Traffic data for these approach roads has been developed based on the traffic predictions made for the Baltimore Region Environmental Impact Study (BREIS). Using the 1995 design year traffic data, the number of lanes required for each approach road to the proposed project has been determined as follows. Also noted is the existing road condition and the improvements proposelia part of this project or programmed for future improvement.

> Milford Mill Road_ Rapid Transit_Station_

Reisterstown Road Approach - 4 lanes required in 1995. Reisterstown Road at Slade Avenue to Expressway no existing road. A new 4 -lane road is proposed as part of this project, including an improvement to Reisterstown Road at Slade Avenue.

Liberty Road Approach - 4 lanes required in 1995. Liberty Road to Washington Avenue - Existing 4lane road - no improvements are required.

Washington Avenue to Expressway - Existing 2lane road - no improvement proposed with this project.

Old Cóourt Roaad_Rapid_TransitStation
Reisterstown Road Approach - 4 lanes required in 1995.
Reisterstown Road to Western Maryland Railway -
Existing 4-lane road. No improvements are required.

Western Maryland Railway to Station - Existing 2lane road. Left turn lanes proposed at entrance to station as part of this project.

Liberty Road Approach - 4 lanes required in 1995.
Liberty Road to Transit Station - Existing 2 and 4-lane road. No improvements proposed with this project.

## Baltimore Beltway (I-6의) - Expressway Interchange

Reisterstown and Liberty Road Approaches - 8 lanes
proposed in 1995. Existing 6 -lane freeway - no improvements proposed with this project. Widening to 8 lanes is included in the critical mileage of the MDOT 1975-1994 Twenty-Year Highway Needs Study. The Beltway would operate at Level ' $E$ ' Service in 1995 with 8 lanes.

Painters Mill_Road_=_Raid_Transit_Station
Reisterstown Road Approach - 4 lanes required in 1995.
Reisterstown Road to South Dolfield Road - Existing 4 -lane road. No improvements are required.

South Dolfield Road to Transit Station - Existing 2 -lane road will be reconstructed above the flood elevation as part of this project.

Liberty Road Approach - 4 lanes required in 1995. Liberty Road to Transit Station - Existing 2-lane road. No improvements proposed with this project. A future road is planned to connect with Brenbrook Road, which is part of the proposed county arterial road system in western Baltimore County.

## Relocated Dolfield Road_Expressway Interchange

Reisterstown Road Approach - 4 lanes required in 1995. Reisterstown Road to Expressway - No existing road. A new 4-lane divided highway is proposed as part of this project.

Liberty Road Approach - 4 lanes required in 1995. Proposed Red Run Boulevard to Expressway No existing road. A new 4 -lane divided highway is proposed as part of this project.

Liberty Road to Red Run Boulevard - No existing road. A future road is planned to connect with Pleasant Hill Road, which is part of the proposed arterial road system in western Baltimore County.

Relocated Cherry Hill Road_ Expressway Interchange
Reisterstown Road Approach - 4 lanes required in 1995.
Reisterstown Road to Expressway - Existing 2lane road. The County is planning a new 4-lane road, which could be constructed concurrently with this project.
Note: Relocated Cherry Hill Road connects to the existing 2 -lane Church Lane west of the Expressway. No arterial approach road is planned or required by 1995.

Reisterstown Road Approach - 4 lanes required in 1995. Reisterstown Road to Expressway - No existing road. A new 4-lane road is proposed as part of this project.
Note: A future extension of Relocated Glyndon Drive will connect to Nicodemus Road, west of the project.

Butler Road Extension - Interchange with Relocated Maryland Route 30

From Westminster Pike to Hanover Road - 4 lanes require in 1995. A new 4 -lane divided highway is proposed as part of this project through the interchange with Relocated Maryland Route 30.

## - Maintenance of Traffic During Construction -

Traffic on existing Reisterstown Road will not be affected by the construction of the project on new location. Vehicular and pedestrian traffic on County and State roads intersecting the project will be continuously maintained by the construction of temporary roadways, the use of existing roads to detour traffic around a construction site, and by utilizing existing roads, where a relocation is proposed. Interruptions to utility services during the construction period will be kept to a minimum by exercising care and protection for facilities not directly affected by the project, and by the construction of relocation where necessary.

## 3. Accident Statistics - Safety -

During the years of 1973 and 1974, the study section of existing USS. 140 experienced 826.20 (Rate) accidents on a 100 million vehicles miles of travel basis (Acc/l00 MVM). This experience (rate) is far above the state wide average of 536.27 accidents $/ 100 \mathrm{MVM}$ of travel for all similar design highways now under state maintenance. If no improvements are made on the subject roadway, we can expect in addition to the normal traffic growth, an increase in vehicular conflictions which are normally associated with congestion on highways of this design. The accidents will undoubtedly continue to increase with a corresponding increase in motor vehicle accident cost that exceeds the present cost of approximately $\$ 1,930,919.46 / 100 \mathrm{MVM}$ of travel for the motorist now using U.S. 140 .

According to our studics, the proposed six-lane, divided highway should experience 139.62 accidents / 100 MVM of travel which is a reduction of 686.58 accidents $/ 100 \mathrm{MVM}$ of travel. The accident cost to the motorist by construction of this alternate is estimated at $\$ 241,489.12 / 100 \mathrm{MVM}$ of travcl. This safer type highway will bring an anticipated saving of approximately $\$ 1,689,430.34 / 100 \mathrm{MVM}$ of travel for the nurorist now using U.S. Route 140.

Morc important than monctary savings to be realized by construction of the proposcd facility is the corresponding anticipated decrease in the loss of life and human misery brought about by the reduction in accidents.

The accident costs, as indicated, includes present worth of future earnings of persons killed or permanently disabled, as well as monetary losses resulting from injury and property damage accidents. The unit costs utilized in the above computations werc based on actual cost values obtained from threc indcpendent accident cost studies conducted in Washington, D. C., Illinois and the California Division of Highways, and were updated to 1973 prices.

## 4. Public Facilities and Services -

The majority of schools located in the corridor (see page A-17) are situated adjacent to existing Reisterstown Road. Other schools, located west of Reisterstown Road, are not ciosc to the recornmended alignment of the project, and no adverse impacts arc anticipated. The emphasis on continuing education in the County is cvidenced by three growing, fully-accredited community colleges in Catonsville, Essex and Dundalk. The County's "1980 Guideplan" recommends that a proposed fourth community college be located in the northwest section of the County.

Public utility services, such as watcr lines, sanitary sewers, gas lines and electrical and telephonc servicc, will not be affected by the project. Where the proposed construction is in conflict with a utility, the neces sary relocations will be made in ordcr to maintain service. Care will be exercised during the construction period to protcct other utilities that are not directly affected by the project.

Public serviccs requiring the usc of fire equipment, police protection and other emergency vehicles will be improved by the proposed project. A safer highway will be available to these cmergency vehicles, with the added bencfit of reduced travel time.

Potential for major rccreation facilitics in the area include the Soldiers Delight Statc Park located west of the project between Pleasant Hill

Road and Church Lane, which is not affected by the project, and the stream valley along the bed of Gwynns Falls from the Baltimore City Line adjacent to Leakin Park to Owing Mills. In order to preserve the natural setting through the area from the Baltimore Beltway to Painters Mill Road, the alignment has been adjusted to avoid the strearn, where practicable, and structures are proposed at all stream crossings so that it will not be necessay to relocate the natural channel of Gwynns Falls. The impact on the Gwynns Falls valley and the water quality from north of the Baltimore Beltway to Painters Mill Road is significantly minimized with the recommended alternate, which locates the Expressway on the east side of the Western Maryland Railway.

## 5. Community Cohesion -

The existing character of neighborhoods in urban and suburban areas is generally established by actions of the local government such as zoning regulations, permitted and planned land usage and available public services. In the Northwest Corridor, neighborhoods and land uses have been further defined by the natural barrier of Gwynns Falls and the manmade barrier of the Western Maryland Railway Company right-of-way and the Westminster and Baltimore Electric Transmission Line.

Between the Baltimore City Line and the Baltimore Beltway, the proposed extension of the rapid transit system passes through the edge of, or close to, the established subdivisions of Brighton, Campfield Gardens, Mellinee, Howardsville, Williamsburg, Sudbrook Park, Sots Hill and Gwynnvale, all a part of the community generally defined as Pikesville. The project does not penetrate or further divide these subdivisions, but parallele the Western Maryland Railway Company right-of-way and Gwynns Falls. All reasonable measures will be taken to lessen the harmful effects of the project on these communities. Fencing will be erected to protect the children and animals in the area. Additional safety features, resulting from the project, include the elimination of the existing public railroad grade crossing by the Relocation of Milford Mill Road, and the modernization of the existing narrow and dangerous bridge over the railroad at Sudbrook Road.

The presence of a rapid transit line adjacent to a residential area may result in an adverse visual impact on homes immediately adjacent to the transit line. The elevation of the project is approxi:mately the same as the Western Maryland Railway through the entire area, which is relatively lower than the adjacent communities to the west, and is actually in a depressed section in the vicinity of Sudbrook Park. The low elevation and properly designed landscaping should soften the visual inpact. The residential nature and stability of Pikesville should not change as a result of the project; however, improved transit service should generally increase the desirability of the neighborhoods.

North of the Baltimore Beltway, the project passes east of Old Court Estates and Belle Farm Estates, and then west of the established communities near Reisterstown Road known as Lyon Acres, Tollgate, Belltown, Cedarmere, Hathaway and Reisterstown. Right-of-way for the project occupies either undeveloped or institutional land. From the Baltimore Beltway to Painters Mill Road, the project parallels the Western Maryland Railway Company right-of-way, and north of Church Lane it parallels the Westminster and Baltimore Electric Transmission Line. Other than providing safe and more convenient transportation within Baltimore County to either Baltimore City or Western Maryland and Pennsylvania, the project should have no significant affect on the character or stability of these neighborhoods. All reasonable measures will be taken to lessen any affect of the project on these established communities.

## 6. Displacement of People, Businesses and Farms -

The following information was provided by the Maryland State Highway Administration, Bureau of Relocation Assistance for the recommended alternate.
"The area affected by the proposed NWX is generally middle to high income residential and commercial property. The remaining land use is light manufacturing, agricultural, and institutional. The communities along the proproposed alignment will not be bisected by the project, although some areas such as that in the vicinity of Cherry Hill and Nicodemus Roads will be disrupted. The community adjacent to U.S. Rte. 140 will be severely impacted by the project. Other adjacent communities, such as the business community in the Owings Mill area will be impacted by the connecting roadways. There will not be a long term effect on the economy of any of these communities, however, employment will not be disrupted as the majority of the firms displaced are expected to relocate in the area.
"There will not be any adverse impact to particular groups such as the elderly or handicapped. However, the Foxleigh Development Center will have to be relocated causing a temporary disturbance to the occupants during the relocation. Hospitals, libraries, shopping areas and other community facilities will not be impacted. A Baltimore County public parking lot on Slade Avenue will be acquired, but functional replacement will be utilized in this instance.
"Residential, commercial and industrial development should be enhanced by the project, although some existing uses in each category will be acquired, but no adverse effects are anticipated. There will not be a significant change in population density or distribution by the project, but eventually development will increase proulation in the corridor. Property values will most probably increase in the area beyond I-695, while generally remaining stable inside the Beltway.
"Approximately 132 persons in 30 families and 3 additional individuals other than families will be displaced. It is estimated that 17 of these familics are owner-occupants of single family dwellings and 13 families are tenant-occupants of individual dwelling units. These families are generally middle income, although some upper income families are included. There will be no displacement of members of a minority group and no unusual problems are anticipated with regard to elderly or handicapped individuals.
"Eighteen (18) businesses of various types will be displaced. Most of these are retail or commercial establishments and approximately 3 are expected to discontinue their operations. Threc (3) farms may have to be relocated or it is possible that they may discontinue operations. There are 2 nonprofit organizations that will be required to relocate. One is the Foxleigh Development Center mentioned above, while the other is the Baltimore County public parking lot on Slade Avenue. Functional replacement may be necessary for this parking lot.
"At the time of this study, the housing market in this part of Baltimore County remains stable with respect to our previous surveys. In August, 1975, approximately 70 homes were available, and in May of 1974, there were approximately 100 homes. The variance in these two cases is seasonal, and the housing market remains substantially the same as indicated by our August 1975 study. No rehousing difficulties are anticipated at the time displacement occurs, and no unusual impact to the neighborhoods into which the displacees are likely to go is foreseen.
"Our current study indicates that approximately 12 business properties were available for sale and/or lease in the general vicinity of the project. Our source of information is the Zelma B. Ensor Real Estate Organization, multiple list and personal observation. The availability
of farms in the NWX Corridor is nonexistent, however,
farms are available in northern Baltimore County. It is not
likely that the farms affected will continue operations in the same area.
"There are no known Federal, State or County projects anticipated that will effect the supply and demand for housing at the time displacement is likely to occur. Lead time will vary from twelve months to two years, depending upon the segment of the project.
"The persons to be relocated by the project will be treated in a timely, orderly and humane manner, as required by the "Uniform Relocation Assistance and Land Acquisition Act of 1970' (P.L. 91-646). The service will be provided by the personnel of the Office of Real Estate, District 4, Brooklandville, Maryland."

The following is a copy of the "Preliminary Relocation Study", as prepared by the Bureau of Relocation Assistance in December, 1975, and a "Summary of the Relocation Assistance Program of the State Highway Administration of Maryland".

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# "SUMMARY OF : iE RELOCATION ASSISTANCE PROGRAM OF THE STATE HIGHWAY ADMINISTRATION OF MARYLAND" 

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (P.L. 91-646) and/or the Annotated Code of Maryland, Article il, Section 12-201 thru 12-209. The Maryland Department of Transportation, State Highway Administration, Bureau of Relocation Assistance, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided for include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are $\$ 15,000$ for owner-occupants and $\$ 4,000$ for tenant-occupants. In addition, but within the above limits, certain payments may be made for increased mortgage interest costs and/or incidental expenses. In order to receive these payments, the displaced person must occupy decent, safe, and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms, and non-profit organizations. Actual moving costs for displaced residences include actual moving costs up to 50 miles or a schedule moving cost payment up to $\$ 500$.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. The owner of a displaced business is entitled to receive a payment for actual reasonable moving anu related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for $a$ replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable moving expenses are limited to a 50 mile radius. In both cases, the expenses must be supported by receipted bills. An inventory of the items to be moved must be prepared, and two estimates of the cost must be obtained. The owner may be paid an amount equal to the low bid or estimate. In some circumstances, the State may negotiate an amount not to exceed the lower of the two bids. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost
of using the business's vehicles or equipment, wages paid to persons who physically participate in the move, and the cost of the actual supervision of the move.

When personal property of a displaced business is of low value and high bulk, and the estimated cost of moving would be disproportionate in relation to the value, the State may negotiate for an amount not to exceed the difference between the cost of replacement and the amount that could be realized from the sale of the personal property.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, and personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement costs minus the net proceeds of the sale or the estimated cost of moving the item. lf the business is being discontinued or the item is not to be replaced in the re-established business, the payment will be the lesser of the difference between the depreciated value of the item in place and the net proceeds of the sale or the estimated cost of moving the item.

If no offer is received for the personal property, the owner is entitled tu receive the reasonable expenses of the sale and the estimated cost of moving the item. In this case, the business should arrange to have the personal property removed from the premises.

The owner of a displaced business may be reimbursed for the actual reasonable expenses in searching for a replacement business up to $\$ 500$. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, but such rate may not exceed $\$ 10$ per hour.

In lieu of the payments described above, the owner of a displaced business is eligible to receive a payment equal to the average annual net earnings of the business. Suck payment shall not be less than $\$ 2,500$ nor more than $\$ 10,000$. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial. enterprise having at least one other establishment in the same or similar busincss that is not being acquired, and the business contributes materially to the income of a displaced owner.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locarions to the displaced business, and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State, with approval of the Federal Highway Administration, may use another two-year period that would be more representative. Average annual net easnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, but for twelve consecutive months during the two taxable years prior to the taxable year in which it is required to relocate, the owner of the business is eligible to receive the "in lieu of" paymentol In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, actual reasonable muving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving cost payments provide that a displaced farm may be paid a minimum of $\$ 2,500$ to a maximum of $\$ 10,000$ based upon the net income of the farm, provided that the farm cannot be established in the area or cannot operate as an economic unit. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of $\$ 2,500$.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future.

In the event adequate replacement housing is not available to rehouse persons displaced by public projects or that available replacement housing is beyond their financial means, replacement "housing as a last resort" will be utilized to accomplish the rchousing. Detailed studies will be completed by the State High way Administration and approved by the Federal Highway Administration before "housing as a last resort" could be utilized. "Housing as a last resort" could be provided to displaced persons in several different ways although not limited to the following:

1. An improved property can be purchased or leased. 2. Dwelling units can be rehabilitated and purchased or leased.
2. New dwelling units can be constructed.
3. State acquired dwellings can be relocated, rehabilitated, and purchased or leased.

Any of these methods could be utilized by the State Highway Administration and such housing would be made available to displaced persons. In addition to the above procedure, individual replaccment housing payments can be increased beyond the statutory limits in order to allow a displaced person to purchase or rent a dwelling that is within his financial means.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 " requires that the State Highway Administration shall not proceed with any phase of any project which will cause the rolocation of any person, or proceed with any construction project until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe, and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.

## - 人esthetics -

The major portion of the corridor is planned for residential and commercial development along with the necesnary support systems, such as utility and power lines, streets, etc. The construction of the proposed Rapid Transit/Expressway System will result in the conversion of the right-of-way area from a natural to a man-made landscape.

From the Baltimore City Line to the Baltimore Beltway, the project passes through a suburban setting of moderate density and would be seen as a typical modern Rapid Transit Facility. North of the Baltimore Beltway to Dolfield Road, there is institutional development, some lowdensity housing, the undeveloped valley of Gwynns Falls and industry at Painters Mill Road. The project passes through undeveloped land or farming operations north of Dolfield Road, except at intersecting roads where there are some existing residences.

Where the natural landscape adjacent to the right-of-way will be converted to housing or commercial uses, the impact on the ter rain due to the proposed improvement is not significant. However, there will be adverse visual impact on the surrounding landscape where the highway or rapid transit is adjacent to an established neighborhood. Aesthetic design and appropriate landscaping would be incorporated into the project to minimizc any adverse visual impact. Earth formation and plant materials would be planned in relation to the total environment. Consideration would be given to their use for specific purposes, such as glare reduction, roadway delineation, and as visual screens where existing homes and other establishments are in close proximity. All construction areas would be seeded or sodded as required, Landscaping with bushes and trees would be compatible with the natural ecology and existing growth.

## - Multiple Use of Space -

The multiple use of space has been incorporated in this project by the proposed joint development of rapid transit and the Expressway within the same transportation corridor and right-of-way. The rapid transit tracks and station platforms are located in the median of the Expressway from the Baltimore Beltway to Owings Mills.

Adjustments to the roadway alignment and bridge modifications are proposed to accommodate the proposed stream valley park and trail system along Gwynns Falls in accordance with the recommendations of several agencics, including Baltimore County Department of Recreation and Parks and the Baltimore Regional Planning Council. Strong emphasis was placed on the value of Gwynns Falls as a potential linear park in the comments made during the State Clearinghouse review, and these comments will be reflected in the project plans.

Other multiple uses of space would consist of joint plamning and development of sections of the Gwynns Falls Interceptor, the extension of a large water main from Wabasb Avenue and other utility crossings.

## 8. General Ecnlosy and Conscrvation -

The principal natural resources of Baltimore Comnty are agriculture, timber and mineral deposits. Farm land occupies approximately 133, 000 acres or $30 \%$ of Baltimore County's total land arca. Major farm products include field crops, vegetables, fruits, livestock, poultry and dairy products. Baltimore County contains approximately 159,000 acres of commercial forest land, or $36 \%$ of the total land arca. The most common type of trees indigenous to this area are oak, pine, poplar, gum, maple, beech, hickory, ash, elm and locust. Baltimore Courty is first among the State's 22 mineral producing counties in terms of value with stone being the leading mineral produced. Principal minerals are limestone, basalt, quartzite, serpentine, sand, gravel and clay.

The construction of the proposed Northwest Expressway/Rapid Transit project would effect the natural resources of Baltimore County to the following extent:

| Wooded Areas- | Approximately 175 acres would be required for the construction of the project. |
| :---: | :---: |
| Farm Land | Approximately 215 acres of fields or pasture land would be required for the construction of the project. |

The impact on plant life resulting from the project will be temporary and relatively minor in nature. Durjng the construction phase, virtually all plant life within the proposed right-of-way will be removed including all shrubs and grasses and the majority of trees. After the construction has been completed, the areas not required for paving, shoulders and rapid transit facilities will be seeded or sodded with additional landscaping to include shrubs and trees of various types to fit in with the locale and terrain.

Wildlife in the corridor consists primarily of birds and small animals such as rabbit, opossum, raccoon and squirrel with an occasional deer in the undeveloped areas west of the project. All wildlife in the vicinity of the proposed construction will be disturbed and those within the right-of-way will have to vacate their nests, etc. and move to another area. The number of animals affected should not be significant as the alignment is located fairly close to developed areas with more than $50 \%$ of the required right-of-way located in cultivated fields or pasture lands. None of the plant or wildlife species identified in the corridor are classified as rare or endangered.

During the Regional and State Clearinghouse Reviews, a number of County, City and State agencics noted the desirability of maintaining the natural stream valley of Gwynns Falls as one of the most scenic and valuable natural resources of Baltimore County. The proposed Northwest Expressway Project is situated within the Gwynns Falls Valley, which is largely undeveloped at the present time from the vicinity of the Baltimore Beltway to Painters Mill Road.

Within this area, the major portion of the strcam valley, including Red Run and Horsehead Branch, passes through privately-owned property, and approximately 2300 feet of Gwynns Falls flows through the Mount Wilson State Hospital property, which is owned by the State of Maryland. At the present time, none of this property is owned by Baltimore County. South of the Baltimore Beltway, Baltimore County has developed two playgrounds in the vicinity of Gwynns Falls as described in Scction B of this Statement. North of Painters Mill Road, Gwynns Falls passes through a developed industrial area and is not suitable for park development; therefore, Baltimore County has planned for the continuity of the proposed stream valley park northerly along the Red Run Vallcy. Both the Red Run Stream Valley Park and Horsehead Branch Stream Valley Park have the same status and classification as the Gwynns Falls Stream Valley Park; i.e., there is no current public ownership of the land; however, all of the streams have been recommended by the County Department of Recreation and Parks and the Office of Plaming and Zoxing to be sludied as possible future stream valley parks. None of the proposed stream valley parks can be classified as "4(f) land" at this time. The two playgrounds developed and operated by BaltimoreCounty would qualify as "4(f) land"; however, the project docs not require the use of any land from either of these areas.

A Master Plan for a strcam vallcy park has been developed by the Office of Planning and Zoning for the Gwynns Falls stream from the Baltimore City Line to the Baltimorc Beltway. The plan identifies areas adjacent to the stream that have significant stands of trees; areas along the stream valley currently oricnted toward recreation such as publicly-owned land, recreation areas and drainage and utility reservations; and privatelyowned undeveloped land in the immediate vicinity of the stream vailey. The plan also identifies areas recommended for acquisition and includes a schematic plan of potential recreation uses, with the focal point on a pedestrian path system. The Gwynns Falls Stream Vallcy Park Master Plan was approved by the Baltimore County Planning Board on October 19, 1972 and by the Department of Recreation and Parks on October 11, 1972, which is responsible for programming, budgeting and acquiring the necessary land to implement the Master Plan.

The primary usage for the proposed future stream valley parks would be for recreation and conservation. Potential recreational uscs are hiking and bicycle trails, naturc study arcas, picnic areas, hors eback riding, ballfields and playgrounds. Conservation would be accomplished by the retention of open spaces in a natural setting and also provide protection for floodplains, steep slopes, forests, wetlands and yeulogical features. The linear feature of this park system would offer the greatest cxposurc of recreational opportunitics along these beautiful stream valleys to the largest scgment of the population. The pedestrian path system would provide access at an infinite number of locations along the stream. The Baltimore Area Trails Council has drawn up a plan for a 400 mile network of hiking, bicycling and horscback trails for the Baltimore City and Baltimore Countyareas, among which is an existing trail along Gwynns Falls from Leakin Park in Baltimore City to Red Run near Painters Mill Road in Baltimorc County, and a proposcd trail that has been established as feasible along Red Run.

Adversc impacts of the highway proposal on the potential recreational value of the Gwynns Falls stream vallcy and the implementation of the park proposal would be visual and acoustical in nature. Proposals to minimize these adversc impacts are the result of much correspondence and many conferences during the A-95 review and the coordination process. A number of State and County agencies, including the Maryland Department of Natural Resources, represcnted by the Water Resources Administration and the Fisheries Administration, the Baltimore County Department of Planning, Baltimore County Department of Recreation \& Parks and the Regional Jlanning Council, coordinated in the planning of the highway with the Maryland State Highway Administration in order to protect the Gwynns Falls stream valley and to minimize any cffects that might be adverse regarding future park potential and development. Planning has also been coordinated with the Baltimore Area Trails Council to make sure that none of the highway/transit proposals would interrupt the continuity of trails in this corridor.

In order to preserve the natural setting of Gwynns Falls as much as possible, and to reduce adverse noise and water pollution to a minimum, the State Highway Administration has recommended a project alignment east of the Western Maryland Railway which moves approximatcly 9000 feet of the Expressway completely away from the stream valley. In addition, the alignment of the project has been adjusted so that the Expressway grading is as much as 200 fect from the stream bed with an absolute minimum of 50 feet. Proposed structures over Gwynns Falls have been tentatively lengthened, where feasible, so that 200 fcet of undisturbed land would remain on both sides of the stream for future park development. The incorporation of the above measures will make it possible to construct the proposed Expressway through the stream valley without relocation of the natural channel of Gwynns Falls nd, at the same time, provide for future trails and recreational facilitics that may be developed. The Statellighway Administration vill coordinate all stream relocations and crossings with the Fish and Wildlife :viceduring the development of the preliminarydesign plans.

The fill necessary to place the highway above flood stage is subjeet to erosion during the construetion period, creating at least temporary water quality problems if not earefully eontrolled. Sediment and erosion control measures described on page C-36, this Volume, are applicable to the Gwynns Falls valley, as well as the remainder of the project. Exposed construction slopes will be planted with temporary ${ }^{\circ}$ permanent seeding as soon as prudent, and construction operations in the vicinity of the stream bed will be controlled to prevent destruction of the ehannel, its banks and adjoining areas. Extensive landscaping with plantings native to the area will be planned to help blend the completed project into the existing landscape and to soften the visual effect of plaeing a man-made object into natural surroundings. Because the stream is still attractive and remains as a possible park site, every effort will be made to keep siltation, erosion; floodplain eneroachment and the resulting problems to a minimum. Refer to page J-4 in this volume for a diseussion of the effects of the project on the floodplain and methods of controlling the runoff. If every precaution is observed to protect the water quality and floodplain of Gwynns Falls during the design and construction of this project, the resulting impact will be temporary in nature, and the stream should return to a balanced ecology in a short time. However, the eare taken with this project does not insure against future private eonstruction or possible discharges by industrial or residential sewerage systems.

The Maryland State Flighway Administration is fully cognizant of the value and irreplaceable beauty of these natural streams and has utilized every program and planning opportunity to minimize adverse environmental effects and to promote the implementation of the stream valley park plan.

## 9. Solid Waste Disposal and Borrow Area -

The majority of waste materials resulting from highway construetion project can generally be attributed to two items: the removal of buildings and elearing and grubbing operations. Building removal results in waste materials sueh as wood, glass, piping, plaster, metal duets, appliances, ete., and clearing operations ereate materials such as brush, trees and stumps.

The removal and disposal of these waste materials can be confined within the construction limits for large Expressway projects as proposed with the Combined Northwest Expressway/Rapid Transit Projeet. Small limbs and brush would be shredded and stockpiled for future use as muleh material. Other miscellaneous materials, including lumber, glass, piping, appliances and stumps could be deposited and buried in designated non-bearing fills, sueh as the interior of interchange ramps, when specified in the construction eontract. Where on-site areas are not available, the current construction specifieations of the State Highway Administration require the Contractor to make all necessary arrangements for obtaining suitable borrow pits and disposal areas.

In accordance with the provisions and requirements of Chapter 245 of the Acts of 1970 for the State of Maryland, it is also necessary for the Contractor to obtain permits and/or approvals from the appropriate County agency for any off-site work, which includes off-site borrow pits, waste areas, and the treatment of these during and after the completion of the project. The County agency will refer the plan for such areas to the Soil Conservation District for review and approval of the erosion and sediment control provisions. A copy of the permits and/or approvals must be furnished to the Engineer prior to starting any work covering the said permits and/or approvals. Under the provisions of the Contractor's Erosion and Sediment Control permits and/or approvals for work outside the right-of-way, temporary pollution control shall be inspected by the Commission's Project Engineer. Any deviation from or non-compliance with the provisions of the permits and/or approvals shall be reported to the appropriate agency to enforce compliance. The erosion control features installed by the Contractor shall be acceptably maintained by the Contractor for the duration of the contract.

## 10. Water Quality -

The major impact on water quality resulting from the proposed joint highway-transit facility is that of sediment deposited in streams. Sediment resulting from soil erosion is a significant problem during construction, unless proper control measures are taken, but decreases to a non-significant impact once cover becomes established. Consideration rrust also be given to storage and equipment maintenance areas during construction to prevent the potential discharge of contaminants to natural waters. Painting, salting operations and spills from transportation accidents during the operational phase may result in water pollution, unless proper precautions are taken.

The soil associations in the study area are characterized as being moderately to highly susceptible to erosion so that gross sediment yields for uncontrolled construction activities could be as high as 200 tons/acre/yr. This impact results from uncontrolled construction activities and is usually restricted to the period before reseeding and the growth of new vegetation. Long-term effects, if proper controls are not instituted during construction, include over-siltation of stream beds with subsequent aquatic growth that is stimulated by the nutrient enrichment. However, erosion control measures will be required on the project so actual yields should be quite low in virtually all instances. The currently used methods of control of both erosion and other potential pollutants would reduce the potential impact of these pollutants.

In relation to this project, the section of the corridor that extends from the Ballimore Beltway to Owings Mills offers the greatest possibility of causing significant degradation to Gwynns Falls, a valuable natural
resource. Construction will occur close to the stream in certain areas, reducing the opportunity for trapping eroded materials enroute to the stream channel. In addition, bank erosion could occur, particularly in relation to culverts and bridge crossings. Steps will be taken to avoid this situation with on-site controls. The effects of sheet erosion are dependent on such factors as rainfall intensity and duration, the extent of the exposed construetion area, seasonal influences and the proximity to natural drainage channels.

The impact of the proposed project on the remaining surface waters must be considered negligible since the streams are quite small and proper erosion control measures will be required by the State Highway Administra tion and Baltimore County during construction. Although some sediment undoubtedly will reach the streams at times, no serious impact on water quadity is anticipated.

## - Sediment and Erosion Controls -

The Maryland State Highway Administration has worked closely with the Maryland Water Resources Administration and the U. S. Department of Agriculture, Soil Conservation Service over the past several years to establish guidelines and procedures for the prevention of erosion and sedimentation, as well as material spillage into channels. The adopted standards and specifications, as stated in the "Sediment and Erosion Control Program" adopted September 3, 1970, set forth the procedures and controls over construction measures to be used on all highway contracts, in accordance with Federal Highway Administration requirements. The adopted standards and construction measures to be used are effective and have been proven surcessful on other highway projects in the State. It is intended that the surcessfully functioning highway control measures will be applied to all rapid transit construction, whether included in the project or independently impleminted.

Among the most effective measures utilized to prevent erosion during construction are -
a. The proper staging of construction activities to permanently stabilize ditches at the top of cuts and at the foot of slopes prior to excavation and formation of embankments:
b. The amount of land cleared and left barren at any time will be limited, and slopes will be seeded or sodded, or otherwise stabilized as soon as practicable;
c. The well-timed placement of sediment traps, temporary slope drains and other control measpres, etc.;
d. Sediment basins may be appropriate at certain stream crossings.

Bridges, drainage culverts, ditches, channel changes, sediment traps, level spreaders and protective linings will be carefully located and designed so as to cause minimum disruption to waterways and to reflect concern for preservation of aquatic life. The locations and details concerning drainage structures and appurtenances will be contained on the contract plans and are reviewed during the staff level technical reviews at prescribed intervals of $30 \%$ and $90 \%$ plan completion.

The State Highway Administration is required by state law to submit a sediment control plan and make application for Waterway Construction Permits from the Water Resources Administration for all stream crossings involved in the project. No work can begin on any individual contract until said permits have been obtained and detailed schedules and methods of operations known as an. "Erosion and Sediment Control Plan" have been developed by the Contractor and approved by the State Highway Administration. Also, Contractors are required, by Chapter 245 of the Acts of 1970, to obtain permits from the appropriate County agency in cooperation with the local soil conservation district for any off-site work, including borrow pits, waste areas, etc.

The State Highway Administration, the Water Resources Administration and the Federal Highway Administration exercise authority over the carrying out of these measures, both in the review of plans during design and by inspection during construction, thus assuring minimum adverse impact from erosion and sedimentation during construction. Subsequent to construction, the State has regular maintenance programs to keep the roadway, drainage systems and landscaping in proper condition. These normal and regular maintenance procedures effectively control any erosion that may occur during the operational phase of the project.

## 11. Noise Impact -

## - General Characteristics of Community Noise -

The "ambient" noise is the "background" noise that is developed by all of the natural and man-made noises within a given area. For the purposes of highway noise studies, ambient noise measurements are taken in order to establish a base for the existing noise conditions. This information provides a reference for comparison of the changes that are anticipated with the proposed highway facility. The difference in noise levels, before and after the completion of the proposed project, provides an indication of the impact of the noise within the project area.

The ambient noise measurements for this project were measured with a sound level meter and are reported in units of decibels weighted on the "A" scale (dBA). The "A" weighing scale is used because it provides a system which approximates the manner in which the human ear rates sounds. On this scale, an increase of 10 dBA is approximately equivalent to a doubling of the appoint loudness of the noise. Examples of the decibel range of common sounds are shown on page C-38 $\frac{1}{2}$, this Volume.

Both the fluctuation of the noise level and the maximum noise levels are important in assessing potential noise impact. Noise fluctuation may be described by determining those levels exceeded a certain percentage of the time. For a specified time period, the L90 (or the noise level exceeded $90 \%$ of the time) is generally considered as background. The $\mathrm{L}_{50}$ level represents the median noise levels. The $\mathrm{L}_{10}$ (or the level exceeded $10 \%$ of the time) is generally indicative of the higher noise levels occurring over the given time period. The $\mathrm{L}_{1} 0$ levels are those used as reference by the Federal Highway Administration.

Noise impacts are judged with reference to two criteria. First, noise levels projected for the planned project must not exceed the relevant federal, state or local standards or regulations. The second measure of impact recognized is the change in noise level above the existing ambient, which results from a new project. Both types of impact have been investigated for the Northwest Expressway.

## - Noise Regulations -

The standards which stipulate specific noise levels applicable to the highway are contained in the Federal Highway Administration's Feder -al-Aid Highway Program Manual, Volume 7, Chapter 7, Section 3 (FHPM 7-7-3). This document presents maximum noise levels for various types of land uses. (See page C-39 for a summary of these design noise levels.) The existing developed land uses in the areas adjacent to the planned expressway are a mixture of moderate density residential neighborhoods, institutional, and commercial sites. Because of the existing character of areas adjacent to the planned roadway, the applicable FHPM 7-7-3 land use category is "B", for which the maximum ( $\mathrm{L}_{10}$ ) exterior noise level is 70 dBA . In those cases where abutting properties are commercial or industrial, the appropriate category is " C " ( 75 dBA ).


DESIGN NOISE LEVELS AND LAND USE RELATIONSHIP

| Land Use Category | Design Noise <br> Level - $\mathrm{L}_{10}$ | Description of Land Use Category |
| :---: | :---: | :---: |
| A | $\begin{aligned} & 60 \mathrm{dBA} \\ & \text { (Exterior) } \end{aligned}$ | Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. |
| B | $\begin{aligned} & 70 \mathrm{dBA} \\ & \text { (Exterior) } \end{aligned}$ | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks. |
| C | 75 DBA <br> (Exterior) | Developed lands, properties or activities not included in categories $A$ and $B$ above. |
| D | - | For requirements on undeveloped lands, see FHPM 7-7-3. |
| E | $\begin{gathered} 55 \mathrm{dBA} \\ \text { (Interior) } \end{gathered}$ | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

If a highway causes an increase to the existing ambient noise level, even though the projected overall noise levels are within the statutory maximum levels, an intrusion or impact in residential communities, schools, parks, and other sensitive receptors will be perceived.

The change in noise level due to the new roadway would create an impact on people, which would be related to the extent of the increase. However, the degree of impact is difficult to assess, due to the highly subjective character of people's reaction to changes in noise. Empirical studies have shown that people in an urban environment can begin to distinguish changes in noise level of approximately 5 dBA . Thus, changes in noise levels less than this amount may be considered insignificant. For changes above 5 dBA , it is difficult to quantify impact extent except to state that the greater the noise level change, the greater will be the impact. An arbitrary judgement currently being used in highway noise impact analysis associates noise increases of 5-15 dB with "some impact". Noise level increases of more than 15 dB are generally considered severe.

## - Existing Noise Levels -

In order to determine the noise characteristics existing in the proposed Northwest Corridor, measurement samples of A-weighted noise levels were made at several locations on or near the route proposed for the Northwest Expressway. The measurements were conducted on July 6 and 7, 1972 and ambient levels were ascertained. A Bruel and Kjaer sound level meter with a 1 " microphone and windscreen to a Teac tape recorder was utilized. These noise levels are shown below, and represent $L_{10}$ and $L_{50}$ values. $L_{50}$ is a statistical noise level that is exceeded $50 \%$ of the time in a given time period, and $\mathrm{L}_{10}$ is the level that is exceeded $10 \%$ of the time.

Ambient noise levels at the following locations are listed below. The locations of each monitored site is also shown on Drawing No. 9.

|  | $\underline{L_{50}}$ | $\underline{L_{10}}$ |
| :--- | :--- | :--- |
| Milford Mill Rd. at Greenwood Road | 67 dBA | 72 dBA |
| Cliveden Rd. East at Cliveden Rd. West | 47 | 57 |
| Streamwood Drive at Maryknoll Road | 56 | 65 |
| Mt. Wilson Hospital, $\frac{1}{4}$ mi. south of Railroad | 40 | 47 |
| West side of Field Rd. near McDonogh Road | 40 | 47 |
| Cherry Hill Road at Nicodemus Road | 47 | 58 |
| Reisterstown Road at Seven Mile Lane | 70 | 77 |

Although Relocated Maryland Route 30 was not monitored, acoustical conditions are reasonably similar to those at the monitoring station on Nicodemus Road.

In order to assess the contribution of the proposed Northwest Expressway to existing corridor noise, the $L_{50}$ and $L_{10}$ noise levels have been predicted using 1995 traffic volumes developed for the BREIS Study. The traffic characteristics used to predict noise levels are the design hourly truck volume and the auto volume (adjusted for truck traffic) obtained from the lesser of the design hour volume or the maximum volume, which can be handled under traffic Level of Service ' $C$ ' conditions. For automobiles, Level of Service ' $C$ ' is considered to be the combination of speed and volume which creates the worst noise condition. Noise levels were established using an updated program of the highway noise prediction model in NCHRP Report 117, "Highway Noise - A Design Guide for Highway Engineers". Although this computer program has the capability to model various combinations of design options, such as pavement elevations, surface types, grades and barriers, the generalized computations on page C-42 have been limited to computing noise levels adjacent to the project based on 1995 traffic volumes only. These noise projections for various sections of the Northwest Expressway at distances of 100 feet and 500 feet from the near lane in 1995, are compared in the table on page C-42 to the $\mathrm{L}_{10}$ design noise level established for various land uses.

## - Discussion of Noise Abatement Measures -

The Federal Highway Administration FHPM 7-7-3 outlines the requirements for noise abatement in areas where predicted noise levels exceed the established guidelines. The regulation instructs highway agencies to take "measures that are prudent and feasible to assure that the location and design of highways are compatible with existing land use", with respect to noise.

The regulation goes on to list abatement measures that may be incorporated into a project and included in the project cost. These measures are:

- The acquisition of property for providing buffer zones or for the installation of noise abatement barriers or devices.
- The installation of noise barriers or devices.
- In some cases, "soundproofing" of public or nonprofit institutional structures, such as schools, churches, libraries or auditoriums.

The noise analysis indicates that large amounts of property would be required to create a buffer zone, and it is felt that the social cost of

| Northwest Expressway |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Baltimore Beltway to Reisterstown (Recommended Alternate) |  |  |  |  |  |
|  | Project | d (1995) | Project | (1995) |  |
|  | dBA | vel - | dBA | vel - | FHWA |
|  | Peak | Hour | Pca | Hour | FHPM 7-7-3 |
|  | 100 | from | 500 | rom | $\mathrm{L}_{10}$ |
|  | Nea | Lane | Nea | Lane | Design Noise |
| $\underline{\underline{\text { Highway Segment }}}$ | $\underline{L}_{10}{ }^{*}$ | $\mathrm{L}_{50 \text { * }}$ | $\mathrm{L}_{10}{ }^{*}$ | $\underline{L_{50 *}^{*}}$ | Level |
| Baltimore Beltway |  |  |  |  |  |
| McDonogh Road |  |  |  |  |  |
|  |  |  |  |  |  |
| Painters Mill Road |  |  |  |  |  |
| Painters Mill Road |  |  |  |  |  |
| Cherry Hill Road |  |  |  |  | 70 dBA |


| Cherry Hill Road <br> to |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Reisterstown | 75 | 67 | 62 | 58 | 70 dBA |
| Relocated Maryland <br> Route 30 | 71 | 62 | 58 | 53 | 70 dBA |

[^0]such a solution would far outweigh any possible benefits. The other two abatement measures would be applied along the proposed expressway whenever they are considered "prudent and feasible". Various methods of reducing noise inclaude the following.

Earth mounds and fences or walls of various types can be used as noise reducing barriers. Earth mounds would require side slopes and, therefore, more right-of-way than a wall-type barrier. Additional reductions in noise levels will result from the presence of existing buildings. A row of residences, for instance, acts as a shield for the buildings behind them. A drop of 5 dBA can be expected for each row of buildings up to a maximum of 10 dBA . Projected noise levels will generally be lower in areas where the proposed roadway is below the existing ground. The effectiveness of a cut as a shielding device against noise is proportional to the depth. Distance also serves a function in noise reduction. Strong possibility exists that is suance of revised FHPM 7-7-3 will permit consideration of various other abatement approaches.

The regulation also makes allowance for the granting of exceptions to the design noise levels where it would be impractical to apply noise abatement measures. The condition could occur where abatement measures are not feasible or effective due to the physical conditions, or where abatement measures would conflict with other important values such as aesthetic quality, ecological conditions, highway safety or air quality.

## - Abatement of Construction Noise -

Since this project is located within the Piedmont Plateau, rock excavation is likely to occur. Subsurface exploration has determined that most rock can be excavated by ripping equipment; however, there remains limited potential for additional construction noise from rock drilling machinery and blasting. Limitations on working hours will be placed on construction operations in residential areas and, where feasible, noise barriers will be built as one of the first items of construction. Noise levels during construction will be in compliance with the provisions of the Occupational Safety and Health Act of 1970. All construction noise abatement measures developed prior to construction will be adhered to.

## - Abatement of Rapid Transit Noise -

The Mass Transit Administration will design the Phase I Rapid Transit to conform to HUD Noise Assessment Guideline, August, 1971, and has retaine the firm of Wilson, Ihrig and Associates as consultants in the field of acoustics. This firm is to provide consulting engineering services for the controll of noise and vibrations on the Phase I Rapid Transit. According to Wilson, there are a number of design features which will reduce noise and vibration levels. The Mass Transit Administration will follow these recommendations which will be included in the specification of construction contracts. Design features which are being considered for the vehicles and way structures (subway, on-grade and aerial), include the following:

- Continuous welded rail and resilient rail fastenings
- Concrete or composite steel - concrete girders for aerial structures
- Sound absciption materials in tunnels and stations
- Lightweight trucks with minimized unsprung weight
- Resilient chassis mountings and wheels
- Low noise, non-skid, dynamic braking systems
- Periodic use of wheel and rail grinders to maintain the wheels and rails in a smooth condition
- Noise limits in the specifications for the vehicle propulsion systems and auxiliary equipment


## - Discussion of Detailed Noise Impacts -

An indication of the possibility of an adverse noise impact on sensitive sites adjacent to the project can be determined by noting the distance of the site from the project roadway. The table on page C-42 indicates that north of the Baltimore Beltway the predicted $L_{10}$ noise level at sensitive sites greater than $500^{\prime}$ from the near lane would be less than the design noise level required by FHPM 7-7-3, and no adverse noise impact is anticipated. The possibility of adverse noise impact exists where an existing site is located less than $500^{\prime}$ from the project. For these existing sites, a more detailed noise analysis has been computed, taking into consideration other factors such as the actual distance to the near lane, pavement elevations, surface types, grades and natural barriers, in addition to 1995 traffic volumes. Listed with each site is the predicted outside $L_{10}$ noise level, the FHWA design standard for that land use, and the ambient (existing) $L_{10}$ noise level made by on-site measurements. A comparis on of these noise levels has been made to determine if there is an adverse impact. Where a noise sensitive site is not located in the vicinity of the point where ambient noise samples were actually measured, the average existing ambient noise level for the corridor ( $L_{10}=58 \mathrm{dBA}$ ) was used for comparison, or one of the measured Llo noise levels was used, if a similarity of areas was assumed. The method suggested for the mitigation of an adverse impact, or where an exception to the noise level standards will be required, is also indicated.

The noise impact on existing developed land use and at various noise sensitive sites in the vicinity of the project, from the Baltimore Beltway to Reisterstown, are discussed below. In areas where the highway and rapid transit are combined, the highway noise is predominant. The planned Jersey barrier adjacent to the transit line would tend to minimize transit noise. Following this is a discussion of noise sensitive sites in the vicinity of rapid transit from the Baltimore City Line to the Baltimore Beltway.

Noise Sensitive Sites
Baltimore Beltway to Reisterstown
Streamwood Road (Old Court Estates)
The predicted $\mathrm{L}_{10} 0$ exterior noise level was computed at three locations at the rear of the houses east of Streamwood Road approximately $90^{\prime}$ to $220^{\prime}$ west of the Southbound Northwest Expressway.


The lowest computed exterior noise level is 72.2 dBA . This is 2.2 ABA greater than the FHWA design standard and exceeds the existing noise level by 7.2 dBA , which would indicate some noise impact. A noise barrier will be required from Old Court Road north to the Cwynns Falls between the proposed roadway and the houses east of Streamwood Road to achieve the FHWA design levels.

Brittany Apartments (East of Gwynns Falls)
The predicted noise level was computed at two locations, one at the southern and one at the northern limit of the Apartments, approximately $240^{\prime}$ and $330^{\prime}$ east of Ramp B in the Northwest Expressway - Beltway Inter change.

| 1995 Peak Hour (Predicted) | $=68.7 \mathrm{dBA} @ 240^{\prime}$ |
| :--- | :--- |
| 1995 Peak Hour (Predicted) | $=$ |
| FHWA Design Standard | $=64.7 \mathrm{dBA} @ 330^{\prime}$ |
| Existing Ambient Noise Level |  |
| (Estimated) | 70.0 dBA |
| (Este |  |

The computed exterior noise levels range from 0 dBA to 3.7 dBA greater than the existing level and from 1.3 dBA to 5.3 dBA below the FHWA design standard. A noise barrier is not justified in this area.

## Pikesville North Apartments

The predicted $\mathrm{L}_{1} 0$ exterior noise level was computed at two locations in the rear of the apartments south of the Beltway and north of Old Court Road, approximately $300^{\prime}$ and $370^{\prime}$ south of proposed Ramps B and G in the Northwest Expressway-Beltway Interchange.

| 1995 Peak Hour (Predicted) | $=$ | $65.9 \mathrm{dBA} @ 300^{\prime}$ |
| :--- | :--- | :--- |
| 1995 Peak Hour (Predicted) | $=$ | $61.4 \mathrm{dBA} @ 370^{\prime}$ |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 65.0 dBA |

Computed exterior noise levels are from 3.6 dBA below to 0.9 dBA above the existing noise level and at both locations are below the FHWA design standard. A noise barrier is not justified at this location.

## Lyon Acres (McDonogh Road)

The predicted $\mathrm{L}_{10}$ exterior noise level was computed at the rear of the houses in Lyon Acres and at the houses south of McDonogh Road. These houses range from $22^{\prime}$ to $390^{\prime}$ east of the proposed expressway.

| 1995 Peak Hour (Predicted) |  | 59.7 dBA @ 390' |
| :---: | :---: | :---: |
| 1995 Peak Hour (Predicted) |  | 67.5 dBA @ $225^{\circ}$ |
| FHWA Design Standard |  | 70.0 dBA |
| Existing Ambient Noise Level | $=$ | 47.0 dBA |

The computed exterior noise levels range from 12.7 dBA to 20.5 dBA greater than the existing noise level and 2.5 dBA to 10.3 dBA below the FHWA design standard. The significant increase in the predicted noise level over the existing noise indicates the need for consideration of a noise barrier in this area.

Gwynns Mill Court (Owings Mills Industrial Park)
The predicted $L_{1} 0$ exterior noise level was computed at the rear of the commercial building west of Gwynns Mill Court, approximately 45' south of proposed Relocated Dolfield Road.

| 1995 Peak Hour (Predicted) | $=$ | 74.9 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 75.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 58.0 dBA |

The computed exterior noise level just meets the FHWA design standard for this type of land use but is 16.9 dBA greater than the existing noise level indicating a significant noise increase. Since the one building affected by the project is commercial in nature and the only exterior activity is parking, no noise abatement measures appear justified because of the limited human use in the area.

Private Houses - North of Dolfi.eld Road and West of Ritters Lane
The predicted $\mathrm{L}_{1} 0$ exterior noise level was computed at the front of the 3 homes north and west of the Existing Dolfield Road-Ritters Lane intersection.

| 1995 Peak Hour (Predicted) | $=$ | 67.2 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  |  |
| (Esin |  |  |

The computed exterior noise level is 9.2 dBA greater than the existing level and 2.8 dBA below the FHWA design standard. With this relatively small increase in existing noise levels, a noise barrier would not be justified.

## Painters Mills Apartments - North of Dolfield Road

The predicted $\mathrm{L}_{10}$ exterior noise level was computed at the southern and northern most apartment buildings located approximately $340^{\prime}$ to $670^{\prime}$ east of Ramp A in the Northwest Expressway-Relocated Dolfield Road Interchange.

| 1995 Peak Hour (Predicted) | $=$ | $62.2 \mathrm{dBA} @ 340^{\prime}$ |
| :--- | :--- | :--- |
| 1995 Peak Hour (Predicted) | $=$ | $56.5 \mathrm{dBA} @ 670^{\prime}$ |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  |  |

The computed exterior noise levels are less than the FHWA design standard and vary from no increase to 4.2 dBA greater than the existing level. Noise barriers are not justified through this area.

Private House - North of Dolfield Road
The predicted $\mathrm{L}_{10}$ exterior noise level was computed at the house, approximately $110^{\prime}$ east of the Northwest Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 76.9 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 47.0 dBA |

The computed exterior noise level is 29.9 dBA greater than the existing level and 6.9 dBA above the FHWA design standard. This high noise impact would indicate noise barriers should be studied. However, since this is the only house in the area, an exception to the use of a noise barrier would be requested at this location, based on its very limited cost effectiveness.

Tollgate Residential Development
The predicted $L_{10}$ exterior noise level was computed at the rear of the houses at the end of Murgate Road approximately $250^{\prime}$ east of the Northwest Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 64.5 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 47.0 dBA |

The computed exterior noise level is 17.5 dBA greater than the existing and 5.5 dBA below the FHWA dosign standard. The large increase in noise levels over the existing level indicates a noise barrier may be further studied to determine its cost effectiveness.

Private House - South of Pleasant Hill Road
The predicted $L_{10}$ exterior noise level was computed at the rear of the house approximately $210^{\prime}$ west of the Northwest Expressway.

$$
\begin{array}{lll}
1995 \text { Peak Hour (Predicted) } & = & 69.0 \mathrm{dBA} \\
\text { FHWA Design Standard } & = & 70.0 \mathrm{dBA} \\
\text { Existing Ambient Noise Level } & & \\
\text { (Estimated) } & 47.0 \mathrm{dBA}
\end{array}
$$

The computed exterior noise level is 22.0 dBA greater than the existing and 1.0 dBA below the FHWA design standard. The large increase in noise levels over: the existing level indicates noise barriers should be studied. However, since this is the only house in the area, there would be minimal cost effectiveness.

The predicted $L_{10}$ exterior noise level was computed at the rear of the house west of Church Lane and approximately 100 east of the Northwest Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 77.6 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  |  |
| (Esta |  |  |

The computed exterior noise level is 19.6 dBA greater than the existing level and 7.6 dBA above the FHWA design standard. The large increase over the FHWA design standard indicates a noise barrier should be studied for this area to achieve the FHWA design noise levels.

Pikesville Sportsman's Club, Inc.
The predicted $L_{10}$ exterior noise level was computed at the front of the building approximately $135^{\prime}$ west of the Northwest Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 73.6 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 47.0 dBA |

The computed noisc level is 26.6 dBA above existing and 3.6 dBA above the standard. The large increase in existing noise levels indicates noise barriers should be studied. However, since this is the only building in the area, an exception will be requested to the FHWA design levels based on its limited cost effectiveness.

## Triplets Delight

The predicted $L_{10}$ exterior noise level was computed at the houses at the end of Delight Road approximately $120^{\prime}$ east of the Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 73.7 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  |  |
|  | 47.0 dBA |  |

The computed exterior noise level is 3.7 dBA greater than the FHWA design standard and 26.7 dBA greater than the existing levels. The large increase in noise levels indicates a noise bardier is justified and should be studied to achieve the FHWA design noise levels.

## Existing Cherry Hill Road

The predicted $\mathrm{L}_{10}$ exterior noise level was computed in front of the houses south of existing Cherry Hill Road and east of Nicodemus Road. These houses range from $150^{\prime}$ to $220^{\prime}$ southeast of Ramp C in the Northwest Expressway-Cherry Hill Interchange.

| 1995 Peak Hour (Predicted) | $=$ | $66.2 \mathrm{dBA} @ 150^{\prime}$ |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 58.0 dBA |

The computed exterior noise level is 8.2 dBA greater than the existing level and 3.8 dBA below the FHWA Design Standard. The minor increase in existing noise level indicates a barrier is not justified for this area.

## Cherry Hill Road and Tarragon Road

The predicted $\mathrm{L}_{10} 0$ exterior noise level was computed in front of the buildings north of Relocated Cherry Hill Road and west of existing Tarragon Road.
$\left.\begin{array}{lll}1995 \text { Peak Hour (Predicled) } & = & 66.1 \mathrm{dBA} \\ \text { FHWA Design Standard } & = & 70.0 \mathrm{dBA} \\ \text { Existing Ambient Noise Level }\end{array}\right)$

The computed exterior noise level is 8.1 dBA greater than the existing level and 3.9 dBA below the FHWA Design Standard. A noise barrier is not justified for the small increase in existing noise level.

Private House - North of Cockeys Mill Road
The predicted $L_{10}$ exterior noise level was computed in the rear of the house $140^{\prime}$ east of the proposed Northwest Expressway.

| 1995 Peak Hour (Predicted) | $=$ | 69.7 dBA |
| :--- | :--- | :--- |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 58.0 dBA |

The computed exterior noise level is 11.7 dBA greater than the existing level and 0.3 dBA below the FHWA design standard. The increase in existing noise level is below the FHWA design standard for this land use, and a noise barrier cannot be justified because of the limited cost effedtiveness.

## Private Houses on Westminster Pike

The predicted $L_{10}$ exterior noise levels were computed at the two houses north and south of Westminster Pike and approximately $145^{\prime}$ and $240^{\prime}$ east of the Proposed Connection to Maryland Route 30.

| 1995 Peak Hour (Predicted) | $=$ | $71.3 \mathrm{dBA} @ 145^{\prime}$ |
| :--- | :--- | :--- |
| 1995 Peak Hour (Predicted) | $=$ | $64.0 \mathrm{dBA} @ 240^{\prime}$ |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 64.0 dBA |

The computed exterior noise levels range from 0 dBA to 7.3 dBA greater than the existing level and 1.3 dBA above FHWA design standard for residential areas. Since only one house is affected by the noise increase, an exception will be requested to the FHWA design levels based on the limited cost effectiveness.

## Westminster Pike at Proposed Butler Road Extension

The predicted $L_{10}$ exterior noise levels were computed at the two houses east and west of $W^{1}$ estminster Pike, approximately $100^{\prime}$ to $150^{\prime}$ south of Proposed Butler Road Extension.

| 1995 Peak Hour (Predicted) | $=$ | $68.7 \mathrm{dBA} @ 100^{\prime}$ |
| :--- | :--- | :--- |
| 1995 Peak Hour (Predicted) | $=$ | $64.7 \mathrm{dBA} @ 150^{\prime}$ |
| FHWA Design Standard | $=$ | 70.0 dBA |
| Existing Ambient Noise Level |  |  |
| (Estimated) |  | 64.0 dBA |

The computed exterior noise levels range from 0.7 dBA to 4.7 dBA greater than the existing level and 1.3 dBA to 5.3 dBA below the FHWA design standard. A noise barrier is not justified at this location.

Further study and refinement of the noise analysis during the design phase of the project is necessary to determine precise impacts and cost effectiveness of barriers, as well as other potential abatement meas ores.

Rapid Transit Noise Levels Baltimore City Line to Baltimore Beltway

Between the Baltimore City Line and the Baltimore Beltway, the rapid transit system will be a two-track system constructed on the surface with passenger stations at Milford Mill and Old Court Roads.

Train schedules in this portion of the rapid transit system in the early years of operation are projected to be as follows:

Twenty-hour, seven-day week operation between the hours of 5:00 A. M. and 1:00 A. M.

Six car trains at four minute headways during the peak periods 6:30-8:30 A. M. and 4:30-6:30 P. M. Monday thru Friday.

Two car trains at eight to ten minute headways during non-peak periods and on weekends.

As patronage increases, the system will have the capacity to allow the operation of six car rapid transit trains at two minute headways.

The design criteria for airborne community noise from above-ground rapid transit train operations for various categories of communities is 70 dBA for quiet residential and 75 dBA for average urban residential communities.

Fxisting noise levels were measured by the State Highway Administration on January 15, 1976 at the corner of Westover Road and Greenwood Road, approximately 200 feet west of the railroad, in order to ascertain the ambient levels through the community during the passage of a Western Maryland freight train. The $\mathrm{L}_{10}$ noise levels reached 93 dBA during passage of the engine and 83 dBA for the remainder of the train.

The topography of the area between the City Line and the Beltway is such that the maximum noise level produced by a six car rapid transit train, traveling at the maximum allowable speed, will not exceed the established design criteria at any residence, assuming the use of noise abatement techniques. The duration of the maximum noise levels will be for several seconds only, with lesser noise levels being encountered as the trains approach and leave the area.

Appropriate noise abatement techniques will be employed to assure that the predicted noise levels will not exceed the design criteria.

The following noise criteria, as adopted by the MTA, was recommended by the acoustical consultant in a report entitled "Noise and Vibration Criteria and Recommendations", February, 1974.

TABLE A-2
A. Vehicle Interior Noise Levels [Empty Car]

Criterion
In open [ties and ballast] at maximum speed
68 dBA
In open [concrete tracked] at maximum speed
72 dBA
In tunnels at maximum speed
78 dBA
All auxiliaries operating, car stationary
65 dBA
One auxiliary system operating, car stationary 60 dBA

Door operation
65 dBA
B. Vehicle Vibration

Criterion
[1] Maximum vibration on all car interior surfaces, seats, stanchions and handles:

Displacement, peak to peak
0.10 in

Acceleration, zero to peak $\quad 0.01 \mathrm{~g}$ below 20 Hz Velocity, zero to peak 0.03 in/sec above 20 Hz
[2] Maximum peak-to-peak displacement anywhere on a detached traction motor resiliently supported on rubber pads .0015 in providing static deflection of at least 0.25"
C. Vehicle Exterior Noise Levels . Criterion

Car stationary, all auxiliaries operating $\quad 60 \mathrm{dBA} @ 50 \mathrm{ft}$
Car stationary, each auxiliary system operating individually
$65 \mathrm{dBA} @ 15 \mathrm{ft}$
Two car train at 70 mph on ballast and tie track

84 dBA @ 50 ft
Propulsion system, car on jacks with wheels spinning at 70 mph

87 dBA @ 15 ft
[Criteria levels must be reduced by 3 aBA if pure tones are present in the noise.]
D. Underground Stations
Criterion

80 dBA

80 dBA

80 dBA
85 ABA
85 ABA
85 ABA ..... 65 dBA ..... 65 dBA ..... 65 dBA
On Platform, trains stationary
On Platform, trains stationary
On Platform, trains stationary .....  .....  .....
On Platform or in Mezzanine Areas - with
On Platform or in Mezzanine Areas - with
On Platform or in Mezzanine Areas - with only the station ventilation system and only the station ventilation system and only the station ventilation system and other auxiliaries operating other auxiliaries operating other auxiliaries operating ..... 55 dBA ..... 55 dBA ..... 55 dBA
On Platform; trains entering and leaving
On Platform; trains entering and leaving
On Platform; trains entering and leaving
On Platform, trains passing through
On Platform, trains passing through
On Platform, trains passing through
55
55
55In Station Attendants' Booths - noise due
to ventilation system and booth equipment ..... 45 dBA
Maximum reverberation time at 500 Hz intrain room or Platform area and inMezzanine area
E. Above-Ground Stations
1.1 to 1.4 secs
Criterion
On Platform, trains entering and leaving ballast and tie trackbed 70 aBA
concrete trackbed ..... 75 dBA
On open Platform, noise from traffic onnearby streets or highways
$70 \mathrm{dBA} \mathrm{L}_{50}$
$75 \mathrm{dBA} \mathrm{L}_{10}$
On open Platform, noise from stationarysources60 dBA
Enclosed areas - ventilation system and.other sources55 dBA
Station Attendants' booths45 dBA
Maximum reverberation time at 500 Hz
in enclosed areas
F. Airborne Community Noise from Above-Ground Train operations for Various Categories of Communities

Community
Area Category

| I | Quiet Residential | 70 dBA |
| ---: | :--- | ---: |
| II | Average Urban Residential | 75 dBA |
| III | Semi-Residential/Commercial | 80 dBA |
| IV | Commercial | 85 dBA |
| V | Industrial and Highway Corridor | $85-90 \mathrm{dBA}$ |

These criteria should be applied at 50 ft from track centerline or at the setback line of the nearest buildings or occupied area, as appropriate.
G. Ground-borne Noise
[1] Various Types of Rooms or Buildings Located Near the Subway Structure

| Type of Building <br> or Room | Ground-borne Passby <br> Noise Criterion |
| :--- | :---: |
| Auditoriums and Concert Halls | 25 dBA |
| Churches and Theaters | 30 dBA |
| Music Rooms and TV Studios | 30 dBA |
| Hospital sleeping Rooms | .35 dBA |
| Courtrooms | $35 \cdot \mathrm{dBA}$ |
| Schools | 35 dBA |
| University Buildings | 35 to 40 dBA |
| Offices | 35 to 40 dBA |
| Commercial Buildings | 45 to 50 dBA |

[2] Various Types of Sleeping Areas

Area Category

Quiet Residential

II

III

Type of Building
Private Residences 25 to 30 dBA
Apartments

Private Residences 30 to 35 dBA
Apartments
Hotels

Private Residences
Apartments
Hotels

Noise Criterion

30 to 35 dBA

35 to 40 dBA
40 to 45 dBA

35 to 40 dBA
40 to 45 dBA
40 to 45 dBA
H. Transit System Ancillary Facilities

Community
Area Category
I Quiet Residential
II Average Urban Residential
III Semi-Residential/Commercial
IV
$V \quad$ Industrial and Highway Corridor

## Criteria

Transient Continuous
45 dBA
40 dBA
50 dBA
45 dBA
55 dBA
50 dBA
60 dBA
55 dBA
65 dBA
60 dBA

These criteria should be applied at 30 ft from the shaft outlet or other ancillary facility or should be applied at the setback line of the nearest building or occupied area, whichever is appropriate. Transient criteria apply to short time duration events such as train passby noise transmitted from a vent shaft opening. Continuous criteria apply noises such as fans, cooling towers or other long duration noises except electric transformer hum. The criteria for transformer noise or hum should be 5 dBA less than given in the Table.

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for Northwost Expressway in
Baltimore County, Maryland
(ERT Document P-2056, Feb. 1976), and Responses Thereto

## Agency

Maryland Burcau of Air Quality and Noise Control
U. S. Environmental Protection Agency

Datc of Letter
3/15/76
3/19/76

## 1. AIR QUALITY SUMMARY

Technical assessments have been performed for each of four alternative plans:

## Alternative 2A - Proposed Northwest Expressway ${ }^{1}$

This alternative consists of the construction of a multi-lane expressway from the Baltimore City line to Reisterstown. The freeway, consists of three traffic lanes in each direction separated by a variable width median. The facility incluces six interchanges with major arteries along its route, several viaduct sections over Gwynns Falls, and a cut-and-cover tunnel in the Sudbrook Fark Historic District

Alternative 9A and 9B - Proposed Northwest Expressway ${ }^{1}$ These two alternatives are identical to Alternative 2 A north of the Baltimore Beltway. Under Alternative 9A, the section of the proposed expressway from Milford Mill Road to the Baltimore Beltway is eliminated. Under Alternative 9B, all proposed expressway construction south of the Baltimore Beltway is eliminated.

## Alternative 4 - No Build ${ }^{1}$

This alternative consists of a lack of action altogether. In the no build alternative, existing U.S. i 40 (Reisterstown Road) is called upon to support the anticipated traffic growth in the study corridor.

To analyze pollutant concentrations in the near fleld of the roadway, several cases were chosen to be explicitly modeled, by taking into account those locations with highest traffic volumes, greatest congestion, closest proximity to sensitive receptors and poor dispersion geometry (i.e., depressed sections, building obstruction to wind flow). The following cases depicted in Figure 3 were analyzed for each alternative:
a) microscale carbon monoxide (CO) impact immediately adjacent to each main-line segment of the proposed expressway and Reisterstown Road

1
See page C $-60 \frac{1}{2}$ for relationship to Location Studies.
b) microscale CO impact associated with the interchange of the Northwest Expressway and the Baltimore Beltway and the prorosed Old Court Road Rapid Transit pariing facility
c) microscale $C O$ impact associated with the signalized Reisterstown Road/Baltimore Beltway interchange
d) microscale $C O$ impact associatec with the signalized Wabash Avenue/Paterson Avenue intersection and the Reisterstown plaza transit parking facility, at the terminus of the proposed Northwest Expressway under Alternatives 2 A and 9 A .
e) carton monoxide concentratiors within the proposed tunnel for the Northwest Expressway Alternative 2A through the Sudbrook Park Historic District
f) the emission in tons per year of $C C, H C$ and NOx for the entire mainline segment of both Reisterstown Road and the Northwest Expressway from the Baltimore City line to Reisterstown
g) microscale impact in the vicinity of the complex interchange at the north end of the project including the proposed expressway, relocated MD Route 30 , Butler Road, Westminster Fike, Hanover Pike and Glyndon Drive
h) microscale impact at the entrance to the proposed tunnel at the Sudbrook Park Historic District.

Air pollutant assessments for each alternative have been made for 1980 - the earliest anticipated date in which the proposed expressway would be fully operational, and for 1995 - the appoximate design year for the facility. In addition, 1973. was also considered as the existing case for the No-Build Alternative.

# Relationship of Alternatives Assessed in the Air Quality Analysis <br> to the 

Alternates Developed for Location Approval, as described in Section D of this Final Environmental Statement

## Alternate 2A (Air Quality Analysis)

$$
\begin{array}{lc}
\text { Baltimore City Line to Mount Wilson Lane } & 8 \\
\text { Mount Wilson Lane to Pleasant Hill Road } & \text { 2B or } 2 \mathrm{C} \\
\text { Pleasant Hill Road to Berrymans Lane } & 2 \\
\text { Berrymans Lane to Reisterstown } & 6
\end{array}
$$

Alternate

Alternate 9A (Air Quality Analysis)
Baltimore City Line to Greenwood Road
9A
Greenwood Road to Mount Wilson Lane
Mount Wilson Lane to Pleasant Hill Road
Pleasant Hill Road to Berrymans Lane
Berrymans Lane to Reisterstown Road

Alternate 9B (Air Quality Analysis)
Baltimore City Line to Greenwood Road 9
Greenwood Road to Mount Wilson Lane 7
Mount Wilson Lane to Pleasant Hill Road
2B or 2C
Pleasant Hill Road to Berrymans Lane
2
Berrymans Lane to Reisterstown Road
6

## Alternate 4 (Air Quality Analysis)

Same as Alternate 4 developed for Location Approval

$$
\text { C }-60 \frac{1}{2}
$$

The air quality impacts of the proposed Northwest Expressway and Reisterstown Road have been assessed in two ways. First, carbon monoxide ( $C O$ ) concentrations associated with the two facilities have been modeled to determine microscale impact attributable to major interchanges and roadway sections where preliminary considerations indicate worst-case potential. In addition, the emission burdens for carbon monoxide (CO), nonmethane hydrocarbons (NMHC), and nitrogen oxides ( $\mathrm{NO}_{x}$ ), associated with each alternative have been calculated for comparison purposes.

## Objectives of the Study

The specific objectives of the study were:

1) to obtain the maximum background concentrations of carbon monoxide within the study corridor which occurred in 1973, and the projections of these levels to 1980 and 1995
2) to determine, through highway diffusion modeling, CO concentrations generated by the traffic on the facilities studied
3) to calculate the emissions burden on a profect-scale for each alternative. The pollutant burden was calculated in tons per year of $\mathrm{CC}, \mathrm{HC}$, and $\mathrm{NO}_{x}$.

The air pollution levels calculated in each analysis case have been assessed in terms of consistency with the attainment and maintenance of the National Ambient Air Quality Standards. The discussions and findings cited in the following paragraphs are generalized conclusions based on a detailed technical study. The methods, tools, findings, and input materials used in this study are fully and technically documented in the Air Analysis Technical Report. This report is available at the Maryland State Highway Administration, 300 West Preston Street: Baltimore, Maryland, during normal working hours, 8:30 abm. - 4:30 pom.

For the reader interested in technical detail, these sections of the Air Analysis document are recommended. Discussions include:

- Diffusion Meteorology \& Stability Statistics
- Description of (Computer) Dispersion Models
- National Ambient Air Quality Standards
- National Vehicular Emissions Standards
- Study Afproach
- Analysis \& Projection of Background Levels of Pollutants
- 1980 \& 1995 Facility-Related Air Quality
- Ambient Air Quality Levels
- Federal Yotor Vehicle Control Program (FMVCP) and Transportation Control, Plans

The text is supplemented by a set of figures which includes sets of isopleths (contours) depicting air pollution concentrations for carbon monoxide and averaging times which have been analyzed.

## 2. ANALYSIS TECHNIQUES

## Air Quality Standards

The four alternatives have been examined in terms of compliance with the National Ambient Air Quality Standard for carbon monoxide, and compared in terms of emission burdens for carbon monoxide, non-methane hydrocarbons and nitrogen oxides. The National Ambient Air Quality Standards have been established for six pollutants. These are: total suspended particulates (MSF), sulfur dioxide $\left(\mathrm{SO}_{2}\right)$, carbon monoxide ( CO ), non-methane hydrocarbons (NMHC), nitrogen dioxide $\left(\mathrm{NO}_{2}\right)$, and oxidants.

Vehicular traffic on highways is a significant source of $C O$, NMHC, and nitrogen oxides ( $\mathrm{NO}_{x}$ ); and as a result, can be directly responsible for high ambient concentrations of $C O$, NMHC, and $\mathrm{NO}_{2}$ and indirectly responsible for high concentrations of photochemical oxidants that result from the photochemical interaction of $\mathrm{NO}_{x}$ and NMHC.

The air quality standards for these pollutants are shown in Table 1. The standards specify different exposure periods for each pollutant. Health effects studies have indicated that short-term exposure to high concentrations of $C O$ have definite effects on the humid body; hence, the $C O$ standards for one-hour and eight-hour periods were established. Conversely, long-term exposures to $\mathrm{NO}_{2}$. have been associated with adverse health effects, while short-term acute exposures have not. The standard for $N M H C$ is not based on its direct effect on health, but rather on its contribution to the formation, through photochemical reactions, of photochemical oxidants which are known to adversely affect health and chemically attack vegetation. It has been found that in some cases, smog produced during the daylight hours is related to the amount of NMHC released to the atmosphere

[^1]during the time period of 6 to 9 adm. Hence, the standard specifies a time period between 6 and $9 \mathrm{a} . \mathrm{m}$. when hydrocarbon emissions (See Table l) are most significant in the photochemical smog formation process.

TABLE 1
NATIONAL AMBIENT AIR QUALITY STANDARDS
(Protective of Human Health)


- Not to be exceeded more than once each year

The procedure used in the preliminary analysis for determining emission source strengths for freely flowing vehicles includes the following considerations:

1. An emission factor ( $\mathrm{g} / \mathrm{veh} \mathrm{mi}$ ) for each combination of pollutant, model year, and vehicle type. Vehicle types are light duty, including autos and trucks under 6,000 founds gross vehicle weight; medium duty gasoline, including gasoline vehicles between $6,0001 \mathrm{bs}$. and 10,000 lbs. gross vehicle weight; heavy duty gasoline, including gasoline vehicles larger than 10,000 pounds gross vehicle weight; and all deisel vehicles, regardless of model year.
The emission factors used to determine heavy duty vehicle and diesel emissions per vehicle mile in this study are those determined by EPA and contained in the second edition of AP -42, Compilation of Air Pollutant Emission Factors, April, 1973, as amended on August 15, 1973, and by Kircher and Armstrong (October, 1973). Light duty factors were those suggested by the Maryland Bureau of Air Quality Control in their Technical Memorandum entitled, Method for Estimating Light Duty Vehicle Emission on a Sub-Reqional Basis (July, 1974)
2. Deterioration factors for each combination of pollutant, vehicle type, and model year. These factors reflect the fact that engine emissions will increase and emission control efficiencies will decrease with the age of the vehicle. This factor varies with vehicle age.
3. The vehicle mix. This consists of a percentage breakdown of the total vehicle population, both by model year and by vehicle type.
4. Speed adjustment factors. These were applied by each pollutant, vehicle type, and traffic speed modeled.
5. TCP reduction factors. These reflect emission reductions to certain vehicle types and model years based on the implementation of the Transportation Control Plan for the Metropulitan Baltimore Intrastate Region. The specific reductions used are those contained in the Technical Support Document for the plan, EFA Region III, March 1974.

The procedure used in the revised analysis for determining freely flowing vehicle emission strengths was taken from Preliminary Edition of Supplement 5 to Compilation of Air Pollutant Emission Fictors (AP-42), which supercedes all previous EPA emission information for motor vehicles. It includes the following considerations:

1. An emission factor ( $\mathrm{g} / \mathrm{veh}-\mathrm{mile}$ ) for each pollutant is used for each model year and for each vehicle type. Vehicle types are:
a. light-duty gasoline vehicles (passenger cars)
b. light-duty gasoline trucks (trucks with gross vehicle weight (GVW) less than or equal to 8,500 pounds)
c. light-duty diesel vehicles (diesel passenger cars)
d. heavy-duty gasoline vehicles (gasoline venicles with GVW greater than 8,500 pounds)
e. heavy-duty diesel vehicles (diesel vehicles with GVW greater than 6,000 pounds)
f. motorcycli-s.

Emission factors vere obtained from emission tables given in AF-42, Supplement Number 5. A single emission factor (with the exception of $\mathrm{NO}_{\mathrm{x}}$ ) is used for all heavy duty diesel vehicles, regardless of model year.
2. Deterioration factors are included for each pollutant for each vehicle type and for each model year. These factors reflect the fact that engine emissions will increase ers emission control efficiencies will decrease with the age of the vehicle.
3. A vehicle mix (a percentage breakdown of the total vehicle population, both by model year and vehicle type) that is characteristic of the region under study is needed. The vehicle type breakdown was taken from the previous analysis. The model year distribution was taken from the previous analysis for light-duty, gas vehicles, and from the national averages presented in AP-42 Supplement 5 for all other vehicle types.
4. Speed correction factors, when applicable, are considered for each pollutant and vehicle type. For $C O$ and $H C$, this adjustment factor varies inversely with speed, whereas for nitrogen oxides it varies directly with speed.
5. Proportional vehicle use by model year and vehicle type - This data is used to weight the population percentages in order to accurately represent typically occurring vehicle mixes.
6. Temperature correction factors by model year and vehicle type - These factors reflect the effect of ambient temperatire on vehicular emissions. In general, a lower temperatore $\left(20^{\circ} \mathrm{F}\right.$ minimum) results in higher pollutant emissions.
7. Hot/cold vehicle operating mode correction factors by model year and vehicle type- The factors reflect the effect of vehicle operating mode on emissions. Three modes are considered;
a) hot stabilized
b) cold start (first 505 seconds of while operation following a four-hour engine off period)
c) hot start (first 505 seconds of vehicle operation following, a one-hour engine off period)
8. Effect of the Baltimore Intrastate Transportation Control Plan - Although this was considered in the preliminary analysis, it was eliminated from consideration in the revised analysis since the United States Court of Appeals has since rescinded (September 9, 1975) a number of the promulgated regulations including inspection/maintenance and retrofit programs which specifically affect exhaust emissions.

3. BACKGROUND AIR QUALITY

The aggregate of sources other than the roadway under consideration contribute $\ddagger 0$ air pollution in its immediate environ. The concentrations due to these sources are commonly referred to as "background" and must be added to the model calculations of facility-related air quality in order to accurately assess the total ambient air quality levels within the project area.

Based on recommendations of the Maryland Bureau of Air Quality and Noise Control (MBAQNC) and the Environmental Protection. Agency, two monitoring stations within the project corridor were chosen as sources, for the base year (1973) data. The Baltimore City Monitor at Calvert and 22 nd Street was chosen by MBAQNC as representative of the portion of the study area inside the Beltway. The data from the Garrison station was corrected in order to delete the localized contribution of Reisterstown Road which is approximately 100 meters from the monitor. These results were then assumed to be representative of a portion of the study area outside the Beltway. The 1973 one-hour and eight-hour maximum levels at these stations were taken from the MBAQNC 1973 Yearly Data Report, and projected to the years 1980 and 1935.

By summing the highway facility related dispersion model calculations with the appropriate background values, total air pollutant concent: : Lions are obtained. The significance of these total values determines the air quality impact of the build versus the no-build alternatives.

The three build alternatives introduce an additional traffic corridor from Baltimore to Reisterstown in the form of a multilane expressway. Each alternative parallels the existing Reisterstown Road which runs approximately one-half to one mile north of the proposed expressway.

Microscale Carbon Monoxide Impact

Carbon monoxide concentrations were modeled at each of several locations along both roadways. The cases were selected to represent those areas which present potential problem areas for carbon monoxide, such as areas of sensitive receptors, interchanges, signalized intersections, highest volumes and lowest speeds, and depressed tunnel sections. The selected cases on Reisterstown Road were modeled for 1973 (base year), 1980, and 1995. The proposed Northwest Expressway was modeled for 1980 and 1995. Feak-hour and eight-hour averages of $C O$ were calculated assuming adverse meteorology with peak traffic.

Of the cases modeled, five presented potential air quality impacts:

## 1) Wabash Avenue/Patterson Avenue Intersection

Under Build Alternatives $2 A$ and $9 A$ only, this intersection will service traffic to and from the south terminus of the proposed expressway. In addition, the proposed Reisterstown Plaza rapid transit parking facility will be located in the south quadrant of this intersection. The heavy traffic volumes and resulting congestion at this intersection can be expected to produce eight-hour averages of carbon monoxide (CO) concentrations in excess of the $10 \mathrm{mg} / \mathrm{m}^{3}$ National Ambient Air Quality Standard,
when added to the maximum background concentrations of $C C$. No adverse CO impact is expected under either the No-Build Alternative or Alternative 9B.

In the worst case situation, with peak eight-hour traffic volumes ( $10 \mathrm{AM}-3 \mathrm{PM}$ ), during the most adv ese meteorology (which is possible 32 hours per year between 10 AM and 3 PM ) the eight-hour standard could be exceeded in the following adjacent areas for the respective build alternatives:

Alternative 9A, 1980

The standard could be exceeded in the area immediately adjacent to the north corner of the intersection out to approximately 100 feet as shown in Figure 1.

Alternative 9A, 1995

The same area is affected as in 1980. However, the extent of the impact is reduced as shown in Figure 2.

Alternative 2A, 1980

Under this alternative the affected areas are in the north, east and west corners of the interchange as shown in Figure 3.

Alternative 2A, 1995

Only the north corner of the intersection is affected as shown in Figure 4.
2) Reisterstown Road/Baltimore Beltway Interchange

This interchange services traffic on Reisterstown Road and the Baltimore Beltway. The mainline movements on Reisterstown Road and the ramps onto and off of the beltway are signalized. For both the No-Build Alternative and Build Alternatives 9 A and 93, this interchange serves as a necessary point of traverse for through traffic from Baltimore City to Reisterstown in the
northwest corridor. The queueing caused by the signals limits the number of vehicles passing through the interchange which could contribute to the $C C$ concentrations in the immediate area. However, the contributions from idling vehicles in some cases are significant enough to produce $C O$ concentrations in excess of the eight-hour standard, when added to the maximum background $C O$. No adverse impact is expected under Alternative 2 A . In the worst-case situation the following areas are affected for the respective alternatives:

No -Build Alternative, 1980

The eight-hour National Ambient Air Quality Standard of $10 \mathrm{mg} / \mathrm{m}^{3}$ could be exceeded in the areas immediately adjacent to the roadways, extending out to approximately 300 feet as shown in Figure 5.

Build Alternatives $9 A$ and 93,1980

The eight-hour standard could be exceeded in approximately the same areas as those corresponding to the No-3uild Alternative, but to a slightly lesser extent as shown in Figure 6.

Build Alternatives 9A and 93,1995

The affected area in this case is small as shown in Figure 7.
3) Northwest Expressway/Baltimore Beltway Interchange

Under Alternative 2A only, the impact of peak eight-hour emissions from traffic on the interchange and in the clad Court Station parking area combined with adverse meteorology, could. in 198., product $C O$ concentrations in excess of the $10 \mathrm{mg} / \mathrm{m}^{3}$ standard when added to maximum eight-hour background CO. The affected area is adjacent to the proposed parking area as shown in Figure 8. No adverse impact is expected under either Alternatives 9A, 9B, or No-Bujid.
4) Reisterstown Road from the Baltimore City Line to Cld Court Road

This section of Resiterstown Road is bordered on both sides by residential and business dwellings whici. form significant obstructions to the wind flow over the roadway. This factor reduces the dilution effect of the wind, causing slight build-up of poilutant concentrations upwind of the buildings.

Under the No-auild klternative only, traffic volumes in 1980 are high enough to produce $C O$ concentrations in excess of the $10 \mathrm{mg} / \mathrm{m}^{3}$ standard during the peak eight-hour period with adverse meteorology, when added to the maximum eight-hour background CC. The affected area, extends approximately 12 meters horizontally from the edge of the roadway and two meters vertically, as shown in Figure 9. None of the build alternatives adversely affectsthis section.
5) Concentrations of carbon monoxide within the proposed tunnel (Alternative 2A) will be controlled through ventilation in ordor to meet the Fhinis standard of 125 ppm , with the exposure time of users being limited to 60 minutes. Preliminary considerations, employing the new emission factors, indicate that under worst case conditions, with the tunnel filled with icling vehicles, a minimum of $204,000 \mathrm{CFM}$ of fresh air would be required to sufficiently ventilate the tunnel.

### 4.2 En:issions Burden Comparison

As a means of comparing the alternatives, emission burdens in tons/year of carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides ( $N C_{x}$ ) were caiculated on a project scale for each alternative. The no-build alternative considers the emissions attributable to Ruisterstown Road in 1980 and 1995 without construction of the Northwest Expressway. The build alturnatives consider emissions burdens in 1980 and 1995 for both Reisterstown Road and the Northwest Expressway. Table 2 summarizes the reaults of the analysis. The emissions burdens are graphicaily displayed in Figure 10.


Based on the results shown in the table, the following comparisons can be made. In 1980, the $C O$ burden for the three build alternatives is lower than that for the no-build alternative. In all other cases, the pollutant burdens for the build alternatives are higher than the no-build.

As can be seen in Figure 10 , the $C O$ burden in tons per year for each alternative is relatively close. Since these burdens only represent emissions from the two roadways, a comparison of the regional burdens due to each alternative would be very sensitive to their concurrent affect on vehicular travel for other arterials in the study corridor.

As precursors of photochemical smog, the relative regional burdens of $\mathrm{NO}_{x}$ and $H C$ are significant. These burdens are nearly the same for each of the build alternatives, which show significant increases over the No-3uild Alternative. In 1980, this increase is approximately 24 percent for hydrocarbons (HC) and 56 percent for oxides of nitrogen ( $\mathrm{NO}_{\mathrm{x}}$ ). In 1995, it becomes 60 percent for FC and 120 percent for $\mathrm{NO}_{x}$. All of the alternatives show a decrease in project-related burdens of $\mathrm{NO}_{x}$ and HC from 1980 to 1995.




WABASH-PATTERSON INTERSECTION (ALTERNATIVE RA)
1980 ADVERSE 8-HR. CO IMPACT


WABASH-PATTERSON INTERSECTION (ALTERNATIVE RA)
,


REISTERSTOWN ROAD - BALTIMORE BELTWAY INTERCHANGE (ALTERNATIVE 9A \& 9B) 1980 ADVERSE 8-HR. CO IMPACT


REI STERSTOWN ROAD - BALTIMORE BELTWAY INTERCHANGE (ALTERNATIVE 9A\& 9B)


NORTHWEST EXPRESSWAY - BALTIMORE BELTWAY iNTERCHANGE (ALTERNATIVE 2A)

$$
1980 \text { ADVERSE } 8 \text { HR. CO IMPACT }
$$

1 1

Horizorital Distance (m)


Reisterstown Road: Baltimore City Line to Old Court Road 1980: Area of Total CO in Excess of 8-Hour Standard


Enission Burden (Tons/Year) Alternatives No-Build (NB), 2A, 9A,9B

The analysis results presented in the preceding sections are based on currently promulgated regulations concerning vehicular emissions. This presently involves only the Federal Motor Vehicle Control Program (FMVCP), which requires final emission standards to be achieved in 1978. The recently rescinded Transportation Control Plat. (TCP) for the Baltimore region was not considered in the analysis.

Conclusions Based on Non-implementation of the Baltimore TC

As a result of the detailed air quality assessments, it is reasonable to derive the following general conclusions with respect to the project.

1) Localized $C O$ concentrations created by the Wabash Avenue/Patterson Avenue intersection and the adjacent Reisterstown Plaza Rapid Transit Station parking facility will exceed the National Ambient fir Quality Standard for eight-hour averages of $C O$. This will only occur under Build Alternatives 2 A and 9 A . The area of adverse effect upon sensitive receptors will extend a maximum of approximately 100 feet from the intersection.
2) Localized $C O$ concentrations created by the Reisterstown Road/Baltimore Beitway interchange will exceed the eight-hour standard under Build Alternatives 9A, 9B, and the No-Suild Alternative. The extent of the areas affected in 1980 is greatest with the No-Build Alternative. In 1995, only Alternatives 9 A and 9 B exceed the standard, and only in a minute area.
3) Localized $C O$ concentrations created by the Northwest Expressway/Baltimore Beltway interchange and Old Court Station parking area, under Alternative 2A, will exceed the eight-hour standard in 1980 within a small area surrounding the parking area. Concentrations will decrease to below the standards by 1995.
4) Localized $C O$ concentrations created by Reisterstown Road between the Baltimore City line and Old Court Road, under the No-īuild Alternative only, will exceed the eight-hour standard within approximately 40 feet of the roadway in 1980. Concentrations will fall below the standard by 1995.
5) The construction of the Northwest Expressway serves to lessen the impact in the vicinity of Reisterstown Road by accommodating traffic that would otherwise lead to breakdown conditions (volume exceeding capacity) on Reisterstown Road. This situation would yield higher vehicle emissions in sensitive areas.
6) The construction of the Northwest Expressway under each alternative burdens its immediate corridor with pollutant
emissions which are not offset by the corresponding decrease in pollutant burden in the Reisterstown Road
Corridor. It has not been determined whether or not any reduction of pollutant burden on other arterial in the Northwest Corridor is achieved with the construction of the Northwest Expressway.

In terms of the air quality impact, Alternative 93 should be considered the most favorable if the following two qualifications can be met:

1) The design of mitigation measures to alleviate the adverse microscale CO impact in the vicinity of the Reisterstown Road/Baltimore Beltway Interchange. The most stringent
measures would be required in the earliest years since it has been shown that facility-related CC concentrations will decrease by 1995.
2) The demonstration that this alternative reduces the pollutant burden from other arterials within the Northwest Corridor enough to compensate for the increase in the project-related burdens.

Effect of the Baltimore TCP

The potential recuctions in vehicular exhaust emissions contained in the proposed $T C P$ would serve to decrease the predicted air quality levels presented in this analysis.

A significant reduction of approximately 37 percent in 1980 and 23 percent in 1995 is possible sholild proposed controls remain in effect to those years. These reductions are based on calculations performed using outdated emission factors and are subject to further review. However, in the context within which they are presented, these ieductions wouid effectively negate any future contravention of the standards presented in this analysis.

In summary, based on currently promulgated regulations, each alternative, including No-Build, results in violations of the ambient air quality standards for Carbon Monoxide. Considering the relative impact of the four alternatives, Alternative $9 B$ poses the least extent of adverse $C O$ impact, this being limited to the Reisterstown Road/Baltimore Beliway Interchange.

## 6. VMT REDUCTICN MEASURES FROFOSED IN

RELATICN TO THE OPERATION OF THE
NORTHWEST EXPRESSWAY

Sound transportation planning requires that full consideration be given to measures which will encourage the use of multioccupancy vehicles further reducing congestion and vehicle miles traveled (VMT). The Maryland State Highway and Mass Transit Administrations propose the following VMT reduction measures. Further study will be required to determine the degree of implementation of these measures.

The proposed expressway will be built along with a rapid rail system connecting the Northwest Corridor with center city Baltimore. The rapid transit line by itself, without the expressway, would not satisfy the transportation needs of the corridor.

The Northwest Expressway between the Beltway and Reisterstown is an essential ingredient in making the rapid transit line a workable element in providing a comprehensive and balanced transportation system for the Northwest Corridor of Baltimore County. The expressway will complement rather than compete with the rapid transit facility. Hence, building only the rapid transit line and deleting the highway not only would not solve the transportation prowlems in this area, but also would render the rapid transit line less functional. The reasons are as follows:

1. The rapid transit line will serve trips which are radial in nature, and provide superior transportation between communities in the Northwest Corridor and points in Baltimore City, principally Metro Center. These trips cannot be made as effectively by automobile driving on the Northwest Expressway.
2. By contrast, the Northwest Expressway will serve trifs principally circumferential in nature with the Beltway serving as the main distributor. Whe trips utilizing the Northwest Expressway represent vehicle trips taken off existing U.S. Route 140 , serving to roduce congestion on this route. These trips would not be made by rapid transit, because this facility will not adequately provide service to these diverse areas.
3. The Northwest Expressway will provide direct access to the Owings Mills transit terminal by way of special access ramps. This is an extremely important element of the joint project, since the terminal station will have parking facilities for 3,800 cars and will be one of the most important stations on the entire rapid transit system. Without the expressway, primary access to the station would have to be via existing Reisterstown Road and Painters Mill Road, both of which would have inadequate capacity during peak hours to handle such a large volume of traffic. This could seriously jeopardize potential use of the rapid transit line.

The proposed rapid rail transit line, in itself, is the single most significant contribution to $u$ vMr leduction in the corridor. Traffic projections inciicate a total demand of 105,620 vehicles per day in the corridor. It is estimated that by the year 1990, use of the rapid rail line will result in a ridership which would reduce average daily traffic volumes by $12,120^{1}$ vehicles. This represents a daily VMT reduction of $227,880^{2}$ miles per day. This reduction in VMT is based upon the Northwest Expressway being cunstructed From the Baltimore City line to Reistertown. Elimination of the segment of the expressway between the Baltimore City line and the Baltimore Beltway (Interstate 695) would divert an additional 400-600 vehicles per day to transit use which translates to a further VMT reduction of $4,500-8,000$ miles per day or a total VMT reduction of $232,380-234,680$ vehicle miles per day.

[^2]Patronage of the rapid transit facility represents a reduction of conventional vehicular traffic along the Northwest Corridor of the region and into the central business district of Baltimore City.

## FEEDER BUS SYSTEM

An extensive feeder bus system is being developed for implementation by the Mass Transit Administration to serve the rapid rail line and act as an incentive to further transit use. The success of the Rapid Transit will depend on the effectiveness of the various modal passenger delivery systems. The attractiveness of the Rapid Transit will in large part be affected by the attractiveness of the modal delivery systems themselves.

One of the delivery modes will be the feeder bus. It will be considered as a sub-system whose function will be defined as a part of the general system. Furthermore, the feeder system will be designed to maximize the objectives of the Rapid Transit System.

While the feeder bus system is primarily concerned with providing a local means of access to the Phase I Rapid Transit from suburban communities and urban communities, equally important will be the impact that the Phase I Rapid Transit will have on the remainder of the bus transit service network. The displacement of the bus transit network in the northwest corridor ky the rapid transit will be evaluated closely in order to assure that local mobility, especially in the radial direction, is maintained along U.S. Route 140. In addition, the attenuating effect that the rapid transit will have on the existing crosstown bus network and the remainder of the transit network will be examined. Obviously, the crosstown bus network will be realigned in the vicinity of the rapid transit line to also act as a fecder. This will require the crosstown lines in the northwest corridor to act as combination feeder/crosstown lines depending on the proximity of the area to the rapid transit alignment.

Preliminary studies identified the general area where feeder bus service will most likely be provided. The attached map delineates these areas. In the Northwest Corridor, this may mean establishment of new routes as well as short turning of existing line sill routes. The importance of the feeder bus network to the success of rapid transit will be the subject of an in-depth study. The design of the feeder bus network and operational success of that network will depend not only on proper design and scheduling network but also on proper administrative, logistic and operational support facilities. This future study, conducted under the Baltimore Region Unified Transportation Planning Program, will address all problems in a manner patterned to ascertain appropriate capital and operational requirements. (See Figure 11.)

## EXPRESS BUS SYSTEM

The feasibility of establishing an express bus network to serve employment centers along the Baltimore Beltway (I-695) will be studied. Traffic studies indicate that of the total vehicular volume traveling south on the ivortnwest Expressway, one-third desires to continue into Baltimore City, one-third east on Interstate 695 and one-third west on Interstate 695. An express bus terminal facility could be established in conjunction with the Owing Mills Transit Terminal, providing parking for bus patrons. The feeder bus network could serve the express bus terminal as well as the rapid transit terminal.

An express bus system would not be in competition with the rapid rail line, as it would be designed to serve circumferential trips along; the Baltimore Beltway (Interstate 695) not accommodated by the rapid rail system. It is estimated that by 1990 this type system could reduce VMT by $4,500-8,000^{3}$ miles per day.


Carpooling will be encouraged in several ways. Park and Ride facilities similar to the one under construction at Interstate 695 and Erovidence Road (see Figure l2), can be established in the corridor to . .erve both Reisterstown Road (U.S. Route 140) and Liberty Road (Maryland Route 26). Such facilities could serve both carpool and express bus users. The potential for development of Fark and Kide exists at several existing retail shopping centers within the corridor, with large parking areas normally subject to minor use duririg the daytime hours. Potential development of this type of facility in the vicinity of the Northwest Expressway's norther terminus also will be studied, as will a separate similar facility at the southern terminus of the Northwest Expressway just south of the interchange with Interstate 695. This would be considered as a separate project since it has not been presented previously and would have to respond to environmental impact analysis not presented as a part of the Northwest Expressway.

Further encouragement to use multi-occupancy vehicles will be accomplishod by providing preferential treatmont to buscs and carpoolers using the Northwest Expressway. Entrance ramps to the expressway would be structured to allow these vehicles to have the first priority of entry to the facility (see Figure 13). The concept of exclusive lanes for multi-occupancy vehicles on the expressway has been considered and rejected. However, since the expressway will end at the Beltway, a feasibly insurmountable problem in continuing these exclusive bus lanes along the Beltway would develop.

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In order 10 stimulate a reduction in the volume of automobile traffic in the Northwest Corridor, inducements toward transit ridership in the Northwest Corridor should be maximized. Therefcre, serious consideration will be given to provide preferential parking for carpools at the Cwings Mills terminal. This concept would be developed in the form of a special parking area designated for carpools. This area would be located adjacent to the bus loading area of the transit station and be free of parking charges. Frovision of such preferential farking space and means to enforce its exclusive nature will require a special study, which will be conducted by the Nass Transit Administrotion.

Such a concept could permit suburbanites to eliminate the need for a second car, provide free access to the transit station by eliminating parking charges, and place the transit patron within close proximity to the transit station entrance.

An additional measure that will be considered involves the Interstate 695/Reisterstown Road interchange. This area experiences carbon monoxide concentrations which exceed the 8-hour National Ambient Air Cuality Standard. Construction of the Northwest Expressway will result in a marked improvement over the no-build alternate impact. In the event that a problem situation exists after completion of the Northwest Expressway, consiceration will be given to the closing of certain ramp movements ciuring critical hours, an effort to reduce congestion caused by cross traffic movements and increase the vehicular speeds on Reisterstown Road through the interchange. An increase in speed would decrease car'on monoxide emissions and benefit the situation. Alternate routes for those vehicles denied use of the ramps would be available ucon completion of the Northwest Expressway. The ramp movements involved are the movement from eastbound I-695 to northbound Reisterstown Road and from southbound Reisterstown Road to eastbound I-695 (see.Figure 14).


The entire VMT reduction package will be promoted through an extensive public relations program. This is essential if the public is to be made aware of the existence of the various measures designed to encourage use of multi-occupancy vehciles.

CONSISTENCY CF VAT REDUCTION PROPOSAL WITH PCP
The consistency of the Northwest Transportation Corridor Project with the Maryland State Implementation Plan and the Transportation Control plan for the Baltimore Interstate AQCR (TCP) must be evaluated in order to ascertain if any aspects of the project are contradictory to the objectives of those plans. While the recent decision of the United States Court of Appeals for the fourth District has rescinded a number of the TCP regulations including retrofit, inspection/maintenance, and bikeway, it is reasonable to assume that measures will be enacted in the near future to replace a portion of these rescinded. It is also reasonable to assume that a major part of any new plan will be the reduction of VNT in the Baltimore Metropolitan area. with these assumptions in mind, two aspects of the proposed facility were studied; the VNT reduction measures which are inherent in the proposed project and the identification of any characteristics of the project which may prevent the application of any TCP measure whitish may be implemented in the future.

The Northwest Corridor project is unique in that a number of VMT reduction measures are an integral part of the project. The most significant of these measures is the rapid-rail line which will extend into the Baltimore CBD. It is estimated that approximately 227,000 vehicle miles traveled per day in 1990 will be eliminated by the rapid-rail line 4 .

Also, as the highway portion of the project (Northwest Expressway) will not extend into the CBD, the total corridor project will tend to encourage trips with CBD destinations to utilize the rapid rail system rather than increase VMT in the downtown area by the increased use of private automobiles.

[^3]Supplemental VMT reduction measures have been proposed for use in the corridor to complement the effect of the rapid rail system. These measures include preferential treatment of hiqh-occupancy vehicles, park and ride jots to serve carpools, buses and rail transit, a feeder bus system io serve the rapid rail terminals and an express bus system which will serve circumferential (I-695) trips which originate in the Northwest Corridor.

In conclusion, since significant VMT reduction will occur in the corridor as a result of the rapid rail system in conjunction with additional VMT measures which have been proposed, it is felt that the subject project is indeed consistent with the objectives of Transportation Control Plan. Furthermore, there is no intent to preclude the application of otiner VMT reduction measures which might be promulgated in the future.

## $-$



DEPARTMENT OF HEALTH AND MENTAL HYGIENE ENVIRONMENTAL HEALTH ADMINISTRATION<br>201 WEST PRESTON STREET<br>BALTIMORE 21201<br>DONALD H. NOREN<br>PHONE. 301.383. 2779

NEIL SOLOMON, MD.. PHD.
SECRETARY

March 15, 1976

Mr. Robert J. Hajzyk, Director

- Office of Planning and Preliminary Engineering Maryland Department of Transportation State Highway Administration


## - P.O. Box 717

300. West Preston Street

Baltimore, Maryland 21203
Dear Mr. Hajzyk:
FE: Air Quality Analysis for Northwest
Expressway - Baltimore City Line
to U.S. 140

The Bureau of Air Quality and Noise Control has completed its review of the Air Quality Analysis for the Northwest Expressway and we have the following comments.

This revised analysis is exceptionally thorough with respect to documenttion of the input data, methodology and results. The projections of traffic volumes and speeds have been recalculated to make them more realistic and several versions of the highway are now being considered but it is basically the same project which has been contemplated for over 20 years.

The analysis indicates that the 8 -hour ambient air quality standard for carbon monoxide will be exceeded at a number of locations in the corridor including the Wabash Avenue - patterson Avenue intersection and the interchanges of I-695 with Reisterstown Road and the Northwest Expressway. The reason for these high levels is the extremely large volume of traffic and low average speed at the intersections. The construction of the expressway does not alleviate this condition to any great extent and actually creates more problem areas along its right-of-way.

The expressway cannot even be expected to solve the traffic problems of the corridor. In order for the traffic volumes east and west of the Northwest Expressway on $1-695$ to be reasonable, the consultant had to assume the addition of one more lane in each direction. These lanes are not currently funded and the State does not poses the necessary right-of-way. Even before it is built, the Northwest Expressway is necessitating more highway construction. There is also a high

Page 2
Mr. Robert J. Hajzyk
likelihood that existing Reisterstown Road will be widened whether or not the Expressway is built. By the State Highway Administration's own estimates (which are usually conservative) the transportation problem will continue to worsen. The Northwest Expressway will reach capacity and then, what will be done? Will the answer be yet another highway?

Baltimore has a severe photochemical oxidant problem. In response to this problem, the EPA promulgated a Transportation Control Plan which was aimed at reducing motor vehicle pollutant emissions. Although several of the specific measures of the plan were invalidated by the Courts, the basic premise still applies--vehicle miles travelled in the region must be reduced. The consultant addresses this issue on page 51 of the report. He points to the plans for rapid transit and the proposed VIT reduction measures to demonstrate consistency with the plan. These attempts to incorporate transit are commendable but the existence of the high speed highway facility in the corridor will probably counteract the transit incentives. Although it is insisted that the transit and the highway will serve different nceds, I still believe they will be competing. The express buses will not have exclusive lanes on the expressway and will experience the same delays as cars. The only advantage which is proposed is a priority lane system on the approach ramps to I-695. The buses will then merge with traffic on I-695 where, again, exclusive lanes will not be provided. The time saving attributable to the priority ramp lane will most likely not shorten the trip enough to be very effective in motivating people to change modes.

A stronger case can be made for the non-compctiveness of the Northwest Expressway and the rapid transit. The rapid rail is designed to carry CBD-oriented trips while the expressway (especially if it is not constructed south of the Beltway) will serve those with circumferential destinations. I don't find this a very convincing argument. Most people currently living in the Reisterstown Road corridor who make the trip downtown follow the Reisterstown Road, I-695, Jones Falls Expressway Route. If the expressway is constructed, they will simply substitute it for the Reisterstown Road portion of the trip. They can, thus, shorten their time spent commuting without utilizing the transit. Optimum usc of the transit system requires the existence of disincentives to driving cars individually. The construction of a brand new parallel expressway is not the way to accomplish this.

Perhaps more significant than any of these factors in increasing VMT will be the tremendous boost to development which the Northwest Expressway will provide. This project will encourage development along Route 140 between Reisterstown and Westminster and also along Route 30 to Hampstead. This increased sprawl type of growth will only exacerbate Baltimore's existing air pollution and transportation problens. Since the average result of the building of this expressway will be to increase VMT in the corridor and also on I-695, the Bureau must conclude that it is inconsistent with the goal of Baltimore's TCP which is VMT reduction. The air pollution mitigation measures, such as the express bus system, may reduce the rate of growth but they will do little to effect an absolute reduction.
page 3
Mr. Robert J. Hajzyk

In addition to our disagreement with the substantive contents of the consultent's discussion of consistency, the Bureau also takes issue with the fact that the consultant even made such a determination. The responsibility, under Federal Highway Administration regulations, for determining consistency of a highway project with the State air quality implementation plan rests with the Regional Federal Highway Administrator. The Administrator's decision is to be based on the final EIS and the comments of the cognizant air pollution agency. It is, the refore, highly inappropriate for the consultant to be including his own consistency statement in the final EIS.

Since the Northwest Corridor Transportation Study was first made available for public comment, people in the area have been asking that only the transit portion of the project be implemented. The answer from the State Highway Administration has been that transit and highway are irrevocably bound to each other. One cannot be implemented without the other. This approach has effectively eliminated any real choice. The people. who live there must either face continued overcrowding of Reisterstown Road or accept a full-blown expressway/transit proposal. There was nothing in between. The rigidness of the State Highway Administration position has resulted in repeated delays and countless studies to justify a road which will no longer serve the need for which it was designed. Twenty years have passed and we are now faced with air pollution problems, an energy crisis and inflation. Expressways are no longer considered the paramount answer to transportation needs. We have the opportunity in this corridor io see what an organized transit approach can accomplish. We should not let 20 year old commitments to a highway destroy that opportunity.

It is the Bureau's recommendations that the highway portion of the project be deleted north as well as south of the Beltway and that effort be concentrated on developing an organized transit system, including buses and rapid transit, in the corridor.


GrF:AMD: ac
cc: Mr. Sam Little, EpA Region III
Mr. George Bonina, EPA Region III

Response to Comments Received From Maryland Bureau of Air Quality and Noise Control Concerning Air Quality Analysis of Northwest Expressway

1. Comment:Conerning predicted violations of the eight-hour carbon monoxide AAQS.

Response: The violations of the AAQS are predicted to occur in the vicinity of:
a) The Northwest Expressway/I-695 Interchange
b) The wabash/Patterson Interchange if Alternate 2A is selected and 1
c) In the vicinity of the Reisterstown Road/I-695 Interchange in all "Build" and "No Build" Alternates.

As Alternate 2 A is no longer being considered for construction, the violations predicted for this option are of no significance. As the violations at Reisterstown Road will occur regardless of the Alternative selected, they should be interpreted with that fact in mind.
2. Comment: The construction of the Northwest Expressway will necessitate the expansion of I-695 and existing Reisterstown Road.

Response: The expansion of I-695 and Reisterstown Road is not a part of this project and is not being considered at this time. If these projects are felt appropriate at a future time, an analysis of all environmental impacts attributable to the expansion will be required.
3. Comment: The Northwest Expressway will be in direct competition with the proposed transit system.

Response: Refer to Maryland Mass Transit Administration Document Reduction in Automodile Use Due to Transjt Service Improvenients in tie Northwest Transportation Corrioor, January 8, 1976 for information concerning visT reductions projected to occur due to the Transit System.
4. Comment: The proposed Northwest Erpressway will increase regional VMT and encourage "sprawl type" develcpment.

Response: The traffic data presented in the Air Analysis support the contention that the proposed facility will increase corridor VAT. This increase is due to projected growth of the Baltimore area and the accompaning growth in trip demand. The rapid
transit system is intended to serve the radial portion of this demand; at present motor vehicle transportation is the most acceptable means of serving circumferential demand. It is hoped that the construction of the Northwest Expressway will prevent further deterioresion of the Reisterstown Road corridor and that the Regional land use planning mechanism will serve to insure that the development which will occur in the Northwest Transportation Corridor is acceptable to its population.

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

6TH AND WALNUT STREETS
PHILADELPHIA. PENNSYLVANIA 19106

Mr. Robert J. Hajzyk
Director, Office of Planning
and Preliminary Engineering
Maryland Department of Transportation
State Highway Administration
P. O. Box 717

300 West Preston Street
Baltimore, Maryland 21203
Re: Northwest Transportation Corridor; Baltimore County, Maryland
Dear Mr. Hajzyk:
We have reviewed the Air Quality Analysis for the above proposed project and have classified it as LO-1 in EPA's reference category used to report the disposition of our reviews on draft Environmental Impact Statements. This code indicates that EPA does not have objections to these alternatives presented with the minimization of air quality impacts and that we believe thet the information. contained in the analysis is generally adequate for our review requirements.

We wish to commend the development and presentation of these alternatives which incorporate highway and public transit elements as a combined facility to provide for radial travel demand in the corridor. Although we have concerns about certain details of their planning and design, we believe that the integration of modes with a transfer point at the Beltway (encouraging use of public transit for the inbound portion of travel to central Baltimore) represents a major advance in project-level planning and administrative coordination to meet both transportation and air quality needs. The amount of automobile traffic diverted from downtown destinations should result in a proportional reduction of downtown traffic congestion as well as a reduction in vehicle miles of travel with corresponding improvements in microscale and regional air quality. While these alternatives seem highly appropriate approaches to meeting transportation needs within the specific corridor under study we would note that the basic concept might be equally appropriate in other radial. corridors in either Baltinorc or other metropolitan areas.

Our specific concerns about possible air quality impacts relate to both localized conditions adjacent to the point of modal transfer and to more general questions about prorect phasing and relationship with other transportation facilities.

First, the termination of the highway element at the Beltway and parking facilities for transit riders may result in maximum microscale impacts adjacent to these areas of highway interchange and modal transfer. Ongoing development of detailed design and planning should be assessed in terms of microscale impacts and where hot spots occur mitigating measures should be considered.

I Second, we believe the viability of the project in providing microscale and regional air quality improvements depends upon the combined operation of both highway and transit modes. If the highway segment is opened independent of the transit mode the inbound travelers might increase vehicle miles of travel in driving the distances around the beltway necessary to find other radial highways leading downtown. While it has been assured in discussions between our staffs that the highway element will not be opened until the transit portion is completed, the final statement should define this assurance by describing the basic phasing of the Northwest Transportation Corridor as an entire system.

Thisù, in considering the lung-range plaming inplications of constructing the Northwest Transportation Corridor facility and the possible addition of similar facilities in other radial corridors, it can be seen that the potential for congestion (and subsequent localized air quality impact.s) may occur along the circumferential highway facilities rather than in the urban core, as is currently experienced with radial highway leading to city centers. To some extent this condition is evidenced in the high carbon monoxide levels projected for the Reisterstown Road - Beltway interchange which are aggravated to some degree by the indirect traffic impacts of the proposed project. While this specific "hot spot" condition might be mitigated by dividing the hichway facilities at the interchange to diffuse the emission density, we mention the condition more as a general concern to be considered if future facilities similar to the Northwest Transportation Corridor are to be proposed.

We hope this review wi. 11 assist you in the preparation of the final Environmental Impact Statement. We would appreciate the receipt of five copies of the final statement at such time as it is filed with the Council on Environmental Quality. At that time we will conduct a review of all areas of physical environmental impact for which we have review responsibility. If you have further questions or if we can be of assistance in further development of this innovative project you may wish to contact Mr. Sam Little of my staff directly at 215-597-7093.

> Sincerely yours,

Necholas M. Ruha
Chief
EIS and Wetlands Review Section
$\mathrm{cc}: \mathrm{Mr}$. G. Gotfeld, MTA
Mr. R. Bergeron, FHWA


MAR 291976

# Response to Comments Received from United States Environmental Protection Agency Concerning Air Quality Analysis of Northwest Expressway 

## Comment No. l:

The major transfer for persons arriving by car to the rapid transit from the Northwest Expressway will take place at the Owing Mills terminal and not at the Beltway, thus mitigating localized air pollution at the Beltway-Northwest Expressway Interchange.

Comment No. 2:
It is the intent to proceed with the construction of the rapid transit segment ahead of or concurrently with the highway portion of the project. The precise phasing for both the rapid transit and highway will depend upon the availability of Federal funds from the Urban Mass Transportation Administration and the Federal Highway Administration, and matching State funds. The rapid transit segment between Reisterstown Plaza Station near the Daltinore City Line and Owing Mills is a part of the adopted Phase I Plan and, therefore, has very high priority.

## D. ALTERNATIVES:

1. Introduction -

Four alternatives were described in the Draft Environmental Statemont and were presented at the Public Hearings in April, 1973. Alternates 1 and 2 proposed that the project be constructed as a joint highway-rapid transit system on now location, approximately threc-quarters of a mile west of existing U. S. Route 140 (Reisterstown Road). Alternate 3 proposed the widening and reconstruction of existing Reisterstown Road (U. S. Route 140) from Baltmore City to Reistcrstown, and Alternate 4 is the "Do-Nothing" alternative. Drawing No. 9 is a map of the corridor showing the location of these alternates, along with proposed grade separations, interchanges and rapid transit stations.

As a result of comments made on the Draft Environmental Statemont and testimony reecived at the Public Hearings in April, 1973, additional studies have been made to evaluate the comments. Alternate studies were made inside of the Baltimore Beltway (Alternate 5); in the vicinity of McDonogh Road and Owing Mills (Alternates 2A and 2B); and in the Reisters town area (Alternate 6). Proposals and studies relating to or affecting his toric sites were also made in conjunction with the Sudbrook Park Historic District, the McDonogh School Historic District, and the Reisterstown His torie District. Proposals studied to determine if these were feasible and prudent alternatives to the use of historic lands included Alternates $A$ and $B$ in the Sudbrook Park area, Alternate 2 C at the McDonogh School, and Alternate $6 A$ in lecistersinwn. Alternates $' \bar{\prime}, 8,9$ and $9 A$ were studies made to minimize the adverse effects of the project on the Sudbrook Park Historic District, and to reduce impacts on adjacent communities and parks. This would also reduce the impact on the Gwynns Falls floodplain and achieve a cost savings. These additional studies made subsequent to the Public Hearing are also shown on Drawing No. 9.
2. Public Hearing Proposals -

- Alternate 1 -

Relocated U. S. Route 140 (Northwest Expressway) was proposed as a six-lanc dual highway, with full control of access, consisting of $36^{\prime}$ roadways in each direction, separated by a median varying from 16 feet at the western boundary of Baltimore City to 80 feet or greater at rapid transit station sites. Between and beyond transit stations, the median will generally be 64 feet in width. The tracks of the Rapid Transit Facility in the median will be separated from the Expressway roadways by 12 to 14 foot paved median shoulders and reinforced concrete safety barrier walls. North of the rapid transit terminal at Painters Mill Road, the 64 -foot median will be graded with flat $6: 1$ slopes and will provide a safety recovery area of 30 feet for each roadway, thereby minimizing the potential for



alt. 9A - delete northw est expressway from the beltwar
SLT SOUTH TO MLLFORD MILL ROAD
STATION AT PAINTERS MILL ROAD
ALT. 2B-REVISED RAPID TRANSIT STATION \& NEW
ALT. 2 - INTERCHANGE AT DOLFIELD ROL ROAD

ALT. 6A- STUOY TO AVOID REISTERSTOWN HI STORIC DISTRIC


LEGEHD
(D) GRADE SEPARATION

INTERCHANGE
rapid transit station

RELOCATED U.S. ROUTE 140 (NORTHWEST EXPRESSWAY) baltimore city to reisterstown

LOCATION MAAP
public hearing alternates AND SUBSEQUENT STUDIES
vehicular head-on collision. Extension of the rapid transit line in the median of the Expressway, beyond Painters Mill Road, is physically possible, should the need arise sometime in the future. Paved shoulders 4 -feet in width will also be constructed along the median edge of each roadway pavemont. Outer shoulders will be paved for a 10 -foot width, with an additional 20 feet beyond the outer shoulders graded with flat 6:l slopes to provide a safety recovery area. The provision of 30 -foot safety recovery areas along both sides of each roadway conforms to nationally recognized criteria to minimize accidents and injuries when a vehicle strays from the travelway. The proposed Expressway will be fenced through built-up areas, and lighting will be provided at specified interchanges, rapid transit stations and parking lots. Geometry and safety features will be based on a design speed of 70 miles per hour. The typical right-of-way width would be 300 feet, with a minimum width of 200 feet.

The project also includes a 0.2 mile section of Wabash Avenue within Baltimore City from the western city boundary line south to Patterson Avenue. The improvement within these limits consists of dual 36 -foot urban roadways curbed on both sides and separated by a raised 16 -foot median. There is no control of access within Baltimore City.

The typical section for Relocated Route 30 (Reisterstown Bypass) is similar to that of the Northwest Expressway, except that the median width is reduced to 40 feet. At-grade intersections are permitted at intervals of not less than 2000 feet, and will probably be signal-controlled. A 60 mile per hour design speed will control the horizontal and vertical alignment as well as other geometric features. The minimum right-of-way width would be 200 feet.

The project begins at Patterson Avenue within Baltimore City as an extension of existing Wabash Avenue as a divided urban street, and is located adjacent to the tracks of the Western Maryland Railway Company. Relocated U. S. Route 140 (Northwest Expressway) begins at the Baltimore City Line as an extension of Wabash Avenue. Just north of the City Line, the proposed Northwest Rapid Transit Line crosses under the northbound roadway into the median of the highway. The Combined Highway/Rapid Transit Facility continues northerly along the west side of the Western Maryland Railway to Sudbrook Road, and then under the existing bridges at Old Court Road and the Baltimore Beltway. Relocated Milford Mill Road would pass over the proposed Expressway and swing to the north, where it would connect to Reisterstown Road at Shade Avenue. Sudbrook Road is proposed to be relocated to the north and also overpass the proposed Expressway. Interchanges are proposed at Relocated Milford Mill Road and at the Baltimore Beltway.

A proposed rapid transit station platform is located in the Expressway median, 500 fect south of Relocated Milford Mill Road. Direct access to the transit station parking lot is proposed via a southbound offramp from the Expressway. Northbound return to the Expressway is also proposed. Local access to the station parking lot is proposed from Relocated Milford Mill Road via Rockland Avenue, wect. uf the Expressway, and via existing Milford Mill Road, east of the Expressway. In addition to parking for 800 cars, a special area adjacent to the station would be reserved for bus parking, for the discharge of kiss-n-ride passengers and for bicycle stalls. The Old Court Road rapid transit station platform is proposed to be located in the widened median of the Expressway under the existing Old Court Road Bridge. The parking lot for the Old Court Road Station would be located at ground level on the east side of the Expressway and north of Old Court Road, and would provide parking for 550 cars as well as special discharge areas for kiss-n-ride passengers and buses. Bicycle stalls will also be provided. Vehicular access to the parking lot is via Old Court Road, and a pedestrian bridge over Gwynns Falls and the northbound roadway of the Expressway would connect the parking lot with the station platform.

Proceeding north from the Baltimore Beltway, the project continues on the west side of the Western Maryland Railway along the Gwynns Falls stream valley to Owings Mills.

Where the project right-of-way conflicts with Gwynns Falls, viaduci structures are proposed ratier than relocation of the stream. As recommended by the Baltimore County Department of Recreation and Parks, and supported by the Maryland Water Resources Administration, the proposed structures over Gwynns Falls have been tentatively lengthencd where feasible so that 200 feet of undisturbed land would remain on both sides of the stream for future park development.

A diamond interchange is proposed at Relocated McDonogh Road, which has been located south of the existing road. In this area, a rapid transit station is proposed in the median of the Expressway, approximately 1000 feet north of Relocated McDonogh Road. The 3800-car parking lot for the McDonogh Station would be located on the west side of the Expressway and north of Rclocated McDonogh Road. In addition to spaces for cars, the parking lot has a special area rescrved for bus parking, the discharge of kiss-n-ride passengers, and for bicycle stalls. Direct access to the transit station parking lot would be provided via a southbound off-ramp from the Expressway along with the northbound return. Local access is planned via Relocated McDonogh Road.

Painters Mill Road is planned to be relocated on the northwest side of the existing road, beginning at its intersection with South Dolfield Road on the north, and terminating at the intersection with Meadow Road on the south. The interchange at Relocated Painters Mill Road tentatively
consists of four diamond ramps and one inner loop in the southwest quadrant. The Owings Mills rapid transit station platform is proposed to be located in the median of the Expressway, 800 feet southeast of Relocated Painters Mill Road. Parking for 800 cars is planned west of the Expressway adjacent to the station site, with access from Painters Mill Road. The parking lot would have a special discharge area for liss-n-ride passengers and bicycle stalls. The rapid transit tracks in the median of the Express way would terminate approximately 900 feet north of the Owing Mills Station.

Relocated U. S. Route 140 (Northwest Expressway) continues in a northwesterly direction from Painters Mill Road, interchanges with Cherry Hill Road and the extension of Glyndon Drive, and terminates at a tie -in to existing Westminster Pike (U. S. Route l40) 300 feet northwest of Gores Mill Road. Gores Mill Road is planned to be relocated to the west side of the Expressway in the vicinity of the diamond interchange, which is proposed at U. S. Route 140 (Westminster Pike).

An interchange is proposed at Relocated Cherry Hill Road in the vicinity of Nicodemus Road. The diamond interchange would also have inner loops in the northwest and northeast quadrants. Relocated Cherry Hill Road would be constructed from Tarragon Road westerly to its intersection with Church Lane, a distance of 1.0 mile, and Nicodemus Road would be relocated around the interchange and be connected to Relocated Cherry fill Road.

Relocüc: Maryland Runic 30 diverges from Relocated U. S. Route 140 (Northwest Expressway) via a directional interchange 1200 feet north of Berrymans Lane and, bearing toward the north, underpasses Glendon Drive 2300 feet west of Reisterstown Road. Glyndon Drive is proposed to be extended from Relocated U. S. Route 140 to Reisterstown Road, with a split interchange planned at Relocated Maryland Route 30 and Relocated U. S. Route 140. Existing Stocksdale Avenue would be closed by the proposed construction of Glyndon Drive, and a tee-turnaround provided at the terminus. Relocated Maryland Route 30 continues in a northerly direction across the Westminster Pike and ties into existing Maryland Route 30 (Hanover Pike) 1000 feet north of Butler Road. At-grade intersections are planned at Relocated Cockeys Mill Road, Westminster Pike and the extension of Butler Road.

Access to Relocated U. S. Route 140 (Northwest Expressway) is proposed by interchanges at Milford Mill Road, Baltimore Beltway, McDonogh Road, Painters Mill Road, Cherry Hill Road, Relocated Maryland Route 30, Glyndon Drive and Westminster Pike. Rapid transit stations are proposed at Milford Mill Road, Old Court Road, McDonogh Road and Painters Mill Road, with direct access from the Expressway to the Milford Mill and McDonogh Stations.

The estimated costs of the transportation system, described as Alternate 1, are as follows. The costs are based on 1974 prices.

$$
\underset{(14.2 \text { miles })}{\text { Highway }} \quad \frac{\text { Rapid Transit }}{(5.5 \text { miles })} \quad \text { Total }
$$



Total Project Cost $=\$ 120,203,000 . \$ 62,504,500 . \$ 182,707,500$.
The road user cost for the project would be relatively the same for all alternates under consideration.

In summary, Alternate 1 will result in definite transportation, social and economic benefits to the community as a whole, with unavoidable displacement of approximately 285 persons, 52 residences and 5 businesses, and some detrimental effects on existing communities and the natural environment in the Gwyms Falls Valley. Alternate 1 would directly conflict with 12 historic sites from the Baltimore City Line to Reisterstown, as shown in the Draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS).

## Decision - Alternate

Alternate 1 has been dropped from consideration because of the extremely adverse effects the project would have on the Gwynns Falls stream and proposed stream valley park from the Sudbrook Park to Painters Mill Road. The direct effect on a number of historic sites was also a factor in this decision.

The improvements proposed for Alternate 2 are identical to Alternate 1 , except in the area between the Baltimore Beltway and Painters. Mill Road, where the project would be located to the east of, and paralley to, the Western Maryland Railway.

North of the Baltimore Beltway Interchange, the alignment: curves to the north and crosses over the Western Maryland Railway, approximately 1200 feet south of Mount Wilson Lane. Paralleling the east side of the Railway, the project passes through the undeveloped southwest corner of the Wrodholme Country Club and crosses over existing Mount Wilson Lane (Maryland Route 400) and under Relocated McDonogh Road. Thirty -five hundred feet north of McDonogh Road, the alignment swings to the west to re-cross the Western Maryland Railway and rejoins Alter nate 1 , just south of Painters Mill Road. A diamond interchange on the east side of the railroad is proposed at Relocated MeDonogh Road, which has been located south of the existing road.

A rapid transit station platform is proposed to be located in the median approximately midway between Mount Wilson Lane and McDonogh Road, with a parking lot for 3800 cars situated on both sides of the Expressway adjacent to the station site. The parking lot on the west side would have direct access from the Expressway via a southbound off-ramp. Northbound return to the Expressway from this parking lot would be provided by a road crossing under the Expressway adjacent to Mount Wilson Lane and, paralleling the parking lot on the east side of the Expressway, would connect to the northbound on-ramp of the McDonogh Road Interchange. The parking lot on the east side of the proposed Expressway would accommodate locally oriented vehicles, with a special area reserved for bus parking, for the discharge of kiss-n-ride passengers, and for bicycle stalls. Local access roads to this lot are planned at both Mount Wilson Lane and McDonogh Road.

Alternate 2 would also have an Expressway classification (Freeway by A.A.S.H.T.O. definition), conform to regional and state plans, have the same major design features, and provide the same excellent transportation service as Alternate 1. The impact on the Gwynns Falls Valley, the proposed trail system and water quality from north of the Baltimore Beltway to Painters Mill Road is minimized with this alignmont (Alternate 2), as compared to Alternate 1.

The estimated costs of the roadway and rapid transit system included under Alternate 2 are as follows. The costs are based on 1974 prices.

$$
\frac{\text { Highway }}{(14.3 \text { miles })} \quad \frac{\text { Rapid Transit }}{(5.5 \text { miles })} \quad \text { Total }
$$

| Highway Construction | \$ 69,993, 000. | \$ | \$ 69,993, 000. |
| :---: | :---: | :---: | :---: |
| Rapid Transit |  |  |  |
| Construction | - | 43,466,000. | 43,466,000. |
| Right-of-Way Costs | 23,840,000. | 5,243,500. | 29,083,500. |
| Enginecring, Adminis tration \& Overhead . | 20,439,000. | 12,171,000. | 32,610,000. |
| Total Project Cost | \$114, 272,000. | \$60,880, 500. | \$175, 152, 500. |

The road user cost for the project would be relatively the same for all alternates under consideration.

Summarizing, the adverse environmental affect on the Gwynns Falls Stream Valley has been minimized with Alternate 2. Approximately 290 persons, 53 residences and 5 businesses would be displaced. Other cconomic and social features, such as better accessibility to employment and residential areas in the corridor, reduced travel time, reduced trans portation costs, reduced accident iates, miliple use of space and improved access for National Defense are similar to Ajternate l. Alternate 2 would directly conflict with 9 historic sites from the Baltimore City Line to Reisterstown, as shown in the Draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS).

$$
\text { Decision - Alternate } 2
$$

Alternate 2 has many desirable features including the reduction of adverse effects on the Gwynns Falls Valley; however, considerable objection was voiced at the Public Hearing on the inclusion of the McDonogh Rapid Transit Station and Interchange. The alignment also directly impacts 9 historic sites, 4 of which are cither on or eligible for the National Register and, for these reasons, Alternate 2 has been dropped from further consideration. Other studies developed subsequent to the Public Hearing eliminated the McDonogh Rapid Transit Station and Interchange, and proved to be prudent and feasible alternates to either avoid or mitigate the impact on historic sites and, therefore, were considered more desirable than Alternate 2. Alternate ? was the most feasible plan developed for presentation at the Public Hearing and, for this reason, various scctions of Alternate 2 have been used as a basis of comparisonfor alternate studies developed subsequent to the Public Hearing. These comparisons are included with the discussion of the various alternate studies.

## - Alternate 3 -

Alternate 3 consists of the widening and reconstruction of existing Reisterstown Road (U. S. Routc 140) from the Baltimore City Line to Reisterstown, a distance of approximatcly 11.6 miles. Relocated U. S. Route 140 (Northwest Expressway) would not be constructed under the alternatc; howcver, the Rapid Transit Facility would be constructed somewhere in the corridor. The reconstruction of Reisterstown Road (Alternate 3) does not, by itself, conform to local, regional and state planning for the corridor.

The improvement would consist of dual 36 -foot urban roadways, curbed on both sides, and separated by a raised 16 -foot median constructed within a nominal right-of-way width of 110 feet. Control for horizontal and vertical alignment, as well as other geometric features, is based on a 50 milc per hour design speed. There would be no control of access, except for the policy and standards established by the State Highway Administration for the design and construction of residential and commercial entrances. Crossovers would be provided at all intersecting roads, and generally at intervals of not less than 750 fect. Left-turn lanes in the median are planned for safety and the increascd efficiency and capacity obtained at intersections. Widening would be required on both sides of Rcisterstown Road for virtually its entire length, excopt in ccrtain areas where the widening could be confincd to one side or the other in order to minimize property damage. Development through the Pikesville, Owings Mills and Reisterstown areas is almost continuous. Strip zoning, permitted along this road, has created a hodge-podge of miscellancous businesses ranging from high-rise office buildings, motcls and attractive stores, to shopping centers, gas stations, rcstaurants and miscellancous service shops. These businesses are interspersed among older, private residences, apartment complexes and modern housing communitics.

Rapid transit would not be combined with the proposed improvement to Reisterstown Road because of right-of-way restrictions, number of intersecting streets, and lack of spacc for station and parking sites. Without the Expressway, the cntire concept of rapid transit outside of Baltimore City would have to be restudicd since the advantages of joint use of
right-of-way and efficiency in the design and construction process would be lost. The Northwest Expressway is essential to the success of the Rapid Transit Line because of the access it will provide to major park-n-ride facilities at three of the four rapid transit stations - Milford Mill, McDonogh and Owings Mills.

Land development in the corridor will continue to rise with consequent increases in traffic volumes. Projected traffic for Reisterstown Road in 1995, assuming the expressway is not constructed, is as follows:

Baltimore City Line to Old Court Road - 32,000 ADT
Old Court Road to Baltimore Beltway - 40,000 ADT
Baltimore Beltway to Maryland Route 130
Maryland Routc 130 to Maryland Route 30

- 53,000 ADT
- 34,000 ADT

The adoption and construction of Alternate 3 would not preclude the need for additional highway and/or transit capacity in the Northwest Corridor which has been indicated in local, regional and state planning proposals for many years. Petitions for denser zoning reclassifications may be deferred or denied, yet the natural terrain will be steadily replaced by presently proposed land uses (See Drawing No. 8). As development occurs, even at a somewhat slackencd pace, utility services would continue to be provided to support the new social environment. Baltimore County's proposed reinforcoment of the Gwynns Falls sanitary interceptor and the Fiood Control Study, prepared by the County, will both increase the pressure for denser zoning reclassifications. Housing and apartment developments, shopping centers and new businesses along Reisterstown Road will appear in areas of existing commercial zoning and the proposed Sector Center in the Owings Mills area. Anticipation of improved accessibility in the Northwest Corridor over the past 20 years has encouraged the development of this area and investors who have purchased land and obtained the desired zoning will continue to build on the assumption that some type of improved road system must be provided for the relief of Reisterstown Road. Although such a highway may not be built to the same capacity or design standards as Alternates 1 and 2 , it could nevertheless gradually appear with utilities to support existing and proposed development and to offer some relief to the overcrowded Reisterstown Road.

Maintenance of traffic is a major problem with Alternate 3, and the inconvenience should last during the entire construction period, estimated to be 5 to 6 years. Businesses that are dependent on the motorist will suffer severe reductions in revenue clue to traffic restrictions and
difficulties of maintaining convenient access during construction. Other than the sanitary interceptor along Gwynns Falls, most major distribution utilities servicing the corridor are located within or along the right-of-way of existing Reisterstown Road. This includes water and gas mains, sandtary sewers, power and telephone lines, both overhead and underground. The maintenance of utility services during the construction of Alternate 3 would be much more difficult and costly than with either Alternates 1 or 2. Detour roads are not practical for maintenance of traffic, so all utility relocations will have to be made at the same time traffic is being maintained and the roadway is being reconstructed.

All public facilities and buildings located along Reisterstown Road would be adversely affected during the construction phase of Alternate 3. Traffic would be maintained during construction, but at a reduced capocity, and this would increase the travel time of fire equipment and other emergency vehicles. The public buildings that would actually be removed by this alternate include the Pikesville Memorial Library, located at Sudbrook Lane, U. S. Post Office in Garrison (21055), and the Volunteer Fire Company in Reisterstown opposite Chatsworth Avenue. It would be neces say to relocate or rebuild these facilities before the road could be constructed through these areas. Approximately 103 buildings and sites having historic significance have been identified along Reisterstown Road. The location and description of these historic sites are included in the Draft Secton 4(f) Statement (FHWA-MD-EIS-73-01-DS).

The major impact of this alternate is the fact that the majority of the present development fronting on existing Reistcrstown Road will be adversely affected to some degree either by loss of frontage or complete removal of the residence or building by highway construction. To implemont this alternate, an approximate total of 183 improved properties would be required. Of this total, 91 are estimated to be owner-occupied, 43 are estimated to be tenant-occupied, 27 are businesses and 22 are non-profit organizations. It is estimated that 135 families comprised of 700 persons and approximately 125 individuals (other than families) would be relocated along with the above businesses and non-profit organizations. Such a program is not impossible, but it would take three to four years to accomplish since the housing market in this area usually offers 60 to 70 dwellings for sale or rent at any given time.

A project of this magnitude through a stable, settled comerdial and residential community will have severe economic and environmenttil repercussions stretching over the acquisition and construction periods which together may be as long as seven years and result in the temporary unemployment of approximately 300 persons.

The following estimated cost of the road improvements included under Alternate 3 arc based on 1974 prices. The cost of providing rapid
transit in a separate right-of-way would require a complete restudy and is not included in the following estimate.

|  | $\cdots$ |
| :--- | ---: |
|  | Estimated Cost |
| Roadway Construction |  |
| Right-of-Way |  |
| Engineering, Administration \& Overhead | $80,000,000$. |
|  | $3,187,000$. |

$$
\text { Total Roadway Cost . . . . . . . . } \$ 94,568,000 .
$$

In summary, widening Reisterstown Road (Alternate 3) is a proposal that would increase its safety and capacity, provide better accessibility to employment areas and reduce travel time for emergency vehicles. This improvenent, by itself, would only provide temporary relief; it would not provide the transportation facility necessary to accommodate the anticipated traffic load resulting from residential and commercial growthanticipated by Baltimore County for this corridor. Extremely heavy traffic with related inconveniences and the loss of both shopping facilities and revenues will have a significant impact on area socio-economic factors. The major impact of this alternate is the necessity to relocate approximately 825 persons and to acquire approximatcly 183 residences and businesses along the existing road, with frontage damage to the remaining properties. Approximately 60 of the 103 historic sites identified along Reisterstown Road are directly impacted by the construction proposed with Alternate 3, and the remainder could be adversely affected by the loss of front yards, trees, and privacy.

## Decision - Alternate 3

The tremendously adverse impact Alternate 3 would have on socio-economic factors and the historic sites along Reisterstown Road is the major reason for not recommending this alternate for adoption. A scaled-down improvement (e.g. 5 lanes mostly within existing right-of-way) would be desirable to improve the safety and capacity of existing Reisters town Road, in addition to the recommended Northwest Expressway on new location.

Alternate 4 is the "Do-Nothing" alternate. This means that there would be no improvement made to existing Reisterstown Road, and the concept of an Expressway and rapid transit in the corridor would be abandoned. As with Alternate 3 , most of the malpereer and dollars expended over the past years would be wasted. The concept of building nothing does not conform to local, regional and state planning for this corridor.

Existing Reisterstown Road, as seen today, is a four-lane non-divided highway, with curbs and sidewalks in developed areas and minimal shoulders in undeveloped areas. The cxisting development along the road is the same as described for Alternate 3, with a large number of businesses of all types and sizes interspersed with private homes and apartments. Reisterstown Road is the only arterial road serving the northwest corridor at the present time, and the average daily traffic volumes on the existing road in 1973 werc as follows:

$$
\begin{array}{ll}
\text { Baltimore City Line to Old Court Road } & -24,800 \mathrm{ADT} \\
\text { Old Court Road to Baltimore Beltway } & -30,000 \mathrm{ADT} \\
\text { Baltimore Beltway to Maryland Route } 130 & -42,000 \mathrm{ADT} \\
\text { Maryland Route } 130 \text { to Reisterstown } & -25,000 \mathrm{ADT}
\end{array}
$$

Heavy peak-hour volumes consistently overload the existing road, causing unsatisfactory operating conditions at many locations. Any type of friction, or interruption, such as a vehicle breakdown, acrident, bad weather or a malfunctioning traffic signal, results in a breakdown of traffic operations with unstable flow, low operating speeds and qucues of vehicles backing up at the restriction. Reisterstown Road operates at a substandard level of service during peak hours, generally in the vicinity of the Baltimore Beltway. Improvement of the Reisterstown Road-Beltway Interchange has been authorized, and the reconstruction of this interchange was initiated in April of 1975 .

As stated before in the 'Need for the Project'' on page A-6, population growth and commercial development in the Northwest Corridor have been anticipated and projected in both Baltimore County's "1980 Guideplan" adopted in 1972 by the Baltimore County Planning Board and in the General Development Plan for the Baltimore Region, prepared and adopted in December, 1972 by the Regional Planning Council. The Northwest Corridor is one of the planned growth areas indicated in the County's Guideplan because of the current availability of water service, the proposed Gwynns Falls sanitary sewer system reinforement which is scheduled to be constructed and in operation from the Baltimore City Line to Reisterstown by 1978 and the jmproved accessibility offered by the proposed Northwest Expressway/Rapid Transit project. If Alternatc 4 is sclected, and the Northwest Expressway and Rapid Transit project are not constructed, land
development would continue in the corridor at a slower pace. Projected traffic for: Reisterstown Road in 1995, assuming the project is not constructed, is as follows:

| Baltimore City Line to Old Court Road | $-32,000$ ADT |
| :--- | :--- |
| Old Court Road to Baltimore Beltway | $-40,000$ ADT |
| Baltimore Beltway to Maryland Route $130-33,000 \mathrm{ADT}$ |  |
| Maryland Route 130 to Maryland Route 30 |  |

The need for additional highway and transit capacity in the Northwest Corridor has been indicated in local, regional and state planning proposals for many years. Even though petitions for denser zoning reclassification may be deferred or denied, the natural terrain will be steadily replaced by presently zoned land uses. The estimated construction of residential and commercial development, even in the absence of the proposed Expressway and rapid transit, woulcl result in a patchwork widening within the restricted right-of-way. Additional traffic signals would be required, causing more delays to the motorists and, as traffic volumes increase, operating speeds would be reduced and stoppages would occur at more frequent intervals and for longer: periods of time. If the rapid transit is not built, public. transportation in the Northwest Corridor would have to be a continuation of the present inadequate bus service. This service would be totally unable to meet future transportation needs, because of cxcessively long travel times caused by buses having to operate on traffic clogged streets, both now and in the future. The "Do-Nothing" altematc leaves the entire Nowthwest Coxridor with inadequate trans portation facilities.

Existing U. S. Route 140 (Reisterstown Road) with no improvement (Alternate 4), is a four-lane non-divided highway, with average daily traffic volumes ranging from 25,000 to 42,000 in 1973. Traffic volumes of this mature, coupled with the parking and marginal friction in the vicinity of the many and varied businesses located along this route, create unfavorable conditions for bighway safety as indicated in the following statistics.

During the years of 1973 and 1974, the study section of U. S. 140 experienced 826.20 (Rate) accidents on a 100 million vehicle miles of travel basis (Acc/l00MVM). This experience (rate) is far above the statewide average of 536.27 accidents $/ 100 \mathrm{MVM}$ of travel for all similar design highways now under state maintenance. If no improvements are made on the subject roadway, we can expect, in addition to the normal traffic growth, an increase in vehicular conflictions which are normally associated with congestions on highways of this design. The accidents will undoubtedly continue to increase with a corresponding increase in motor vehicle accident cost that exceeds the present: cost of approximately $\$ 1,930,919.46 / 100 \mathrm{MVM}$ of travel for the motorist now using U.S. 140.

According to our studies, the proposed six-lane, divided highway should experience 139.62 accidents $/ 100 \mathrm{MVM}$ of travel which is a reduction of 686.58 accidents $/ 100 \mathrm{MVM}$ of travel. The accident cost to the motorist by construction of this alternate is estimated at $\$ 241,489.12 / 100$ MVM of travel. This safer type highway will bring an anticipated saving of approximately $\$ 1,680.130 .34 / 100 \mathrm{MVM}$ of travel for the motorist now using U.S. 140.

After the existing highway has reached capacity, the inadequate access will inhibit the planned residential and commercial growth in the corridor with the resultant adverse effect on the County tax base and employment opportunitics. To do nothing will accelerate the detcrioration of the present dangerous and choied traffic condition and contribute toward a downward trend in the quality and value of properties in the neighborhood. It will not require the dislocation of any people, businesses or residences.

Public utilitics located in the existing right-of-way will not be affected by this alternate; however, fire equipment, police protection, and other emergency services would be adversely affected by an increase in travel time.

Alternate 4 will have no physical impact on any public park or recreation land; historic site; fish, waterfowl or wildlife refuge or other lands falling within the intent of Section 138 of 23 U.S.C.

If no construction is completed, therecan be no impact on physicai environmental factors, such as water quality, or the loss of open space due to new transportation facilitics. Conditions on Reisterstown Road relating to air quality and acoustics will deteriorate with increased traffic and lower speeds. Noise levels in the area would continue to rise as a result of increased development and the subsequent increase in population and its activities, but not significantly.

In summary, Alternate 4, designated as the "Do-Nothing" alternate, would leave the entire Northwest Corridor of Baltimore County with inadequate transportation facilities. Traffic would continue to increase with adverse effects on planned residential and commercial growth, the County tax base, employment opportunities and adjacent historic sites. There would be no adverse impact on parks, recreationareas or other physical environmental factors such as water quality, wildife or loss of open space duc to new transportation facilities.

## Decision - Alternatc 4

Altermate 4 was not recommended for adoption by the Md. Dept. of Transportation primarily because doing nothing docs not meet the transportation requirements in the Northwest Corridor. Other factors contributing to this decision include the adverse effect ongrowth, the tax base, employment opportumities and safety.

The location of the Northwest Rapic Transit Linc between the Ballimore City Line and the proposed terminal in Owings Mills was decided only after thorough planning and preliminary engincering during the past eight years. The transit line in the Northwest Transportation Corridor is an extension of the Northwest Line leyond Section $\Lambda$, for which federal funds were approved by the Urban Mass Transportation Administration on October 31, 1972. Final design is in an adranced stage on Scction A, and major con.. struction is anticipated to begin in the Spring of 1976.

The alternatives to the proposed Rapid Transit Plan are:

1) Transportation by bus on Northwest Express way, including exclusive bus lancs.
2) Commuter railroad.
3) Provide no additional public transportation.

Transportation by Bus on Northwest Expressway,
$\quad \begin{aligned} & \text { including Exclusive Bus Janes }\end{aligned}$
While express buscs operating on the Northwest Expressway would provide a relatively high-speed service, when buses reach the Beltway ( $1-695$ ), they would have to travel from the Beltway for the remainder of the trip to downtown Baltimore on congested city strects. Thus, the total travel time for buses to points within Baltimore City would be substantially greater: than for the proposed rapid transit service. This would make transit service much less altractive, and encourage more people to drive into the City, thus increasing traffic congestion in the Northwest Corridor of the Region. Also, the capacity of buses is much lower than rapid transit, and would requirc a larger number of vehicles to handle the same number of passengers, which would increase transit operating costs.

However, express buses will be considered for operation on the Northwest Pxpressway to scrve major employment centers in the vicinity of the beltway, which cannot be serviced by the proposed rapid transit extension.

## Commuter Railroad

Commuter railroad service could technically be provided to service the Northwest Corridor via the route of the Western Maryland Railway, which parallels the proposed Northwest Transportation Corridor project.

The existing Western Maryland Railway is used for heavy freight traffic, and is single track for most of its length in the project area. It would not be possible to provide frequent commuter service without costly major reconstruction of the railroad, including trackage for exclusive commuter service. In addition, downtown distribution would be a special problem, because the existing Pennsylvania Station is located outside the business, shopping and governmental districts. Thus, the transfer of passengers to shuttle buses or the construction of a costly downtown distribution subway would be necessary.

Railroad operating practices are substantially higher than rapid transit, which would significantly increase the operating deficit of the MTA.

Finally, it must be emphasized that the Northwest Rapid Transit Line is a federally-approved project as far as the Baltimore City Line, and it would be far more practical to extend this line rather than to have an alternative rail mode serving the outer portion of this same corridor.

## Provide no Additional Public Transportation

As in other major metropolitan areas, the problem of mobility in the Baltimore region is reaching a serious crisis. Congestion on major thoroughfares, as the Jones Falls Expressway and Reisterstown Road, are intolerable at times. The existing bus system, while providing adequate service under available conditions, is not sufficiently attractive to encourage large numbers of people to use mass transit rather than rely on their cars for commuting into the City.

If the rapid transit is not built, public transportation will have to be a continuation of bus service, which is totally inadequate to meet future transportation needs, because of excessively long travel times caused by buses having to operate on traffic-clogged streets.
3. Proposals Considered Subsequent to Public Hearing - Baltimore City Jinc to Baltimore Beltway. -

## - Alternate 5 Alignment Study -

In response to comments made at the Public Hearing, Alternate 5 was developed to hold the project alignment close to the Western Maryland Railway from Sudbrook Road north to Mount Wilson Lane. The location proposed for Alternate 5, as shown on Drawing No. 10, is identical to that presented at the Public Flearing (Alternates 1 and 2) from the Baltimore City Line north to Sudbrook Road. Northerly from Sudbrook Road, the Expressway with rapid transit in the median is located between Greenwood Road and the west side of the Western Maryland Railway. North of the Baltimore Beltway (I-695), the Railroad alignment curves to the west, and the project crosses under the tracks to the east side and rejoins Alternate 2, as proposed at the Public Hearing, in the vicinity of Mount Wilson Lane (Maryland Route 400). A cut and cover tunnel is proposed at Sudbrook Road and bridge structures at Relocated Milford Mill Road, Old Court Road, directional ramps at the Beltway Interchange, the Baltimore Beltway, Western Maryland Railway and Mount Wilson Lane. All other streets intersected by the project would either be terminated with a cul-de-sac or interconnected with other streets in the area by a system of service roads. A diamond type interchange is proposed at Relocated Milford Mill Road, and a semidirectional interchange at the Baltimore Beltway. Rapid transit stations are located on the south side of Relocated Milford Mill Road and on the north side of Old Court Road.

The grade of Alternate 5 gencrally follows the existing ground line at an elevation approximately 5 feet lower than the railroad from the City Line to Relocated Milford Mill Road, which crosses over the project. Through the Sudbrook Park area, the proposed grade is at the same elevation as the railroad crossing under existing Sudbrook Road in a cut section approximately 22 feet below the existing ground. The proposed grade is either level with the existing ground, or in a fill section through the Gwynnvale community with the roadways approximately 10 feet below the railroad. North of Gwynnvale, the grade rises to cross over Old Court Road and the Baltimore Beltway, and then descends to cross under the Western Maryland Railway. The Railroad will be rebuilt at a higher clevation to provide the necessary clearance for this crossing. On the east side of the Railroad in the vicinity of the Woodholme Country Club, the grade passes through a deep cut beforc rising to cross over Mount Wilson Lane.

The Northwest Expressway project, as proposed in this study (Alternate 5), would have an Expressway classification, conform to regional and state plans, have the same major design features, and provide the same transportation service as the Public Hearing proposal.


RTAN-ALTERNATE SALLGNMENT STEDY


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The estimated costs of the roadway and rapid transit system included under Alternate 5 from the Baltimore City Line to Mount Wilson Lane, are listed below along with comparative costs for Alternate 2, as developed for the Public Hearing. These costs are based on 1974 prices.


The road user cost would be relatively the same for both Alternate 5 and Alternate 2.

The project center line passes along the eastern side of the Gwynnvale subdivision instead of along the west side and will require the acquisition of the commercial development along Greenwood Road, as well as half of the Brittany Apartment Complex. The project has been shifted approximately 1200 feet farther away from the Old Court Estates subdivision, but now passes through the western edge of the Woodholme Country Club af fecting one of the 18 holes in their golf course and a practice area. The astimated number of homes and people affected by Alternate 5 along the Railroad from the Baltimore City Line to Mount Wilson Lane are listed below, along with the comparable effect of the Alternate 2 alignment proposed at the Pubic Hearing.

|  | Alternate 5 |  | Alternate 2 |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| Improved Properties Affected | 90 | 78 |  |
| Homes previously Acquired by SHA | 46 | 50 |  |
| Homes to be Acquired | 31 | 23 |  |
| Businesses to be Acquired | 13 | 5 |  |
| Apartment Units to be Acquired | 210 | 0 |  |
| Families to be Replaced | 191 | 20 |  |
| People to be Displaced | $948-970$ | $100-125$ |  |

North of Sudbrook Read to Mount Wilson Lane, the location proposed with Alternate 5 was not previously considered, and all improved properties affected by this proposal will have to be acquired; whereas, the major portion of the right-of -way for Alternate 2 was previously acquired by the State as undeveloped land.

A recent survey of available replacement housing in this area of Baltimore County indicated that there were approximately 100 singlefamily dwellings for sale, at any given time, that are within the financial means of those to be relocated. In addition, approximately 55 rental units were available in the immediate vicinity, should any of these families desire to rent. This intormation was gathered in August, 1975, the time of this study. Relocation assistance could be accomplished for Alternate 5; however, due to the large number of families to be relocated, it is estimated that a lead time up to two years would be rcquired for this purpose. There are no Federal, Statc or County projects anticipated in the area that would utilize the same housing market. All persons to be relocated will be provided with the benefits of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 ". The small number of businesses which would be displaced are expectcd to relocate in the same general area, with little or no effect on employment. Replacement sites in the samc gencral area will be available for these firms to relocate. Generally, property values adjacent to Alternate 5 are expected to remain stable. No farm operations will be affected nor will there be any effect upon members of a minority group.

The effect on the tax base for each alternate may be compared in the following table, which gives the direct annual tax loss for highway and rapid transit purposes from the Baltimore City Line to Mount Wilson Lane.

|  | Alternate 5 | Alternale 2 |
| :---: | :---: | :---: |
| Unimproved Property | \$ 94, 295. | \$47, 825. |
| Improved Property | 120,735. | 25,886. |
| Total. | \$215, 030. | \$73,711. |

With the project located adjacent to the Western Maryland Railway, construction in the Gwynns Falls floodplain would be similar to that required with the Public Hearing alignment, except that no construction is contemplated south of Old Court Road. North of Old Court Road, a parking area is proposed on the east side of Gwynns Falls for the transit station and interchange ramps with the Baltimore Beltway would be located in the floodplain, both north and south of the Beltway proper. Structures would be built at all locations where it is nccessary to cross the existing Gwynns Falls channel in order to preserve the continuity of the proposed stream valley park and the existing trail system in this area. Noise impacts and the need for noise barricrs would shift with the change in project location, reducing the effects on some arcas and increasing the effects on others. Noise barriers would now be required to protect the east sidc of the Gwynnvale subdivision along Greenwood Road, and also to reduce noisc levels in the remaining portion of the Brittany Apartments. Noise barriers would no longer be required to
reduce noise levels along McHenry Road in Sudbrook Park and along Streamwood Road in Old Court Estates. Alternate 5 is in direct conflict with one historic site (Sudbrook Park Historic District), as shown in the Draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS).

The effects of the Alternate 5 study, which proposes that the project be located adjacent to the Western Maryland Railway north of Sudbrook Road, are summarized and compared to Alternate 2 as follows:
a. The transportation facilities and service provided by Alternate 5 are the same as Alternate 2 proposed at the Public Hearing.
b. The cost of Alternate 5 is approximately $\$ 54.2$ million more than Alternate 2.
c. The effect on the Sudbrook Park Historic District is essentially the same as Alternate 8. (See Volume I, page D-30).
d. Eight additional homes must be acquired with Alternate 5 .
e. 210 apartment units must be acquired with Alternate 5, whereas Alternate 2 requires 0 apartments.
f. 850 additional people will be displaced with Alternate 5.
g. Eight additional businesses must be acquired with Alternate 5.
h. Alternate 5 adversely affects the Woodholme Country Club.
i. Construction is still required in the Gwynns Falls floodplain with Alternate 5 on the north side of Old Court Road and at the Beltway Interchange.
j. The effect on Regional Air Quality is not changed.
k. Alternate 5 proposes that the project be constructed adjacent to the Western Maryland Railway, which decreases predicted noise
levels in some communities, and increases noisc levels in others. Noisc lcvels would be decreased on Windsor Road and McHenry Road in Sudbrook Park, on Idylwood Road in Gwynnvalc, and along Streamwood Road in Old Court Estatcs. Conversely, noise lcvels would be increased on Cobb Road, Robin Road and Greenwood Road in the northern part of Gwynnvale, on the remaining portion of the Brittany Apartments and on adjacont arcas of the Woodholme Country Club.

1. The realignment and detour of the Western Maryland Railway tracks, as required by Altcrnate 5, will cause delays in service during the construction period.

## Dccision - Alternate 5

Based on the results of this study, Altcrnate 5 would cause a tremendously adverse social impact by requiring the relocation of approximately 190 families, with the displacernent of almost 1000 peoplc. The adversc social cffcct, coupled with other adverse effects noted in the above summary, are the principal reasons for dropping Alternate 5 from further consideration.

## - Studies to Avoid the Sudbrook Park Historic District -

Sudbrook Park was made a Historic District and placed on the National Register of Historic Places in Junc, 1973. This required a study to determine if there is any feasible and prudent location for the project to avoid the Sudbrook Park Historic District and resulted in the development of Alternate $A$ and Alternate $B$. A review of the existing land use in the vicinity of Sudbrook Park shows intensive residential development on both sides of the Historic District from the Baltimore City Line to the Baltimore Beltway. This can be seen very graphically on the location map, which is inaluded as Drawing No. 9 in this Statement. In considering various alignments to ascertain if there is any feasible and prudent location to avoid the Sudbrook Parkfistoric District on the east or west side, it is evident that a location east of the Historic District and the Western Maryland Railway is far less damaging in the number of homes that would be removed and families displaced. Studics to minimize the adverse effects on Sudbrook Park begin on page D-27 in this Volume.

## - Altermate A Alignment Study -

The location proposed for Alternate A, as shown on Drawing No. 11, is identical to that presented for Alternates 1 and 2 at the Public Hearing from the Baltimore City Line to the north side of Relocated Milford Mill Road, where the alignment crosses under the tracks to the east side of the Western Maryland Railway. Northerly from this crossing, the alignment generally parallels the Railway approximately 600 to 1000 feet east of the tracks, and rojoins Aiternate 2 as proposed at the Fublic Fiearing north of the Baltimore Beltway (I-695) in the vicinity of Mount Wilson Lane (Maryland Route 400). Structures would be provided to underpass Sudbrook Road, to cross over Old Court Road and the Baltimore Beltway. All other strects intersected by the project would either be terminated with a cul-de-sac or interconnected with other streets in the area by a system of service roads. The scmi-directional interchange proposed with the Baltimore Beltway (I-695) is situated approximately 3000 feet south of the existing Reisterstown Road-Beltway Interchange. This substandard interchange spacing will require the redesign and reconstruction of a portion of the existing inter change.

The grade of Alternate $A$ is in a depressed section from the point where it crosses to the east side of the Western Maryland Railway, north of Relocated Milford Mill Road, and remains depressed for the entire length northerly to Mount Wilson Lane. The roadway and rapid transit farilitics would be constructed on an average of 20 to 25 fect below the elcvation of the existing ground.

Alternate A would have an Expressway classification (Freeway by A.A.S.I. T.O. definition), conform to regional and state plans, have the same major design features, and provide the same excellent transportation service as the Public Hearing proposals.


PLAN-ALTERNATE A ALIGNMENT STUDY

The estimated costs of the roadway and rapid transit system included under Alternate A from the Baltimore City Line to Mount Wilson Lane are listed below, along with comparative costs for Alternate 2 through Sudbrook Park, as developed for the Public Hearing. These costs are based on 1974 prices.


The road user cost is relatively the same for Alternate A and Alternate 2.

In order to avoid the Historic District, Alternate $A$ has been located on the east side of the Western Maryland Railway, where the alignment passes through and divides the following established neighborhoods:

| East Sudbrook Park | North of Slade Avenue |
| :--- | :--- |
| Ralston | South of Sudbrook Lane |
| Sudvalc | - North of Sudbrook Lane |
| Church Hill | North of Church Lane |
| Woodholme Estates | - North of Old Court Road |

The alignment also passes through the private Woodholme Country Club and would affect 3 of the 18 holes in their golf course. Because the proposed alignment for Alternate A is situated in a heavily developed residential area, a large number of residences would have to be acquired and the occupants displaced. The estimated number of homes and people affected by Alternate A, from the Baltimore City Line to Mount Willson Lane, are listed below, along with the comparable effect of the Alternate 2 alignment through the Historic District.

|  | Alternate A | Alternate 2 |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
|  | 193 | 78 |  |
| Improved Properties Affected | 46 | 50 |  |
| Homes previously Acquired by SHA | 41 |  | 23 |
| Homes to be Acquired | 6 | 5 |  |
| Businesses to be Acquired | 142 | 20 |  |
| Families to be Relocated | $710-735$ | $100-125$ |  |

The same housing market and the same relocation assistance policies are available for those to be relocated as noted under Alternate 5. The businesses which would be displaced by Alternate A are expected to relocate in the same gencral area with a temporary effect on employment. Rcplacement sites in the samegencral arca will be available for these firms to rclocate. Generally, property valucs adjacent to the project are expected to remain stablc. No farmoperations will be affected, nor will there be any effect upon members of a minority group.

The effect on the tax base for each alternate may be compared in the following table, which gives the direct annual tax loss for highway and rapid transit purposes from the Baltimore City Line to Mount Wilson Lane.

|  | Alternate A | Alternate 2 |
| :---: | :---: | :---: |
| Unimproved Property | \$. 51, 340. | \$47, 825. |
| Improved Property | 129,540. | 25,886. |
| Total. | \$180,880. | \$73, 711. |

Alternate A removes all construction out of the Gwynns Falls Stream Valley in the vicinity of the Baltimore Beltway, thereby minimizing the impacts on the proposed stream valley park, the trail system and water quality in this area. The depressed gradient proposed for Alternate A, coupled with the alignment change, would remove all adverse effects of increased noise levels and remove all visual objections to the highway/rapid transit proposal through the Sudbrook Park Fistoric District. Alternate A docs not directly conflict with any historic sites.

Summarized below are the major adverse effects on other neighborhoods as a result of Alternate $A$, which shifts the project alignment to the east side of the Western Maryland Railway:

> Division of the East Sudbrook Park Community
> Division of the Ralston Community
> Division of the Sudvale Community
> Division of the Church Fill Community
> Division of the Woodholme Estates Community
> Division of the Woodholme Country Club
> 118 Additional Homes to be Acquired
> 610 Additional People to be Displaced
> Increased Noise in other Communities
> Visual Intrusion on other Communities

$$
\text { Decision Alternate } A
$$

Based on the results of this study, Alternate $A$ is not considered a feasibleand prudent alternative to the use of land from the Sudbrook ParkHis toric District because of the adverse social impacts including major dis ruption and division of a number of communities, and the large number of people that would be displaced and have to be relocated.

A second alternate alignment on the east side of the Western Maryland Railway (designated as Alternate B) was studied to avoid the Sudbrook Park. Historic District and, at the same time, attempt to minimize the division of so mery meighborhoods and the displacement of so many people. Alternate B, as shown on Drawing No. 12, is also identical to that presented for Alternates 1 and 2 at the Public Hearing from the Baltimore City Line to the north side of Relocated Milford Mill Road, where the alignment crosses under the tracks to the east side of the Western Maryland Railway. At this point, Alternate $B$ deviates from Alternate $A$ by returning to the west side of the Railway 1300 feet north of Sudbrook Road, where it rejoins the Alternate 2 alignment proposed at the Public Hearing. A structure would be provided to underpass Clarendon Road and all other streets intersected by the project would either be terminated with a cul-de-sac, or connected with other streets in the area by service roads. Alternate $B$ passes through the East Sudbrook Park, Ralston and Sudvale subdivisions.

The grade of Alternate B is in a depressed section from the point where it crosses to the east side of the Western Maryland Railway, just north of Relocated Milford Mill Road, and remains depressed for the entire length until it returns to the west side of the railroad north of Sudbrook Road. The roadway and rapid transit facilities east of the railroad would be constructed an average of 20 to 25 feet below the elevation of the existing ground.

Alternate $B$ would also have an Expressway classification (Freeway by A.A.S.H.T.O. definition), conform to regional and state plans, have the same major design features, and provide the same excellent transportation service as the Public Hearing proposal.

The estimated costs of the roadway and rapid transit system included under Alternate $B$ from the Baltimore City Line to Mount Wilson Lane (Maryland Route 400) are listed below along with comparative costs for Alternate 2 through the Sudbrook Park Historic District as presented at the Public Hearing. These costs are based on 1974 prices.

|  | $\frac{\text { Alternate } B}{(3.8 \text { miles })}$ | $\frac{\text { Alternate } 2}{(3.6 \text { miles })}$ |
| :---: | :---: | :---: |
| Highway Construction (1) | \$36, 295,000. | \$25, 700, 000. |
| Rapid Transit Construction | 29,500,000. | 29,303,000. |
| Right-of.-Way Costs | 17,576,000. | 7,231,000. |
| Total Comparative Costs | \$83, 371,000. | \$62, 234,000. |

The road user cost would be relatively the same for Alternate $B$ and Alternate 2.


PLANEALTERNATEB ALIGNMENT STUDY

The estimated number of homes and people affected by Alternate $B$ from the Bal.timore City Line to Mount Wilson Lane (Maryland Route 400) are listed below along with the comparable effect of the Alternate 2 alignment through the Historic District.

|  | Alternat: |  |
| :--- | :---: | :---: |
|  |  | Alternate 2 |
| Improved Properties Affected | 184 |  |
| Homes previously Acquired by SHA | 50 | 78 |
| Homes to be Acquired | 127 | 50 |
| Businesses to be Acquired | 7 | 23 |
| Families to be Relocated | 127 | 5 |
| People to be Displaced | $630-670$ | $100-125$ |

The same housing market and the same relocation assistance policies are available for those to be relocated as noted under Alternate 5 . The few businesses affected are expected to relocate in the same general area, with little or no effect on employment. Generally, property values adjacent to Alternate $B$ are expected to remain stable. No farms are affected nor will there be any effect on members of a minority group.

The effect on the tax base for each alternate may be compared in the following table, which gives the direct annual tax loss for highway and rapid transit purposes from the Baltimore City Line to Mount Wilson Lane.

|  | Alternate B | Alternate 2 |
| :---: | :---: | :---: |
| Unimproved Property | \$ 47, 240. | \$47, 825. |
| Improved Property | 101,180. | 25,886. |
| Total. | \$148, 420. | \$73, 711. |

The depressed gradient proposed for Alternate $B$, coupled with the olignment change, would remove all adverse effects of increased noise levels and remove all visual objections to the highway/rapid transit proposal through the Sudbrook Park Historic District.

Summarized below are the major adverse effects on other neighborhoods as a result of Alternate B, which also shifts the project alignment to the east side of the Western Maryland Railway.

> Division of the East Sudbrook Park Community
> Division of the Ralston Community
> Division of the Sudvale Community
> 104 Additional Homes to be Acquired
> 540 Additional People to be Displaced
> Increascd Noise in other Communities
> Visual Intrusion on other Communities

Based on the results of this study, Alternate B would cause unreasonable community disruption and division in the established neighborhoods on the cast side of the Western Maryland Railway, in addition to the displacement of a large number of peoplc. Alternate $B$ is not considered a feasible and prudent alternative to the use of land from the Sudbrook Park Historic District.

- Studies to Minimize the Adverse Effects on the Sudbrook Park Historic District -

The historical importance of Sudbrook Park may be found in several areas of significance. First, it was planned by Frederick Law Olmsted, one of the designers of modern urban planning, who emphasized the retention of natural contours and curvilinear forms. Sudbrook Park embodies these features, which characterizes Olmsted's approach to landscape planning. Architecturally, the homes in Sudbrook Park are typical of an upper and middle class summer resort of the early 20th Century and attracted some of Baltimore's most prominent citizens. Since the existing street pattern and distinctive architecture of the houses form the basis of the historical significance of this area, replacement acreage and replacemont housing at another location would not minimize the adverse effect on this historic site. Therefore, all planning proposals have been aimed at reducing the right-of-way requirements and restoring the area to its present condition. The planning proposed to minimize harm to the Sudbrook Park Historic District has been based on two different assumptions. The first assumes that a Combined Expressway/Transit Facility is necessary south of the Baltimore Beltway, and the design modifications made to Alternates 1 and 2 have been included as Alternate 8. The second assumes that the highway portion of the project is not necessary south of the Baltimore Beltway, and the proposals developed with Rapid Transit only have been designoted as Alternates 7, 9 and 9A.

## - Alternate 8 Study -

The project, as proposed with Alternate 8, would provide the same Expressway and Rapid Transit facilities as planned with Public Hearing Alternates 1 and 2 from the Baltimore City Line to the Baltimore Beltway, except for the following modifications, all of which are designed to reduce the right-of-way requirements and minimize the impacts on the Sudbrook Park Historic District.

The centerline of the project has been redesigned in the vicinity of Sudbrook Park and located as close to the Western Maryland Railway as possible and still conform to A.A.S.H. T. O. and Maryland Department of Transportation design policy. This revision was made possible by changing the concept of the project from a rural to an urban design, the introduction of a camel and retaining walls, and by revisions in the typical section. The following changes were made in the typical section of the project, without sacrificing the safety features required for a modern expressway. A lane reduction through the Milford Mill Interchange has resulted in the elimina timon of one of the three mainline travel lanes in each direction. South of the District, the Milford Mill Interchange ramps would connect with the two mainline travel lanes, resulting in a total of three lanes in each direction.

The outsicle shoulder construction has been modified to provide a 10 to 12 foot paved width with the Jersey Barrier for safety. The cut slopes have been eliminated and replaced by retaining walls and tunnels. As a result, the center line has been shifted closer to the Railroad as much as 75 feet at the northern boundary of the Historic District. Drawing No. 13 is a plan of the project through S.inrook Park and shows the original centerline as proposed at the Public Hearing and the revised project centerline as described above. The proposed profile grade line has been lowered an average of 6 feet through the Historic District in order to provide sufficient cover for the tunnel planned in this area.

It is also proposed to construct a 3-cell reinforced concrete tunnel to accommodate the Rapid Transit Facility in the center cell with the three-lane northbound and southbound roadways located in the two outer cells. The cells of the tunnel would vary in length under Sudbrook Road, Greenwood Road and Howard Road, with retaining walls extended throughout the remainder of the Historic District. The tunnel limits are indicated on Drawing No. 13, a plan view of the project. All three cells at the northern tunnel portal terminate approximately 340 feet north of Sudbrook Road. The southern portal of the easternmost cell is located about 100 feet south of Sudbrook Road. The southern portal of the westernmost cell is located approximately 500 feet south of Sudbrook Road. The southern end of the tunneil forms a sawtooth pattern terminating at three different locations, as required, to permit the reconstruction of Howard Road over the tunnel in its original location. Sudbrook Road and Greenwood Road would also be rebuilt in their original locations, thereby replacing the existing road system and maintaining the gateway effect to Sudbrook Park. A visual screen, consisting of a landscaped earth mound five feet in height, would be constructed at the tunnel portals and along the east side of Howard Road for the entire length of construction. Aesthetically designed fencing for the safety of children and animals is also proposed along all retaining walls and tunnel portals. Surface gratings required for tunnel ventilation would be constructed with a low profile and be hidden from view by landscaping.

The tunnel would be built using a cut and cover construction procedure, requiring the removal of trees and the existing roads during the construction period. Sudbrook Road and Greenwood Road traffic would be maintaine on temporary roads during this period, but Howard Road would be temporarily closed to through-traffic. After the tunnel construction has been completed, a minimum of 5 feet of earth would be placed over the tunnel roof and be graded to the contour of the original ground surface and the entire area landscaped.

The estimated costs of Alternate 8, including the modifications described above, are compared with Alternate 2, using identical study limits from the Baltimore City Line to Mount Wilson Lane. The costs are based on 1974 prices.


## PLAN-ALTERNATE 8 STUDY




|  | $\frac{\text { Alternate } 8}{(3.6 \text { miles })}$ | $\frac{\text { Alternate } 2}{(3.6 \text { milcs })}$ |
| :---: | :---: | :---: |
| Highway Construction (1) | \$35,449.000. | \$25,700, 000. |
| Rapid Transit Construction | 33,208,000. | 29,303,000. |
| Right-of-Way Costs | 7,231,000. | 7,231,000. |
| Total Comparative Costs | \$75,888,000. | \$62, 234, 000. |
| (1) Based on semi-directional interchange at Baltimore Beltway. |  |  |

The road user cost would be relatively the same for both Alternate 8 and Alternate 2.

The revised planning, as proposed to minimize the adverse effects of the project on Sudbrook Park, including the tunnel, retaining walls, landscaping, ctc., is estimated to cost approximately $\$ 10,100,000$ based on 1974 prices.

Alternate 8, which reduces the width of construction through the Sudbrook Park area, follows the same general alignment as the Combined Expressway/Rapid Transit Facility proposed with Public Hearing Alternate 2. The estimated number of homes and people affected by these proposals: from the Baltimore City Line to Mount Wilson Lane, are listed below for comparative purposes.

|  | Alternate 8 | Alternate 2 |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
|  | 75 | 78 |  |
| Improved Properties Affected | 50 | 50 |  |
| Homes previously Acquired by SHA | 20 | 5 |  |
| Homes to be Acquired | 5 | 5 |  |
| Businesses to be Acquired | 17 | 20 |  |
| Families to be Relocated | $85-110$ | $100-125$ |  |

A recent survey of available replacement housing in this area of Baltimore County indicated that there were approximately 100 single-family dwellings for sale, at anygiven time, that are within the financial means of those to be relocated. In addition, approximately 55 rental units were available in the immediate vicinity, should any of these families desire to rent. This information was gathered in August, 1975, the time of this study. Relocation assistance could be accomplished for Alternate 8 , with a lead time of approximately 12 months required for this purpose. There are no Federal, State or County projects anticipated in the area that would utilize the same housing market. All persons to be relocated will be provided with the benefits of the UUniform Relocation Assistance and Real Property Acquisition Policies Act of 1970". The small number of businesses which would be displaced are expected
to relocate in the same general area with little or no affect on employment. Replacement sites in the samegeneral area will be available for these firms to relocatc. Generally, property values adjacent to Alternate 8 are cxpected to remain stable, No farm operations will be affected, nor will there be any effect upon members of a minority group.

Altcrnate 8 would directly conflict with the Sudbrook Park His toric District. Realignment of the project, coupled with revisions in the typical section and construction of a tunncl and retaining walls through the Sudbrook Park Historic District, has affected a substantial reduction in right-of-way requirements, as shown by the following comparison:

## Alternate 8

$6.6 \pm$ Ac. $(100 \%)$
$2.3 \pm$ Ac. $(35 \%)$
2. 5士 Ac. ( $38 \%$ )

1. $8 \pm$ Ac. $(27 \%)$

4

Alternate 2
$10.1 \pm$ Ac. $(100 \%)$
4. $0 \pm$ Ac. ( $40 \%$ )
3. $8 \pm$ Ac. ( $38 \%$ )
2. $3 \pm \mathrm{Ac} .(22 \%)$ 10

The total right-of-way requirements through the Historic Dis trict have becn reduced by 3.5 acres and 6 of the 10 homes originally scheduled for demolition can be saved.

The proposed tunnel through the Historic District will cnable the reconstruction of the streets within the District to have the same alignments and grades as when they werc originally built in 1892. The pavement will be constructed of crushed stone and asphalt, and present a surface texture and color consistent with the other streets in the District. The cxisting bridge carrying Sudbrook Road over the Western Maryland Railway will romain unchanged by the proposed construction. Baltimore County, by letter dated February 9, 1970, advised the State that this bridge was inadequate and rccommended completc reconstruction along with the relocation of Sudbrook Road. The decision to replace the existing strect pattern will not affect any proposal the County may have to replace this inadequate structure. All of the planning proposed with Alternate 8 has been carcfully designed to replace the gateway to Sudbrook Park, to reduce the impact from noise and to recapture as much as possible the attractive open space of the Historic District prior to the proposed construction.

## Decision - Alternate 8

Other studies deleting the proposed Northwest Expressway south of the Baltimore Beltway have resulted in further reductions in the adverse impact:s of the project on the Sudbrook Park Historic District and on adjacent communitics, parks and the Gwynns Falls floodplain. For this reason, Alternate 3 is not recommended for adoption by the Md. Dept. of Transportation.

Alternate 7 proposes project revisions to the Phase I Rapid Transit Facility and Relocated U. S. Route 140 (Northwest Expressway) from the Baltimore City Line to Mount Wilson Liane. The Northwest Expressway, as proposed at the Public Hearing (Alicrintes 1 and 2) would not be included as part of the project from the Baltimore City Line to the Baltimore Beltway. Wabash Avenue would be extended northerly from Patterson Avenue to Milford Mill Road, which would be relocated to the north and connect to Slade Avenue at Reisterstown Road. The Phase I Rapid Transit would continue through the area gencrally following the alignment proposed with Alternates 1 and 2. The detailed planning proposed with Alternate 7 is described below and is also shown on Drawing No. 14.

The southern terminus of the Nor thwest Expressway, as proposed with Alternate 7, would be a directional interchange with the Baltimore Beltway. The Beltway Interchange is located west of the Western Maryland Railway within the right-of-way previously purchased by the State Highway Administration, and is the same location proposed for this interchange at the Public Hearing. Directional ramps are provided to permit southbound traffic on the proposed Northwest Expressway to turn in either direction on the Beltway and for the return movements. North of the Baltimore Beltway, the proposed Expressway would continue northerly as a dual highway, with complete control of access, and have the same geometric and safety features as other alternates on new location.

Wabash Avenue is continued from Patterson Avenue in Baltimoxe City northerly to Relocated Milford Mill Road in Baltimore County, a distance of approximately 1.1 miles. The alignment parallels the south side of the Western Maryland Railway from Patterson Avenue to Mellinee Avenue, where both the roadway and rajlroad curve to the north and, at the same time, separate to provide space for the proposed Milford Mill Transit Station and parking area. Wabash Avenue parallels the east side of Rockland Avenue from Bedford Road to Relocated Milford Mill Road. The improvement would consist of dual 36 -foot urban roadways, curbed on both sides and separated by a raised 16 -foot median and be constructed within the right-ofway proposed for the Northwest Expressway. Control for horizontal and vertical alignment, as well as other geometric features, is based on a $50-$ mile per hour design speed. There would be no control of access except for the policy and standards established by the State IIghway Administration for the design and construction of residential and commercial entrances. Crossovers would be provided at all intersecting roads, and left-turn lanes in the median are planned for safety and the increased capacity obtained at intersections.

Relocated Milford Mill Road begins at Woodside Road, connects to the proposed extension of Wabash Avenue with an at-grade intersection, crosses over the proposed Rapid Transit Line and Western Maryland Railvay
and, curving to the north, connests to Reisterstown Road at Slade Avenue. A comnection from Relocated Milford Mill Road to existing Milford Mill Road is also proposed in the vicinity of Decrficld Road. Relocated Milford Mill Road would be constructed as a 50 -foot curbed strect, with widenings for left-turns at major interscetions in the vicinity of the rapid transit parking areas.

The tracks of the Rapid Transit Facility are located between Wabash Avenue and the Western Maryland Railway from the Baltimore City Line to Milford Mill. Road, and remain adjacent to the west side of the Westcrn Maryland Railway from Milford Mill Road to Sudbrook Road. In the vicinity of Sudbrook Road, the transit alignment passes through the northeast cdge of the Sudbrook Park Historic District, curves away from the Railroad and follows the original Expressway alignment, as proposed at the Cor ridor Public Hearing. After crossing Gwynns Falls, Old Court Road and the Baitimore Beltway, the rapid transit tracks enter the median of the proposed Northwest Expressway and remain in the median to the northern terminus at Owings Mills. Structures for the Rapid Transit Facility are required at the following locations for this study: Bridge carrying Relocated Milford Mill Road over the transit linc and railroad; cut and cover tunncl under Howard Road, Sudbrook Road and Greenwood Road; bridge over Gwynns Falls, south of the 13 cltway; bridges carrying two directional Beltway ramps over the transit line; bridge over Gwymns Falls, north of the Beltway. The transit line also utilizes the existing bridges at Relocated Old Court Road and the Baltimore Beltway, previously constructed for the Northwest Express way.

Within the study limits of Alternate 7, rapid transit stations are proposed at Milford Mill Road and Old Court Road. The Milford Mill Station platform i.s located 700 fect south of Relocatcd Milford Mill Road, with parking areas situated on both sides of the station platform between Wa bash Avenue and the Western Maryland Railway. Local acecss to the west parking lot is proposed from Milford Mill Road and Bcdford Road via Wabash Avenue, and to the east parking lot via cxisting Milford Mill Road. The Old Court Station platform is proposed to be located under the existing Relocated Old Court Road Bridge. The parking lot for the Old Court Road Station would be located at ground level on the east side of Gwynns Falls and north of Old Court Road. Vchicular access to the parking lot is via Old Court Road, and a pedestrian bridge over Gwynns Falls would conncet the parking lot with the station platform.

The estimated costs of Alternate 7, including the Northwest Expressway from the Baltimore Beltway to Mount Wilson Lane, the extension of Wabash Avenue, relocation of Milford Mill Road, mainline and station areas for rapid transit and right-of-way, are comparcd below with Altcrnate 2, using identical study limits from the Baltimore City Line to Mount Wilson Lanc. The costs are bascd on 1974 prices.

## Alt. $7(2.1 \mathrm{mi}$.$) \quad Alt. 2(3.6 \mathrm{mi}$.

Highway Construction (1)
Rapid Transit Construction
Right-of-Way Costs
Total Comparative Costs
$\$ 13,619,000$.
\$25,700, 000.
25,608, 000 .
29, 303, 000 .
6,065,000.
$\$ 45,292,000$.

7,231,000.
\$62, 234, 000.
(1) Based on directional intcrchange at Baltimore Beltway.

The major difference in transportation services provided by Altcrnate 7, is the termination of the Northwest Expressway at the Baltimore Beltway, with no direct highway connection to existing Wabash Avenue in Baltimore City. Traffic on the Northwest Expressway, with destinations in Baltimore City, would be required to turn onto the Baltimore Bcltway and utilize existing arterials leading into the City. A traffic analysis, bascd on the BREIS alternativcs, has been made by Alan M. Voorhees and Associates, Inc. to determine the affect on the corridor road system assuming the Northwest Expressway is abandoned south of the Baltimore Beltway. The conclusions reached from this analysis are noted below.
(1) From an overall point of view, Alternate 2 and Alternate 7 generate similar overall traffic demands in the corridor.
(2) Outside of the Beltway, Liberty Road, Reisterstown Road and the proposed Northwest Expressway exhibit identical traffic volumes for bothalternates.
(3) The Baltimore Heltway wnuld also experience an approxinate $5 \%$ increase in lateral traffic demand with Alternate 7 on both sides of the Northwest Express way.
(4) Insidc of the Beltway, there is a change in traffic patterns and volumes on the existing radials -

For Alternate 2, traffic volumes in 1995 are almost equally split between Liberty Road, Northwest Expressway and Reisterstown Road.
For Alternate 7, to compensate for the loss of the Northwest Expressway inside of the Beltway the 1995 traffic is increased on other existing arterials. The comparative effect on traffic volumes are shown below:

Location
Jones Falls Expressway, South of I-695
Reisterstown Rd., South of I-695
Northwest Expressway, South of I-695
Liberty Road, East of I-695
Interstate Route 70, East of I-695
I- 695 (Liberty Road to Northwest Expressway)
I-695 (Northwest Fxpressway to Reisterstown Rd.)
I-695 (Rcistcrstown Rd. to Park Heights Avcnue)

Alt. 2
1995 ADT
.98, 000 30, 000 29, 200
36, 000
90, 000
139,100
123,500
124,500

Alt. 7
$\frac{1995 \text { ADT }}{102,000}$
42, 150
44, 000
95,000
144,800
131,100
124,250

The following stcps can be taken to minimize the cffect of diverting additional traffic to existing arterials:
a. Relocate Milford Mill Road to Slade Avenue, as proposed as part of the Northwest Transportation Corridor Project, thercby rcducing the Milford Mill Road "Tie" intersection with Reistcrstown Road to a very minor roic.
b. Rebuild the intcrscction of Reisterstown Road and Slade Avenuc, and provide five traffic lanes on Reisterstown Road (four thru lanes plus one lcft-turn lanc). Additional lancs for qucuing should be provided on Slade Avenue, thercby increasing the "grecn time" for Rcisterstown Road traffic. A continuous travel path would also be provided for communities west of Reisterstown Road to Park Heights Avenue and beyond which is not afforded today at the "Tee" intersection of existing Milford Mill Road.
c. Rebuild the Sudbrook Lane-Reisterstown Road intersection and add queuing lanes on Sudbrook Lane west of Reisterstown Road, which would increase the green signal time on Reisterstown Road. Sudbrook Lane also provides a continuous travel path from Sudbrook Park to Park Heights Avenue and beyond.
d. Widen Park Figights Avenue to four lanes between Old Court Road and Slade Avenue. This would offer an attractive "bypass" of Pikesville for thc longer, thru-traffic trips.
e. Incorporate the signalized intersections in Pikesville into a sub-systcm of Baltimore County traffic signal system.
f. Continuc the parking restrictions presently in force on Reisterstown Road. This, coupled with off-street parking where possible and the improvements listed above, would provide four continuous thru-lanes of traffic through Pikesville which would not only maximize the capacity of the arterial, but would tend to reduce the potential hazard of accidents with turning and parking vehicles.
g. The capacity of Liberty Road can be increased by establishing 3 lane- 2 lane rcversible traffic flow during peak hours with rcstricted left-turns.

Alternate 7, which proposes rapid transit alone from Milford Mill Road to the Beltway, follows the same general alignment as the Combine Expressway/Rapid Transit Facility proposed with the Public Hearing Alternate 2. The estimated number of homes and people affected by these proposals from the Baltimore City Line to Mount Wilson Lane are listed below for comparative purposes.

## Alternate $7 \quad$ Alternate 2

| Improved Properties Affected | 60 | 78 |
| :--- | ---: | :---: |
| Homes previously Acquired by SHA | 50 | 50 |
| Homes to be Acquired | 5 | 23 |
| Businesses to be Acquired | 5 | 5 |
| Families to be Relocated | 5 | 20 |
| People to be Displaced | 25 | $100-125$ |

The same housing market and the same relocation assistance policies are available for those to be relocated, as noted under Alternate 8. The small number of businesses which would be displaced, are expected to relocate in the same general area with little or no effect on employment. Replacement sites in the same general area should be available for these firms to relocate. Generally, property values adjacent to the project are expected to remain stable. No farm operations will be affected, nor will there be an effect upon members of a minority group.

The project, as proposed with Alternate 7, requires the 2track Rapid Transit Facility to pass through the northeastern edge of the Sudbrook Park Historic District, and would tend to minimize the right-of way requirements through the Historic District, as shown by the following comparison:

Alternate 7 Alternate 2
Total Right-of-Way Required

| $5.2 \pm$ Ac. $(100 \%)$ | $10.1 \pm$ Ac. $(100 \%)$ |
| :---: | :---: |
| $1.2 \pm$ Ac. $(23 \%)$ | $4.0 \pm$ Ac. $(40 \%)$ |
| $2.5 \pm$ Ac. $(48 \%)$ | $3.8 \pm$ Ac. $(38 \%)$ |
| $1.5 \pm$ Ac. $(29 \%)$ | $2.3 \pm$ Ac. $(22 \%)$ |
| 2 | 10 |

Private property to be acquired would be reduced from $3.8 \pm$ Ac. to $2.5 \pm$ Ac., and 8 of the 10 homes required with Alternate 2 can be saved. The significant two-story house at 753 Howard road is located over
the transit tunnel and, rather than demolish this dwelling, it will be moved to a lot on the west side of Howard Road, direetly opposite 753 and north of 726 Howard Road. The site is now owned by the State Highway Adminis tration, and 753 Howard Road can be moved to this property prior to eonstruction. After the projeet has been eompleted, the house moved from 753 Howard Road would be rehabilitated and sold at publie auetion.

The eonstruetion of Alternate 7 through the Gwynns Falls floodplain would be similar to that required with the Publie Hearing alignment (Altcrnate 2), exeept for the reduction in number of bridge structures. Noise impacts would be rcduced with Alternate 7 beeause there would be no Expressway traffic south of the Baltimore Beltway.

## Decision - Alternate 7

The Maryland Dcpt. of Transportation has adopted the portion of Alternate 7 from Greenwood koad to Mount Wilson Lane, as part of the reeommended alternate. Alternate 7 proposes the construction of the Rapid Transit Facility generally along the alignment originally proposed for the Combincd Facility from Greenwood Road to the Beltway, and ineludes a transit station and parking lot located on the north side of Old Court Road. A directional interchange at the Balimore Beliway is proposed as the southern terminal of the Northwest Expressway, and at this location the rapid transit tracks enter the median of the Expressway. North of the Beltway, the proposed Expressway and Rapid Transit Line would continue northerly as a Combined Facility to Mount Wilson Lane.

As described above, the planning proposed with Alternate 7 from Greenwood Road to Mount Wilson Lane, is in agreement with the Statc's basic decision to terminate the higbway portion of the project at the Baltimore Beltway. This decision is a result of the State's efforts to minimize the adverse effects of the project on the Sudbrook Park His toric District, to reducc impacts on adjacent communities, parks and the Gwynns Falls floodplain and to achieve a cost savings.

Alternate 9 proposes project revisions to the Phase I Rapid Transit Facility and Relocated U. S. Route 140 (Northwest Expressway) from the Baltimore City Line to Mount Wilson Lanc. The Northwest Expressway, as proposcc de the Public Hearing (Alternates 1 and 2) would not be included as part of the project from the Baltimore City Line to the Baltj.more Beltway; however, the Phase I Rapid Transit would be continued through this area. The detailed planning proposed with Alternate 9 is described below, and is also shown on Drawing No. 15.

The southern terminus of the Northwest Expressway, as proposed with Alternate 9, would be a directional interchange with the Baltimore Beltway. The Beltway Interchange is located west of the Western Maryland Railway within the right-of-way previously purchased by the State Highway Administration, and is the same location proposed for this interchange at the Public Flearing. Directional ramps are provided to permit southbound traffic on the proposed Northwest Expressway to turn in either direction on the Beltway and for the return movements. North of the Baltimore Beltway, the proposed Expressway would continue northerly as a dual highway, with complete control of access, and have the same geometric and safety features as other alternates on new location.

The tracks of the Rapid Transit Facility are located west of the Western Maryland Railway generally following the alignment proposed with Nlternatcs 1 and 2, from the Baltimore City Line to Milford Mill Read, and are contiguous to the west side of the Western Maryland Railway from Milford Mill Road to the Baltimore Beltway.

The relocation proposed for Milford Mill Road begins at Woodside Road, crosses over the proposed Rapid Transit Line and Western Maryland Railway and, curving to the north, connects to Reisterstown Road at Slade Avenue. A connection from Relocated Milford Mill Road to existing Milford Mill Road is also proposed in the vicinity of Decrfield Road. Relocated Milford Mill Road would be constructed as a 50 -foot curbed street, with widenings for left-turns at major intersections in the vicinity of the Rapid Transit parking lots. The transit alignment passes through the northeast edge of the Sudbrook Park Historic District adjacent to the railroad in an open cut and underpasses Sudbrook Road. Retaining walls are proposed through the Historic District in order to minimize right-of-way requirements. North of the Baltimore Beltway, the rapid transit tracks enter the median of the proposed Northwest Expressway and remain in the mecian to the northern terminus at Owings Mills. Structures for the Rapid Transit Facility are required at the following locations for this study: Bridge carrying Relocated Milford Mill Road over the Transit Line and railroad; bridge carrying Sudbrook Road over the Transit Line and railroad; rapid transit bridge over Church Lane, Old Court Road and the Beltway; bridges carrying two directional Beltway ramps over Access Roads to the Old Court Road parking lot; and a rapid transit bridge over the railroad, north of the Beltway.

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Within the study limits of Alternate 9, rapid transit stations are proposed at Milford Mill Road and Old Court Road. The Milford Mill Station platform is located 700 feet south of Relocated Milford Mill Road, with parking areas situated on both sides of the station platform between Rockland Avenue and the Western Maryland Railway. Local access to the west parking lot is proposed from Relocated Milford Mil Road and to the east parking lot via existing Milford Mill Road. The Old Court Station platform is proposed to be located 800 feet north of existing Old Court Road. The parking lot for the Old Court Station would be located north of Old Court Road at ground level from the east side of Gwynns Falls to the Railroad, and a smaller lot on the east side of the Western Maryland Railway. Local access to the parking lots is via Old Court Road, and a pedestrian tunnel under the Railroad would connect the east parking lot with the station platform. Ramps within the Baltimore Beltway/Northwest Expressway Interchange will provide direct access from the Baltimore Beltway to the Old Court parking lot east of Gwynns Falls.

The project costs, transportation services and the social, economic and environmental effects of Alternate 9 are described below and, where possible, tables have been developed in order to present a meaningful comparison between Alternate 9 and Alternate 2, as proposed at the Pubic Hearing.

The estimated costs of Alternate 9, including the Northwest Expressway from the Baltimore Beltway to Mount Wilson Lane; the relocation of Milford Mill Road; mainline and station areas for rapid transit and rightof -way are compared below with Alternate 2, using identical study limits from the Baltimore City Line to Mount Wilson Lane. The costs are based on 1974 prices.

corridor road system, assuming the Northwest Expressway is abandoned south of the Baltimore Beltway. The conclusions reached from this analysis are the same as stated for Alternate 7 on page D-33, (Volume I).

Alternate 9 proposes rapid transit only from the Baltimore City Line to the Beltway, as compared to the Combined Expressway/Rapid Transit Facility proposed with the Public Hearing Alternate 2. The estimated number of homes and people affected by thesc proposals from the Baltimore City Linc to Mount Wilson Lanc are listed below for comparative purposes.


#### Abstract

Alternate 9 Alternate 2 Improved Properties Affected $65 \quad 78$ Homes previously Acquired by SHA Homes to be Acquired 50 50

Businesses to be Acquired Familics to be Relocated People to be Displaced The same housing market and the same relocation assistance policies are available for those to be relocated as noted under Alternate 8. The small number of businesses which would be displaced, are expected to relocatc in the same general area, with little or no effect on employment. Replacement sites in the same general area will be available for these firms to relocate. Gererally, properity valucs adjacent to the project are expected to remain stable. No farm operations will be affected, nor will there be any effect upon members of a minority group.


The project, as proposed with Alternate 9, requires the 2track Rapid Transit Facility to pass through the northeastern edge of the Sudbrook Park Historic District and would tend to minimize the right-ofway requirements through the Historic District, as shown by the following comparison:

Total Right-of-Way Required SHA Property Req'd. for Construction Private Property to be Acquired Existing R/W - Public Streets Buildings to be Demolished

## Alternate 9

Alternate 2
2. $0 \pm$ Ac. $(100 \%) \quad 10.1 \pm$ Ac. $(100 \%)$
$0.1 \pm$ Ac. ( $5 \%$ )
4. $0 \pm$ Ac. ( $40 \%$ )
$1.8 \pm \mathrm{Ac} .(90 \%) \quad 3.8 \pm \mathrm{Ac} .(38 \%)$
$0.1 \pm$ Ac. $(5 \%) \quad 2.3 \pm \mathrm{Ac} .(22 \%)$
1
10

Private property to be acquired would be reduced from $3.8 \pm$ Ac. to $1.8 \pm$ Ac., and 9 of the 10 homes required with Alternate 2 can be saved. The historical significant housc at 753 Howard Road is located within the construction area and, rather than demolish this dwelling, it will be moved to a lot on the west side of Howard Road, directly opposite 753 and north of 726 Howard Road. 'The site is now owned by the State Highway Administration, and 753 Howard Road can be moved to this property prior to construction. After the project has bcen completed, the house moved from 753 Howard Road would be rehabilitated and sold at public auction.

The construction of Alternate 9 through the Gwynns Falls floodplain would be similar to that required with the Public Hearing alignment (Altcrnate 2), except for the arca south of Old Court Road. Noise impacts would be reduced with Alternate 9 because there would be no Expressway traffic south of the Baltimore Beltway.

## Decision - Alternatc 9

The Maryland Dept. of Transportation has adcpted the portion of Alternate 9 from the Baltimore City Line to Greenwood Road with modifi cations through the Sudbronk Porl Historin nictrict, as part of the recommended alternate. Alternatc 9 proposes the construction of the Rapid Transit Facility gencrally along the west side of the Western Maryland Railway, from the Baltimore City Line to Greenwood Road, with a transit station and parking lot located south of Rclocated Milford Mill Road, which overpasses the Rapid Transit and railroad and connects into Reisterstown Road at Slade Avenuc.

As described above, the planning proposed with Altcrnate 9 from the Baltimore City Line to Grcenwood Road is in agreement with the State's basic decision to terminate the highway portion of the project at the Baltimore Beltway. This decision is a result of the State's effort to minimize the adverse cffects of the project on the Sudbrook Park Historic District, to reduce impacts on adjacent communities, parks and the Gwynns Falls floodplain and to achieve a cost savings.

The portion of Alternate 9 from Greenwood Road to Mount Wilson Lanc proposes that the Rapid Transit Facility be located adjacent to the west side of the Western Maryland Railway. This would completely destroy the busincss community along Greenwood Road south of Old Court Road and, for this reason, the State did not recommend this portion of Alternate 9 for adoption.

Alternate 9A proposes project revisions to the Phase I Rapid Transit Facility and Relocated U. S. Route 140 (Northwest Expressway) from the Baltimore City Line to Mount Wilson Lane. The Northwest Expressway, as proposed at the Public Healing (Alternates 1 and 2), would not be included as part of the project from the Baltimore City Line to the Baltimore Beltway. Wabash Avenue would be extended northerly from Patterson Avenue to Milford Mill Road, which would be relocated to the north and connect to Slade Avenue at Reisterstown Road. The Phase I Rapid Transit would continue through the area generally following the alignment proposed with Alternates 1 and 2. The detailed planning proposed with Alternate 9 A is described below and is also shown on Drawing No. 16.

The southern terminus of the Northwest Expressway, as proposed with Alternate 9A, would be a directional interchange with the Baltimore Beltway. The Beltway Interchange is located west of the Western Maryland Railway within the right-of-way previously purchased by the State Highway Administration, and is the same location proposed for this interchange at the Public Hearing. Directional ramps are provided to permit southbound traffic on the proposed Northwest Expressway to turn in either direction on the Beltway and for the return movements. North of the Baltimore Beltway, the proposed Expressway would continue northerly as a dual highway, with complete control of access, and have the same geometric and safety features as other alternates on new location.

Wabash Avenue is continued from Patterson Avenue in Baltimore City northerly to Relocated Milford Mill Road in Baltimore County, a distance of approximately 1.1 miles. The alignment parallels the south side of the Western Maryland Railway from Patterson Avenue to Mellinee Avenue, where the roadway and railroad curve to the north and separate to provide space for the proposed Milford Mill Transit Station and parking area. Wabash Avenue parallels the east side of Rockland Avenue from Bedford Road to Relocated Milford Mill Road. The improvement would consist of dual 36 -foot urban roadways, curbed on both sides and separated by a raised 16-foot median and be constructed within the right-of-way proposed for the Northwest Expressway. Control for horizontal and vertical alignment, as well as other geometric features, is based on a $50-\mathrm{mile}$ per hour design speed. There would be no control of access, except for the policy and standards established by the State Highway Administration for the design and construction of residential and commercial entrances. Crossovers and left-turn lanes would be provided ai all intersecting roads. Relocated Milford Mill Road begins at Woodside Road, comnects to the proposed extension of Wabash Avenue with an at-grade intersection, crosses over the proposed Rapid Transit Line and Western Maryland Railway and, curving to the north, connects to Reisterstown Road at Slade Avenue. A connection from Relocated Milford Mill Road to existing Milford Mill Road is also proposed in the

[PLAN-ALTERNATE 9A STUDY:
vicinity of Decrfield Road. Relocated Milford Mill Road would be constructed as a 50 -foot curbed street, with widening for left-turns at major intersections in the vicinity of the rapid transit parking areas.

The tracks of the Rapid Transit Facility are located between Wabash Avenue and tiv Western Maryland Railway from the Baltimore City Line to Milford Mill Road, and remain adjacent to the west side of the Westerin Maryland Railway from Milford Mill Road to Sudbrook Road. The transit alignment passes through the northeast edge of the Sudbrook Park Historic District in an open cut, then curves away from the Railroad following the original Expressway alignment as proposed at the Corridor Public Hearing. North of the Baltimore Beltway, the rapid transit tracks enter the median of the proposed Expressway and remain in the median to the northern ferminus at Owing Mills. Structures for the Rapid Transit Facility are required at the following locations for this study: Bridge carrying Relocated Milford Mill Road over the transit line and railroad; retaining wall through the His toric District; underpasses at Sudbrook Road and Greenwood Road; bridge over Gwynns Falls, south of the Beltway; bridges carrying four Beltway ramps over the transit line; bridge over Gwynns Falls, north of the Beltway. The transit line also utilizes the existing bridges at Relocated Old Court Road and the Baltimore Beltway, previously constructed for the Northwest Expressway. Alternate 9A proposes the use of a bridge structure at Sudbrook Road and retaining walls to carry the Rapid Transit Facility through the Historic District as compared to Alternate 7, which proposes a cut and cover tunnel under Sudbrook Road.

Within the study limits of Alternate 9A, Rapid Transit stations are proposed at Milford Mill Road and Old Court Road. The Milford Mill Station platform is located 700 feet south of Relocated Milford Mill Road, with parking areas situated on both sides of the station platform between Wabash Avenue and the Western Maryland Railway. Local access to the west parking lot is proposed from Milford Mill Road and Bedford Road via Wabash Avenue, and to the east parking lot via existing Milford Mill Road. The Old Court Station platform is proposed to be located 1000 feet north of existing Relocated Old Court Road within the limits of the Northwest Express way/Baltimore Beltway Interchange. Local access would be provided to a ground-level parking lot on the east side of Gwynns Falls and north of Old Court Road. A pedestrian bridge over Gwynns Falls and under two Beltway ramps would connect this parking lot with the station platform. Direct vethicular access from both directions on the Baltimore Beltway and the return movements are also provided to four parking lots located in the Beltway interchange areas. Pedestrian circulation would also be provided to connect these parking lots to the Old Court Station platform.

The project costs, transportation services and the social, economic and environmental effects of Alternate 9A are described below and, where possible, tables have been developed in order to present a meaningful
comparison between Alternate 9 A and Alternate 2, as proposed at the Public Hearing.

The estimated costs of Alternate 9A, including the Northwest Expressway from the Baltimore Beltway to Mount Wilson Lane, the externsion of Wabash Avenue, relocation of Milford Mill Road, mainline and statimon areas for rapid transit and right-of-way are corıpared below with Alternate 2, using identical study limits from the Baltimore City Line to Mount Wilson Lane. The costs are based on 1974 prices.


The major difference in transportation services provided by Alternate 9A is the provision for direct access to the Old Court Rapid Transit Station from the Baltimore Beltway and the termination of the Northwest Expressway at the Baltimore Beltway, with no direct highway connertion to existing Wabash Avenue in Baltimore City. Traffic on the Northwest Expressway, with destinations in Baltimore City, would be required to turn onto the Baltimore Beltway and utilize existing arterial leading into the City. A traffic analysis, based on the BREIS alternatives, has been made by Alan M. Voorhees and Associates, Inc. to determine the affect on the corriclor road system, assuming the Northwest Expressway is abandoned south of the Baltimore Beltway. The conclusions reached from this anallysis are the same as stated for Alternate 7 on page D-33, (Volume I).

Alternate 9A, which proposes rapid transit alone from Milford Mill Road to the Beltway, follows the same general alignment as the Combined Expressway/Rapid Transit Facility proposed with the Public Hearing Alternate 2. The estimated number of homes and people affected by these proposals from the Baltimore City Line to Mount Wilson Lane are listed below for comparative purposes.

|  | Alternate 9A |  | Alternate 2 |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Improved Properties Affected | 60 | 78 |  |
| Homes previously Acquired by SHA | 50 | 50 |  |
| Homes to be Acquired | 5 | 23 |  |
| Businesses to bc Acquired | 5 | 5 |  |
| Families to be Relocated | 5 | 20 |  |
| People to be Displaced | 25 | $100-125$ |  |

The same housing market and the same relocation assistance policies are available for those to be relocated, as noted under Alternate 8. The small number of businesses which would be displaced are expected to relocate in the same general area, with little or no effect on employment. Replacement sites in the same general area should be available for these firms to relocate. Gin, rally, property values adjacent to the project are expected to remain stable. No farm operations will be affected, nor will there be an effect upon members of a minority group.

The project, as proposed with Alternate 9A, requires the 2track Rapid Transit Facility to pass through the northeastern edge of the Sudbrook Park Historic District, and would tend to minimize the right-ofway requirements through the Historic District, as shown by the following comparison.

Total Right-of-Way Required

## Alternate 9A

## Alternate 2

SHf Property Req'd.for Construction
Private Property to be Acquired

| $2.7 \pm A c_{0}(100 \%)$ | $10.1 \pm$ Ac. $(100 \%)$ |
| :---: | :---: |
| $0.2 \pm A c_{0}(6 \%)$ | $4.0 \pm$ Ac. $(40 \%)$ |
| $2.3 \pm$ Ac. $(85 \%)$ | $3.8 \pm$ Ac. $(38 \%)$ |
| $0.2 \pm \Lambda c_{0}(6 \%)$ | $2.3 \pm$ Ac. $(22 \%)$ |
| 1 | 10 |

Private property to be acquired would be reduced from $3.8 \pm$ Ac. to $2.3 \pm$ Ac., and 9 of the 10 homes required with Alternate 2 can be saved. The historical significant bouse at 753 Howard Road is affected by the construction and, rather than demolish this dwelling, it will be moved to a lot on the west side of Howard Road, directly opposite 753 and north of 726 Howard Road. The site is now owned by the State Highway Administraton, and 753 Howard Road can be moved to this property prior to construetion. After the project has been completed, the house moved from 753 Howard Road would be rehabilitated and sold at public auction.

The construction of Alternate 9A through the Gwynns Falls floodplain would be similar to that required with the Public Hearing align.. mont (Alternate 2), except for the reduction in number of bridge structures. Noise impacts would be reduced with Alternate 9 A because there would be no Expressway traffic south of the Baltimore Beltway.

Alternate 9A minimizes the adverse impacts of the project on the Sudbrook Park Historic District by deleting the proposed Northwest Expressway south of the Baltimore Beltway. The construction proposed with Alternate $\dot{9} \mathrm{~A}$, in addition to the Rapid I ransit Facility, is the Extension of Wabash Avenue to Relocated Milford Mill Road and a regional parking area at the Old Court Station located within the limits of the proposed Northwest Expressway -Baltimore Beltway Interchange. Community opposition to highway construction south of the Beltway, and the fact that the concept of a regional transit station was never presented to the public are the reasons that Alternate 9 A has been dropped from further consideration.

At the Public Hearing, the residents in the McDonogh Road area expressed strong objections to the highway interehange and rapid transit station plamned at this location. The objections were based on the reasoning that these facilities would constitute sufficient grounds to warrant denser zoning and would increase the pressure for the development of the Worthington and Greenspring Valleys. As a result of these requests, two alternate studies were made to determine whether the transportation facilities proposed at McDonogh Road could be fulfilled by enlarging and improving the proposed facilities in the Owings Mills area.

The first study, designated as "Alternate 2A", proposes a semi-directional interchange at Relocated Painters Mill Road, with an enlarged terminal rapid transit station located to the north of the interchange and approximately 1700 feet south of Dolfield Road. The seeond study, referred to as "Alternate 2B", proposes a semi-directional interehange at Dolfield Road, with an enlarged terminal rapid transit station located to the south of the interchange and approximately $800^{\prime}$ north of existing Painters Mill Road. The alignment for these studies are similar to Alternate 2, and the plamning for both are described below along with a discussion of the environmental impacts and comparison to Alternate 2, as proposed at the Public Hearing. A third study, "Alternate 2 C ", was also made in this area after the McDonogh School was established as a historic district and determined to be eligible for inclusion in the National Register of Historic Places. The study was devcloped in order to defomme if a fcasible and prudent alternate could avoid the use of land within the Historic District.

## - Alternate 2A Study -

As stated above, this alternate proposal begins at McDonogh Road, where no interchange or rapid transit station or relocation of McDonogh Road itself would be provided. The Expressway and Rapid Trans it Project would underpass existing McDonogh Road approximately 400 feet east of the Western Maryland Railway. The alignment, grade and typical section of the project from Mount Wilson Lane to Pleasant Hill Road is similar to Alternate 2, as proposed at the Public Hearing, except in the area between Painters Mill Road and Dolfield Road where the centerline has been shifted an average of 500 feet to the west in order to provide the necessary space for a semi-directional roadway interchange, and for increased parking requirements at the rapid transit station. (See Drawing No. 17) Painters Mill Road is planned to be relocated on the northwest side of the existing road, beginning at its intersection with South Dolfield Road on the north, and terminating at a tee intersection with Red Run Boulevard on the south, a new road also proposed as part of this alternate. The dual highway proposed for Relocated Painters Mill Road consists of two 24 -foot roadways separated by


PLANTALTERNATE 2A STUDY
-
a 16-foot median. Existing Paintcrs Mill Road is terminated with cul-desacs on both sides of the proposed Expressway. Red Run Boulevard would be constructed as a 24 -foot strcet parallel to and approximately 2500 feet southcast of the Northwest Expressway from existing Painters Mill Road to existing Dolfield Road. Included in the approach road system for this study is the reconstruction of existing Dolficld Road. to a 24 -foot street from the proposed Red Run Boulevard to existing South Dolfic!d Road and the extension of cxisting Dolfield Road northerly to Reisterstown Road in the vicinity of Gwynus Falls. The intcrchange at Relocated Painters Mill Road has bcen designed to accommodate all turning movements at the Northwest Expressway with directional ramps for traffic turning south on the Expressway toward Baltimore from Relocated Painters Mill Road and for the return northbound movements.

Thc Owings Mills Rapid Transit Station is proposed to be located in the median of the Expressway 1700 feet south of Dolfield Road. The rapid transit tracks in the median of the Expressway terminate approximately 1300 fect north of the Owings Mills Station platform. Parking for 3800 cars is planned cast of the Expressway adjacent to the station site, with a pedcstrian bridge to conncct the parking lot to the station platform. Direct access would be provided between the parking lot and the Expressway from the north. Local access from the east is via the proposed extension of Dolfield Road, Painters Mill Road and South Dolfield Road and from the west via Painters Mill Road, Red Run Boulevard and Dolficld Road. Patronage and parking requirements should increase at the Old Court Station as a result of delcting the rapid transit station at McDonogh Road.

## - Alternate 2B Study -

Alternate 2 B has bcen developed as a modificd version of a plan suggested for consideration at the Corridor Public Hearing. As with Alternate 2A, no interchange or transit station is proposed at McDonogh Road, and the project design including alignment, grade and typical section is similar to Alternate 2, except in the arca from Painters Mill Read to north of Dolfield Road. The Expressway centcrline has been relocated an average of 900 fcet to the west in order to provide the necessary space for the increased parking requircments at the rapid transit station near Painters Mill Road and for the scmi-directional roadway interchange at Dolfield Road. (Sec Drawing No. 18) Relocatcd Dolfield Road would be reconstructed generally to the south of the cxisting road from the proposed Red Run Boulevard west of the Northwest Expressway, easterly through the interchange area to the Gwynns Falls crossing of cxisting Dolfield Road. Relocated Dolfield Road would continue easterly from Ciwynns Falls on new location to underpass the Western Maryland Railway and Reisterstown Road. The dual highway proposed for Relocated Dolfield Road consists of two $24-\mathrm{ft}$. roadways separated by a $16-\mathrm{ft}$.


MCDONOGH: SCHOOL historic distelict
[PEAN-AITERNAUE 2B STUDT
median. South Dolfield Road would be terminated with cul-de-sacs on both sides of Relocated Dolfield Road, and Ritters' Lane would be extended to connect with Relocated Dolfield Road. The interchange at Relocated Dolfield Road has been designed to accommodate all turning movements at the Northwest Expressway, with directional ramps for traffic turning south on the Expressway toward Baltimore from Dolfield Road aid for the returning northbound movements. The interchange at Relocated Dolfield Road and Reisterstown Road proposes turning ramps, which will permit traffic from the north or south on Reisterstown Road to turn toward the west on Relocated Dolfield Road. Relocated Dolficld Road, with the two interchanges described above, will provide a direct connection for the exchange of traffic between Reisterstown Road and the proposed Northwest Expressway.

Red Run Boulevard is a new 24 -foot street proposed as part of this alternate and is located approximately 3000 feet southeast of the Northwest Expressway. Red Run Boulevard begins at Painters Mill Road, proceeds northwesterly, generally parallel to the proposed Expressway, and ter minates at Dolfield Road.

The Owings Mills Rapid Transit Station is proposed to be located in the median of the Expressway, 700 feet north of existing Painters Mill Road. The rapid transit tracks in the median of the Expressway terminate approximately 1300 feet north of the station platform. A parking lot for 3800 cars is situated on both sides of the Expressway, adjacent to the station site, with two pedestrian bridges to connect the east and west parking lots to the station platform. The parking lot on the west side would have direct access from the Expressway via a southbound off-ramp. Northbound return from this parking lot would be provided by a road crossing under the Expressway adjacent to Painters Mill Road. Vehicles would use the parking lot on the east side of the project in order to gain access to a northbound on-ramp leading to the Expressway. . The parking lot on the east side of the Expressway would accommodate locally-oriented vehicles from Reisterstown Road, with access from Painters Mill Road. Painters Mill Road would be rebuilt above the floodplain as a 24 -foot street under this proposal from South Dolfield Road to the transit parking lot. The parking lot on the west side of the Expressway would accommodate locally-oriented vehicles from the Liberty Road area via Painters Mill Road, the proposed Red Run Boulevard, and a proposed future access road leading to the parking lot. The actual location of the future access road will depend on development patterns in the proposed Sector Center.

The project costs, traffic services and social, economic and environmental effects of "Alternate 2A" and "Alternate 2B" are described below and, where possible, tables or charts will be presented so that a more meaningful comparison may be made between each alternate study and Alternate 2, as proposed at the Public Hearing.

Fach of the proposals: Alternatc 1, Altcrnate 2A and Alternate 213, conform with the arterial road system proposed for northwestern Baltimore County; however, the service provided for vchicular traffic and rapid transit traffic varies with each scheme.

Public Hearing Alternate 2 provides send distribution and servicc for both Expressway and rapid transit traffic. Access is providcd for both modes of travel at McDonogh Road and Relocatcd Paintcrs Mill Road; however, the system was designed so that the majority of transit patrons would be attracted to the McDonogh Station. The access facilities proposed with Alternatc 2 on the Northwest Expressway/Rapid Transit Project will scrve the communitics along Reisterstown Road via Painters Mill Road and McDonogh Road, and the communitics along Liberty Road by the future extensions of Brenbrook Road, Plcasant Hill Road and U. S. Routc 29.

Altcrnate 2A climinates the Expressway and rapid transit access facilitics at McDonogh Road and improves those in the Owings Mills arca. The closcst points of access to the Expressway from the Owings Mills area is th intcrchange on the Baltimore Beltway, 3.5 miles to the south and the interchange on Cherry Hill Road, 3.0 miles to the north. Owings Mills is the northern terminal station for the Phasc I Rapid Transit and, with this alternate, the next transit station is 3.6 miles to the south on Old Court Road. Traffic originating in the vicinity of Owings Mills and Randallstown would utilize access facilities previously described for Alternate 2A, which tend to concentrate all Expressway and rapid transit traffic on Rolocated Painters Mill Road in order to gain accoss to the Expressway Interchange and rapid transit parking area. Some local rapid transit traffic would utilize Dolfield Road. . Traffic destincd for the Expressway and Rapid Transit Facility from the communitics south of Owings Mills and Randalls town would gravitate southerly along Reistcrstown Road and Liberty Road to the Baltimorc Beltway or, in the case of transit-oriented traffic, to Old Court Road.

Alternatc 2B also eliminates the accoss facilities to the Expressway and rapid transit at McDonogh Road and improves those in the Owings Mills arca. Existing Painters Mill Road provides access only to the transit station parking lot from Reisterstown Road. Access to the Express way from Reisterstown Road is provided by the proposed construction of Relocated Dolfield Road. Access from Liberty Road would be provided by the futurc cxtension of Brenbrook Road, Pleasant Hill Road and U. S. Route 29. The facilitics proposed with Alternatc $2 \mathbb{B}$ provide scparatc approach roads to the Exprossway interchange and rapid transit parking lots from both Reisterstown Road and Liberty Road and, thereby, improve traffic distribution in the Owings Mills area. Traffic from communities south of Owings Mills and Randallstown would travel southerly to the Beltway or Old Court Road via Libcrty Road or Reistcrstown Road.

In evaluating the construction cost of the various schemes under consideration in the Owings Mills area, it will also be necessary to consider the savings in cost represented by the delction of the interchange and transit station at McDonogh Road. The estimated costs of the project, including the mainlinc of the Expressway and rapid transit, all interchanges, bridges, intersecting furds, parking areas, related access roads and rightof way are compared below for each alternate, using identical study limits from Mount Wils on Lane north to Pleasant Hill Road. The costs are based on 1974 prices.

|  | Public Hearing $\qquad$ (4.0 miles) | $\begin{aligned} & \text { Painters Mill } \\ & \frac{\text { Alternate } 2 \mathrm{~A}}{(4.0 \text { miles })} \end{aligned}$ | $\begin{gathered} \text { Dolfield } \\ \frac{\text { Alternate } 2 B}{(4.0 \text { miles })} \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Highway Construction | \$26, 042, 000. | \$35,684, 000. | \$35,937, 000. |
| Rapid Transit Construction | 26, 334,000. | 22,641,000. | 19,972,000. |
| Right-of-Way Costs | 14,612,000. | 15,245,000. | 20,330,000. |
| Total Comparative Costs . | \$66,988, 000. | \$73,570,000. | \$76, 239,000. |

The road user costs would be relatively the same for Alternates 2, 2A and 2B.

The three alternate Expressway/Rapid Transit plans developed for the McDonogh-Owings Mills area, including Alternate 2, Alternate 2A and Alternate 2B, ali traverse relatively unimpioved areas. The estimaticd number of homes and people affected by these proposals from Mount Wilson Lane to Pleasant Hill Road are listed below for comparative purposes.

| Homes to be Acquired | 14 | 11 | 11 |
| :--- | :---: | :---: | ---: |
| Families to be Relocated | $14 *$ | $11 *$ | 14 |
| Pcople to be Displaced | 75 | 75 | 78 |
| Business to be Acquired | 0 | 4 | 12 |
| Farms to be Acquircd | 1 | 2 | 2 |
| Non-Profit Organ. Affected | 0 | 0 | 0 |

* Includes one minority family

A recent survey of available replacement housing in this area of Baltimorc County indicated that there were approximately 100 singlefamily dwellings for sale, at any given time, that are within the financial means of those to be relocated. In addition, approximately 30 rental units werc available in the immediate vicinity, should any of these families desire to rent. This information was gathered in August, 1975 at the time of this
study. Relocation assistance could be accomplished for all aternates under consideration, with a lead time of 18 months required for this purpose. The businesses taken by the project right-of-way can be relocated in the same general area. The effect on employment would be minor, except for Alternate 2B, where a greater number of businesses are affected. There are no Federal, State or County projects anticipated in the area that would utilize the same housing market. All persons to be ielocated will be provide with the benefits of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of $1970^{\prime \prime}$.

Both Alternates 2 A and 2B, which propose increases in the access capabilities for both the highway and rapid transit mode in the Owing Mills area, assume there will be no access available at McDonogh Road. There would be no effect on regional growth as a result of either plan, and the effect on community growth would be similar with both plans. Access to both the Expressway and Rapid Transit has always teen proposed in the Owing Mills area with growth anticipated primarily in the vicinity of the Sector Center. The lack of access at McDonogh Road will probably inhibit growth in that area for a time, but MoDonogh Road is only one mile north of the Baltimore Beltway along Reisterstown Road, and is already being built up with apartments and shopping centers. The Public Hearing alternate and both alternate studies pass through undeveloped land from Mount Wilson Lane to Dolfield Road and will have no effect on existing neighborhood charaster or stability. Generally, property values adjacent to the project are expected to increase. The effect on the tax base for each scheme may be compared in the following table, which gives the direct annual tax loss for highway and rapid transit purposes from Mount Wilson Lane to Pleasant Hill Road.


Public Hearing Alternate 2 provides both rapid transit and highway access to the schools located in the McDonogh Road area, with similar convenience for fire protection vehicles and other emergency services. Access to Mc.Donogh Road is not proposed with Alternate 2A or Alternate 2B, and the residences and institutions in this immediate area would not receive the benefit of reduced travel times for emergency vehicles.

The project alignment and construction with Alternates 2A and $2 B$ is essentially the same as proposed with Public Hearing Alternate 2 south of Painters Mill Road in the Gwynns Falls and Red Run floodplain; therefore,
the effect on water quality and the proposed stream valley park would be similar. Noise levels generated by Alternate 2, as proposed at the Public Hearing, show an increase over existing noise levels with respect to the Ner Is rael Rabbinical College, the Foxleigh Development Center, the homes in Lyon Acres north of McDonogh Road, and the Painters Mill Apartments north of Dolfield Road. The construction proposed with Alternate 2A and 2 B is basically the same as the Public Hearing Alternate 2, except for the removal of the interchange and station at McDonogh Road and the need for a larger parking area and interchange at Owings Mills. Noise increases with Alternates 2 A and 2 B would adversely affect the same areas as noted above, except for a reduction in noise near the Rabbinical College. As proposed with Alternate 2, noise barriers would be provided to reduce the impact from excessive ndise throughout the project.

## - Alternate 2C Study -

The McDonogh School was established as a Historic District and determined to be eligible for inclusion in the National Register in June of 1975. Prior to June, all studies made in this area (Alternates 1, 2, 2A and $2 B$ ) passed through and required the use of varying amounts of land in the newly established Historic District. Rcsulting investigation indicated the possibility of an alignment change, and Alternate 2 C was developed in order to determine if a feasible and prudent alternate could avoid the use of land from the McDonogh School Historic District. In the planning of Alternate 2C, the Owings Mills Rapid Transit Station and parking lots north of Painters Mill Road, and the semi-directional roadway interchange at Relocated Dolfield Road, and other miscellaneous facilities are all identical to Alternate 2B. Highway and rapid transit services provided by Alternate 2C are also identical. As with Alternate 2 B , no interchange or transit station is proposed at McDonogh Road, and the project design including alignment, grade and typical section is identical to Alternate 2B, except for an alignment change from north of McDonogh Road to north of Painters Mill Road. The Expressway centerline has been relocated an average of 1000 feet to the north in order to avoid the Historic District (See Drawing No. 19).

The estimated cost of Alternate 2C, including the mainline of the Expressway and rapid transit, all interchanges, bridges, intersecting roads, parking areas, related access roads, and right-of-way is compared below with Alternate 2B, using identical study limits from Mount Wilson Lane, north to Pleasant Hill Road. The costs are based on 1974 prices.

$\frac{\text { Alternate } 2 \mathrm{~B}}{(4.0 \text { miles })} \quad \frac{\text { Alternate } 2 \mathrm{C}}{(4.1 \text { miles })}$

| Highway Construction | $\$ 35,937,000$. | $\$ 33,620,000$. |
| :--- | ---: | ---: |
| Rapid Transit Construction | $19,972,000$. | $18,842,000$. |
| Right-of-Way Costs | $\underline{ }$ | $20,330,000$. |

The road user cost would be relatively the same for both Alternate 2 B and 2 C .

The shift in alignment to avoid the McDonogh School Historic District places the project in close proximity to the Painters Mill Music Fair and would require the demolition of the Foxleigh Developmental Center. The estimated number of homes and people affected by Alternates 2B and 2C from Mount Wilson Lane to Pleasant Hill Road are listed below for comparative purposes.

|  | Alternate 2B |  | Alternate 2C |
| :--- | :---: | :---: | :---: |
|  |  | 11 |  |
| Homes to be Acquired | 11 | 14 |  |
| Families to be Relocated | 14 | 14 |  |
| People to be Displaced | 78 | 78 |  |
| Businesses to be Acquired | 12 | 13 |  |
| Farms to be Acquired | 2 | 2 |  |
| Non-Profit Organ. Affected | 0 | 0 |  |

The same housing market and the same relocation assistance policies are available for those to be relocated, as noted under Alternate 2 B . The businesses, which would be displaced, are expected to relocate in the same general area, with some disruptive affect on employment. Replacement sites in the same general area should be available for these firms to relocate. Generally, property values adjacent to the project are expected to increase. The affect on the tax base for Alternates 2B and 2C may be compared in the following table, which gives the direct annual tax loss for highway and rapid transit purposes from Mount Wilson Lane to Pleasant Hill Road.


The social, economic and environmental effects of Alternate 2 C are the same as Alternate 2 B , except for the following:

The Foxleigh Developmental Center must be moved to a new location, or the business would have to be discontinued. If the facility is discontinued, there would be an adverse impact on some handicapped children; however, if it is re-established in a nearby location, it is doubtful that this impact would be a permanent one. A comparable replacement site for this facility has not been located as of the date of this Statement.

The project would have less impact on the Gwynns Falls stream valley and, in the Owings Mills area, only crosses Gwynns Falls one time, just south of Painters Mill Road.

Noise increases with Alternate 2C would adversely affect the same areas as Alternate 2B, except for the Painters Mill Music Fair and the Skateland Roller Rink, where the project would be immediately adjacent to their facilities with corresponding increases in noise levels. An outdoor swimming pool is also located in this area; however, this facility has been closed since 1971. Both the Music Fair and Roller Rink buildings are similar in construction, and the side facing the proposed expressway is either frame or masonry, completely covered with sheet metal siding. There are no windows facing the Expressway, and both buildings are fully air-conditioned. This type of construction should provide a minimum 25 dBA structural reduction for noise inside the building. To provide a basis for comparison, the FHWA design standard for this land use is 70 dBA (Exterior) and 55 dBA (Interior), and the average existing Llo noise level in the corridor, exclusive of Reisterstown Road, is 58 dBA . Predicted exterior $\mathrm{L}_{10}$ noise levels at the nearest wall of these buildings during 1995 traffic conditions are as follows:

| Predicted $1995 \mathrm{~L}_{10}$ Noise Levels ${ }^{(1)}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Exterior Noise Level | Building Attenuation | Interior Noise Level |
| Peak Hours | (4 to 5 P.M.) | 74 dBA | 25 | 49 dBA |
| Matinee | (2 to 3 P. M.) | 71 dBA | 25 | 46 dBA |
| Night | (8 to 9 P.M.) | 68 dBA | 25 | 43 dBA |

## Music Fair Schedule

> Daily : Dinner 7:00 P. M. - Show 8:30 P. M. Sunday: Matinee 3:00 P. M.
(1) $\mathrm{L}_{10}$ is a statistical noise level that is exceeded $10 \%$ of the time in a given time period.

Exterior noise levels at these buildings during the 1995 peak hour traffic conditions will exceed the design standard by 4 dBA and the present ambient level by 16 dBA . Noise increases in this range would normally cause severe impact; however, the Music Fair Theater related activities occur inside the building during off-peak hours. As noted in the above table, predicted interior noise levels would range from 6 to 12 dBA less than the design standard of 55 dBA . It is not anticipated that adverse noise impacts will occur during normally scheduled performances. Noise levels should not be a factor inside of the Roller Rink because of the existing high interior noise levels associated with this activity.

> Decision - Alternates 2, 2A, 2B, 2C

McDonogh-Owings Mills Area
Alternate 2 provides good traffic service and distribution in this area and was the most desirable plan developed prior to the Public Hearing. Strong community objections to the transit station and interchange at McDonogh Road, combined with the development of other satisfactory plans subsequent to the Public Hearing, resulted in Alternate 2 being dropped from further consideration.

Alternate 2A is not recommended for adoption because the planned facility tended to concentrate the approach traffic to the Combined Expressway/Rapid Transit Project onto one roadway (Relocated Painters Mill Road) in the Owing Mills area, and required the use of land in the McDonogh Historic District.

Alternate 2C is recommended by the Maryland Department of Transportation for adoption because it retains the desirable features of Alternate 2B; i.e., the separation of expressway and rapid transit traffic approaching the combined facility in the Owing Mills area and, in addition, bypasses the McDonogh School Historic District and avoids, for the most part, all adverse impacts on the future Gwynns Falls -Red Run stream valley park sistemp proposed by Baltimore County's Department of Recreation and Parks.

Alternate 2B was dropped from consideration because it require the use of land within the McDonogh Historic District.

In addition to the Public Hearing Alternates 1 and 2, which are identical in this area, two additional studies were developed in the Reisterstown area. The first study (Alternate 6) was developed as a result of Public Hearing objections to the amount and extent of land acquisition required with Alternates 1 and 2. The second study (Alternate 6A) was required after Reisterstown was established as a historic district eligible for inclusion in the National Register of Historic Places. The study was developed in order to determine if a feasible and prudent alternate could avoid the use of land within the historic district.

## - Alternate 6 Study -

Alternate 6 proposes revisions in the northern terminal connections of both Relocated U. S. Route 140 (Northwest Expressway) and Relocated Maryland Roure 30. The Northwest Expressway, as proposed at the Public Hearing (Alternates 1 and 2) from the interchange with Relocated Maryland Route 30 to the northern terminus at existing Westminster Pike in the vicinity of Gores Mill Road, would not be included as part of the project. The formerly split facility would be combined into one freeway (Northwest Expressway) generally following the alignment proposed for Relocated Maryland Route 30 from north of Berrymans Lane to a directional interchange south of Westminster Pike. The directional interchange at this point would separate the Northwest Expressway, which tics into existing Westminster Pike and Relocated Maryland Route 30 , which connects to existing Hanover Pike. The detailed planning proposed with these revisions are described below and are also shown on Drawing No. 20.

Alternate 6 begins north of Berrymans Lane, where the Northwest Expressway continues northerly as a 6 -lane dual highway, with complate control of access and geometric and safety features based on a design speed of 70 miles per hour. The project underpasses Glyndon Drive (existing Stocksdale Avenue) 2300 feet west of Reisterstown Road, where an interchange is planned to provide access and service to the Reisterstown area.

Glyndon Drive would be constructed with two 24 -foot roadways, separated by a 16 -foot median through the interchange area and connect to Reisterstown Road as a 50 -foot curbed street. Existing Stocksdale Avenue would be closed by the proposed construction of Glyndon Drive and a teeturnaround provided at the terminus.

North of Glyndon Drive Interchange, the Northwest Expressway passes under Relocated Cockeys Mill Road and parallels the Gas \& Electric Company Transmission Line through the proposed directional interchange

with Relocated Maryland Route 30. North of the Route 30 Interchange, the Expressway swings to the west, crosses under the transmission line and ties into Westminster Pike approximately 1000 feet east of Nob Hill Park Road, with full control of access ending just north of the proposed interchange with Relocated Maryland Route 30. Vehicles on Westminster Pike, traveling away from Reisterstown, would continue on the existing road and connect to the Expressway just west of the electrical transmission line. Southeasterly traffic on Westminster Pike, with a destination in Reisterstown proper, would use a left-turn lane and proposed road, which bridges over the northbound lane of the Expressway and connects to Westminster Pike in the vicinty of the Gas \& Electric Company's power line at a common grade,intersection with the proposed extension of Butler Road. The Butler Road Extension from Hanover Road to Westminster Pike is proposed as a dual highway; with two 24 -foot roadways separated by a 16 -foot median.

Relocated Maryland Route 30 diverges from Relocated U. S. Route 140 (Northwest Expressway) via a directional interchange 1500 feet south of Westminster Pike and, bearing toward the north, underpasses Westminster Pike 1500 feet west of Hanover Road. Relocated Maryland Route 30 would terminate as a controlled access freeway under this proposal at the extension of Butler Road. Connecting ramps to Butler Road Extended are proposed as part of a diamond interchange planned at this location to provide access to the northern part of Reisterstown. A temporary road from the Butler Road ramps to existing Hanover Road (Maryland Route 30) would provide a direct connection for Hanover Road traffic to the northern terminus of the proposed Relocated Maryland Route 30. The future extension of Relocate Maryland Route 30 northerly to the proposed Piedmont Highway (Mid. 23) near Arcadia, Maryland, is planned for some time after 1995.

North of the Cherry Hill Road Interchange, the ADT projected for 1995 is 27, 800, and there would be no adverse affect on traffic service by providing a single Expressway northerly to the directional interchange south of Westminster Pike, as proposed by Alternate 6.

The estimated costs of the project included under Alternate 6 from Berrymans Lane to the northern terminus of the Northwest Expressway and Relocated Maryland Route 30, are listed below along with comparative costs for Alternates 1 and 2. The costs are based on 1974 prices.


The road user cost would be relatively the same for both Alternates 1 and 2 and Alternate 6.

The separate location proposed for Alternates 1 and 2 at the Public Hearing, and Alternate 6, which combines both roadways on an alignment generally following the location proposed for Relocated Maryland Route 30, traverse relatively undeveloped areas.

The Public Hearing proposal requires the acquisition of a few homes where the Northwest Expressway crosses Stocksdale Avenue and Cockeys Mill Road and, also, where Relocated Maryland Route 30 crosses Westminster Pike and Geroed Avenue. Alternate 6 requires the acquisition of several homes on Cockeys Mill Road, which is a result of shifting the alignment of the Combined Facility further away from the Franklin Elementary and Junior High Schools. Other homes are affected by the proposed relocation of Maryland Route 30 at the Westminster Pike underpass and at the grade intersection of Butler Road Extended and Westminster Pike. The estimated number of homes and people affected by Alternate 6, which revises the northern terminus from Berrymans Lane to the Westminster Pike and Hanover Road, are listed below along with the comparable effect of the Public Hearing proposal (Alternates 1 and 2).

Alternates 1 \& $2 \quad$ Alternate 6 Public Hearing Revised Terminus

| Improved Properties Affected | 18 | 12 |
| :--- | ---: | ---: |
| Homes Previously Acquired.by SHA | 2 | 2 |
| Homes to be Acquired | 16 | 6 |
| Businesses to be Acquired | 0 | 4 |
| Families to be Relocated | 16 | 6 |
| People to be Displaced | 94 | 25 |

A recent survey of available replacement housing in this area of Baltimore County indicated that the re were approximately 95 singlefamily dwellings for sale, at any given time, that are generally within the financial means of those to be relocated. In addition, approximately 50 rental units were available in the immediate vicinity, should any of these families desire to rent. This information was gathered in August, 1975, the time of this study. Relocation assistance can be accomplished for the families displaced by Alternate 6, and it is estimated that a lead time up to 2 years would be required for this purpose. There are no Federal, State or County projects anticipated in the area that would utilize the same housing market. All persons to be relocated will be provided with the benefits of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of $1970^{\prime \prime}$. There are 4 businesses taken by the project right-of-way; however, the affect on employment would be minimal and temporary in nature. Generally, property values are expected to appreciate, except for
communities surrounded by highway construction which could be detrimental to property values. No farm operations will be affected, nor will there be any affect upon members of a minority group.

It should also be noted that the State Highway Administration has purchased right-of-way for Relocated Maryland Route 30 from Cockeys Mill Road to Westminster Pike based on the Public Hearing alignment. Alternate 6 places the proposed directional interchange between the Northwest Expressway and Relocated Maryland Route 30 in this same general location and requires approximately 3 additional acres of right-of-way from the proposed Franklin Mall Shopping Center. A more serious affect on this Shopping Center is caused by the proposed change in highway classification from a controlled access arterial highway to an Expressway, with full control of access. A preliminary traffic evaluation made for the proposed Franklin Mall indicated that $65 \%$ of the vehicles attracted to the Shopping Center would use Relocated Maryland Route 30. The denial of access from the Northwest Expressway, as proposed by Alternate 6, could seriously affect the development potential of this property.

The northern terminal connections, as proposed with Alternate 6 , would not affect regional or community growth or make any change in neighborhood character and stability. The Reisterstown Historic District is the one historic site that would be directly impacted by the construction proposed with Alternates 1,2 and 6. The proposed Extension of Glyndon Drive west, from Reisterstown Road to the Northwest Expressway, would encroach on the southern portion of the Historic District, the limits of which were established by the Maryland Historical Trust in June, 1975.

The Northwest Expressway and Relocated Maryland Route 30 are separate alignments under the Public Hearing proposal and both facilities cross Norris Run and Keysers Run. There would be less affect on the water quality of these streams with Alternate 6 , because only one crossing of each stream is required by the Combined Facility. The only noise sensitive locations are the Reisterstown Historic District and the schools in the vicinity of Cockeys Mill Road. Through this area the project centerline has been shifted 200 to 300 feet toward the west and away from the schools. The Franklin Elementary School on the south side of Cockeys Mill Road is 1100 feet from the Expressway, and the Franklin Junior High School on the north side of Cockeys Mill Road is 1600 feet from the Expressway, as proposed with Alternate 6. The outside noise level at the Franklin Elementary School building, generated by the 1995 predicted traffic volume on the Expressway at a distance of 1100 feet, is not significant and well below the standard 70 dBA established in FHPM 7-7-3 for this type of land use. The Reisterstown Historic District is located east of both schools, and the noise levels gencrated by traffic on Reisterstown Road would be of more concern than the proposed Northwest Expressway.

The boundaries established for the Reisterstown Historic District, which is eligible for nomination to the National Register, generally includes the properties facing on both sides of Main Street (Reisterstown Road) from 500 feet south of Berrymans Lane northerly to Butler Road. The proposed extension of Glyndon Drive lies within the southern portion of the Historic District for the several proposals under consideration in this area (Alternates 1, 2 and 6). The development of an alternate alignment for Glyndon Drive, or moving the Glyndon Interchange to the south in order to avoid the Historic District, is not feasible and would place this interchange too close to the planned Cherry Hill Interchange. Alternate 6A was developed to avoid taking land from the Reisterstown Historic District by deleting the extension of Glyndon Drive and the Glyndon Interchange from the project, and replacing these with a structure at existing Stocksdale Road. In all other respects, the plan for Alternate 6A is identical to Alternate 6, including the alignment grade, typical section, Butler Road Interchange and connections to Westminster Pike and Hanover Pike., (See Drawing No. 21)

The deletion of the Glyndon Interchange would affect the future traffic service in the Reisterstown area. Traffic originating in the residential areas east of Reisterstown Road, with destinations in the Baltimore area, would have utilized the Northwest Expressway via the Glyndon Interchange. Without the Glyndon Interchange, these same vehicles would be required to travel south on existing Reisterstown Road and enter the Expressway via the Cherry Hill Road Interchange. The roadways affected by this additional traffic would be existing Reisterstown Road, the proposed Relocated Cherry Hill Road and appropriate ramps in the Cherry Hill Interchange. Traffic projections have been developed for both the 1995 A. M. and P. M. Peak Hours, and this data has been indicated in the following line diagrams for Alternate 6 with the proposed Glyndon Drive, and for Alternate 6 A without the Glyndon Drive connection.



LAMEALTERNATE 6A STUDY

MEXIBENOT

Between Glyndon Drive and Cherry Hill Road, Reisterstown Road consists of 2 lanes in each direction, with curbs in some areas and

Highway Construction Right-of-Way Costs

Total Comparative Costs

$$
\frac{\text { Alternates } 1 \& 2}{(4.4 \text { miles })} \quad \frac{\text { Alternate } 6}{(2.7 \text { miles })} \quad \frac{\text { Alternate 6A }}{(2.7 \text { miles })}
$$ from Berrymans Lane to the northern terminus of the Northwest Expressway and Relocated Maryland Route 30, are listed below along with comparative costs for Alternates 1, 2, and 6. The costs are based on 1974 prices. ice would be satisfactory with both Alternates 6 and 6A; however, these assumptions are not reasonable because of their adverse impacts on the Reisterstown Historic District. Traffic volumes on Cherry Hill Road and appropriate ramps in the Cherry Hill Interchange would be increased by approximately $22 \%$ in 1995; however, the total volumes on these roadways are not excessive, and capacity would not be exceeded.

The estimated costs of the project, included under Alternate 6A $\frac{\text { Alternates } 1 \& 2}{(4.4 \text { miles })} \quad \frac{\text { Alternate } 6}{(2.7 \text { miles })} \quad \frac{\text { Alternate 6A }}{(2.7 \text { miles })}$

$$
\begin{array}{rrr}
\$ 25,041,000 . & \$ 12,856,000 . & \$ 11,941,000 . \\
2,951,000 . & \\
\hline
\end{array}
$$

The road user costs would be relatively the same for Alternate 1 and 2, Alternate 6 and Alternate 6A.

The deletion of the Glyndon Drive Interchange would reduce, by one, the number of homes taken by the project. The estimated number of homes and businesses affected by Alternates 1, 2, 6 and 6A are listed below for comparative purposes.

Improved Properties Affected
Homes owned by SHA
Homes to be Acquired Businesses to be Acquired
Famies to be Relocated People to be Displaced

Alternates $1 \& 2$ Alternate 6 Alternate 6A

The same housing market and the same relocation assistance policies are available for those to be relocated as noted under Alternate 6 . The small number of businesses which would be displaced are expected to relocate in the same general area, with little or no affect on employment. Replacement sites in the same general area should be available for these firms to relocate. Senerally, property values are expected to appreciate, except for communities surrounded by highway construction which could be detrimental to property values. No farm operations will be affected, nor will there be any affect upon members of a minority group.

The social, economic and environmental affects of Alternate 6A are the same as Alternate 6, except that Alternate 6A does not require the use of land from any historic site north of Berrymans Lane. As noted with Alternate 6 , noise levels generated by traffic on Reister stown Road would be of more concern to the Historic District than the proposed Northwest Expressway.

Decision - Alternates 1, 2, 6, 6A
In the Reisterstown area, Alternate 6 is the recommended alternate selected by the State Highway Administration because it substantially reduces the extent of land acquisition required in comparison to Alternates 1 and 2 and, at the same time, provides the desired traffic service to the Reisterstown-Glyndon communities with only minor impacts to the Reisterstown Historic District. Acceptable measures to mitigate the adverse impacts on the Historic District have been developed by the State, as noted in the Memorandum of Agreement included in Section $H$ of this Final Statement.

Alternate 6A was a study developed to avoid taking any land within the Reisterstown Historic District. This was accomplished by the deletion of the Glyndon Drive extension and interchange with the proposed Expressway, which results in undesirable traffic service to the Reisterstown community. Improved traffic service to the communities in the Northwest Corridor is one of the major reasons for the Northwest Expressway Project and, since Alternate 6A decreases traffic service, it was not considered a feasible and prudent alternate to the use of land within the Historic District.
baltimore county executive office
TOWS ON. MARYLAND 21204
(301) 494.2450

## THEODORE G. VENETOULIS

 cOUNTY EXECUTIVEMarch 10, 1976

Mr. Robert J. Hajzyk
Director, Office of Planning \& Preliminary Engineering
State Highway Administration
300 W. Preston Street
Baltimore, Maryland 21203

Dear Mr. Hajzyk:

piece jas of


In an effort to satisfy the travel demand of our residents while at the same time recognizing the need to minimize the impact on an historic community, the Baltimore County Planning Board has the planned Northwest Exp of Glyndon Drive to an interchange with consistent with the short prehensive Plan adopted by the and long range elements of the Com-

We feel that the extension of Glyndon Drive to the Northwest Expressway is essential to lessen the environmental impact on the historic community and to ameliorate the congested traffic nection to the expressway, traffic will be fun out this direct conhistoric district via Reisterstown will be funneled through the acceptable situation. Reisterstown Road. This would not be an

The planning of transportation facilities based purely on engineering considerations is no longer sufficient. We must strive the public and which will of our environment. Will preserve the natural and cultural values

Sincerely,


TGV: ph
THEODORE G. VENETOULIS County Executive


MAR 291976

## E. UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS:

The implementation of the project will have certain adverse effects on the environment, which cannot be reduced by the use of reasonable abatement measures.

1. Conversion of open land to highway and rapid transit purposes -

The open land not already developed or being used for farming purposes is now a habitat for small birds and animals. The open land would be lost with the construction of the propect; however, if the project is not built, it would ultimately be converted to residential or commercial uses.
2. Adverse visual impact on adjacent communities -

Normally, suitable landscaping will be provided to minimize the visual impact of the project on adjacent communities. However, some dwellings are so close to the project that landscaping may not completely screen the highway and its impacts from the local communities.
3. Increase in noise levels -

For aesthetic or other reasons, it may be necessary to request exceptions to the FHWA Design Standards at certain sensitive receptors in the vicinity of this project. Exceptions may be requested at the following locations:

Private House - North of Dolfield Road
Pikesville Sportsmen's Club, Inc.
Private House - Westminster Pike

## F. RELATIONSHIP BETWEEN SHORT-TERM USE OF ENVIRONMENT AND LONG-TERM PRODUCTIVI'TY:

The short-term uses of the environment required by the Combined Project consist of the demolition of residential and business properties, relocation of traffic where detours are required, and the erosion, dust and noise associated with highway construction. The relocation of traffic and adverse construction impacts will be local in nature, with their duration depending on the type of construction operation. The State Highway Administration and Mass Transit Administration, on a continuing basis, will incorporate the latest technology in order to reduce any adverse effects during the construction period. Every reasonable effort will be made to minimize encroachment upon man-made and natural features.

The proposed Combined Project will provide a usable and safe facility from the Baltimore City Line on the south to the Westminster Pike and Hanover Road on the north. The project must certainly be classified as a long-term productive facility, as it fulfills the need for improved transportation service, is compatible with proposed land use for the area, and is required for planned future development. New residents will be attracted to the area because of reduced commuting time and expanded economic opportunity consistent with County plans for development in this area. As the population increases, educational facilities will improve and social and religious functions will receive more support. In essence, the project will enhance the long-term productivity of man's social and economic environment in this area as envisioned by local, regional and state plans.

## G. IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES:

The construction of the Northwest Expressway and Rapid Transit Facileit does represent an irreversible commitment of land and water areas within the right-of-way for use as a transportation corridor. Other resource commitments include the manpower, building materials and energy required for its construction.

In economic terms, the project represents the utilization of an astimated 150 million dollars in public funds to construct the facility. This investment reinforces the State's commitment to the General Development Plan for the Baltimore Region and to the need for an efficient primary transportation network.

Although the project does irretrievably commit some natural and human resources, the reason for their use is justifiable, resulting in significant social and economic benefits to the entire community.

## H. IMPACT ON PROPERTIES AND SITES OF HISTORIC AND CULTURAL

 SIGNIFICANCE:A number of buildings and sites of historic, prehistoric, archeological, architectural and cultural value have been identified within or adjacent to the project corridor. Research, in connection with this study, has included review of recent publications and data developed by the Maryland Historical Trust, U. S. Department of the Interior-National Park Service, the HABS Committee of the Baltimore County Historical Society, the Maryland Department of State Planning, and the Maryland Geological Survey.

The survey of historic sites has identified not only existing buildings and districts of historic value, but also the location of sites of historic interest, where the structure no longer remains, and the location of prehistoric archeological sites. All of the buildings and sites in the general vicinity of the project have been located on Drawing No. 22 - Historic Sites Adjacent to Project Alternates. The location of the recommended alternate and the affected historic sites are shown on Drawing No. 23.

The Sudbrook Park Historic District is the only historic site affected by this project listed in the National Register of Historic Places. Two other sites, as noted below by (NR), are eligible for inclusion in the National Register as determined by the U. S. Department of the Interior. The remaining sites affected by the project are archeological in nature, with no evidence of any structural remains.

## Historic Sites

Sudbrook Park Historic District
Owings Mills Railroad Station (New) - NR Reisterstown Historic District - NR

## Archeological Sites

Prehistoric Sites Industrial Sites

18 BA 106
18 BA 112
18 BA 107
18 BA 125 C

Sudbrook Park Railroad Station
Howard-McHenry Mill
Middle Mill
Calhoun Mine





A coordination meeting was held on November 7, 1975 in the offices of the Advisory Council on Historic Preservation, 1522 'K' Street, N. W., Washington, D. C., with representatives of the following agencies in attendante. Advisory Council, Federal Highway Adminizi_ action, Urban Mass Transportation Administration, Maryland Historical Trust, State Highway Administration, Mass Transit Administration and Kummel, Klepper \& Kahl. The affect of the recommended alternate on historic sites was discussed in detail, and it was agreed that three sites - Sudbrook Park Historic District, Owing Mills Railroad Station (New), and the Reisterstown Historic Districtwhich are on or eligible for the National Register, would be adversely affected by the project. These historic sites are included in the Section 4(f) Statement See Volume II.

A copy of the Minutes of the Meeting with the Advisory Council is included in this section of this Final Statement, along with copies of the Memorandums' of Agreement for the three historic sites on or eligible for the National Register.

## Archeological Sites

The State Highway Administration contracted with the Division of Archeology of the Maryland Geological Survey to identify the archeological resources in the proposed Northwest Expressway transportation corridor. This was accomplished between 1973 and 1975 by the preparation of the two following archeological surveys, which are available for review at the offices of the State Highway Administration.

> Industrial Archeological Survey of the
> Northwest Transportation Corridor - Baltimore County, Maryland by John W. McGrain
> Prehistoric Archeological Survey of the Northwest Transportation Corridor - Baltimore County, Maryland by Wayne E. Clark

The above archeological sites represent prehistoric or industrial remains identified in the corridor that appear to be directly impacted by the recommended alternate. All archeological data will be recorded either prior to or during construction, and a Section 4(f) Statement is not required.

Sites 18 BAl 06 and 18BAl12 are considered archeologically important and, prior to construction, archeological excavations will be undertaken in order to salvage any remaining artifacts and record other significant informatin. Because of the large areas involved, it will be necessary to delay these explorations until after the State Highway Administration has acquired the right-of-way.

The two remaining prehistoric sites (18BAl07 and 18BAl25C) and the industrial sites listed above appear to be impacted by the recommended alternate; however, there is doubt as to the actual location of the Middle Mill and the Calhoun Mine. There were no specific mitigation measures recommended for these impacted sites in the above-noted Archeological Surveys.

An archeologist will be on call for immediate examination of archeological findings (including unusual soil deposits or other stratigraphic features, as well as structural or artifactual remains) uncovered and/or threatened by the process of construction. In such cases where this examination leads to a determination that the site may be eligible for inclusion in the National Register, FHWA and UMTA will see that archeological recording and recovery (possibly including excavation) will be carried out.

## Copy of the

Memorandum of the Meeting
with the
Advisory Council held on November 7, 1975

TO:
FROM:

SUBJECT: Northwest Transportation Corridor - 106 Procedures for Historic Sites

DATE:
December 2, 1975

On November 7, 1975, a meeting was held with the National Advisory Council on Historic Preservation to discuss the Section 106 Procedures for Historic Sites affected by the provisionally recommended alignment for the Northwest Transportation Corridor Project. In attendance were:

| Ellen R. Ramsey | - | Advisory Council on Historic Preservet |
| :--- | :---: | :--- |
| Sonya H. Hill | - | U.S. DOT (Environmental Affairs) |
| Gary E. Larson | - | Federal Highway Administration |
| Karle Snyder | - | $"$ |
| Dane Ismart | - | UMTA |
| Maureen Kavanagh | - | Maryland Historical Trust |
| John Pearce | - | " |
| Nancy Miller | - | State Highway Administration |
| Fred Gottemoeller | - | Mass Transit Administration |
| Louis R. Rainone | - | " |
| Gunther M. Gottfeld | - | Rummel, Klepper \& Kahl |
| David L. Clawson | - |  |

The discussion centered on six historic sites, either directly impacted by the recommended aliernate or in the vicinity of the project that may be adversely affected by air, noise or a visual impact. All of the sites were either on or considered eligible to be placed on the National Register of Historic Places.

Sudbrook Park Historic District -
Sudbrook Park is listed on the National Register. It was agreed that the recommended alternate would have an adverse impact and that there was no feasible and prudent alternate to avoid taking land from the historic district. The adverse
impacts included a right-of-way requirement of $10.1 \pm$ ac. and 10 homes in the district, in addition to adverse risual and noise impact. The eligible for the NR, which will be determined by the SHPO after a field inspection. ${ }^{1}$

## Owings Mills Railroad Station (Old)-

Potentially eligible for the National Register: The recommended alternate does not require acquisition of the historic site, and it was agreed that there would be no adverse impacts at this location. A Memorandum of

[^4]Agreement will not be required for the Owings Mill Railroad Station (Old).

Owings Mills Railroad Station (New) -
Potentially eligible for ihs National Register. The recommended alternate would require domolition of this historic site. It was agreed there is no feasible and prudent alternate (such as retaining walls) to avoid this adverse impact. In order to mitigate the adverse impact, it was agreed that the following procedures would be followed:

1) Move structure ( $100^{\prime} \pm$ ) to avoid slope construction of proposed Relocated. Dolfield Road.
2) Move structure as noted in item (1) with a new owner.
3) Photograph, measure and record data as required by normal preservation procedures and then demolish structure. Note: FHWA agreed to break access control along Reisterstown Road within the limits of the Dolfield-Reisterstown Road Interchange in order to provide access to historic site for items (1) and (2) above.

## Reisterstown Historic District -

Potentially eligible for the National Register. It was agreed that the recom mended alternate would have an adverseimpact (penetration of the Historic District with a break in the long vista of Main Street and would encourage undesirable types of businesses; e.g. gas stations). It was agreed that there was no feasible and prudent alternate to avoid taking land from the Historic District. The adverse impacts include taking 0.7 ac . of right-ofm way and one residential building ( 400 Main Stre $\epsilon$ ). Mitigation of the adverse impacts will include the following features:

1) The building ( 400 Main Street) will be moved to suitable location within the Historic District, if the SHPO determines it advisable based on a field inspection.
2) Vehicular access control will be obtained along Glyndon Drive within the defined limits of the Historic District. This includes the proposed extension west of Main Street and along existing Glyndon Drive, east of Main Street.
Note: Access control will be obtained cither by means of a scenic easement or adjacent to proposed construction on both sides of Main Street, as determined by a traffic analysis of the intersection.

## Miscellaneous -

1) It was agreed that the project would have no adverse effects - on any other historic site eligible for the NR that is in the vicinity of the recommended alternate.
2) The following procedures will be followed to complete 106 requirements:
a) SHA will work out details of mitigation requirements noted above for Sudbrook Park Historic District, Owing Mills Railroad Station (new) and Reisterstown Historic District, and prepare a proposal for each site.
b) Obtain agreement of State Historic Preservation Officer regarding mitigation measures.
c) Send proposals to Advisory Council requesting a Memorandum of Agreement for 3 sites listed above.
d) Advisory Council will prepare Memorandum of Agreement for 3 sites based on contents of the proposals.
3) FHWA will simultaneously prepare a report requesting eligibility determination from the Department of the Interior for the five sites potentially eligible for the National Register.

GMG:kc

## Copy of the

Memorandum of Agreement for the<br>Northwest Transportation Corridor<br>with reference to the<br>Sudbrook Park Historic District Owing Mills Railroad Station (New)<br>Reisterstown Historic District

Mr. Richard Ackroyd Division Administrator
U.S. Department of Transportation-FHINA

711 W. 40th Street
Baltimore, MD 21211
Dear Mr. Ackroyd:
The Advisory Council is pleased to inform you that the Memorandum of Agreement for the Northwest Transportation Corridor in Baltimore, Maryland has been approved by the Chairman of the Advisory Council, Dr. Clement M. Silvestro. This document constitutes the comments of the Advisory Council as required by Section 106 of the National Historic Preservation Act and Executive Order 11593 "Procedures for the Protection and Enhancement of the Cultural Environment" and completes the process for compliance with the "Procedures for the Protection of Historic and Cultural Propertics" ( 36 C.F.R. Part 800). A copy of the Memorandum is enclosed.

A copy of this Memorandum of Agreement should be included in any environmental assessment or statement prepared for this undertaking in compliance with the National Environmental Policy Act. The Council appreciates your cooperation in reaching a satisfactory solution to the issues raised in this matter.


Enclosure

## MEMORANDUM OF AGREEMENT

WHEREAS, the Department of Transportation, Federal Highway Administration proposes to assist the Maryland Department of Transportation in construction of the Northwest Transportation Corridor in Baltimore, Maryland; and,

WIEREAS, the Department of Transportation, Federal Highway Administration in consultation with the Maryland Historic Preservation Officer, has determined that the undertaking as proposed would have an adverse effect upon the Sudbrook Park Historic District, Swings Mills Railroad Station, and the Reisterstown Historic District, properties both included in and determined by the Secretary of the Interior to be eligible for inclusion in the National Register of Historic Places; and,

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966 and Section 1 (3) and 2 (b) of Executive Order 11593, the Department of Transportation, Federal Highway Administration has requested the comments of the Advisory Council on Historic Preservation; and,

WIEREAS, pursuant to the procedures of the Advisory Council on Historic Preservation ( 36 C.F.R. Pain © © 0 ), representatives of the Advisory Council on Historic Preservation, the Dapartinent of Transportation, Federal Highway Administration, and the Maryland Historic Preservation Officer have consulted and reviewed the undertaking to consider feasible and prudent alternatives to avoid or satisfactorily mitigate the adverse effect; now,

## THEREFORE:

It is mutually agreed that implementation of the undertaking, in accordance with the following stipulations and the attached letter and proposal for mitigation of Decerber 16, 1975, from Richard Ackroyd, Division Administrator, Region III, Federal Highway Administration, will satisfactorily mitigate. any adverse effects on the above mentioned properties.

[^5] October 15.1966 to abase the President and Congress in timon fact of Hithoric Preservation.

## Page Two

MEMORANDUR OF AGREEARNT
Northwest Transportation Corridor
Federal Highway Administration

## Stipulations:

The following stipulations shall apply to the one property within the Sudbrook Historic District to be moved to a vacant lot also within the Sudbrook Historic District and to the new Owings Mills Railroad Station:

1. Prior to initiating construction of the Northwest Transportation Corizidor, ard within 30 days prior to the move, Federal Highway Administration shall forward to the Naryland State Historic Preservation Officer the following documentation:
a. A statement of the reasons for the move;
b. An analyses of the property's historic or architectural integrity in its new site;
c. A description of the new setting and general environment of the proposed site, including cvidence that the new site will not be adversely effected by the move;
d. Photographs of the new site.

Within 15 days of the receipt of the above documentation, the Historic Preservation Officer for Maryland shall forward this documentation to the National Register of Historic .Places, along with his recomendation that the properties shall rentain on the National Register of Historic Places. The National Register of Historic Places will file this documentation and maintain it unti! after the move, at which time the Federal Highway Administration shall submit documentation showing the property on its new site to the Historic Preservation Officer and the National Register of Historic Places.

Northwest Transportation Corridor
Federal Highway Administration

The properties to be moved shall renin on the National Register of Historic Places prior to, during, and subsquant to the move, unless documentation submitted by the Federal Highway Administration shows evidence of irreparable damage to the historic or architectural integrity of the property so that it no longer meets National Register criteria.
2. The moving of the New Owing Mills Railroad Station and one property within the Sudbrook Park Historic District shall be conducted in consultation with the Office of Archeology and Historic Preservation, National Park Service relative to appropriate moving techniques.


## I. COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL STATEMENT :

The following Draft Environmental Statements for the Combined Northwest Expressway/Rapid Transit Project were distributed on the date indicated to Federal, State and Local agencies for review and comment.

Draft Environmental Statement (FHWA-MD-EIS-73-01-D)
March, 1973
Supplement to Draft Environmental Statement/Section 4(f) Statement (FHWA-MD-EIS-73-01-DS) October, 1975

All comments received by the State Highway Administration on the se Draft Statements, along with those received at the Public Hearing, have been considered in determining the location and design proposed for this transportation facility. Written comments on the Draft Environmental Statement were received from the following agencies on the dates noted and are included in this section of the Final Environmental Statement along with appropriate responses. Comments received at the Public Hearing are included in Section J of this Final Statement. Written comments on the Supplement to the Draft Statement are included in Section K of this Final Statement along with appropriate responses. Comments on the Air Quality Report and responses thereto are included in Section C-12 of this Final Statement.

Index of Letter Comments Received on Draft Envirommental Statement
(FHWA-MD-EIS-73-01-D).

| Letter <br> Designation | Agency | Date of <br> Letter |
| :---: | :--- | :---: |
| A | U. S. Department of Housing \& Urban Development | $5 / 22 / 73$ |
| B | U. S. Department of Health, Education \& Welfare | $5 / 11 / 73$ |
| C | U. S. Department of Interior | $4 / 19 / 73$ |
| D | U. S. Environmental Protection Agency | $4 / 27 / 73$ |
| E | Soil Conservation Service, USDA | $4 / 30 / 73$ |
| F | U.S. Department of Army Corps of Engineers | $5 / 21 / 73$ |
| G | U. S. Department of Transportation | $4 / 4 ; 73$ |
| H | State Clearinghouse, Department of State Planning | $7 / 25 / 73$ |


| $\begin{array}{c}\text { Letter } \\ \text { Designation }\end{array}$ |
| :---: |

I

J

K Department of Economic \& Community Development
L

M
N
O Maryland Public School Construction Program 3/13/73

P Maryland Geological Survey $4 / 23 / 73$

Q Department of Public Safety \& Correctional Services 3/15/73
$R$ Division of Water \& Sewerage 3/2/73
S Division of Solid Waste Control 3/5/73
T Department of Public Works - Baltimore City
Pine Ridge Association
3/15/73

kftitin ill
Curtis Ilnlitisa: al f. :al W.olmat sorrels


ME.RC:ANTII. BARK AND TRUSS HUII.DING
TwO HOPKINS PLAノA
(BAT. TIMOR, MARYI.AND 21201
May 22, 1973

Chief
Bureau of Special Services State Highway Administration 300 West Preston Street Baltimore, Maryland 21201
Dear Mr. Miller:
We have reviewed the draft environmental impact statement for the proposed improvements located in Baltimore County, Maryland, that consists of the construction of a 6 -- lane divided highway on new location for both Relocated U.S. Route 140 (Northwest Expressway) and Relocated Maryland Route 30 (Reisterstown Bypass). Also included is a 2-track rapid transit line in the median of the highway from the Baltimore City Line to Painters Mill Road, a distance of approximately 5.5 miles. The project begins at Wabash Avenue in Baltimore City and terminates at U.S. Route 140 and Maryland Route 30, north of Reisterstom, a total length of approximately 14.4 miles.

## A. The Nature of Him's Comments

The Department of Housing and Urban Development must consider a wide rance of issues, from the impact of a poor environment and of the redevelopment of that environment to access to amenities such as cultural facilities and regional pallas. Consideration needs to be given to the potential consent an of speeifie projects for racial and coonomie isolation or residents, to neighborhood stability and integrity, safety and mobility, and the selective impact on, and service to, various social and economic groups. The request for HOD comments provides an opportunity to inject Departmental goals and policies and respond to projects proposed by other agencies which have significant impact on IIUD-assisted projects or plans. In addition, the relationship of the proposed project to State, areawide, and local plans, many of which have been funded under the "701" Comprehensive Planing Assistance Program, is of particular interest to HUD.
B. HUD Comments

Crmmont-Nol. An environmental perspective requires that all consequences, physical, social and aosthetic, of proposed actions, both intended and unjintended be anticjpated. The Draft Environmental lmpent Statement does not address how the Northwest Expressway and Associated lmprovements will effect the "total of circumetiances" or development of the larger community and and rorion-~i.e. Wabash Avence (City of Baltimore) and Reisterstown lioad.
 now facility and its impact on the Baltimore Beltway.
Contatidth. 3 What are the implications of rapid residential development attendant to the construction of the Northwest Expressway and the quastion of suburban economic and racial exclusion?
Conimetif if. $4 \cdot T h i s$ orfice, in reviewing the Environmental Impact Statement, can not positively evaluate the integration of the expressway and the rapid lransit line. How will each mode complement the other? How are the different impants of the two modes roconciled to density development? What is the negative impact on transit use?

We appreciate the opportunity to comment on this document.


Response to Comments by the
Department of Housing and Urban Development

Comment No. 1 - A more detailed discussion on how the project will effect the development of the larger community or region has been included in Volume I, Section C-1, Regional and Community Growth (Population and Employment).

Comment No. 2 - The impact of the proposed facility on the Baltimore Beltway has been discussed in Volume I under Section C-2, page C-9.

Comment No. 3 - Residential development in the Northwest Corridor will be based on the law of supply and demand and the free enterprise system, which is an expression of this Country's freedom of choice. There are no implications in the anticipated rapid residential development of the corridor in regard to suburban economic and racial exclusion. The Combined Facility will provide better transportation between Baltimore City and the suburban County for all citizens in the northwest area of the region. In any case, racial exclusion is against State and Federal Law.

Comment No. 4 - A discussion of the various items noted in comment No. 4 can be found in Volume I, pages $\mathrm{C}-6$ and $\mathrm{C}-7$.

## DEpARTMENT OF HINALIH, (DUCATION, AND WELFARE

 136 GION III
PHI. ADILPHIA, II NNEYILVANIA 19101
May 11, 1973

Mr. Walter E: Woodford, Jr.
(hame natal of
pacha situs
Chief Engineer
Maryland Dept. of Transportation P.O. Box 717/300 West Preston Street Baltimore, Maryland 21203

RE: EIS Relocated US Route
140 - Relocated Md. Rte.
30 - Phase X Rapid Transit
FHHA-MD-EIS~73-01-D
Dear Mr. Woodford:
We have reviewed the above Draft Environmental Impact Statement for the subject project in accordance with our areas of jurisdiction and have no comments.


CC: Mr. Dermis
ribs. R Mitither
M. Folie

United States Department of the Interior
OMFCE OF TIIE SECRETANY NORTHEAST REGION
JOUN F. KENNEDY FEDERAI. BULIDING ROOM 2003 J \& K BOSTON, MASSACIHSETTS 02203

April 19. 1973


Mr. Philip R. Miller
Chicf, Bureau of Special Services
State llighway Administration
300 West Preston Street
Baltimore, Maryland 21201
Dear Mr. Miller:
This is in response to your request for the Department of the Interior's revicw and comments on the draft environmental statement for relocated $U$. S. Route lis, relocated Maryland Route 30 and Phase I Rapid Transit, Baltimore County, Maryland. We find the statement generally adequate in addressing the project's impact upon the environment; however, we belicve that additional consideration should be givon to moasures to minimize advorse impacts to the Givynns Falls Valley linear park proposal. Based on the information presented, we would concur that Alternate 2 is the most desirable alternate as regards impact to the Gwynns falls valley - both in terms of water and soil. resources and the recreation potential for the area. Consideration of the following would improve the final statement.

## Description

The statement should discuss the Baltimore City Line
$-\operatorname{Criman}^{2} \mathrm{Na}$ and classification (c.g. 2 lane divided road) of Wabash Avenue should be described.


The following statement appears on pages $\lambda 25$ and A26: "Noise barriers will be incorporated into the project in order to effectively control acoustical impact resulting from the proposed project to both the suidurook and Gwynvale park playgrounds .... Attractive designs for noise barriers and appropriate landscaping will be utilized to create a natural atmosphere, which is planned to make the project compatible with other land uses in the area." we recommend that this planning be coordinated with the local agencies having jurisdiction over these parks.

We note that bicycle stalls are planned for the rapid transit stations. llowever, there is no information regarding existing bicycle networks - cither designated bikcways or routes amenable to bicycling. These routes, which may act as feeders to the transit stations, should be discussed in the statement. We suggest that local bicycle clubs be contacted for their views on the most appropriate type of bicycle racks or stalls for the transit stations; security may be a concern.

As mentioned in the statement, there may be state or local historic sites involved under Alternate 3. We suggest that the State Liaison Officer for Historic Preservation be consulted regarding these sites. The results of the consultation should then appear in the final statement.

## Probable Impact on Environment

Reference is made throughout the draft environmental statement to the proposed Gwyn Falls Valley linear park concept. However, the impact of the proposed highway on this park proposal and recreation values is not thoroughly discussed. We suggest that a separate section under this chapter be included to address this matter in a integrated and thorough manner. The section should review the existing situation, including the status of the proposal and existing coordination efforts. More information should be provided on recreation potential and values. The impact of the highway project on these factors and on the implementation of the park proposal should be discussed.

Some additional clarification iss needed of the parkland situation as it relates to the proposal, Alternative 1 and/or 2. Attachment No. 2 indicates that Red'Run Stream Valley park may be involved in both the Route 140 project and intended work on the paintus mill. Road. To the south of this area, both the Ilorschead Branch Stream Valley Park and two "Proposed Stream Valley Park" areas appear to be. similarly invoived.

It is necessary that each of thesc sites be examined with these questions in mind.

1. Is the area in public ownership?
2. Is the area designated or planned for park/ recreation usage?

As presently described, the applicability of Scetion $4(f)$ in these instances is difficult to establish. Clarifjection on this point is necessary if undue complications are to be avoided.

It does not appear that any consideration has been given to the possibility of archacological resources that may exist within the proposed rights-of-way. Should such resources be uncovered in the process of construction, the statement should discuss measures that will be taken to minimize loss or damage to any said resources until a thorough investigation can be conducted.

## Proposals for Minimizing Unavoidable Adverse Environmental Effects

The appended letter from the Regional Planning Council recommends that "the consultant work closely with the Baltimore County Department of Recreation and Parks so that park and highway concopts can be implemented jointly." The park concept referenced is that of the linear Gwynns Falls Valley Park, adopted by the Baltimore Regional General Development plan. However, the environmental statement evidences little planning coordination with the Department of Recreation and Parks and little effort to promote implementation of the park plan.

We suggest that consideration be given to building on structure these: two sections of the highway (in Alternate 2) which cross Givens Falls and the proposed park land. The Maryland Department of Transportation might then grant casements in these sections of the rights-of-way to the Baltimore County Department of Recreation and Parks. The development of trails, through multiple use, joint development programs, would also aid in implementing park plans.

Development of bicycle trails may be particularly appropriate in view of provisions for bicycling commuters. Such trails, besides providing recreation opportunities, might tie into a bicycle network feeding transit stations. A study of existing and planned bicycle pathways, as well as existing and anticipated traffic generating points, may be necessary.

If $A$ ternate 2 were to be chosen, we recommend several measures be considered to reduce the impact of the highway on the proposed Gwyn Falls Valley park. We would urge building on structure that section of the road which passes through the proposed park land, if such a design alternative is prudent from the standpoint of flood plain protection. In the event that building on structures is not prudent, we would suggest that a minimum median be planned in this area. Furthermore, a reduction in the size of the McDonogh Road rapid transit station parking lot ( $N=$ would minimize land taking from the proposed park area. We note that the 1.980 passenger patronage at this station is anticipated to bc 4,350, of which 55 per cent would bc in the "Park-n-Ride" category. Assuming only one passenger per ear, the total number of cars expected would be 2,393 . The parking lot is planned for 3,800 cars. If this size is warranted by an anticipated future increase in use, underground or tiered parking structures might be considered.

In summary, we commend the integrated planning which has resulted in this multi-model project. However, we believe that more coordination is needed with regard to plans for the Gwynns Falls Valley linear park. We urge the Maryland Department of Transportation to fully utilize all
programs and plaming opportunities available in order
not only to avoid adversent
not only to avoid adverse environmental lable in order, promote local land use goals.

Sincerely yours,
Mark Abelson
Special Assistant to the
Secretary

## Response to Comenents of the

 U. S. Department of the Interior```
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Comment No. 1 - The recommended alternate proposes that the Northwest Expressway terminate at the Beltway, with no connection to Wabash Avcnue.

Comment No. 2 - The planning for landscaping and noise barriers in the vicinity of the Sudbrook Park and Gwynnvale Park playgrounds will be coordinated with Baltimore County's Department of Recreation and Parks.

Comment No. 3 - There are no bikeways or bicycle networks at the present time in the Northwest Corridor, which could act as feeder routes to the proposed rapid transit stations. The Baltimore Area Trails Council has drawn a plan for a 400 mile network of trails for Baltimore City and Baltimore County, the majority of which have been planned for recreational usage. Some of the se trails could possible be extended as commuter/recreation trails leading to rapid transit stations. This form of transportation has been considered in a general way and will be provided for, where feasible, in conjunction with the development and planning of the feeder road systems leading to the transit stations. The Baltimore County Department of Recreation and Parks and the Baltimore Area Trails Council will be consulted during the design of the project to obtain their advice and recommendations regarding the feasibility of bikeways leading to transit stations, either on separate locations or as part of the proposed feeder road system.

Comment No. 4 - The Maryland Historical Trust was consulted regarding historic sites involved with the project during the coordination phase. Due to internal problems, they were unable to evaluate or report on these sites prior to the circulation of the DES. Since that time, the Maryland His torical Trust has prepared a "Report of Historic

Sites along Alternate Corridors proposed for Relocated U. S. Route $140^{\prime \prime}$ and the Sudbrook Park Historic District was placed on the National Register of Historic Places on June 19, 1973. A complete discussion of historic sites has been included in this Statemerit, see Volume II. - Section 4(f) Statement.

Comment No. 5 - An integrated account of the proposed Gwynns Falls Valley linear park concept, including the Red Run and Horsehead Branch stream valley parks, is included in Volume I, Section C-8, pages C-32, 33 and 34 .

Comment No. 6 Archeological resources have been identified in the corridor. Sites affected by the recommended alternate are discussed in Volume II Section 4(f) Statement.

6TH AND WALNUT STREETS
PHILADEIIPHIA. PENNSYL.VANIA 19106

Mr. Phillip R. Miller
Chief


Burcatu of Special Scrvices $\because$ mill viraly of State lighway Administration
300 West Preston Street
Baltimore, Maryland 21201
Re: U.S. 1.40 (Northwest Expressway) Maryland Route 30 (Reisterstown By-Pass) Rapid Transit (Baltimore City Line to Owing Mills)

Dear Mr. Miller:
We have reviewed the draft environmental impact statement for the above projects and wish to compliment you on the excellent discussion of water quality impact, noisc quality impact, and joint development with the MTA system. However, the presentation of the impact of the projects on air quality did not demonstrate equal expertise: the air quality analysis raiscs more questions than it answers. For this reason, and for the reasons detailed below, we are repoc: ir this review in EPA reference category ER-2. This determini :n will be published in the Federal Register and indicates that bccause of inadequacies in the data base and the possibility of significant air quality degradation, EPA expresses environmental reservations to the proposed projects.

Air Pollution
We suggest that the various sections dealing with air pollution be rewritten to reflect the following comments:

1. Sensitive receptors of air pollution (e.g., parks schools, hospitals near the projects and air pollution hot spots) should be identified. The levels of carbon monoxide should then be calculatet, using diffusion models, to predict carbon monoxide levels at thesc locations two ycars after completion of the project and in the design year.
2. The hydrocarbon emissions related to these projects should be discussed relative to the regional air pollution sitnation. The calculations should also be done for two years after completion and for the design year. Thesse calculations should take into account the A.M. Voorhees study of regional air pollution that is currently underway in the City of Baltimore.
3. The technical basis for tables No. 3 and No. 4 (B10 and Bll respectively) should be presented along with sample calculations.
4. To the best of our knowledge, (Maryland Bureau of Air Quality Program Guide 3) air curtain destructors cannot be used in this area after July l, 1973. This apparent inconsistency with the statement on B7 should be addressed.

## General

The final environmental impact statement should relate these projects to the area by presenting levels of service on connecting highway facilities in the design year. This is especially important in light of the anticipated congrot: in on Wabash Avenue.

The final enviromental impact statement should describe the role of the 01d Court Road MTA station. The statement should indicate whether all traffic movements are possible between the station and the beltway.

The draft environmental impact statement indicates that 10 to 20 percent of the rapid rail users will arrive by bus. The final statement should discuss the bus system that is producing this ridership and the potential for increases in bus ridership.

You are to be complimented for the firm commitment that you by the apparentily extensive co-ordination that has gone on between MTA and Slln in the planning of these facilities.

From the information presented in the draft envirommental impact statement, we agree that Alternative No. 2 mitigat most of the water quality problems encountered with

Thank you for the opportunity to comment on this project. please send us a copy of the final statement for our files and for future reference.

Sincerely yours,


Robert J. Blanca, P.E.
Chief
Environmental Impact Branch
cc: Mr. W. Come ila
Dr. J. Costantino
Mr. R. Ackroyd
Mr. R. Scoville
Mr. Il. Hughes
Mr. L. Rainone
Mr. W. Ocker
Mr. D. Wagner
Mr. W. Bona

Response to Comments of the
U. S. Environmental Protection Agency
Comment No. 1- The E.P.A. comments on the various sections
in the DES dealing with air pollution are include -
ed in a consolidated review and discussion of
regional air quality. A current report on Air
Quality has been included in Section C-12 of
this Final Environmental Statement. (Volume I)

The report on air quality is based on the Balimore Region Environmental Impact Study (BREIS), as developed by A. M. Voorhees in 1974. Traffic data for this study was developed from the BREIS report, and the data was further refined for use in the Northwest Corridor. The revised traffic volumes developed for the Northwest Expressway are included in the Air Quality Report in Section C-12.

# Comment No. 2 - The relationship of the project to existing connetting highway facilities is described in Volume II, Section C-2, pages C-7 thru C-12. 

Comment No. 3 - Old Court Road Rapid Transit Station will serve local communities on both sides of Old Court Road from Windsor Mill Road on the west to Greenspring Avenue on the east. There are no traffic movements planned as part of this profet from the Baltimore Beltway, or the proposed Northwest Expressway to the Old Court transit station. Station access is provided only from Old Court Road, as described in Volume I, page C-10 in this Statement.

Comment No. 4 - A discussion of the feeder bus system proposed to accommodate $10 \%$ to $20 \%$ of the projected transit patronage is included in Volume I, J-12 and J-13.

Comments No. $5 \& 6$ - No statement is required in response to these comments.

## UNITED STATES DEPARTMENT OF AGRICULTURE

4321 llastivjck Rel., :mm. ;\%2, collect lark, maryland 20740
April 30, 1973

Ar. Pinilip R. Miller, chief Bureau of social services state llivitway Administration 300 list preston street
Baltimore, Maryland 2120.1

Dear Mr. Miller:
This is in response to your rempuarn 21, 2973 letters to this office and to $\mathrm{mr} . \mathrm{T} .(\therefore$ imerly of theta, Washington, n . C. inviting con: on a draft onvirommental statement for the forcherest transportation corridor dated january 29, 1973.

We believe this statement acofuately provides for the care of sedimentation and erosion control during construction processes. A more positive position on erosion control during operations of the transportation system would strengthen the final statement.
be agree with the statements on page in -5 that Alternate location No. 1 :would be more difficult for erosion control anil would create added flooding problems. for these reasons location no. a would be more desirable.

We appreciate the opportunity:" to rewiow this environmental statement and trust our comments are helpful. If we can assist you in thess.: . . .r. control activities, let us know.

Sincerely,


Response to Comment No. 1 -
A statement to this effect has been included in the Final Statement in Volume I, page C-36.

Mr. Walter R. Noodjord, Jos.


Chief linginecr
Maryland Department of Transportation
State Highway Administration
P.O. Box $71 \%$

300 West Preston Street

Baltimore, Maryland 21203

Dear Mr. Woodford:
Your letter of 21 February 1973 to Colonel J. B. Newman, Office of the Chief of Engineers, has been referred to this office for comment since the project lies within the Baltimore District boundaries. The Baltimore District, Corps of Engineers, has reviewed the Draft Environmental Impact Statement for the Northwest Transportation Corridor and the following comments are submitted in accordance with provisions of the National Environmental Policy Act of 1969.

In general, the Administration is to be commended for the approach it has taken in joint planning of the proposed multiple -use facility, the lengthy and detailed coordination with governmental and local interests, and the integration of the planning with the area's regional plan. The draft impact statement seems well prepared with quite an objective approach to the project's inevitable environmental impacts.

It is rewardine to see the justifiable concern for the impacts that the project will have upon the Gwynns Falls and its associated flood plain and valley ecosystem and water quality. Efforts to keep embankments out of the flood plain, to construct wide bridge openings, and protection of the valley's potential for preservation and recreation should do much to preserve the role of the stream valley in the quality of the urban environmont. The statement might elaborate upon the status of development along the stream valley, the secondary impacts on the stream of highway induced growth in the watershed, and the resultant effects on the stream.

Since this is the first opportunity that this office has had to comment helpful in advanced design. Special serious flood problems can be expected
rata hilly auer cc: Mir. Downs
Mr. P. Miller

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NABM.--E
Mr. Halter E. Woodford, Ir.
at the station (platform) at Old Cout Road and the interehange between the N.N. Expressway and T-Ges (3altimore Be]tway). The improvement: can potentially asoravate thonding, at the private home development on the north side. Flool probleas may also occur at the Painters Mill arcia (Owings Mill station site and interchange).

It is sugecsted that the information concerning borrow and waste areas (page $A<0$ ) be elaborated upon especialiy as to the controls which micht be placed upon the Contractor's choice of areas and techmiques.

It is suggeated that the finformation on natural resources in general;

i.e. acreage and lype forest, and the posted wildijfe refuge in parcicular (page B5) be elaborated upon in the statement. This seens especially important considening the criphasis on protecting the naturai qualities of the stream valley.

While the statement details initial environment impocts that might be 5 expected, a consolidated, elaborated discussion of the secondarily induced impacts would be helpful. Section 13 states that property values will increase and growth will he encouraged by the road's construction. The manner in which these secondary inacts will be mitigated by regional and local efforts would be helpful. The future inpacts upon aesthetics and tcrrain changes discussed on page 139 will be determined by zoning 6 plans. The grouth and development, and any controls to be imposed on this development surrounding the transit stations, is not discussed.

A more thorcugh discussion of the al.ternative of providing only mass transit through the corridor, or mass transit with various reduced road7 way systems, with the same degree of elaboration as the other four alternatives would improve the statement. The relationship of such alternatives to strean valley impacts and desired regional growth would place all of the alternatives into proper context.

Thunk you for the opportunity to coment on the Draft Environmental Impact Stateriant. As requested, the Council on Environmental Quality has been furnished copies of this correspondence.

Sincerely yours,


Response to Comments of the Department of The Army, Corps of Engineers

Comment No. 1 - Present growth in the Gwynns Falls stream valley in the vicinity of the proposed Northwest Expressway/Rapid Transit Project is south of the Balimore Beltway and north of Painters Mill Road on both sides of Reisterstown Road. Between the Baltimore Beltway and Painters Mill Road, there are large acreages owned by institutions such as the Woodholme Country Club, Ne Israel Rabbinical College, Mount Wilson State Hospital and McDonogh School, with very few residential developments at the present time. The area most likely to develop in the near future is the proposed Sector Center, located in the Owing Mills area of the watershed. This will result in paved roadways, parking areas and roof surfaces for new homes and commercial buildings, all of which cause an increase in the percentage of storm water runoff and, at the same time, a decrease in the time required for this runoff to reach any specified point along Gwynns Falls. Both of these factors contribute to larger quantities of runoff, and could result in increased flooding and erosion in downstream areas. Measures that could be taken to mitigate increased flooding and erosion are discussed in a statement replying to this same concern by the Regional Planning Council and may be found in this Final Statement in Volume I, page J-8.

Comment No. 2 - Locations where flood problems may occur are pointed out by the Corps. A discussion of the measures proposed to mitigate the flooding problem is included in this Statement in Volume I, page J-8.

Comment No. 3 - A discussion of solid waste disposal and borrow areas is included in this Statement in Volume I, pages C-34 and C-35.

Comment No. 4 - Information on natural resources, in general, is included in the Final Statement in Volume I, pages C-31 thru C-34.

Comment No. 5 - A consolidated discussion of secondarily induced impacts resulting from the project is discussed in this Final Statement in Volume I, pages C-1 thru C-5.

Comment No. 6 - The location of the Rapid Transit stations were developed to be compatible with the General Development Plan for the region, and also with the development guidelines of Baltimore County. At this time, the responsibility of land development adjacent to station areas is not with the Mass Transit Administration or any other modal administration of the Maryland Department of Transportation. The local jurisdiction is the controlling authority in the area of zoning and land use controls.

Comment No. 7 - The alternative of providing only mass transit through the corridor or mass transit with reduced roadway systems was not considered as one of the original alternatives because they do not provide for the corridor transportation requirements, nor do they agree with the General Development Plan of the Baltimore Regional Planning Council, or with the " 1980 Guideplan" for Baltimore County. The fact is, all three projects - Northwest Expressway, Improvement to Fxisting Reisterstown Road, and the Rapid Transit - are needed to meet the projected transportation requirements for the 1995 design year, in addition to the improvement to all arterial roads crossing the corridor, particularly those providing access to the Northwest Expressway/Rapid Transit Facility. However, during the Public Hearing testimony, a number of people questioned the need for the Expressway; therefore, a discussion on providing Rapid Transit by itself or with improvements to Reisterstown Road has been included in Volume I, pages J-11 and J-12. .

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subseci,
Statement - proposer Northeost represswayin eeply U.S. Rte. 140 to Raltimorc City line remer to:
fROM FUW

Assistant Sccretary for Environment, Safety, anc Constincr Affajes

Rjchard Ackroyd
Division Engineer, FHWA
Baltimore, Maryland

We appreciate the opportunity to revicw this draft environmental impact statenient, which covers 12.4 mijes of relocated U.S. Route 140 and 2.0 miles of relocated Maryland Route 30 (including arproximately 5.5 miles of joint hich. way-rapid transit use). The alternates and their environmental consectiences are gerorally well documented, but certain issues and inpacte apper to doserve noro detaijed attention in the final statement. The following comments are intencied to assist the state lighway Administration and the Fecieral Ilighray Acministration and should not be construed as a juigoment on the mexits of the project.
(1) The draft environmental statement asserts that, althousa arbient air guality for the study area occasjonally erceces Fecieral stanciarels, pollution levels are not hich enough to affect cithor plants or humans (p. A22). State Air ouality Officials should be consulted, and the basis for reaching such a conculusion clarified since the primary anbjent air standaras prescribea by PPA are thoee "requisite to protect the publjec health" and the sccondary standards are those "requisite to protect the public welfare".
(2) The final statoment should include a discussion of the relationship between this project and the revised transportation control strategies of the state fmplementation plan non being cievelcped in responsic to the requirements of the Clean Air Act.
(3) The statement that no improvements on McDonogh School land will be adversely affected (p. B32) seems to be disputed by the April 28, 1972, letter from the school's
at:torney which predicts a "shattering environmental effect" on the school.'s buildings and facilities in terms of unsightliness, noisc, fumes, dirt, cte. a more detailed discussion of this issue would be apprepriate, including measures planmed to minimize harm to this property, and an explanation of why no adverse effects to the school's (1) (4) Since the draft states that ro Section $4(f)$ lands will
be involved, jt is assumed that (a) construd way offect the Horsehead pranch $[a]$ construction will in no Red Run Stream Valloy Rark shown on the Valloy park or the [b] these areas are not in public on the location map, or along with any potential impoct ownership. This point, have on Leakin park, downstroum of thenstruction could adaressed. Although plians to establi project, should be Stream Valley Park are still tentative the Gwynns falls be mado to avoid actions mich woulde, cvery effort should tential for future development.
(5) The draft notes that Alternate 2 will affect the Gwynn Falls flood plain to a lesser ciegrec than Aldernate 1 , but does not adequately discuss the decrec to which the flood the higlway constructicacted by ilternate 2 and what effect the project.

We look forvard to recoiving the final envirommontal impact statement, including the disposition of these and other comments received on the draft etatement.
(Signed) Bon Davis
Benjamin O. Davis, Jr.
CC:
Regional Federal Highway Administrator

# Comments No. 1 \& 2 - The air quality analysis has been revised and is currently based on traffic data developed with the BREIS report. The revised air qualits impact has been included in this Final Statement in Volume I, page C-54. 

Comment No. 3 - | The recommended alternate is located east of |
| :--- |
| the Western Maryland Railway and has no im- |
| pact on the improved portion of the McDonogh |
| property. |.

Comment No. 4 - Horsehead Branch and Red Run stream valley parks are now privately owned and, therefore, do not qualify as Section $4(f)$ land.

Comment No. 5 - The impact of the project on the floodplain of Gwynns Falls was a subject of concern to many of the area residents, who spoke at the Public Hearing. The effect on the floodplain by storms of varying frequencies, and the measuses that could be taken to mitigate increased flooding are discussed in a statement that may be found in Volume I, pages J-4 thru J-9 of this Final Environmental Statement.

MARVIN MANDE
coveanon

## MARYLAND

DEPARTMENT OF STATE PLANNING

## 301 WEST PRESTON STREET

BALTIMORE, MARYLAND 21201

TELEPHONE. JOI.3E3.245t
VLADIMIR A. WAME

EDWIN L. POWELL, JR. $\quad$ d

deputy bechctany

Hr. Phillip R. Miller, Chief Bureau of Special Services . State lloghway Administration 300 West preston 'Street Baltimore, Maryland 21201

subject: environmental impact statement review
Applicant: State Highway Administration
Project: Northwest Transportation Corridor
State Clearinghouse Control Number: 73-2-65
State Clearinghouse Contact: Warren D. Hodges (383-2467)
Dear Mr. Miller:
The State Clearinghouse has reviewed the above noted Environmental Impact Statement. In accordance with the procedures established by the Office of Management and Budget Circular A-95, the State Clearinghouse received comments (copies attached) from the following:

Bureau of Air Quality Control: made detailed comments on specific instances in winch the air quality data is in error or is misleading. In particular, the Bureau emphasized that any highway project must be consistent with air quality implementation plans.

Department of Employment and Social Services: found the project to be consistent with Departmental plans.

Department of Economic and Community Development: recommended approval.
Department of Natural Resources: indicated continuing interest in transportation
development in this corridor. The Department expressed particular concern for impact on Guans Falls and state that such impact is not adequately addressed in this statement. The Department evidenced support for the eastern alignment (alternate 2).

Our staff reviewed this statement and concurred with the findings of the Bureau of
dir quality Control and the Department of Natural Resources. In general, staff
=moments noted that the statement lacks detailed information on the environmental
impets on phat life, willife, vater quality, and the changes it land use irplicit in such construction of major transportation facilities.

We hope these comments will assist you in the preparation of your final statement and look forwar! in continued cooperation with your agency in the Clearlnghouse review oi the complete project presentation.

Stucerely,

Vladimir Wahbe

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Enc.
cc: William Sprague
    George Ferreri
    Roger Uinter
    Lconard Elcnowitz
    Anthony Abar
    Robert Young,
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Response to Comment No. 1 -
Detailed information on the impacts on plant life, wildlife, water quality and land use are included in Volume I of this Final Statement as follows:

Impact on plant life - . Section C-8, page C-31
Impact on wildlife - Section C-8, page C-31
Impact on water quality - Section C-10, page $C-35$
Changes in land use - Section B, page B-4


March 23, 1973

TO: Mr. Warren D. Hodges, Chief State Clearinghouse

FROM: Mr. Gcorge P. Ferreri, Acting Director Bureau of Air Quality Control


RE: Northwest Transportation Corridor Environmental Impact Statement;

The Bureau of Air Quality Control has reviewed the draft Environmental Impact Statement (bIS) for the Northwest Transportation Corridor and has the following comuents.

The portions of the EIS dealing with air pollution demonstrate a significant "rfort to describe the present and potential impact of transportation in the .orthwest corridor. However, there were several statements which were in error as well as some which were misleading.

Most of the problems center around the usc of the tables. Table 2 on page A20 contains the "1971 Air Pollution Levels" Measured Along Reisterstown Road at Garrison Station No. 23". The use of this table for purposes of comparison with Federal standards is very limited. The total oxidant weasurements were obtained by the phenolphthalein method which is not approved by EPA. They are also based on grab gas samples of less than an hour. These numbers, therefore, need very careful interpretation and cannot be compared directly to Federal standards.

The $\mathrm{NO}_{2}$ data also needs explanation. These valucs were measured ftom 24 -hour samples obtained once cerery six days. The column is headed 'Tonthly Max' but it should be explained that they are the maximums of those days which were measured. It is very possible that higher levels occurred on days which wer? not sampled. The $\mathrm{NO}_{2}$ was measured by the Jacobs-llocheiser technique which is not accepted by EPA. All of thesc points should be specificd in the table.

There are also problems with the carbon monoxide data, even though they are derived from contimuous measuranent and the averaging time is specified. The high
values recorded in this table have been deleted by the Baltimore County health Department due to the discovery of an instrunent error.

In short, if a table of air quality data is to be included as part of this EIS, itt should be re-exanined and updated with the latest edit infonation from the llealth Departuent. The method of measurenent and averaging times for each of the pollutants should be footnoted. If this infonation is not provided, the table is useless and can only be misleading to those who read it.

The next problem concerns Tables 3 and 4. Since these also summarize air quality, they suffer from the same faults as Table 2. In addition, they represent estimate of future air quality and we have some grave questions as to the method of projection.

Table 3 was bascd on the fallowing assumptions, among others:

1. The measured concentration of a pollutant is directly proportional to the amount of that pollutant emitted to the atmosphere.
2. The increase in pollutant levels from 1971 to 1995 will be in the same ratio as the increase in traffic counts in the area.

The first assumption is a valid one and it is one that is used quite often by air pollution personncl in predicting air quality. Its dependability is a function of the initial air quality data and the accuracy of the cmission inventory. It is important that all sources of the pollutant in question are considered. These are mobile, stationary and natural.

The last statement explains what is wrong with the second assumption. Automotive emissions which may be assuned to increase with traffic count (provided there is no fcderal control of vchicular cmissions) comprisc varying amounts of the total emissions for these pollutants. The percentages vary fron $38 \%$ to $85 \%$ as already stated in the EIS. Emissions from each source category must be prow jected scparately as each increascs (or dcereascs) at its own rate.

The same problcm cxists wi.th the Table 4 since it is derived from Table 3. Thesc data are supposed to represcnt air quality levels which are expected duc to implementation of the federal new ear cmissions standards. They vere calculated by taking $10 \%$ of the valucs in Table 3. This, of coursc, is incorrect. The projected air quality levels should be based on total caissions. The $10 \%$ factor can only be applica to the automotive canissions. Stationary sources and even other vehicular sources are not affected, at present, by the federal legislation. lleavy duty and light duty trucks do not have to somply with federal emission standads. This means that the advent of controlled cars will not have as great an impact on emission levels as was once thought. Morcover, new data on controlled ears indicates that pollutant emissions may not. be sped related. Carbon monoxide, hydrocarbon and nittrogen oxide emissions will probably remain constant as speed increases. This means it will no longer be sufficient to paise average specds to reduce cmissions. The length of the trip and the fact that the trip is made at all will become much more siguificant.

In general, the Burcau found this Statement to be slightly mis leading. The long discussion on emergency measures to be taken during an air pollution
nlert are irrelcvant. It i.s very unlikely that Baltimore would cver reach an encrgency state. Even if this were to occur, it would certainly involve the whole region and not be limited to a single facility. Aside fron air quality, the presentation of altermatives doss not contain all of the facts. It should be explicitly stated that the 20 Year Necds Study ealls for reconstruction of Reisterstown Road as a 4 -hane divided urban highway in addition to construction of the Northwest Expressway. Although this project wouldn't require as much land as Alternative 3 , it would certainly necessitate relocation of the majority of businesses along the existing road. Pcople in the area should be aware that rejection of Alternative 3 will not preclude the taking of extensive property along Reisterse town Road at some time in the futurc.

In conclusion, it should be remembered that any highway project must be consistent with the state's air quality implementation plan when it is adopted as provided for in Scetion 136(b) of the Federal Nid llishway Act. The transportation control strategy which forms a portion of this plan has not yet been submitted. However, both the 1975 strategy and the 1977 strategy (if Maryland is granted an (extension of the deadlinc) call for a reduction in VMT. Without this reduction it will be impossible for the Baltimore region to mect Federal ambient air quality standards. The impact of the Northwest Frecway on VMI growth rate should be explored further.

G1F: AMD:bac
Attachment
cc: Baltimore County llealth Department

## Response to Comments -

The air quality analysis has been revised and is currently based on traffic data developed with the BREIS report. The revised air quality impact has been included in this Final $^{\text {in }}$ Statement in Volume I, page C-54.

DEPAIßTMENT OF EMPLOYMENT AND SOCIAL SERVICES

## OFFICE OF TIHE SECREIARY

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April 9, 1973

Mr. Warren D. Hodges
Chief, State Clearinghouse
Department of State Planning


301 West Preston Strect
Baltimore, Maryland 21201
Attention: Mr. Allen Miles
Dear Mr. Hodges:
The Department of Employment and Social Services has revicwed the project entitled Northwest Transportation Corridor (73-2-65) subnitted by the State Highway Administration.

Based on information made avallable to us, the project is consistent with this Department's plans and, therefore, approval is recommended.


RPW:cs
Attach:

Dator 3-8-73

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Baltimoro, Karryand 2d?01


Appliconf: State lli,hway Adninistration
Frojocts Northwest Transportation Corrjdor (Relocated Rt. 1,10 and Md. 30 and Phase T Rapid Transit $\because 3-2-a s$

Stats Cloorinfloveo Control liambir Allen Miles (383-24in)

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4. This aponey hus further jriteross in ent/a: ouncions caneomang tho above protect and widnes to conior when tho nimaticanio. $\qquad$

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The Departinent of Natural Resources will have a continuing intorest in this highway and rapid transit dovelopment, particularlor for its impact on Gwynns Falls.

Department intorosts in this projoct development have been mado known previously in meotings with the State Highway and Mass Transit Adminjstrations. These intorests and our concerns have also been the subject of Clearinghouso correspondence to Mr. David H. Fishor, Administrator, Stato Highway Administration, on May $2 l$, 2972 by Mr. Vladimir Wahbo, Secretary of State Planning, and to Mr. Phillip Ro Miller, Chiof, Bureau of Spocial Servicos, State Highwey Administration, on May 24; 1972 by Mr. Robort S. Norton, Chief, Surface Water Managemont.

There are two major areas where tho proposed project will have sorious adverse offects upon tho floodplain and waters of Gwynns Falls. Tho 0ld Court Road Station site appoars to requiro substantial alterations to Gwyms falls for interchange and rapid transit racility construction. This impact on the natural environmont is not adoquatoly addrosscd in the Draft Environmontal Statomont. Also, from the Baltimore Boltway to Paintors Mill Road, two alternato
routes arr proposed. Although oath alternate explored would have adverse impacts upon Gwyn palls st roam and valley, tho eastern alignment (Alternate 2) is less sever in its impact. The western alignment (Alternate 1$)$ would require cxtonsive and highly destructive stream channelization and/or bridging alone approximately two miles of Gwyn Falls. lie eastern aliéninent (Alternate 2) would bo loss destructive, impacting this sensitive stream and flood plain only at Painters Mill Road.

The Department of Natural Resources substantiates its previous position that the eastern alignment (Alternate 2) is the preferred routing, which will considerably lessen adverse impacts upon Gwynns Falls stream and valley.

At this phase of development, our Department cannot comment on certain features until more detailed plans and designs are prepared and available for review. The following are elements of concern to this 'rpartmont as to the manner in which Gwynns falls Stream Valley will bo protected: (1) All bridge or culvert waterway crossings; (2) Disposition of solid wastes; (3) Measures to protect water quality; (4) Features to protest the biota and re-establishment of stream characteristics to attain full potential for aquatic life.

Response to Comments of the

Comment No. 1 - Shaping the existing channel and the placement of slope protection are the only alterations planned for Gwynns Falls at the Old Court Road area. The proposed Expressway and Rapid Transit Facility will be constructed on bridges in the vicinity of Gwynns Falls at Old Court Road. The rapid transit station site at Old Court Road will be constructed above the floodplain elevation of Gwynns Falls assuming'a major storm of the proportion of Agnes in June, 1972; however, no relocation of Gwynns Falls will be required either by the proposed station site at Old Court Road or by the proposed interchange at the Baltimore Beltway. The impact of the project on the floodplain of Gwynns Falls in the vicinity of Old Court Road is discussed in Volume I, page J-4 of this Final Environmental Statement.

Comment No. 2 - The State Highway Administration is requesting approval of the highway/transit location, which agrees with the location preferred by the Department of Natural Resources. The project is located on the east side of the Western Maryland Railway and impacts Gwynns Falls only at a crossing north of the Baltimore Beltway and in the vicinity of Painters Mill Road. The impact on the floodplain at both of these locations are also discussed in Volume I, page J-4.

Comment No. 3 - The manner in which the Gwynns Falls stream valley will be protected regarding the elements of concern noted by the Department of Natural Resources may be found in Volume I at the following locations:

All bridge or culvert waterway crossings -
Section C, page C-32
Disposition of solid wastes Section C, page C-34
Protection of water quality Section C, page C-35




PHILIP R. MILLER
i CHIEF BUREAU OF
SPECIAL SERVICES

Review and Comment Transmittal Memorandum Metropolitan Clearinghouse

Attached to this transmittal letter is a memorandum which presents the Metropolitan Clearinghouse comments and includes a certification of Council action.

You should now complete and file your formal application. A copy of this memorandum and certification must be attached to your application. Please notify the Metropolitan Clearinghouse of the filing date and the amount of federal funds requested as soon as the application is completed. If you have any questions, please contact Robert Vogel (383-5839).

Sincerely,
Robert N. Young
Executive Director

[^6]REVIEW AND REFERRAL IEMORATOUN
PROJECT IDEIFPMCAIOAT

## Jurisdiction: Baltimore County

Project: Environmental Impact Statement on Northwest Expressway and Associated Improvements

Applicant: Marreand Department of Transportation Notification/ Application $\because$-ccoived March 5, 1973

DESCRIITLOIT
This draft statement evaluates the environmental impacts of a project providing for the construction of two different transportation modes within the "lorthwest Corridor." The proposed improvements ar n located primarily in Baltimore County, and consist of the construction of a six. lane, divjciea highway on new location for both relocated U.S. 140 (Ilorth:est Expressway) and relocated Maryland Ft. 30 (Reisteritow iypars). Also included is a two-track rapid transit line in the median of the highway from the baltimore City line to Painters Mill Road, a dislance of approximately 5.5 miles. The project begins at Wabash Avenue in Baltimore City and terminates at U.B. Fit. 140 and at Rt. 30 north or Reisterstow, a total length of approximately $1 / 4.4$ miles. Also considered are an alternative calling for the widening and reconstruction of existing Reisterstown road and a "Do-Nothing" alterative.

## Condemns

1. Proad-3cfin arfortizen fovelonmont.

The General Dciodowariv fin dionted by the Regional Planning Council on Dec. 15, 1972 recognizes the importance oi these transit and highway improvements in the Northwest Corridor in serving present and future growth in this area. Alternative "fl - widening and reconstruction of existing Fistierstow hoad, without
 provide adequate service for planed growth, and are inconsistent with the General Development Plan. They are hereby rejected.

However, the question of how the ne major projects will affect total developmont over a large area has not been adequately; addressed in the Environmental Impact Statement. The imper of these projects on the Liberty Road area, for instance, though likely to be beneficial, is completely ignore. Moreover, the Environmental Impact statement docs not sufficiently consider the impacts on development of all of the alternatives presented.

## 2. Effects or the Gramme Falls

Alternative if is proiorable to alternative \#1 because it has less harmful effect on the Gummas Falls area, and costs less, than alternative \#1. The Regional planning Council hereby endorses alternative $\# / 2$ with the qualifying comments contained herein.

The Regional Planning Council strongly urges the joint development of a park along the route. It iss imperative that Baltimore County's acquisition program for the Gins Falls Valley Park be detailed and scheduled so that it can bo
implemented concurrently with the hichway acquisition program. Consideration chould also be civen to the possible involvement of the State Highway Scenic Lands Program and of the State Department of Natural Resources.

In addition, storm run-off in the Gwynns Falls watershed will dramatically increase as a result of increased land develoment in the watershed. The Regional Planning Council reconmends that the State Highway idministration explore with the Department of Natural Resources and other key agencies ary possible neasures which may help minigate storm daniace all along the Gwynns Falls, including that part located in Baltimore City, which could result from this increased run-off.

The Regional Planning Council feels so strongly on this issuc that its endorsement is hereby medc conditional to the project's being developed in conjunction with an overall sturm water manafoment program for the Upper Gwynns Falls in cooperation with Baltimore County, the State Department of Natural Resources (Water Resources Division), and federal agencies such as the Soil Conservation Service.
3. Localized Immacts on Develonment
a. Owings jills Interchare The location and desien of owings Mills Interchange and transit The location and desien of the station parkinc lot pose problems as they relate to local traffic patterms, the proposed Scctor Center and the Gwynns Falls. Both facilities were specifically plamned to serve the Orin@s Mills Sector Center. As presented in the Environmental Impact Statement, they fail to provide sufficient support for the Center.

It appears that the interchange is inadequate to meet projected traffic needs. A directional interchance should be considered.

As proposed, the transit station is located too far from the center of the Sector Center to scrve it adcquately. The Regional Planning Council recommends that the transit station be relocated so as to better interface with the ceocraphical and activity center of the Sector Center. As the Sector Center is presently designed, a pedestrian leaving the transit station would have to walk in excess of half a mile and cross a parking lot and Painters Mill Road to get to its core.

It appears, however, that feasible alternatives are available tó - address all of these concerns.
b. Mcilonourh Moad Transit Station

The linviromental impaci Starment does not adequately address the possible impacts on developnent in the area of the McDonough Road Transit Station which will result fro: the construction of these major transportation facilities. Having this pariing lot scrve the entire leisterstown Road area, in order to reduce the number of cars at the Owings Fills Sector Center, seems at this stage to be a viable concept. Further study should be given to the impact of traffic and parking at this station on the roads of the immediate area.
c. The increased traffic using the Northwest Freeway will cause problems in overloading the Wabash Avenue area in Baltimore City, unless measures are taken to alleviatc the situation. One such measure might be to enlarge the parking lot at the Milford Mill Road station in order to remove additional traffic before it. cets to the city line. Further analysis and comitment to the ramp metering proposal is advisable to insure minimum impacts on Baltimore City streets.
4. Air Quality

The air quality analysis in the Enviommental Impact Statement does not adequately consider regional aspects. The outputs of the Regional Environmental Impacts Study, presently underway, could here be used to good advantage.
5. General

The highway design should be updated to accomodate projected traffic demands. For instance, between the Baltimore Beltway and Helonough Road an eicht-lane freeway will be needed. Also, a directional. interchange between the Beltway and the Northwest Freeway will be required. Beyond Painters Mill Road, it appears that a four-lane freeway will be adequate.

ENDORSERTM IS RECOMMENDED WITH THE ABOVE QUALIFICATIONS, AND WITH THE CONDITION DESCRIBED UIDER COMIENT \#2.

I HEREBY CERTIFY that at its 116th meeting, held June 22, 4973, the Regional Planning Council concurred in this Review and Referral Memorandum and incorporated it into the minutes of that meeting.

June 22., 1973
Date
cc: Mr. Robert J. Hajzyk
Mr. Jerry L. White
Mr. Roland M. Thompson
Mr. Eugene T. Camponeschi
Mr. Philip R. Miller
Mr. Anthony W. Brajevich

Original Signed By
Robert IV. Young
Robert N . Young
Executive Director

Comment No. 1 -The impacts on development in the corridor are discussed in Volume I as follows:

Alternates 1 \& 2 - See Section C, page C-1<br>Alternate 3 - See Section D, page D-8<br>Alternate 4 -See Section D, page D-12

Comment No. 2 - Increased storm water runoff will definitely result from future land development in the Gwynns Falls watershed. The State Highway Administration and Mass Transit Administration met with the Department of Water Resources on May 18, 1973 to discuss their comments and suggestions for reducing storm water damage in the Northwest Transportation Corridor. Many suggestions were made, including the use of storm drain systems as storage areas with controlled outlets to reduce peak flows, provision for a separate storm drain system to control Expressway runoff, the design of retention basins to replace areas in the floodplain used for highway and transit purposes, and of accelerating flows of small drainage areas to be ahead of the peak flow on Gwynns Falls. A study for controlling storm runoff from the project for frequent minor storms has been included as part of a study of Gwynns Falls. See Volume I, page J-8 in this Final Environmental Statement.

Gwynns Falls originates in the Glyndon area of Balimore County, enters Baltimore City in the Woodlawn area and empties into the Middle Branch of the Patapsco River. Flooding occurs at many locations along the stream and a major effort on the part of both the County and City will be necessary for any efffective control or relief of these conditions. The State Highway Administration has and will cooperate with Baltimore County, the Department of Water Resources and the Soil Conservation Service in the development of the project to include any reasonable measures recommended in an overall storm water management program for the Upper Gwynns Falls. A flood control study has been prepared by Baltimore County to define the problem to recommend the
necessary procedures for controlling the flood waters of Gwynns Falls. This study provides information regarding the most feasible locations for retention basins in addition to those developed in conjunction with the Northwest Expressway, areas where restricted discharge flows should be required of land developers and even those areas where the solution would be to purchase homes located in the floodplain area.

Comment No. 3 - Localized Impacts on Development -
a) Owing Mills Interchange -

The recommended alternate includes a directonal interchange at Relocated Dolfield Road and a terminal rapid transit station at Painters Mill Road. The State has been unable to obtain an overall plan of the Sector Center; therefore, comments on the relationship of the transit station and the geographical and activity center of the Sector Center are not possible. A certain amount of flexibility will exist in the design phase to coordinate with the Sector Center plans.
b) McDonogh Road Transit Station -

The proposal to improve transportation in the Northwest Corridor will accelerate the growth of residential and commercial development in all undeveloped areas of the corridor, and particularly in the vicinity of interchanges and rapid transit stations. A shopping center and apartment complex have already been constructed on Reisterstown Road at McDonogh Road, and the land along McDonogh Road, between Reisterstown Road and the proposed project, and west of McDonogh School to Liberty Road would become increasingly attractive to developers, if the Interchange and Rapid Transit Station become a reality. Because of this, and the many concerns voiced at the Public Hearing, the recommended alternative does not provide for any interchange or transit station at this location.
c) Wabash Avenue -

The recommended alternate proposes that the Expressway portion of the combined project be abandone from the Baltimore City Line to the Baltimore Beltway. With this proposal, there will be no traffic impacts on Wabash Avenue resulting from this project.

Comment No. 4.- The air quality analysis has been re-evaluated in relation to the BREIS report. The results of this study are included in this Final Statement in Volume I, page C-54.

Comment No. 5 - The latest traffic volumes projected for the North west Expressway were based on data developed for the Baltimore Region Environmental Impact Study (BREIS) in 1974. Based on the 1995 design year volumes, a directional interchange is required at the Beltway, and the planned 6 -lane freeway would accommodate the traffic demands at a Level ' $D$ ' Service from the Beltway north to Painters Mill Road. From Painters Mill Road to Reisterstown, the 6-lane freeway provides Level 'A' Service in the design year. Traffic volumes based on the BREIS report were not developed until after the Public Hearing, and any desirable changes in highway design indicated by the revised projected traffic volumes will be included as part of the Design Hearing process.

# BALMMOR: COUNTY. MAKYL ${ }^{\pi N D}$ 

BNER-OEPMCE COROESFONDENCE

TO... Preterin! L. Ooweerry, Jr............
Levelararicni Coordi:ator

Dalc.... Apri! 24, !973
from . Millicon !). Fonm
Directer, Orfice of licaming und Zonitig

The concept of the proposed Northwest Mines Traisit Sine and the Northwest Expesswoy :s consistert with the recomandation of the lase Guicepian, the County's official liaste; Plan ecepted by the fluming Coard on June 15, 1972. I would point out, however, that :he l 930 Guideplat at this time, does not recommend a station stop wht 7 on the moss tremit lire in the vicinity of McDonogh Read.

Iam olso forserding comments from three people with different areas of ccicern within this ciftes. The commenis fom Susan Carrell dal pitmarily with the impact of thase profecis on the man ancsie ervivonment, the comments of Sionicy Fraley generaily doal with the impact on the proposod Cwynn Folis Sireem-valley Park, and the coment of Paul J. Solomion discuss the impas: of the projects on the ecolcay of Gwynns Falls,

Williun i. Fronm, Dirceior

WDF:NEG:N

Response to Comment -
The recommended alternate does not include a rapid transit station at McDonogh Road.

Nomen F. Geber, Chichi rom. Prone ficmaia Division<br>$\qquad$<br>Susan Carroll, Sector Planner<br>MOM. Narthucst.Sector<br>$\qquad$<br>SUBJECT. Environmental Impact Statement on<br>Northwest Expressivay

Date. April 9. 1973

- Four alternates have bach offered for an improved transportation system in the Northwest Comicior, After icviaw of the Dict Environ menial Statement, it seems that Alternate " 2 . would have the least adverse impact on the natural environment, yet there are several major concerns involving certain expects of the men-rnade environment and future development.

Regarding Gwynns Falls and the proposed Stream Valley Park along this stream, it is of utmost ineportenere to attempt to preserve the natural environment. Alienate "it crees the strecen in only 2 loccilions and is locaica on the east sicie of the Viestern Morylerid Railroad, away from the stream bed. In addition, the proposed interchange at MicDonog: Road does not interfere with the stream under Alternate $\overline{\ddot{z}} 2$, as it would under Alternate ${ }^{i \overrightarrow{ }}$. . - Therefore, Altemate:"2 seems to be the only acceptable one if the stream is to be preserved and a Guy ns rabbis Strum Valley Park and Trail! System is to be a reality.
 Hoad on Ercribrook Road.

On pages 642 and 043 of the Envitormental Impact Statement, it is generally stated t based on the results of a study of the feeder roods to the proposed Expressway interchensess and rapid transit sites, a schedule for the improvement to those roads can be included in Callimore County's Carpal Improvement Program. It is felt that these feeder roads shoul_n be the full responsibility of Baltimore County.

## Memo

 Norman E. GerberEnvironmental Impact Statement on Northwest Expressway

There is a 4.12 acre parcel of land located cdiccent to Suctorook Park which the County leases from the State and is used for recreational purposes. In a letter dated April 3, 1273 from Welter E. Wood ford, Jr. of the Minyiand Diperiment of Transportation to Harry Coulter of the Dapariment of Recreation and Parts, it was sited "that none of the alternates under consideration sesia to encroach on the property more incan originally contemplated". It is alto stated that upon completion of construction of the Na themes Expressway, tic property will be cifered for sale to Rillinnore County. Ii is our main concern that the recreational use of this property be retained.

Response to Comments -
Comment No. 1 -. The recommended alternate does not provide for an interchange or transit station at McDonogh Road. A directional interchange is proposed at.

- Relocated Dolfield Road and a terminal rapid .transit station is proposed at Painters Mill Road.

Comment No. 2 - Feeder road requirements are discussed in this Final Statement in Volume I, page C-10. The responsibility for these roads has yet to be determined.

Comment No. 3 - The recommended alternate does not encroach on the land being used by the County (Sudbrook Park) for recreational purposes.
sUBJECT: Impact of Northonrt Exprocoway on Gwonns Palls Stream Valkey Pack

A reviow of the Environmental Impact Statement on the Northwest Expresmay and its cficet on the Gwans Falls Valley has generated sever impor:tant and moaning ful coriments.

Of the four ajerrmativer proposed, Alternate 2 is the only one
 to the Cunns alis Valley. The rolocation of the alianment east of the licstern $\because 3 r$ lane :ailway will complotely roweve the main roaduay fron the
 be sufficient cande to chimmate fuather conaideration of Alternate 1. Jhe tritai cost snvings of Nltcrnative 2 also adds to its viability as a meanningeti proposel.

The tramsit station proposals also require coment concerning
 liill nund station appeans to present littlc problen in the development or the sirean valley park plan. The old Court foad siation presents tine possilijlity of intarruvtirg the continujty of the stream valley park. Tho proximity of the station and expressway to the Goynns Falls stream will men it n:arcmely aifíicult to maintain continuity of a pedestri=n pain system. Rhe only ajoraren aldernative is to provide peciestrian accos:, somohon, throurgin or arounc the transit staition itsclf. The iocam tion of tie :abonorin station as meoosed in Alernade 1 is totally unaccoptable becance the hiciovay incerchango rocujred to serve the transit stop vould cio jureparable danage to the Goyms Falls stram. Alternate w is more acceptaje becanse it romoves the roadway and station from the strearil area. mhe relocition of : :onunogi Road snould be constructed so a not io interfcre with peciestrian movement along the stream valley. The painlous :ill atation iteolf prosonts no problems to stream continuity, however, the : Ylocation of paintor: !ill Road and tho parking facility for the transit station does conilist with the Red Run stroan. gaciliti,s should not intcrfore with the continuity of this stream and cortainly not enclose it undergrolind.

## Alemontive

In terns of park develoment potential, the only viable propo
 stamipoint of providing an inproved transportation corridor or possess undesirable visual imgactes and hiciner than ciesiratoce acoustical levols. The dovelonmont oi dico:nate 1 will also rceuce the amount or availaineflocciplain afca, somethineg waich carmot be afforcaci in this or any other wateralied. Any altermatu chosen nefiñ provide suificient clearance be neath brides structures to accoamoriate a pecestrian/bicyche path. The impact statement clearly shows that alternite 2 is much cheaper to dovelo than ilternate 1. The expense of protecting the environment of the str an is al::o reduced with Alteinate 2.

Diafet !exch $30,1.973$

Comments of Piul J. Solomon, Chief, ervironmental scuides Section,



Thexe $1 s$ obviousily a neci for a Horthwest Expressway. Tho quorbions to be rexolved are what anternative location should it. ascume and what jmpuet villi it have on that area as regarels both the nailizal and man-made environanent.

I atxongly endorse illeremate 2 as regneds location, This goute vould tence to be less dentructive to the etream and the stream valuley. IE wuld have less of at adverse impact on the propogod Grynns Valley stream Valiey parte

Ona maner soncern is the control of erosion' and sedimentation Quring the eonstruction phase of this project. Execssive erosion and
 Ealtimore county in recent years i:n spite of "Erosion and Sediment conirol plans", otc. Jit would appear that, unless constant surveiliance by the state is majntaincd, coniractors tend to compromise or ignote "tho plan".

Tho Baltinoze County ofeice of pianning and \%oning vould like $\therefore$. to dinow who within the state ie charged with tho reeponsibility for overseeing or insprecting the sedinant control features of the project. Coordiamtion betioen this pexion and the county would be deslrable.

Response to Comment -
The State will-coordinate with the County in regards to inspection of.the sediment control features of the project
rJS:vh and identify the individual responsible for that inspection during the construction phase of the project.
ca: liomman E. Gerber, Chlé:
project planaing Division
rage 2
Norman E. Gerber, Chicf

With these facts in mind, Netcräte 2 is the only logical and sensible alternative that shotild be consiciered.

SEE:Vh
-

Open space planner

Response to Comments -
$\therefore$ The recommended alternate is located on the east side. of the Western Maryland Railway and, for the most part,.. avoids any conflict with the County's proposed stream valley. park plan. Every effort will be made during the design of the project to provide continuity of a pedestrian path system along Gwyrins Falls through the proposed transit station sites.


March 13, 1973

Mr. Philip R. Miller, Chief
Bureau of Special Services
State Highway Administration
P.0. Box 717

Baltimore, Maryland 21203

RE: Contract B 698- -471
Contract B 972- -471
Contract MD-03-0004
Draft Environmental Statement.
FHWA-MD-EIS-73-01-D

AIIVIN mANUIL. govinnor

Second, on the map included in this report, it appears that the relocated Rte. 30 passes immediately adjacent to the lianklin Elementary School and the FrankJin Junior High School. With vacant land available to the west, adjacent to the electric transmission lines, it is suggested that the relocation of Rte. 30 follow an aligment further removed from these schools than is; indicated on the enclosed mips. Adequate screening and/or sound buffer would still. be encouraged along the relocated Rte. 30.

Finally, because we are unaware of all future proposals for schools in the vicinity of the proposed expressway, we have deferred comment on any possible conflicts in this regard. If there are any such conflicts, I would hope that they would be adiressed in the reply from the loard of Education of Baltimore County to which we note a copy of this' report was also sent.

Sincerely,

$\mathrm{ARC} / \mathrm{BF} / \mathrm{jc}$
CC: Board of Education of Baltimore County
Enclosure

## Response to Comments -

Comment No. 1 - At the present time, Baltimore County is planning the improvement of Cherry Hill Road from the eastern limits of the proposed interchange to Reisterstown Road. The Franklin Senior High School entrance connects to this section of the proposed Relocation of Cherry Hill Road, and the suggested entrance and exit configuration should be coordinated with Baltimore County's Department of Public Works.

Comment No. $\dot{2}$ - The suggestion to shift the Expressway alignment further to the west in the vicinity of the Franklin Elementary and Franklin Junior High Schools is part of the recommended alternate.


## MARYLAND GEOLOGICALGURVEY

 Laftime Hath. The Johing Hopkins Univereity BALTIAIOHE: MARYLAHO 21218April 23, 1973

Mr. Philip R. Milller, Chief

Dear Mr. Miller:
The Maryland Geological Survey has reviewed Draft Environmental Statement FHWA-MD-FIS-73-01-D. The Survey recommends that a preliminary archeological survey of the Northwest transportation corridor be made. Please see enclosure.


ETC/sgb
Enclosure
cc: Tyler Bastian

Response to Comment -
An archeological survey of the Northwest Transportation Corridor has been completed, and the results of the study are included in this Final Statement. See Section $H$ of this Volume.

<br>

No information is avidiblo on the archeolorit of Gugnns falls or othor arfas traversed by the Northwest lransportation Corridor, Despite a ceneral lack of archeological. investigation in noarby areas, several sites are known: 'hney occur on low stream terrace: as well as on high uplands overlookine stream valleys, and it is likely that other sites occur in various places in the Corridor.

The only way to dotermine if sienificant archeolorical sjetes are present in the Corricior is to undertake a preliminury field reconnaissance. The need for urcheological investicetion is espccially critical because of the evtensive alleration to the land surface which will. be callsed by the proposed construction.

- An archeolorical reconnaissance can be accomplished in an estimated 7 days of field work and a marimum 21 days of laboratory and rejort preparam tion at a mavimu cost of $3,0,0$. The rosulting redort would include a base maj shominf the locations of arcieoloicile aites found, a brief description and interuretation of cuch site, and recommenditions for intensive survey, teitine, and/or evcavation of any arcieolonically sensitive areas that are found. The work cen be accomplished by contractine with a professional areieolozist in the deartment of anthroplozy at the Univereity of ruryland, Catholic University, or Georfe dasnington University.

[^7]

MARVINMANDEL covertion

ROBERT J. LELY sccretrany
PUBLIC SAFETY AND CORRECTIONAL SERVICES

DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONAL SERVICES
 (301) 067-1100

The proposals in the draft statement are Mr. Walter E. Woodford, Jr.
Chief Engineer
State Highway Administration
P. 0. Box 717
Baltimore, Maryland 21203
Dear Mr. Woodford:
In response to your letter of February 21 , I have reviewed the draft environmental impact statement for the Northwest Transportation Corridor, dated January 29, 1973. . consistent with the plans of this Department. Furthermore, the expeditious completion of this project has the wholehearted support of this Department because of the beneficial impact it would have on highway traffic problems in this area.


RJJ.: mel



DEPARTMENT OF HEALTH AND MENTAL HYGIENE
ENVIRONMENTAL HEALTH ADMINISTRATION
610 N. howard street - baltimore, maryland 21201 - area code 301 - 383.2763

Mr. Philip R. Miller, Chief Bureau of Special Services State Highway Administration 300 West Preston Street Baltimore, Maryland 21201

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$$

Dear Mr. Miller:
In reference to Mr. Woodford's letter of February il, concerning this project, we wish to express our appreciation for the opportunity to review the Draft.

Insofar as we can detemnino, the proposed relocation of routes U.S. Route Ill and Maryland Route 30 and Phase I of Rapid Transit does not appear to present any particular problem which may have an adverse effect on the public health of the communities involved.


## WMCLB:PHN:dls

cc: Mr. Warren D. Hodges
Department of Natural Resources


Re: Contracts is 098-L71; B 972-471;
何-03-0001:
Iraft Invironmental Statement F:f1A-iD-EIS-73-01-D

Deer Ar. Piller:
In accordance vith your reouest by your letter of February 21, 1973, this office nas reviewed the highway project sabject of the above contracts.

There is no known solid waste disposal facility in the area of Baltimore City or Beltimore County affected oy this project.


-

Francis W. Kuchta Deputy Director Director

March 15, 1973
Mr. Walter E. Woodford, Jr. State Ilighway Administration 300 W. Preston Street
Laltimorc, Maryland 21202

$$
\begin{aligned}
\text { SUBJSCI: } & \text { Response to Draft Environmental } \\
& \text { Statement } \\
& \text { Fri - MD - } 13-73-01-D
\end{aligned}
$$

Dear Mr. Woodford:
This will acknowledge the receipt of the State of Maryland's draft environmental statement in connection with (1) relocated U.S. 40 - Northwest Expressway from Baltimore City Line to Reisterstown; (2) relocated Maryland 30 and Maryland 140; (3) Phase I Rapid Transit from Baltimore City Line to Owing Mills.

Please be advised that we have no adverse comments in areas of Public Work interests provided those matters contained on our letter of January 13,1072 (Baltimore City Bureau of Engineering's response to Coordination Process and included in the D.fin. data) are properly coordinated carly in design. We also request that administrative processes be undertaken to assure the construction of that portion of Wabash Avenue required to complete the highway system north of Patterson Avenue and the accommodation of proposed water distribution facilities in this same area.


EDM: : l le
cc: Hr. C. Edward Halter
Mr. Kim. K. Riley
:Ar. R. Aretzochmar
MAr. Win. Has further

## Response to Comment -

The recommended alternate does not
 include the extension of Wabash Avenue, north of the Baltimore City Line.

PINE RIDGE ASSOCIATTON, INC.
1325 Harden Lane
Pikesville, Maryland 21208

March 15; 1973

Honorable Harry R. Hughes, Secretary Department of Transportation Friendship International Airport P. O. Box 8755

Baltimore, Maryland. 21240
Re: Northwest Expressway and Rapid Transit
Dear Secretary Hughes:
The Pine Ridge Association, Inc., representing over scventy houscholds several hundred yards from the proposed Old Court Road station of the Rapid Transit station, at a mecting of its membership on March 14, 1973, upon motion duly made, seconded and carried, passed the following Resolution:
"RESOLVED, that the Pine Ridge Association, Inc. expresses its support for the construction of the Northwest Expressway and the northwest segment of Phase I of the Rapid Transit System as presently proposed, subject to the conditions listed below. This provisional support is based upon a demand and anticipation that those political subdivisions and administrative agencies which are responsible, after consultation with and input from the communitics effected, shall take every possible measure to minimize the adverse impace of these public facilities upon the tranquility of residential communities along the right-of-way of the Rapid Transit Line and the Northwest Expressway, and in the vicinity of the transit stations and the interchanges. The specific attention of these administrative agencies and political subdivisions should be dirccted, but not lir. ted, to the following critical concer :

1. Comprehensive land use plans should be adopted, preventing any high density residential, and any commercial or industrial encroachments whatsoever in residential areas.
2. Feeder roads along the established major routes to serve station areas and interchanges, minimizing the use for such purposes of side streets serving established residential communities, should be constructed or improved.
3. Parking for Rapid Transit and highway users on streets serving private residences should be prohibited.
4. Adequate feeder bus services to and from stations, in order to minimize automobile traffic, should be provided.
5. To the fullest extent possible, noise levels should be limited by using the latest technologies available to attain that desired goal.
6. In order to enhance the aesthetic effect of these public facilities, they should be constructed in tunnel, by depressing them, or they should be shielded by substantial landscaping or other attractive barriers.
7. Evidence of highway or Rapid Transit plans or construction should not be admissible in evidence in zoning hearings in order to show change in the character of the neighborhood.
8. Hearings on petitions for rezoning of any property within one-quarter (1/4) mile of the right-of-way of the Northwest Expressway or the Rapid Transit Line and one-half ( $1 / 2$ ) mile

Honorable Harry R. Hughes, Secretary
March 15, 1973
Page Three

> of a Rapid Transit station or $\exists$ in interchange should be held at night, in a public facility in the councilmanic district effected, after adequate newspaper notice of such hearing, and after a notice of such hearing has been timely mailed to every property owner within one-quarter $(1 / 4)$ mile of the land which is the subject of the rezoning petition."

Your favorable action, now and throughout the planning and construction of the Northwest Expressway and Phase I of the Rapid Transit System, would be greatly appreciated by the pine Ridge Association, Inc. We stand ready at any time to meet with you or your appropriate representatives, and planners in Baltimore County, to help develop a publicly acceptable plan for the implementation of these facilities.

cc Mr. Walter Addison
Mass Transit Administrator
1515 Washington Boulevard
Baltimore, Maryland 21230
Mr. James O'Donnell
Acting State Highway Administrator
300 West Preston Street
Baltimore, Maryland 21201
Mr. Vladimir Wahbe, Secretary
State Department of Planning
301 West Preston Street
Baltimore, Maryland 21201
Honorable Dale Anderson
Baltimore County Executive
County Office Building
lll Chesapake Avenue
Towson, Maryland 21204

Honorable Harry R. Hughes, Secretary March 15, 1973
Page Four

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cc (cont.)
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Charles Heyman, Esquire, Chairman Baltimore County Planning Commission County Office Building
111 Chesapeake Avenue Towson, Maryland 21204

Mr. William Fromm, Director Department of Planning County Office Building 111 West Chesapeake Avenue Towson, Maryland 21204

Response to Comment -
The State Highway Administration appreciates the support of the Pine Ridge Association in regard to the proposed Northwest Expressway and Phase I Rapid Transit System, and assures the Association that adequate feeder roads and bus service will be provided to transit stations as well as appropriate noise reducing barriers and attractive landscaping. The other 4 conditions noted in the Association's letter: - comprehensive land use plans; parking restrictions near transit stations; evidence in zoning hearings; and hearing requirements on petitions for property re-zoning in the vicinity of the proposed project - are items subject to local governmental processes in Baltimore County and should be given serious consideration by the County.

## J. COMMENTS RECEIVED AT THE CORRIDOR LOCATION PUBLIC HEARING:

The Public Hearing for the Northwest Expressway from Patterson Avenue in Baltimore City to the Baltimore Beltway and a portion of the Phase I Rapid Transit was held at the Sudbrook Junior High School in Pikes ville, Maryland on April 4th and 5th, 1973. A separate Public Hearing for the section of the Northwest Expressway from the Baltimore Beltway to Reisterstown and a portion of the Phase I Rapid Transit was held at the Franklin Senior High School in Reisterstown, Maryland on April lith and 12th, 1973. These public hearings were publicized in the local media; and ir. keeping with Federal Law and Maryland Department of Transportation. procedures, a public notice announcing the date and subject of the public hearings was published in the Morning and Evening Suns, the News -American the Baltimore Afro-American, the Jeffersonian, the Northwest Star and the Community Times, a minimum of 30 days prior to the hearings, and a second time between 5 and 12 days prior to the hearings.

The agenda for each of the Public' Hearings covered the following infor mation:

1. A description of the highway alternates within the limits specified for each public hearing.
2. A description of the Phase I Rapid Transit System within the specified limits for each public hearing.
3. A discussion of the land acquisition and relocation assist ante program.
4. A presentation of the environmental considerations.

This information was presented to fulfill Federal requirements for Pubic Hearings.

Following these presentations, the public was invited to comment in accordance with hearing guidelines which were distributed on the date of each hearing, and which are the same as the provisions which appeared in the public notices and also made available at each public information meeting.

All Public Hearing testimony, including the official project presentation and the testimony of each individual speaking at the hearings, was recorded by public stenographer and tape recorder. The testimony was then tran scribed into four separate volumes, one for each hearing date held on April 4, 5, 11 and 12,1973 . A copy of the Public Hearing testimony is publicly available for inspection at the State Highway Administration's District No. 4 Office building located in Brooklandville, Maryland.

The Public Hearing testimony has been carefully reviewed and, where necessary, additional studies were made to properly evaluate the comments. The items included in this Section summarize the major concerns expressed in the testimony along with a discussion and the disposition of the various comments and suggestions.

## Index of <br> Public Hearing Comments

## Item

Means of controlling the volume of traffic at Wabash Avenue in
Baltimore City
Study of Gwynns Falls showing the effect of the project on the floodplain and methods of controlling storm runoff
Sanitary sewage problems relating to the project ..... J-9
Sudbrook Park as a National Historic Site (See Volume II - Section 4(f) Statement) ..... J- 10
The relocation of Sudbrook Road over the Northwest Expressway and the Western Maryland Railway ..... J-11
Provide an interchange between Old Court Road and the North- west Expressway ..... J-11
Provide minimal improvements to Reisterstown Road;
Rebuild the Reisterstown Road - Beltway Interchange;
Build a Bypass of Reisterstown;
Combine Rapid Transit with improvements to Reisterstown Road; Build a Rapid Transit System, but do not build the Northwest Expressway ..... J-11
Feeder and Access Roads ..... J-12
Feeder Bus System ..... J-12
Changes in land use, population growth and commercial and in- dustrial development resulting from each alternate ..... J-13
Land Use Planning around Rapid Transit Stations ..... J-13
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Access across Expressway for emergency vehicles ..... J-. 15
Safe Transportation ..... J-15
Effect on Property Values ..... J-16
Noise Levels ..... J- 16
Air Quality ..... J- 16

Locate the Northwest Expressway closer to the Western Maryland Railway in the vicinity of the Baltimore Beltway (Alternate 5):

The location study developed as Alternate 5 is included in this Final Environmental Statement. See Volume I, page D-16.

Revise the Rapid Transit Station and Interchange Concepts at McDonogh Road and in the vicinity of Owing Mills (Alternates 2A and 2B):

The project studies developed as Alternates 2A and 2B are included in this Final Environmental Statement. See Volume I, page D-45 and D-46, respectively.

Revise the terminal connections of the Northwest Expressway and Relocated Maryland Route 30 in the vicinity of Reisterstown (Alternate 6):

The project study developed as Alternate 6 is included in this Final Environmental Statement. See Volume I, page $\mathrm{D}-55$.

Means of Controlling the Volume of Traffic at Wabash Avenue in Baltimore City

Based on traffic data developed for the studics presented at the Public Hearing, concern was expressed over free-flowing expressway traffic entering Baltimore City and causing traffic problems at the Wabash Avenue-Patterson Avenue signalized at-grade intersection. In order for this congestion to be minimized or eliminated, two construction proposals and one operational proposal were studied. The construction proposal in-. volves a lane reduction through the Milford Mill Interchange, and the combining of the MTA parking lot entrance road and the southbound Expressway ramp from Milford Mill Road into one ramp. The operational proposal was concerned with traffic monitoring. The results of this study indicated that traffic monitoring would not be necessary until 1980.

The details of this study have not been included in this Final Statement because the recommended alternate proposes that the Northwest Expressway be terminated at the Baltimore Beltway, with no roadway construction from the Beltway south to the City Line. Under these conditions, there is no Expressway traffic entering Baltimore City on Wabash Avenue.

Study of Gwynns Falls showing the Effect of the Project on the
Floodplain and Methods for Controlling Storm Runoff
Studies have been made along the Gwynns Falls stream valley in order to determine what effect the proposed Northwest Expressway/Rapid Transit project and subsequent development would have on the floodplain and to investigate various proposals that would minimize any increase in storm flow runoff and erosion resulting from the construction of the Expressway.
a. Studies showing the Effect of the Project on the Floodplain

A combined drainage area and land use map (See Drawing No. 24) was prepared for use in computing estimated runoff figures at various locations in the watershed. The latest projected land uses for this area were obtained from Baltimore County's 1980 Guideplan. Based on these updated land use factors, the following chart shows the acreage and runoff coefficients used for computing the discharge of a 100 -year frequency storm at ten locations along Gwynns Falls from Painters Mill Road to south of Old Court Road.

The estimated volume of storm water runoff for the 100 -year storm was used to compute the width and depth of the Gwynns Falls floodplain, with and without the influence of the proposed Northwest Expressway in the vicinity of Red Run and from north of the Baltimore Beltway Interchange to south of Old Court Road.

$\stackrel{\Delta}{5}$

- Location -

Painters Mill Rd. over Gwynns Falls

Northwest Expwy. $\begin{array}{lllllllllll}\text { over Red Run } & 3,388 & 712 & 535 & 182 & \text { 4,817 }\end{array}$

Northwest Expwy. over Gwynns Falls south of Painters Mill Road

McDonogh Rd. over Gwynns Falls 4,053 2,855 3,672 293 1,529 12,402

Mt. Wilson Rd. over Gwynns Falls
$4,0533,559$
4,747
293
$1,52914,181$
Nor thwest Expwy. over Gwynns Falls north of Baltimore Beltway

Baltimore Beltway over Gwynns Falls

$$
\begin{array}{llllll}
4,053 & 3,559 & 5,454 & 293 & 1,529 & 14,888
\end{array}
$$

Old Court Rd. over Gwyuns Falls $\quad 4,063 \quad 3,648 \quad 6,043 \quad 293 \quad 1,529 \quad 15,576$

Northwest Expwy. over Gwynns Falls south of Old Court Rd. 4, 063 3,649 6,489 $293 \quad 1,529$ 16,023

Floodplain in Park Area south of Old Court Rd. at Silvercreek Rd. $4,063 \quad 3,649 \quad 6,489 \quad 293 \quad 1,529 \quad 16,023$

The results of the floodplain computations made 100 feet south of the junction with Red Run show that the Northwest Expressway would limit the available floodplain on the west side of Gwynns Falls causing the depth of flow to increase by 0.1 feet. At this location, the width of floodplain on the east side of the stream would increase from 958 feet without the Expressway to 968 feet with the Expressway.

In the vicinity of the Baltimore Beltway, a Floodplain Plan (See Drawing No. 25) has been prepared to graphically show the limits of the computed 100-year floodplain, both with and without the proposed Expressway. Also shown on this plan for comparative purposes are the floodplain limits of Tropical Storm Agnes, which was plotted from actual field observations made by Baltimore County, and the limits of a computed 5-year frequency storm without the influence of the Northwest Expressway.

The resulting impact of constructing the Northwest Express way in the Gwymns Falls floodplain is generally so small that the change cannot be shown on the enclosed plan for the major part of the study area. The several locations where a difference can be shown in the 100-year floodplain with and without the Expressway, are described below with a brief explanation of the difference.

| - Location - | Floodplain Limits in Feet ( 100 -Yr. Storm) |  |  |
| :---: | :---: | :---: | :---: |
|  | West o Stream | Depth i Channe | East of Stream |
| 2000 feet north of Beltway - |  |  |  |
| Without Northwest Expressway | 33 | 8.1 | 539 |
| With Northwest Expwy. over Gwynns Falls | 35 | 8.5 | 248 |
| The proposed Northwest Expressway embankment reduces the width of floodplain on the east causing the increased depth of flow (5 inches). The steep bank of the stream limits the floodplain width on the west side to an increase of 2 feet. |  |  |  |

1000 feet north of Beltway -

| Without Northwest Expressway | 939 | 8.3 | 75 |
| :--- | :--- | :--- | :--- |
| With Northwest Expressway ramp | 742 | 8.2 | 73 |

The reduction in width of floodplain on the west due to the proposed Beltway ramp is balanced by an increase in velocity causing the depth of flow to remain essentially the same. The change in width of floodplain ( 2 feet ) on the east side is minor because of the steep bank adjacent to the railroad.


DRAWING NO. 25

- Location -

400 feet south of Beltway -
Without Northwest Expressway
With Northwest Expressway ramp
$\frac{(100-Y r . ~ S t o r m)}{\text { West of Depth in East of }}$
Stream Channel Stream

The proposed improvements to the existing relocated channel, including shaping and slope protection, will increase the velocity of flow and reduce the depth of the stream. This also pulls in the limits of the floodplain and will reduce flood damage through the Brittany Apartmints.

700 feet north of Old Court Road -
Without Northwest Expressway $\quad 50511.8$
With Northwest Expressway and RT Station
57
12.1

The existing channel flow is confined between the proposed Northwest Expressway ramp on the west side of the stream and the proposed rapid transit station parking lot on the east side. The channel improvements described above have minimized the increased depth of flow to 4 inches.

580 feet south of Old Court Road -

| Without Northwest Expressway | 349 | 10.8 | 271 |
| :--- | ---: | ---: | ---: |
| With Northwest Expressway | 86 | 12.5 | 279 |

The proposed embankment reduces the width of floodplain on the west side causing the increased depth of flow ( $1^{\prime}-8^{\prime \prime}$ ). A steep rise in the existing terrain 275 feet east of the stream minimizes the effect on the width of the floodplain.

In summary, the runoff computations and floodplain studies made in the vicinity of Red Run, north of the Beltway and south of Old Court Road show that by constructing the project as planned there would be very little effect on the floodplain resulting from a 100 -year storm. Slope protection planned for the existing channel south of the Beltway to Old Court Road would result in lowering the depth of flow with less potential damage to the Brittany Apartments.

Studies were also made on Gwynns Falls downstream from the project in the vicinity of the Silvercreek subdivision. The results of these
studies, as shown on the Floodplain Plan, indicate that the homes in Silvercreek would be flooded with or without the Northwest Expressway by the runoff from either a 5 -year or 100-year storm. Further computations show that a 2 -year storm would also rise over the banks of the stream and flood approximately the same number of homes as the 5 -year storm.

## b. Studies for Controlling Storm Runoff frum the Project

U.S. G. S. Circular \#554 "Hydrology for Urban Land Planning" and other drainage studies show that increased urbanization results in shorter times of concentration and increases in peak discharges for given storm recurrence intervals. The runoff associated with a 10 -year frequency storm is the established criteria used in the design of storm sewer systems for highways of this type. The increased runoff resulting from the construction of paved areas and storm sewers can be controlled by retention systems that would restrict the peak discharge from a 10 -year storm to approximately that discharge that would have occurred prior to construction of the highway.

Storage requirements would be designed for the retention of runoff from the entire graded width of highway including the paved areas for a 10 -year storm with a 24 -hour duration and released at the rate of a 2 -year storm prior to construction. All on-site detention facilities would include overflow arrangements to provide for the emergency passage of major storms with a minimum risk to downstream property damage. It should be recognized that these detention measures are not intended to provide flood control in the traditional sense. These measures are designed to reduce the peak discharge of frequent minor storms into the stream channel, not to control major storms normally associated with flood flows.

In order to test the feasibility of this type of drainage control, a study was made to develop the required detention facilities for runoff from the proposed Northwest project from the Western Maryland Railway southerly to the Baltimore Beltway, including the entire interchange with the Beltway.

The method studied to control the runoff from the paved roadway and shoulder surfaces required a revision to the typical section to provide a swale in the gradcd arca adjacent to the shoulder in fill as well as cut areas. Storm water from the paved areas would be collected in these swales and transferred to a storm sewer system via inlet structures. Various types of retention ponds or detention structures would be utilized for the storage of water from the storm drain system and for releasing it at a pre-determined rate. The detention system shown for the Northwest Expressway from the Western Maryland Railway south to the bridge over Gwynns Falls would require a storm system, as described above, discharging into a retention pond constructed adjacent to the east side of the project
and north of the. Gwynns Falls channel. The retention pond would have a storage area of 38,000 cubic feet for the storm water runoff, which would then be released at a rate of 5.6 cubic feet per second ( 2 -year storm) through a $15^{\prime \prime}$ pipe toward the stream channel. The second study location also shown on Drawing No. 25 consists of the Baltimore Beltway Interchange, an area of approximately 80 acres. Runoff from the paved areas of the existing Beltway, the proposed Expressway and all connecting ramps would be carried through pipes and in channels to the interior area of the loop type ramp in the northeast quadrant, which would be excavated for onsite retention. The storage area required for the runoff from the entire interchange area is 194,000 cubic feet. The storm water would be released at a rate of 50 cubic feet per second (2-year storm) through a $36^{\prime \prime}$ pipe leading to the stream channel on the north side of the Beltway. Similar type sym terms can be developed for the remainder of the Northwest Expressway and for the proposed Rapid Transit parking facilities; however, additional rightof -way may be necessary for the placement of retention ponds.

Land to be occupied by the project constitutes approximately 2 percent of the entire watershed and, to be truly effective, similar type controns must be required by Baltimore County for all new developments in the corridor. By implementing the system of retaining storm runoff with a controlled release, there would be no increases in peak discharges resulting from constructing the project for the large number of minor storms that occur in the region.

Due to the large volumes of water that would have to be stored, runoff from existing development and major floods can only be minimized by a flood control program for the entire length of Gwynns Falls. A flood controd study has been prepared by Baltimore County to define the extent of the problem and to recommend the necessary procedures for controlling flood waters. These recommendations include the construction of impoundment ponds in the vicinity of the Woodlawn Cemetery, Horsehead Branch, Red Run and the Rosewood State School in order to control flood flows and the acquisition of certain homes now located in the 100 -year floodplain. These capital improvements will be subject to a referendum in the upcoming eecton.

## Sanitary Sewage Problems Relating to the Project

The unsanitary sewage conditions along Gwynns Falls, particularly from the Baltimore City Line to the Beltway, have become critical during the past few years. In fact, the situation became so serious that the Department of Health and Mental Hygiene placed a building moratorium on 57 square miles in the Liberty Road area until additional sanitary facilities can be constructed to relieve this health hazard. A number of speakers voiced concern at the Northwest Expressway/ Rapid Transit Public Hearing that the construction of this project would aggravate an already serious sanitary problem by attracting new growth in the area.

A report was prepared for Baltimore County in September, 1973 on the Gwynns Falls Interceptor Sewer for its entire length from the Baltimore City Line to Reisterstown. This report shows that the existing Gwynns Falls Interceptor, constructed between 1930 and the late $1950^{\prime} \mathrm{s}$, was designed to accommodate an ultimate population of about 100,000 . In 1970, the population of the area was 116,500 and is projected to reach 293, 000 based on existing land use and zoning criteria. Changes in land use and zoning permitting more intensive development, together with increased per capita sewage generation, has produced dry weather scwage flows in excess of the existing interceptor capacity. Wet weather inflow to the system occurs precipitously, suggesting that storm water intrusion is principally from direct interconnection with storm water systems, rather than from ground water infiltration in the lower reaches of the study area. The absence of wet weather inflow in the Gwynns Falls Interceptor above the Baltimore Beltway leads to the inference that plumbing code requirements are being observed and enforced in more recent construction, and that residential rain leaders, areaway drains and foundation drains are separated from the sanitary system.

The report recommends the reinforcement of the existing Gwymns Falls, Scotts Level Branch and Powder Mill Branch interceptors as required to accommodate design year (2020) dry weather flows, for a program of disconnecting residential rain leaders and areaway drains from the sanitary system, and for necessary repairs to the existing interceptor sewers and manholes to minimize inflow through manhole covers and infiltration through subsurface leaks.

Baltimore County has accepted the basic recommendations made in the Gwynns Falls Sewer Report and authorized the design and preparation of contract plans for a new Gwynns Falls interceptor sewer. A scheduled date of 1978 has been estimated for the completion of the Gwynns Falls reinforcement interceptor for its entire length from the Baltimore City Line to Reisterstown. Baltimore County also proposes to initiate a pilot program to eliminate illegal connections to the existing sanitary system. The completion of this plan in 1978 will resolve all existing sewage problems in the County portion of the Gwynns Falls drainage basin and provide sufficient capacity for any growth accelerated by the Combined Expressway/Rapid Transit Project for the design year 2020.

## Sudbrook Park as a National Historic Site

Sudbrook Park was placed on the National Register of Historic Places on June 19, 1973 requiring the preparation of a $4(f)$ Statement. The Section 4(f) Statement for the Sudbrook Park Historic District has been included in Volume II of this Final Environmental Statement.

Alternate 2 as presented at the Public Hearing proposed that Sudbrook Road be relocated several hundred feet to the north and that the existing bridge over the railroad be closed to traffic. Because of the his tonic status given to Sudbrook Park and the importance of maintaining the existing road system as originally developed, the State Highway Admins tration has abandoned the Sudbrook Road relocation proposal in order to retain the gateway effect into the Historic District. A modern bridge in the same location will be constructed over the Railroad and proposed Rapid Transit Facility.

## Provide an Interchange between Old Court Road and the Northwest Expressway

The interchange at the Baltimore Beltway (I-695) and the proposed Northwest Expressway is located approximately 1200 feet northwest of the suggested interchange at Old Court Road, which is far less than the minimum desirable interchange spacing of one mile. An interchange at Old Court Road, in addition to that proposed at the Beltway, would create iremendous operational problems even with the use of collector-distributor roadways. The acquisition of two public recreation areas, Gwynnvale Park and Sudbrook Park, would be required, and Federal Law, Section 138, Title 23, U.S.C. permits the use of publicly -owned parks and recreational areas for highway purposes, only if there is no feasible and prudent alternative to the use of such land. The recommended alternate proposes that the highway portion of the project be terminated at the Baltimore Beltway, with no highway or interchanges south of that point.

## Provide Minimal Improvements to Reisterstown Road

Rebuild the Reisterstown Road-Baltimore Beltway Interchange
Build a Bypass of Reisterstown
Combine Rapid Transit with Improvements to Reisterstown Road Build a Rapid Transit System - Do Not Build the Northwest Expressway

Population growth and commercial development in the Northwest Corridor has been anticipated and projected in both Baltimore County's "1980 Guideplan", prepared in 1972 by the County Office of Planning and Zoning, and in the General Development Plan for the Baltimore Region, prepared and adopted in December, 1972 by the Regional Planning Council. The Northwest Corridor is one of the planned growth areas indicated in the County's Guideplan, particularly in the vicinity of the proposed Sector Center, because of the current availability of water service, the proposed Gwynns Falls sanitary sewer system reinforcement, which is scheduled to be constructed and in
operation from the Baltimore City Line to Reisterstown by 1978 and the improved accessibility offered by the proposed Northwest Expressway/Rapid Transit project. The travel desires resulting from this growth have been projected for the design year of 1995, and are summarized as follows. It is estimated that a total daily patronage of 48,500 will utilize the Rapid Transit Facility in 1990. The projected average daily traffic volumes on the Northwest Expressway in 1995 range from a minimum of 26,000 in the vicinity of Reisterstown, to a maximum of 85,000 north of the Baltimore Beltway ( $1-695$ ). These trips are in addition to the 20,000 to 42, 000 ADT projected for existing Reisterstown Road. None of the proposals listed above; i.e. to provide minimal improvements to Reisterstown Road such as a median, progressive signalization, parking restrictions, turn controls, widening at intersections and green signal time in excess of 50 percent; to rebuild the Reisterstown Road-Beltway Interchange; to build a bypass of Reisterstown; to combine Rapid Transit with improvements to Reisterstown Road; or to build a Rapid Transit System without the Northwest Expressway can accommodate the projected travel desires for the Northwest Corridor. The Reisterstown Road-Baltimore Beltway Interchange, being improved at the present time, and the widening of existing Reisterstown Road has been included in the 1975-1994 Maryland 20-Year Highway Needs Study. Existing Reisterstown Road, even with all of the suggested improvements, could only accommodate 20,000 to 25,000 ADT operating at a desirable Level ${ }^{\prime} \mathrm{C}^{\prime}$ Service. All threc proposals - Northwest Expressway, Phase I Rapid Trans it and the Improvements to Existing Reisterstown Road are needed to meet the projected transportation requirements for the 1995 design year, in addition to the improvement to all arterial roads crossing the corridor, particularly those providing access to the Northwest Expressway/Rapid Transit Facility.

## Feeder and Access Roads

A number of citizens expressed concern at the Corridor Public Hearing regarding the impact of additional traffic volumes on feeder streets leading to the proposed Rapid Transit Station Sites and Expressway interchanges and the proposed planning to improve these secondary roads, as required to provide an adequate level of service for the traffic projections. An analysis of the approach roads has been included in this Final Statement. See Volume I, page C-10.

## Feeder Bus System

The complementary feeder bus system proposed for operation in support of the Phase I Rapid Transit System will be the subject of a study by the Mass Transit Administration in the near future. The study will be approached in a comprehensive manner, including the type and size of bus to be placed in service in the Northwest Corridor, bus headways and the location of feeder bus routes.

The combination of rail rapid transit and a feeder bus system would greatly reduce the long haul passenger service now totally provided by an existing bus system and provides the opportunity to increase transit service in areas such as Randallstown and Reisterstown. Conceptually, this would reduce the number of bus miles per transit patron required in the Northwest Corridor, and should be considered as a positive impact in that area.

Changes in Land Use, Population Growth, and Commercial and Industrial Development Resulting from each Alternate

The changes in land use, population growth and commercial development resulting from the proposed project has been taken into considertion by Baltimore County's Office of Planning and Zoning in the preparation of the 1980 Guideplan. To graphically show these projected changes, two land use maps (Drawings No. 7 and 8) are included in the Final Statement. A verbal description of existing and proposed land uses and commercial development along the project corridor is included in this Final Statement. See Volume I, page B-4.

The broad scale effects on development over a large area for each alternate presented at the Public Hearing has also been discussed in this Final Statement as a result of a comment by the U. S. Department of Housing and Urban Development and the Baltimore Regional Planning Cooncal. See Volume I, page C-1 for Alternates 1 and 2, and Volume I, pages D- 8 and D-12 for Alternates 3 and 4.

## Land Use Planning Around Rapid Transit Stations

The location of the Rapid Transit Stations were developed to be compatible with the General Development Plan for the Baltimore Region and also with the development guidelines of Baltimore County. At this time, the responsibility of land development adjacent to station areas is not with the Mass Transit Administration or any other modal administration of the Maryland Department of Transportation. The local jurisdiction remains the controlling authority in the area of zoning and land use controls.

System-Wide Impacts of the Project on I-695, I-83 and City Streets
Traffic data developed for the "Baltimore Region Environmentail Impact Study" (BREIS) has been refined for use in the Northwest Corridor, and traffic volumes were developed for the Northwest Expressway, the Beltway and other roads in the highway system of the General Development Plan. Using this traffic data projected to the 1995 design year, and assuming
that these highways will be improved in accordance with recommendations in the 1975-1994 Maryland 20-Year Highway Needs Study, the system-wide impacts in terms of Level of Service are listed below for highways that could be affected by traffic from the proposed Northwest Expressway.


* Assumes no operational improvements


## Thermal Pollution

A research of this subject failed to uncover any information or authoritative studies relating paved surfaces to a change in ambient air temperature in the vicinity of a proposed highway project. An educated deduction leads us to believe that the highway project itself (with long and nearrow land use requirements) would have an insignificant and unmeasurable effect on ambient air temperature. Increased development in the Northwest Corridor, which could occur with or without the Expressway, involving large areas of land use change from a rural wooded setting to an urban dwelling or commercial environment may cause a gradual increase in ambient air temperature over the years of development. A quantitative value of this increase would be, at best, a projected estimation and its effect on existing land use would be different at each location in the corridor, depending on elevation, contours, percentage of existing development, wooded area or open fields, meteorological conditions, etc.

## Right-of-Way Required from Sudbrook Park

A part of the Sudbrook Park playground was inadvertently constructed on a parcel of land previously purchased by the State Highway Administration for the proposed Northwest Expressway. This particular 4. 4 acre parcel was designated as Extra Land, based on the 1950 plans for the Expressway, and concern has been expressed that the State cannot assure the County Department of Recreation and Parks that this land will not be used for Expressway or Rapid Transit construction. The State Highway answered this concern as much as possible in a letter dated April 3, $197 \hat{j}$ to the Department of Recreation and Parks. The letter cited the procedures to be followed, and the approvals that must be obtained, in order to determine the possible effect on Sudbrook Park. In the absence of approvals and details at this time, the State advised the County that none of the alternatives under consideration seem to encroach on the property more than originally contemplated on the

1960 right-of-way plats 28767 and 28768 and that more definitive information will become available after receipt of design approval and preparation of final metes and bounds right-of-way plats.

## Adequate Parking at Rapid Transit Stations

Based on patronage projections made by the Mass Transit Administration, the estimated number of patrons and vehicle traffic data has been determined for the peak hours and mode of travel at each station site. This information has been converted into approximate space requirements for buses, kiss-n-ride vehicles and park-n-ride vehicles. The parking lot size at Milford Mill Road and Owing Mills has been planned to accommodate the projected vehicle usage; however, the parking area at Old Court Road is restricted in size by the unavailability of land in the vicinity of the station and the parking demand is estimated to exceed its planned capacity.

## Access Across Expressway for Emergency Vehicles

Bridge structures have been proposed at all arterial and collector streets that presently cross the Northwest Expressway project. Travel times and patterns across the Northwest Corridor between Keisters town Road and Liberty Road will remain unchanged or be improved by virtue of the Expressway project not only for emergency vehicles but for all cross corridor traffic. Bridges are proposed at Milford Mill Road, Sudbrook

- Road, Old Court Road, Baltimore Beltway, Mount Wilson Lane, McDonogh Road, Painters Mill Road, Dolfield Road, Pleasant Hill Road, Church Lane, Cherry Hill Road, Berrymans Lane, Glyndon Drive Extended, Cockeys Mill Road, Westminster Pike and Butler Road Extended. One of the benefits of the proposed Expressway is reduced travel times for emergency vehicles with destinations in the northwest or southeast direction in the corridor.


## Safe Transportation

Accident statistics for the Northwest Expressway were compared to the alternate for improving Reisterstown Roar' and to the existing road without improvement on the basis of historical studies on similar type highways throughout Maryland. One speaker at the Public Hearing indicated that the Northwest Expressway project would not provide safe transportation, and that "The State Highway Administration has been fooling us with their figures showing how super safe this road will be".

Accident rates published in "Public Roads - September, 1972" shows that Maryland's accident rate predicted for this project is comparable to the national average on Interstate Freeways included in this publication.

## Effect on Property Values

The State Highway Administration's claim that property values will increase in the vicinity of a modern and efficient transportation system was general in nature, and is true when taken in that context. There is no question that some properties will be adversely afferted by a project of this magnitude and the number of residences and businesses that must be removed and people who musi be displaced are included in this Final Statement. Relocation assistance and payments will be provided by standard procedures now in effect, in accordance with the Federal Highway Administration's IM 80-1-71. A detailed description of the standard procedures for property acquisition and relocation assistance was also made at both Public Hearings, and is included in the transcript of these Hearings.

## Noise Levels

Ambient noise levels and the acoustic impact from the project aredescribed in this Final Statement. See Volume I, page C-37. The increase in noisc levels and the provisions to minimize adverse impact fromnoise was a very real concern expressed by a number of speakers at the Public Hearing.

Noise reducing barriers or devices will be carefully studied by the State Highway Administration not only to meet the national standards established by the Federal Highway Administration's FHPM 7-7-3, but also in those areas subjected to a substantial decibel increase over ambient. In order to reduce the noise generated by the project, noise barriers may consist of earth mounds, vertical walls or their equivalent, depressed roadway gradients or a combination of these devices. Additional studies will be necessary to determine the proper procedure at each noise sensitive location.

## Air Quality

The air quality analysis developed in the Draft Statement has been revised and is currently based on traffic data developed with the "Baltimore Regional Environmental Impact Study" (BREIS). The revised air quality impact has been included in this Final Statement. See Volume I, page C-58.

Index of Letter Comments Received on
Supplement to Draft Environmental Statement/Section 4(f) Statement
(FHWA-MD-EIS-73-01-DS)


UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE - 4321 Hartwick Rd., Rm. 522
College Park, Maryland 20740


November 13, 1975

Mr. Robert J. Hajzyk
Office of Planning \& Preliminary Engineering
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21201


Dear Mr. Hajzyk:


This is in response to your October 24,1975 letter to this office inviting comments on a supplement to the Draft Environmental Impact Statement for the Northwest Expressway and Phase I Rapid Transit in Baltimore County, Maryland.

We previously replied to the original Draft Impact Statement in a letter to Mr . Phillip Miller dated April 30, 1973. Our comments regarding this project are still the same as indicated in that letter.

We appreciate the opportunity io review this supplement. If we can be of further assistance, please let me know.

Sincerely,


NOV 191975
Graham T. Munkittrick
State Conservationist
$\begin{aligned} c c: & \text { R. M. Davis, Administrator } \\ & \text { Office of the Coordinator } \\ & \text { Council on Envir. Quality (5 copies) }\end{aligned}$

Response to Comment
The Soil Conservation Service is concerned with erosion control during the operational phase of the transportation system. A statement regarding this aspect of the project has been included in the final statement. Sec page C-36, this Volume.
-
Hr. philip n. Miller, Chick Bureau of special services State highway Administration 300 West Preston Street Baltimore, Maryland 2120i

Dear Mr. Miller:

This is in response to your February 21, 1973 letters to this office

PHILIP R. MILLER
CHIEF BUREAU OF SPECIAL SERVICES and to Dr. T. C. Byerly of USDA, Washington, D. C. inviting comments on a draft environmental statement for the Northwest Transportation Corridor dated January 23, 1973.

We believe this statement adequately provides for the care of sedimentation and erosion control.during construction processes. A more positive position on erosion control during operations of the transportation system would strengthen the final statement.

We agree with the statements on page B-5 that Alternate location No. 1 would be more difficult for erosion control and would create added flooding problems. For these reasons location No. 2 would be more desirable.

We appreciate the opportunity to review this environmental statement and trust our comments are helpful. If we can assist you in these erosion control activities; let us know.

Sincerely,



NOV 20 :
WM. F. INS, JR. CHIEF, BUREAU OF HIGIIWA' DESIGN

#  

PIKESVILLE, MARYLAND 21208

November 17, 1975


Mr. Robert J. Hajzyk, Director
Office of Planning and Preliminary Engineering State Highway administration
300 West Preston street
tom 209
baltimore, filaryland 21201


NOV ㅈㅇ 3975
WM. F. LiAS, JR.
CHIEF, BUREAU OT
hiGhway design

Dear Sir:
We begin our reply to the section $4(f)$ Statement by directing your attention to Page A-2, Para. 3, in which we find the "Project ....- accepted by local elected officials". As recently as June, 1975, mir. Ted Venetoulis, the Ealtimore County Executive, directed that a Task Force be formed and its findings presented to him concorning what the electorate of the area did or did not want. He would then decide what he would accept. The Task Force reported to Mr. Venetoulis but, as of this date, he has declined to endorse anything. Additionally, all three of our Representatives to the House of delegates have been opposed to the original four alternatives.

To date, there are a total of approximately sixteen studies and/or alternates concerning the Northwest Expressway. We must ask:

COMMENTNO, $\left\{\begin{array}{l}\text { 1. Who are these local officials who have accepted? }\end{array}\right.$ 2. What "Project" have they accepted?

Under the "Need for the project", $A-6$ through $A-Q$, we find that a very bleak picture has been painted in so far as transportation in the Nor thwest Corridor is concorned. Specific attention has been given to Rt. 140 and 695. The following facts are conspicuous by their absence:

1. Rt. 26 has been widened and left turn lanes provided.
2. Rt. 140 has been widened and left turn lanes provided.
3. Rt. 695 has had its entrance and exit ramps improved.
4. The intersection of Rt. 140 and Kt. 695 is being improved.

Wr. Robert J. iajzyk
state highway administration
November 17, 1975
Page 2
All of these improvements have greatly improved traffic flow in the Northwest Corridor, thus, downeradine the need for an Expressway. Additionally, we soe that kt. 695 "approaches capacity diring peak hours." The truth of the matter is that Kt. 695 is at capacity. So stated Mr. A. W. Noack, Jr. of Rummel, Klepper \& Kanl at a meetine, with our Oreganization in January of tris year. Further, when asked if there was any truth in the statement that Rt. 695 would need to be widened two lanes in each direction to handle the increased load generated by the proposed Northwest Expressway, his answer was affirmative. We suspect that this fact has been deleted from every publication concernine this "rroject" for fear that someone would ask the inevitable question. Where does the ribbon of concrete end?

Last, but not least, we find one small sentence addressed to the problem of improvement to arterial roads providing access to the "rroject." lhis sounds like a simple, logical statement. Logical it is not and in another connotation it is simple.

First, if these arterials are not improved, our small community roads will be jammed with traffic creatine noise and air pollution problems in adaition to safety.

Second, the State has dumped the burden of responsibility for these improvements on Baltimore County. Baltimore County has no plans to improve these arterials at this time.

Third, if and when Baltimore County does improve these arterials, Sudbrcok Park will have more of its property condemned (alone Milford Mill Koad) and will then have a four-lane highway on its southern border and the "?roject" on its northern and eastern borders. Three out of four is a good average. Wi th another three million dollars, and twenty moro years, you should be able to finc a way to completely encircle the Historic Community of Sudbrook Park with the ribton of concrete.

Under the discussion of Alt. \#3 (A-23), vie find a new and disturbing statenent. Wo are told that the possibility exists for the county to build, or have built, some type of road in the currentiy desiznated rizht-ofmay. Our impressinn, through these many years, has been tias any unused portion, or portions, of the right-of-way would be returned to the open market for purchase by indiviciuals. Wo must now ask for a definite clarification on tils point. If we must cirect our efiorts towards accomplishine this roal, we want to know about it Now.

Mr. Robert J. Higzok
© tate lichway administration

- November 17, 1975

Page 3
On D-23 we read that the ambient noise level in the corridor is 58dBA. 1 meredately below this statement, we find a chart which $k i v e s$ lu readings for Alternate 3. How are we to believe that the introduction of four lanes of highway and two lanes of rapid transit will produce noise levels loss than the ambient in three of the four locations listed? Additional proof is found In the draft Environmental Impact statement, on A-íc, which gives current ambient levels at two locations in Sudbrook Park as being 72dEa and b7diah at L io level. The chart on ij-23 of the supplemental $4(f)$ Statement Gives projected $L_{10}$ levels less than current readings. THIS IS riPOSSIELE. Aaciltionally, the Acoustics Comparison Chart on $\mathrm{L}-2 \mathrm{C}$ (ff) statement) is for "Alternates on Now Location." What alternates? In an effort to clarify this, a phone call was made to in r. Fred Gottemoeller on Véonesday, November $12,1975$. He stated that this data applied to all alternates. This also is impossible because all alternates do not contain the Expressway.

Attachment No. 4 deals with the Public Information Meetings of December, 1974. We take special exception to the comments by Mr. A. W. Noack, Jr., of kummel, Klepper $x$ Kohl, concerning the flooding of the wynn Falls, the retention ponds and the treatment of noise. This cominuity, as well as others, have publicly stated their belief that the "Project" will be a contributing factor towards flooding. Storm retention ponds designed on a ten year intensity storm level are ridiculous. Two Hurricanes (sines, June 22, 1972 and Eloise, September 25, 1975) at one hundred year intensity levels in (3) years SHIULD be convincing enough for anyone. Finally, the treatment of noise from the "Project" has not been adequately explained as evidenced by our past comments and the comments expressed in tins reply. this writer has taken issue with Mr. Noack personally on these iteins and is at a loss as to why he would make erroneous comments such as found in the $4(f)$ Statement.

Un the positive side, we hope that you will note Mr. Noack's cominents on the opposition to the extension of Wabash Avenue, as did lir. Frank Mope.

We note, with reference to our previous question on Historic Eoundary Lines, that "the Department has met with the Niaryland Historical Trustiand the National Advisory Council on, Historic Preservation on numerous occasions concerning Sudbrook Park Listrict." Not once have we been invited to attend and give input. As recently as November 11, 1975, in r. Gunther Gottfeld,

Mr. Robert J jajzyk
State Hiflaway Administration
November 17, 1975
Page 4
B

John N. Pearce and Dane Ismart were observed making an on-sight inspection in Sudbrook Park. We discovered this quite by accident. We had assurances from \#r. Fred fottemoeller, at the above referenced Task Force, that this would not happen again. tiny does tins continue to occur?

The reply to the question on the Signal Systems at Patterson Avenue and Milford Will hoad proves in your own words the design failure of the highway portion of the "Project". Your own traffic volume projections indicate a $22 \%$ overload in this area by 1995. Access to the "Project" would be denied at "peak hours" when it is needed most. The "overflow" would bo directed back onto the very same alternate routes that the "Project" is supposed to relieve. This is another of the important reasons why the portion of the highway from the City Line to the Beltway should not be built.

There is a question on the EPA Mandate to reduce emissions from automobiles in the Baltimore region, specifically, Baltimore City. You do not accomplish this by designing and buildings a system which purports to make it easier to reach Baltimore City. As for closing the highway, who actually believes that after the expenditure of millions, serious consideration will ever be given to actually closing this system down? out, of curiosity, how would this be accomplished?

It has been pointed out that the Catalytic Converter, which was supposed to produce a $90 \%$ "assumed" reduction in pollution levels, is now producing pollutants of its own. Because these are "new pollutants and methods for predicting levels have not been developed", the problem is ignored. However, let us not panic, for when we discover that these pollutants are killing us, we can always developer a Catalytic Converter to clean up the First Catalytic Converter. As for the diesel engine, we know of no domestic automobile manufacturer who is considering its use. Foreign diesel powered cars are too expensive for the average american to buy.

Attached is a copy of a portion of this Community's presentation at the Northwest Expressway Task Force meeting on June 2, 1975. This portion deals with our efforts to obtain data. It is interesting to note that the entire first six : toms have been deleted from tiffs Supplemental $4(f)$ statement. These items clearly demonstrated that information in a form that we could best use was not available to us. At the Task Force Netting, we were advised that this policy would change. However, we still find people coming in and out of our Community making onmsight inspections without our knowledge. kain, we ask, why?

Mr. Robort J. Hejzyk
Btate iif hway Administration
November 17, 1975
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Even worse is the foct that Attachment No. 5 to to the Supplemental $4(f)$ Statement is not acknowledged for whet it roally was. It was a Thak Force initiated by Eallimore c'ounty Exocutive Ted Venetoulls with parifespition by not only the Sudbrook ilub, but representatives from other civic Groups affected by the proposed "Project." Likewise, the recommendations of the Task Force are not found in Attachment No. 5 ef ther. For the record, that reconmendation was as follows:

1. Delete the exprossway within the Eoltway, as found in Alternate $9 A$.
2. Delete the extension of Wabesh ivenue from the City Line to Nilford Mill ioad.
3. Reduce the size of the Nilford station.
4. Reduce the size of the old Court Station.
5. Reinstate the Kilonough Rood istation.
6. Initiate an intense study within the Beltway to determine accurate patronage figures.

I'ine deletion of the above material causes us to have grave doubts about the integrity of those charged with the responsikilitiy for the "Project." Events such as these only roinforce the need for Civic Groups to be the watchdoes over those who are paid to act responsibly in the public interest.

It is our opinion that the recommendation of the Task Force offers reljef for the transportation problems of the Northwest Corricor while, at the sarce time, prevents the destruction of many small cormunities including Historic Suctbrook Park.

The combination Expressway - Rapid Trans?t Profect might have worked well within the Eeltway had it been imnlemented twenty years ago, before the area became hifhly developed. We beljeve the time has come for the Department of Transportation to stop fooling iteself and tryins to fool the Public. Let's move ahoad with what is practicle and acceptable to the People who will have to live with it.

## Sincerely yours,

THE SUDBROOK CLUE, INC.

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6. Conclusion
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B. Conclusion furthor substintiatod by fact that auch organizations have had to initiete roquests periodscally for information on project status.
c. Jurtion, the presont rectine is a rosult of actions taiton by coasunity orzanizations - not the state.

## Response to Comments by

Comment No. 1 - The Baltimore County Councilmen and General Assembly Delegation are the loci? elected offidials who have indicated acceptance of the State's 20-Year Highway Needs Study, from which the continuing Five-Year State Highway Improvement Program is developed. The project referred to is Relocated U. S. Route 140 (Northwest Express way), which is included in the 20-Year Highway Needs Study approved for 1975-1994 by Baltimore County. The approval is for budgeting purposes, and does not cover a specific route location. The route location is being studied through this Final EIS, and is subject to approval by Md. DOT and USS. DOT.

Comment No. 2 - The Sudbrook Club is concerned regarding the statemont in the Draft Section 4(f) Statement (FHWA. MD-EIS-73-01-DS) under Alternate 3 that some type of road could be built in the right-of way currently designated for the proposed Northwest Expressway.

The statement concerning the possibility of another road was made in conjunction with Alternate 3 as an attempt to point out the pressures that could develop for adequate transportation if Alternate 3 turned out to be the selected recommendation. There are no current plans by the State or County for another type of road at this location.

Comment No. 3 - Noise Levels. The ambient noise level of 58 dBA on page D-23 of the Draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS) was noted as being the average ambient level in the corridor, excluding the ambient reading made on Reisterstown Road. Existing noise levels at specific locations do vary considerably from the average ambient as noted by the two noise measurements made in Sudbrook Park. The $L_{10}=72 \mathrm{dBA}$ was measured near Milford Mill Road at Greenwood Road and the $\mathrm{L}_{10}=57$ dBA was measured at the intersection of Cliveden Road East \& Cliveden Road West. The average $\mathrm{L}_{10}=58 \mathrm{dBA}$ was used for comparison to the
predicted noise levels as being representative of the actual existing noise levels in the vicinity of the expressway proposed with Alternate 8.

The noise levels predicted for the project through Sudbrook Park are relatively low because the entire expressway/transit facility with Alternate 8 was proposed to be placed in a tunnel under Sudbrook Road. This was one of the measures proposed to mitigate the adverse noise impact at this location.

Comment No. 4 - Studies by the State and County to reduce the flooding of the Gwynns Falls is outlined in this Final Statement. See page J-4, this Volume.

Comment No. 5 - Traffic no longer enters Baltimore City on Wabash Avenue with the recommended alternate; however, in answer to the question, traffic contron would have been limited to closing the southbound Milford Mill Interchange ramp during critical traffic periods at the Wabash-Patterson intersection as determined by traffic monitoring devices.

WILLIAM DONALD SCHAEFER, Mayor ohice of tile mayor - city of baltimoki: 230 City Hall, Baltimore, Maryland 21202, (301) 396.3100

In reply refor to: MO-20

November 24, 1975

Mr. Robert J. Hajzyk, Director
Office of Planning \& Preliminary Engineering
State Highway Administration
P.O. Box 717

300 West Preston Street
Baltimore, Maryland 21203
Dear Mr. Hajzyk:
Enclosed is a copy of a staff review of the draft EIS on the Northwest Expressway, prepared by staff of the Department of Planning. You will note that they have raised a nurber of concerns which I feel are of serious import. I believe it would be prudent if your staff undertook the necessary technical work to answer the questions which they have posed and to respond in some detail to the differences in interpretation of the data which they have identified.

Although the issue of developmental considerations are touched on only lightly in this memorandum, these may have more consequence for both the City and the County than the purely transportation issues discussed by the Department of Planning staff. While I recognize that M - DOT is currently operating in an atmosphere of extremely tight funds, I would view with great concern the development of long-range plans, which will irrevocably shape the future of this region, based solely on the shortrange financial considerations which appear to be weighing so heavily today.

I am, today, submitting a request for technical services to the Regional Planning Council asking for additional evaluation of the transportation issues in the Northwest Corridor, both highway and transit, supplemented by an evaluation of the developmental implications of following one or another of the options defined in the EIS. I believe that a full City response to the draft can only be made with this additional material in hand.

Mr. Robert J. Hajzyk
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It must be clearly understood that the City strongly supports the immediate development of the Northwest Rail Rapid Transit line; indeed, our major concern with the present conceptual development of the "joint facility" is that it is one likely to undermine the development of the transit line. Scarce funds appear likely to be diverted from needed transit construction to a highway project of questionable utility. Norse, the highway segment-outside the Beltway and beyond the limits of the transit line-may well tend to establish an auto orientation to the new development which will be hostile to increased transit utilization over both the short and the long-term future.

I am, therefore, formally requesting that no action be taken to secure final approval of this document from the US-DOT until we have had the opportunity to review these additional technical studies.


Bernard L. Berkowitz
Physical Development Coordinator
CC: Larry Sabin, Md-DOT
Harry Hughes, Secretary-Md-DOT
Bernie Evans, State Highway Administrator
Walter Addison, Mass Transit Administrator
Larry Walsh, Physical Development Coordinator, Balto. County
Robert Ambry, Commissioner, HCD
Enclosure

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| SUbject | NORTHWEST EXPRESSWAY / PHASE I EIS |  |

Mr. Larry Reich Director

Several weeks ago a revised Environmental Impact Statement and 4-F Report for the proposed extension of the Northwest Expressway (Wabash Avenue) from Patterson Avenue to Reisterstown and the Phase I Rapid Transit line from the Baltimore City line to Owings Mills was received. Over the last several weeks we have been reviewing this document; we are now prepared to submit comments to you for your consideration and for possible transmittal to Robert Hajzyk at the State Highway Administration.

The report expands upon the four general options described in the original statement, which were presented at public hearing several years ago. The first two called for developnent of six-lane expressway sections extending from Patterson Avenue to Reisterstown Road; they differ only in the horizontal alignment of the highway facility. The third alternative--a nobuild alternative on the Northwest Expressway and rapid transit facility-recognizes the need for highway improvements in the corridor and consequently discusses the impact of widening Reisterstown Road from the Baltimore City line to Reisterstown ( 11.6 miles ). While the expressway would not be constructed, the rapid transit line could be developed on the "abandoned" expressway right-of-way. The fourth alternative is a pure "no-build" alternative - one in which neither the Northwest Expressway nor the rapid transit facility would be constructed and there would be no widening implemented along Reisterstown Road.
Several variations to Alternatives 1 and 2 were investigated to change the vertical alignment of the foint facility in the Sudbrook Park area in an attempt to mitigate the impact on this architectural and historical area. Two of these describe depressed highway sections; (2) placed the facility in a cut-and-cover tunnel through the Sudbrook Park area itself. On the basis of the cost estimates presented it appears that the direct construction cost of mitigating the impact ranges from a low of $\$ 2.20$-million (in the retained cut approach) to a high of $\$ 52$-million in the cut-and-cover Sudbrook Park tunnel approach.

Three other alternatives have been defined which are cause for some concern. Alternative 7 is one which would construct the Northwest Expressway from the Beltway north to the original terminus at Reisterstwon Road, extend Nabash Avenue as a surface arterial terminatirg at Milford Mill Road, with the rapid transit line extending to Owings Mills. From the Stace's standpoint, this approach has merit as a cost-saving strategy; the alternative is shown is being approximately $\$ 17$-million cheaper than the "basic" alignment and as much as $\$ 72$-million cheaper than the most expensive "mitigating" alignment. It does, however, have a number of significant disadvantages--not all of which are accurately reflected in the EIS. For example, the report notes (page E-9) "for Alternate 7, to compensate for the loss of the Northwest Expressway inside the Beltway, the I-695 traffic on Reisterstown Road and Liberty Road is greater by approxicately $35 \%$ and $27 \%$ respectively.

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It would be necessary to widen both roads in order to obtain level C service." The EIS is silent on the question of what costs would be associated with the widening of Liberty Road; the costs previously noted for the widening of Reisterstown Road ( $\$ 46.2$ million) apply for the entire 11.6 mile section; no estimate of the cost of widening only that portion within the beltway is provided. Presumably, however, the bulk of land acquistion costs (three-quarters of the total project cost) would be concentrated in this densely built up section. Our review suggests that if Alternative 7 is to be considered anything other than a "straw man" this proposal must be developed in more detail. Yore precise cost estimates of the necessary widening to make Reisterstown Road and Liberty Road plausible alternatives should be developed; additional data, particularly noise evaluation must be detailed. Based on the sketchy data provided in the EIS, it would appear that the cost savings associated with this alternate are entirely illusory, however. If one can reasonably assume a cost of $\$ 30$ million (minimum) for widening Reisterstown Road-ard a similar figure for the widening of Liberty Road-the total project cost of Alternate 7 (taken as a "package") is not $\$ 17$ million cheaper than Alternate 1 , but is instead approximately $\$ 43$ to $\$ 45$ million higher. A second and perhaps more serious prcblem relates to the question of highway capacity on the Beltway itself. On page E-9 the report states "The Baltimore Beltway would also experience and approximate $4 \%$ increase in lateral traffic demand with Alternate 7 on both sides of the Northwest Expressway." Although no precise traffic data for this facility (I-695) is cited anywhere in the report, it is noted (page A-8) that "traffic volumes range from 60,000 to 100,000 vehicles per day with operating conditicns approaching capacity during peak-hours at a number of locations. Traffic signals on Reisterstown Road at the beltway ramp termini cause daily back-ups on the beltway proper during peak-hour periods." There is no evaluation reported in the EIS which would indicate the probable level of service on the section of Reltway between Reisterstown Road and Liberty Road should Alternate 7 be developed; my "informed guess" is that levels of conjestion in this area--where radial traffic is required to overlay onto the circumferential movements in order to pick up the discontinuous moverent-would be quite considerable. Insofar as the EIS is silent on the abliity of the beltway to accomodate this increased traffic rovement, there is at least an open question as to the viability of this option. With your concurrence, I will submit a technical service request to Bill. Ockert, at the Regional Planning Council, asking that he unciertake sketch plan level assignments to the various highway networks to detail the levels of congestion associated with this alternate.

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Alternative 9 would construct the Northwest Expressway only between I-695 and Reisterstown; the rapid transit facility would be extended to the Beltway (01d Court Road Station). Cost data suggest that a "saving" of approximately $\$ 10$ million (total) could be achieved under this alternate. Needless to say, the same questions about traffic capacity on the Beltway, Liberty Road and Reisterstown Road (cited above) obtain with this alternate; consequently, the project cost for Alternate 9 must be inflated by at least the same amount (perblaps $\$ 60 \mathrm{mililion})$ to reflect the additional street construction work required. In addition, an unknown amount of construction money, would be required to provide acceptable access to the rapid transit parking areas, in particular the Reisterstown Plaza Station which would be denied even the "marginal" access via Wabash extended which would exist in Alternate 7. - In Alternate 9, access to Reisterstown Plaza Station, the only station which could have adequate parking to serve the northwest corridor, would, of necessity, use Patterson Avenue. This s.treet is inadequate from both a structural and capacity standpoint to acconmodate the volume of traffic which it would be required to accept.: I would' take serious exception to statements made in the body of the report with respect to the impact of changes in the highway system upon transit patronage. In response to a question, "What would the affect on traffic and transit ridership be, if transit only were constructed inside the beltway?" The statement is wade that, "Most of the people traveling to downtown would be on the transit in any case, since the Northwest Expressway does not provide a good connection to downtown." This coment suggests that the State is unaware of the preliminary engineering study, now underway, to 1dentify the location for the southerly extension of Wabesh Avenue In Baltimore City. This reply further suggests a complete misreading of the forces which will determine transit patronage th this corridor. If the Northwest Expressway is to be constructed only outside the Beltway, and rapid transit stopped within the Beltway, I would anticipate that the existing patronage estimates developed for Phase I stations will prove to be illusory. The difficulty associated with affecting auto and bus access to the transit stations (Old Court Road, Milford Mill, Reisterstown Plaza) will be much greater if the Northwest Expressway (Wabash Avenue extended) does not exist inside the Beltway: conversely the effect of a "developmental" highway between I-695 and Reisterstown will perhaps permenently fix the character of the Owings Mills area as an auto-dominant cormunity. Consequently, the patronage estimates developed on the basis of plans which assumed a coincident construction of both highway and transit will undoubtedly prove to be inflated insofar as transit patrorage is concerned. The consequences for the vjability of the Northwest Transit Line in these circumstances, in my view require

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gerious consideration by the City Administration. The absence of any analysis of transit patronage changes resulting from assuming one or another of the highway alternates is a serious defect, one which must be corrected. Presumably the SHA/M-DOT staff, even knowing of the RPC developed data in this regard, chose intentionally not to present it. The reasons for this are unknown.

A basic conceptual problem exists which is identified quite clearly on page E-I of the report. The writers state, "The planning proposed to minimize harm to the Sudbrook Park historic district has been based on two different assumptions. The first assumes that a combined expressway / transit facility is necessary south of the Baltimore Beltway, and the design modifications made to Alternate 1 and 2 have been included as Alternate 8. The second assumes that the highway portion of the Northwest Expressway is not necessary south of the Baltimore Beltway, in the proposals developed with rapld transit only have been designated as Alternate 7, 9, and 9A." For some reason, the writers of the Study have failed to consider the more plausible argument that the highay facility is needed only south of the Baltimore Beltway and that it is the rapid transit facility which must have continuiiy fron the City line to its proposed Owings Mills terminus. It is clear that the costs of developing a highway facility which does not seriously impair the integrity of the Sudbrook Park historic district are high; however, to arguc, as the Study does, that these costs are so high as to warrant a complete abandonment of the sound planning principles which have over the course of the last decade or more incorporated a continuous Northwest Expressray / Wabash Avenue from the Park Circle area northwesterly to the beltway seems to be an unreasonable response.

It seems clear, both from the tone and content of EIS as well as from separate commanications with SHA staff, that the State is leaning very strongly toward a redefinition of the project which would delete the extension of Wabash Avenue to the beltway; my personal view of this is that it would have extremely negative impact upon developmental options in the northwestern part of the City and County, would do nothing to fmprove the high levels of congestion and high accident rates presently obtaining on the parallel radial arterials, and--coupled with the relatfvely cheap ands more importantly, non-controversial highway development outside the beltway--would create a land developtent pattern hostile to the creation of a successful rapid transit facility.

To serve as an adequate basis for decision making, the Environmental Impact Statement should be revised to include the following considerations which should be reported in considerable detail:

Mr. Larry Reich

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Wovember 21, 1975

## gORTHWEST EXPRESSWAY / PHASE I EIS

COMAENT NO 1. Technical evaluation of the impact of the various alternatives upon patronage at each of the proposed rapid transit stations;

CoAMENT No 2. Evaluation of the level of service on each of the access roads feeding the rapid transit station under each alternative;
Countilit No 3. Quantification of the cost of widening Reisterstown Road and Liberty Road (inside the Beltway) to accomodate the diverted traffic not accessible to the Northwest Expressway under Alternate 7 and 9;
 on I-695 (Park Heights Avenue to Liberty Road) under Alternate 7 and 9;

Gow, NN: N: A complete evaluation-ceveloped to the same level as that of the Alternates in the current EIS--of a new Alternate (10) in which the Northwest Expressway / habash Avenue would extend from Patterson Avenue to I-695 with the Northoest Panid Transit Line extending to $a$ terminal station at owines yills.

It should be noted, in addition, that the required air quality analysis section of the report has not yet been submitted and consequently no comments can be made on this issue. Insofar as it can be expected that there will be significant differences in the level of transit utilization -depending first on the extent of the transit line itself and second on the competitive relationship between the highway and the transit facility-there may well be significant differences in the wodal split characteristics of trips originating from this district. It remains to be seen, however, whether the air quality models which have been (will be?) used in this analysis will be sufficiently sensitive to identify this difference.

Approxdmately a month ago Secretary (US DOT) Coleman issued a brief documenting his decision not to approve the construction of I-66 inside the Capital Beltway in the Vashington Metropolitan area. Parallels between his discussion of I-66 and the Northwest Expressway beyond the Beltway are * inescapable. On page 14 of this report, a copy of which is attached, he notes, "Over the long-term, the presence of an interstate highway serving the same corridor [as the transit line] would divert operating revenues from Metro, and compete with the objectives of financially sound Mass Transit System that will be used hy increasing numbers of commuters as they see the advantages of fast, safe and efficient service." I think it might well be appropriate if you and neniers of the Baltimore County Adrinistration undertook very serious discussions about the impact of

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Mr. Larry Reich
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NORTHWEST EXPRESSWAY / PHASE I ELS
this issue with particular emphasis on relationship between the proposed highway construction and with patronage goals of the rapid transit facility.

Either I or Tom Knoche of my staff will be happy, at any time to discuss this issue with you in more detail.
dg
Robert Ambry, Jr., Transportation Coordinator
Bernard L. Berkowitz, Physical Development Coordinator
Jeff Beck, Mayor's Office
Gene Miller, Dept, of Public Works
Sheldon Lynn, Deputy Director, Dept. of Planning
Tom Knoche, City Planner, Dept. of Planning
Attachment

Columbia. These include

- exacerbation of the problem of air pollution that currently exceeds national air quality standards:
- increased congestion on District streets and inadequate parking facilities.
- whether the Three Sisters Bridge vould be required in the future to handle $I-66$ traffic.

These questions are troubling in themselves and are not addressed ミdequately in the record. Moreover, the policy underlining 23 U.s.C. $109(k)$, coricerning the effect of bridge approacies on adjoining states, adds force to the importarece of my consideration of the impact of I-66 on increasing traffic volume in the District of Columbia, particularly where the District las opposed construction of $I-66$ as inconsistent with i.ts evolving highway system.

I have also considered the relationship of I-66 to the Metro system. The Vienne Metro line planned for the corridor has been cesigned in conjunction vith $1-66$. If I-66 is not built, Metro may vell incur adaitional costs including the cost 0 Enpurcinasing the rigiat of way, which, it is maintaincd by scme, under virginia laiv, may have to be made available to the original owncrs or condennees. Since the estimated cost of the vienna $\because:= \pm=0$ line is in excess of $\$ 350$ million, costs related to $I-66$ do not appear to be a major part of this total. Over the long term, the presence of an Interstate higl:way serving the same corridor would divert operating reverues from $\because \therefore=$ ro, and compete with the objcctives of a Einancially sound mass transit system that vill be used by increasing numbers of cormuters as they sce the acivantajes of fast, saEs, and efficient scrvice.

Comment No. 1 - A technical evaluation of the affection rapid transit patronage, as a result of not building the Northwest Expressway inside of the Beltway (Alternates 7, 9 \& 9A), was developed in conjunction with the mitigation proposals made for the air quality evaluation. This study indicated that deletion of the Northwest Expressway inside the Beltway would increase rapid transit riders by 400 to 600 patrons per day in Baltimore County. No breakdown is available regarding the increase in patronage at each individual rapid transit station; however, it can be assumed that the majority of the added riders would use the Milford Mill and Old Court stations.

Comment No. 2 - The access road requirements to rapid transit stations and highway interchanges have been developed for the recommended alternate, and this information may be found in this Final Statement. See page C-10, this Volume.

Comment No. 3 -This comment concerns the need for widening Reisterstown Road and Liberty Road (inside the Beltway) to accommodate the diverted traffic not accessible to the Northwest Expressway under Alternates 7 and 9. The effect on these and other arterials, and the steps proposed to minimize the effect of diverting additional traffic to existing artrials, are discussed on page D-33 of this Volume.

Comment No. 4 - The level of service on I-695 is noted on page J-13 of this Volume. Accident data on I- 695 available at the time of printing this Final Statement is included as an SHA memorandum, after the response to Baltimore City Comment No. 5.

Comment No. 5 - This comment suggests a new alternate in which the Northwest Expressway -Wabash Avenue would extend from Patterson Avenue to the Baltimore Beltway (I-695), and the Rapid Transit Line extend northerly to a terminal station at Owing Mills.

This alternate was not developed for the North1. west Corridor because traffic projections developed in conjunction with the Baltimore Regional Environmental limpact Study (BREIS) and refined for use in the Northwest Corridor show that the major part of the vehicular tratic have destinations requiring the use of the Baltimore Beltway and only a small portion is headed directly into the City. Elimination of the Northwest Expressway north of the Beltway would deprive the majority of residents living in this corridor from having adequate transportation service. Both the General Development Plan of the Regional Planning Council and the Comprehensive Plan for Baltimore County indicate the need for this project in the Northwest Corridor.
P. O. Bux 717 , 300 West Preston Sirect. Baltimore, Maryland 21703

MEMORANDUM


In response to our memo of October 9, 1975, and our subsequent meeting concerning the subject proposed project, we wish to advise the following.

In order to provide additional information as requested by the Federal Highway Administration concerning the operational effects of the congestion on I-695, the following information was compiled.

Accident data vas prepared for each of the fifty-three road sections between each interchange; by direction, around the entire Beltway in Ealtimore County. The accident data was examined with an emphasis towards analyzing the effects of the evening peak period. To this end, traffic data compiled at three permanent counter stations un $\bar{i}$-ujj sitiucu diurnal distrinutions which in turn was utilized to determine the evening peak period. Accident rates were then computed for both a twenty-four hour period and the four-hour evening peak period (3 PM to 7 PM ). Additional data included the percent of rearend and sideswipe accidents during the peak period (congestion related collisions) to the total accidents.

Statistical tests were then computed to measure the differences between the peak period and total accident rates on I-695 as a comparison to the peak period-statewide accident rates. These tests yielded numerous locations which could be deemed hazardous when considering the peakperiod accident rates. Additional tests of statistical significance were also computed for the peak-period percentages of rear-end and sideswipe collisions, again yielding numerous locations with significantly larger percents of these types of collisions. In order to evaluate this data, "centile ranks" indicating the relative rank of each location on a scale of $100 \%$ were prepared for each category, i.e., total accident rate, peak-period accident rate, and peak percent manner of collision. The average of these three was then computed for each section and then rank ordered accordingly. It was felt that this method permitted


JAN 161976

Mr. William F. Line, Jr.
January S, 1976
Page 2
additional discrimination, over the use of a simple hiarchy of rates with an assumption that road sections with a high total accident rate and peakperiod accident rate would also need to have a large percentage of rear-end and sideswipe collisions to further identify this congestion related problem.

The following list indicates the highest eleven road sections, with their relative "centile rank", peak-period and total accident rates and peak percent of rcar-end and sideswipe accidents (MOC).

PRIORITY location listing determined by
CENTILE RATING of ACCIDENT EXPERIENCE*


*Determined by an average of the following three factors:

1. Peak hour accident rate per 100 million vehicle miles of travel
2. Total accident rate per 100 million vehicle miles of travel
3. peak hour manner of collision percent to total manner of collision
all $1-695$ was objoinnod from the Bureau of Accident. Studies by phone on $1-26-76$

| Md. 26 to U.S. 140 | NB | .3742 | 98.61 | 108.42 | $18.67 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Md. 26 to U.S. 140 | SB | .5787 | 92.63 | 142.42 | $8.79 \%$ |
| Mos Roles for 81 I 5.695 |  |  | 152.30 | 140.91 | $20.96 \%$ |

Mr. William F. Ling, Jr.
January 8, 1976
Page 3

As can be seen, seven of these eleven' sections are continuous and form two separate sections in the northbound lane where a series of congestion related problems exist. The first section extends from Edmondson Avenue to Md .26 and includes the subject locations (from I-70N to Md. 26). There is a significant drop in both the accident experience and the traffic north of Md. 26. We have not been able to determine how much of the accident experience, as related to congestion, is caused by the backup in the I-70-Md. 26 study area. It is however, contributory and we could expect to realize some residual benefits downstream by the proposed

The second section extends from I-83 northbound to Md. 146. A major safety. improvement project involving the reconstruction of the I-83 Charles Street interchange, some realignment, resurfacing, and "exit only" lane to the Md. 45 interchange was completed in 1974. Since the accident data used herein was compiled from 1973 and 1974 records, any improvement to be realized by this major reconstruction would not yet be evident. It would therefore, seem that the Edmondson Avenue to Md. 26 road segments should receive first consideration for any improvement. The enclosed listing of the eleven locations are the most hazardous of the fifty-three locations studied on the Beltway in Baltimore County. Should these additional locations be desired for your study, they can le fünisháa upon request. They have been oninithed due to spacial limitations
only.

Please advise if any additional information is needed on this study.


PSJ/saw
c.c. Mr. N. B. Fries

Mr. H. G. Downs
Mr. A. V. Tate
lir. I. G. Hughes
Mr. T. Hicks
Mr. P. Dionne
Mr. P. Reid

Mr. Robert J. Hajzyk
Director, Office of Planning
and Preliminary Engineering
Maryland Department of Transportation
State Highway Administration
P. O. Box 717

300 West Preston Street
Baltimore, Maryland 21203
Re: Relocated U. S. Route 140 (Northwest Expressway) and Phase I Rapid Transit; Baltimore County Line to Owens Mills; Baltimore County, Maryland

Dear Mr. Hajzyk:
We appreciate the opportunity to review the Section 4(f) Statement for the above proposed project submitted to this office as a supplement to the draft Environmental Impact Statement (EIS). In accordance with our rating procedures for draft EIS's, we have classified this document as LO-2, with the understanding that this classification only relates to the limits of the document's coverage, and not to the full scope of the project's potential environmental impacts. Also, in accordance with our responsibility under Section 309 of the Clean Air Act to inform the public of EPA's views on the potential environmental effects of Federal actions, this rating and its date will be published in the Federal Register. We have outlined our review findings below.
$\therefore$ While the $4(f)$ Statement was generally clear and comprehensive in addressing $4(f)$ issues we would note that our review of air quality impacts and their relationship with traffic impacts must be deferred until the Supplemental Air Quality Analysis (noted on page ii of the Table of Contents) is circulated for review. We would also note that while use of noise mitigating techniques are strongly inferred in some portions of the statement (pages B-16, B-19, D-23, and D-24), other sections imply a less rigid commitment to their use (pages E-20, E-21). The degree of comnitment to mitigation techniques should be clarified and EPA would appreciate for timely review receipt of copies of any requests to exceptions to noise standards which might be submitted to FHiwA.

Response to Comment No. 1
The State is committed to the use of noise mitigating techniques throughout the project where predicted noise levels exceed the FHWAStandards, except at locations where exceptions are requested. The data referred to above on pages E-20 and E-2l of the Draft Section 4(f) Statement (FHWA-MD-EIS-73-01-DS) is an outline of the FHWA requirements for noise abatement as noted in FHPM 7-7-..

In reference to the impact statement (to which this $4(f)$ statement is a supplement) we note that all relevant sensitive receptors for noise, water, and air quality impacts should be covered rather than just the 4(f) sites evaluated here.

Recognizing the key role the proposed project has in Baltimore's regional transportation system and the significance of relatively high traffic volumes (and potential air quality impacts) EPA's review of the full EIS will be directed towards intermodal and systemwide relationships as well as project level traffic and air quality impacts. If pre-final EIS liaison or review activity would facilitate the incorporation of EPA's findings in these matters within your timing requirements, you may wish to contact Mr. Sam Little of my staff at 215-597-8336.

Sincerely yours,


Nicholas M. Ruha Chief
EIS and Wetlands Review Section


Whee F LINS, JR.
Chitter, guricall of
HiGHWAY DESIGN

4122 Raleigh Road
Baltimore, Maryland 21208
November 26, 1975

Mr. Robert J. Hajzyk,


Re: Relocated U. S. Route 140
(Northwest Expressway) and
Phase I Rapid Transit
Baltimore City Line to Reisterstown Baltimore County, Maryland

This is to acknowledge receipt of the Supplement to the Draft Environmental Jmpact Statement Section $4(f)$ Statement dated Oct. 6, 1975 on the above referenced project.

I appreciate this very much. I have reviewed it and turned it over to this year's Chairman of the Randallstown Unit of the League of Women Voters, Mrs. Evelyn Grim. Others in our unit have also reviewed it.

As a resident of Villa Nova, which is close to the historic area of sudbrook Park, I should like to inform you that I strongly support those members of the Sudbrook Club in their opposition to the combined highway and transit line that would have bisected their area. I feel we should not have this highway and transit line iñside the Beltway as has been suggested, and the historic areas should be preserved wherever possible.

I would like to go on record as strongly urging the construction of a rapid transit system from the Beltway line into the city; my only concern is the preservation of the beautiful historic areac. I trust the Sunpapers articie of of Sat. 11-22-75 is an accurate assessment of the situation. Thank you very much.
planned Northwest rapid transit line running in its median, is dropped, the state would build a 1,000-car parking lot at the proposed Old Court road transit station with access from the Beltway, Walter J. Addison, mass transit administrator, said yesterday.

Drivers would be encour. aged to take the subway downIt is a standard to Mr. Evans. It is a standard pattern to stop many of these [highways) at roth the Baltimore and Washington) beltways, and let the driver go around until he "Hinds his way in," he said. "Hopefully he will do it on |transit."

The Northwest Expressway has been opposed by crecy community group along the smill alignment between the Beltway and the city lino in
Baltimore county, sold Linda E Powell, a member of the Northwest Expressway Task Force, a citizen-county task force set up
last summer. The most
ton has come from opposiPark, a historic area that the combined highway and transit line would have bisected. Mrs. Powell, a member of the Sudbrook Club. said the group mainly was opposed to the highway and that the transit line was acceptable to them if it could be shifted away from the community.

Mr. Evans said that within the next two months, he and Harry R. Hughes, state transportation secretary, will make the final decision on whether to scrap the Northwest Expressway inside the Beltway. He adtreason would be lack of money $\left\lvert\, \begin{gathered}\text { Mr. Hughes lack of money } \\ \because \because \text { Ana nth de- }\end{gathered}\right.$ 1 tan ROAD, 12, Col. 1


ROAD, from Bl clared a moratorium on ne state, citing a "financial crisis" in his department.

Mr. Evans said
way to build the there was a
a cut-and-coyer expressway in
Sudbrook Park without through ing the community, which was laid out in lan: by Frecierick Last Olmsted, America's fore most landscape architect. "But it adds tremendously to the ex-pense-maybe it just isn't Worth that much inside the Beltway," he said.
Meanwhile, because there is also some doubt shout whether the subway will te built, Theadore G. Venetoulis, the Balimake a decision costive, will not way until there is a decision on the transit line, as administraion spokesman said yesterday. "He is not in support of that there is no connection, but some sort of questlity you need to move in the corridor," the.

Clarence W. Delver, 40, was pronounced dead at the scene. police said, after lie was struck and knock gd 64 feet down tho
highway. highway.

No charges have been brought against the driver of
the truck
Another person twas killed in del del county, but county pollce there withholding information last night pending notification
of next of kin.

## Scrap North

spokesman said. "We're really
waiting to see what happens
with mass transit."
The Northwest ELicressway,
which dates from the early 1930's, originally was planned to extend $141 / 2$ miles from Pat. side the and Wabash avenues lnBaitimon to li line in northwest
north of reistoust si and 140
ton of it, known of min. A perenue, has hem tu le Wabash av. but never completed in tho city line. The extension's the city mont has been dropped fromthe Baltimore master plan.

By 1972, the state had ac quilted 85 per cent of the right-of-way It needed between the cost line and the Beltway, at a cost of $\$ 800,000$. Some houses ton, but mosteared in this secrented to their remain and are state, a highway occupants by the spokesman say administration current cost ald yesterday. The current cost of the Northwest Expressway, including the link
jo amman ar... r... -n....... .uv exit to $\$ 175$ million, he said.

# Baltimore County $\mathcal{H}_{\text {istorical }} S_{\text {society, }} \mathcal{I}_{n c}$. 

agriculture building, 98II van buran I.anf
COCKI:YSVILLI: MARYLAND 21030

December 1, 1975

Maryland Department of Transportation,
State Himpwavs Administration,
Office of Planning \& Preliminary Engineering, Pe. Box 717,
Faltimore, Maryland 21203
Attention: Nr. Robert J. Hajzyk, Director
H?:
Dear Mr. Hajzykı
Our Society has received a copy of "Supplement to the Draft Environmental Statement, section $4(r) "$ in regard to the relocation of U.S. Route 1.40 .

We are pleased to note that so much attention has been given to avoiding destruction to Sudbrook Park, the MicDonorh School campus and the McDonogh pump house.

The County Historical Society would, however, be opposed to the election of any alternate route that would, in effect, oblierate the main street running through Reisterstown. We feel strongly that the historic district boundaries proposed for Resstertown should be respected. To our great regret, too much destruction has been allowed in recent years in that area. Reisterstown, as it now exists, is one of the very few small towns ib Baltimore County that has survived the automobile era even partially intact. The town has considerable historic and architectural character which should not be sacrificed to what was formerly called "progress".

Sincerely yours.

William C. Trimble
President
Faltimore County historical Society

Response to Comment No. 1
The recommended alternate includes an expressway on new location. The proposal does not include any improvement to Main Street through Reisterstown, however, Glyndon Drive will be extended west of Reisterstown Road to an interchange with the proposed Northwest Expressway.

## Old ()ourt Estates Improvement Association, Inc.

нес. 6, 1975

Mr. Erecerick J. Gottemoeller
Projeニ: Coordinator, iN.W. Trans. Corridor
Md. jept. 'Trans.

Box 117
3uv : $:$. Preston St.
Balto., $\because d .2120 j$

Dear $\because$ :

Review of the supplement to the dorthwest Expnessway Draft Envircmental Impact Statement (iEMS ) shows the higiway engineers have $\equiv$ Even no consideration $\tau 0:$
Conment Ne I. Measures, alternative to nen hignway construction, sucn as treffic manerement, acress control to Peisterstown Ra. or more modest improvements designed to facilitate smoother traffic siow on Reisterstown Ra.
HMAtitive 2 . The effects of Eeceral enerfy poiicy and rapidly escalating costs of private car operation wion will reduce automobile use for commuting purposes, as well as Federal policy to 5 E $55 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Linit nationnide.
MifMTM? $\mathcal{H}$. Providing answers, reasonable answers, to the myriad questions posed $\therefore \because$ irate ${ }^{\circ} \mathrm{C}$ itizens at nearines and information meetines.

We are citizens sincse very health and economic well-being is trreazoned by the decisis:. Emeady made by the rigtinay engineers to build the dorthwest zupressway, a road to nowhere, regararess of our protests and reaariless of the consequences of their decision. We do not have the sar.e large professional staff to match that $\sigma$ E the nighway engineers. iie do not have the same time to revie: higting engincers had to miṅ treir errors. ihe commence which


WOISE is one of our wojor concerns. Ne belicve the sound


 in iness meports.

# Old Court Estates Improvement Association，Inc． 

Sound barriers are not an effective sound control measure． the sight of nuge mounus of earth，even if landsuaped，is not an acceptable solution to a serious environmental prodetm．The statements on hoige control measures found on Pp．p20－E2l offer suant comfort to neardy residents，wal if the nighway engineers decide the＂orerall denteft＂is served dy constructirg the road， O．che damage to their health from oxacssive noise level．

A roont y a fualifiec auciojojist or the fealth lazards of exposure to excessive noise is aさtached as part of our evaluation of the DEIS．

We cannot comment on AIR POLYUiIO：since a statemert is still being preparec．$H$ Hower，the alread＂reported errors and＂surrogate＂ techniques proposed for deqeloping ¿̄え̄a raise serious questions 引bout tie sincerity of the hignway engineers to deal with reasonable guestions affecting the health of $=$ itizens．

The POCULADIO：GRODTH ascump＊ion the hishway enpineers use to justify construction of the higinay is faulty．the projected highway cost exceeds $\$ 100,000,000$ ．The public costs of tuilding sc：iools，recreational facilities，utilities，local roads，and of maintaining all these facilities are not emodied in any local． policy．These costs wili tend to set a limit on growth．

FEDEPAL EVERGY POLICY and raつミ̇ly ESCALATING OPERATING COS＇TS will at least limit growth of zivate car use for commut－ inf and will probabiy rocuce traffic yolumes in the future on existing roacs． $25 \%$ femer venicles are necuired to carry the same number of passengers if averase occupancy is raised from 1．j passeneers per car to 2.0 passenzers per car．

Neighborhood and downstream FioODING are still a major

Gorivent Ms 7 problem．

Connent N-8

SUPER iIICANAY ACCIDENYB are more disasterous and costly in deztin and bocily injury than local road accidents because of the Aizi．er speeds．

By our juciecment，the greatest＂overall ienefit＂to the comunity will je best achieved $b y$ EwEncioning the ：orthwest Ex－ pressway．Highway noise has made the ergineers deaf and hignway air pollution has mudcied their mi．i．is so they cannot see reasonable less costly alternatives to buildins a new iifhway．We demand that
 off so that the taxpayer will not nave to pay for the folly of a $\$ 130,000,000$ ？ijefray to nownere．
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Response to Comments by the
Old Court Estates Improvement Association, Inc.

Comment No. 1 The State recognizes that Reisterstown Road must be improved to facilitate traffic flow. This is indicated on pages A-9 and J-11 where it states that this is necessary in addition to the Northwest Expressway and the Rapid Transit facility in order to satisfy the projected transportation requirements in the northwest corridor.

Comment No. 2 The State Highway Administration is well aware of the Federal Energy Policy, however, none of the traffic studies projected for use with this project show reduced traffic volumes in the Northwest Corridor. The 55 mph speed limit has been considered in the air quality analysis for this project.

Comment No. 3 Responses to all substansive comments have been included in this Final Statement. See Sections I, J and K , this Volume.

Comment No. 4 This comment is true. No consideration was given to justifying the road on the basis that bigger is better.

Comment No. 5 All predicted noise levels presented in the Draft and Final Statements were computed using the prediction method contained in NCHRP Report ll7, which has been approved for use by the FHWA. The use of earth mounds as a noise barrier is clearly stated as being one of many procedures available to mitigate the effects of increased noise. The type of noise barrier to be utilized at any location will be determined during the design phase of the project.

Comment No. 6 The population growth in this corridor was predicted by both Baltimore County and the Regional Planning Council. These are responsible government agencies who have indicated the need for this project and the need for associated facilities such as schools, utilities, etc. in the 1972 General Development Plan and the County's 1975 Comprehensive Plan for Baltimore County.

Comment No. 7 Flooding from Gwynns Falls should be reduced by the controls proposed with this project (See page $\mathrm{J}-4$, this Volume) and the flood control program developed by Baltimore County.

Comment No. 8 The State Highway Administrations accident study shows that the number and cost of accidents on expressways are far less than existing roads such as Reisterstown Road. This is shown in this Final Statement, page C-12.

Comment No. 9 The ambient noise levels monitored in this corridor are noted in the Final Statement, see page C-40.

Comment No. 10 The ambient reading in the Old Court Estate Community was taken on Streamwood Drive at Maryknoll Road. The duration of ambient readings is normally for a 10 minute period either during a peak hour or offpeak hour or both. The exact time of the readings made at this location is no longer available.

Comment No. 11 The ambient noise levels were monitored on July 6 and 7, 1972. Traffic volumes have increased and will continue to increase on arterial roads, such as Old Court Road, Winans Road, Liberty Road and Reisterstown Road, etc. with the anticipated increase in development, particularly north of the Beltway. Traffic volumes on local subdivision roads, such as Streamwood Drive, Field Road and Cliveden Road, etc. should not show any significant changes unless reclassified by local government to collector streets.


Robert J. Hajzyk, Director
Office of Planning \& Preliminary Engineering
State Highway Administration
Maryland Department of Transportation
P.O. Box 717

300 W. Preston Street
Baltimore, Maryland 21203
Subject: Comments on the Supplement to the Draft Environmental Impact Statement Section 4 (f) Statement on the Relocated U.S. Route 140 (Northwest Expressway) and Phase I Rapid Transit dated October 6, 1975

Dear Mr. Hajzyk:
The Section $4(f)$ statement on the above referenced project is generally commendable in the area of evaluating each alternative's impact upon historic districts, structures, and sites; however, I am quite disappointed in the Project Description and Area Profile. My primary disappointments are 1.) the use of old data and 2.) the existing generalized land use map and the projected generalized land use map.

Attached is a lengthy list of detailed comments on the 4 (f) statement. I strongly urge you to amend the $4(f)$ statement accordingly and request my comments to be reflected in the "Final Environmental Impact Statement" and the facility's ultimate design.

WDF/WPT/vh
Enclosure: Detailed comments on 4 (f) statement

cc: Richard Ackroyd, Division Administrator, Federal Highway Administration The Honorable Theodore G. Venetoulis, Baltimore County Executive Albert B. Kaltenbach, Director of Public Works Stephen E. Collins, Director of Traffic Engineering John Seyffert, Director, Permits and Licenses Larry Walsh, Development Coordinator Milton H. Miller, Chairman, Regional Planning Council Larry Reich, Director, Baltimore City Department of Planning The Honorable Vladimir Wahbe, Secretary, Maryland Department of

BALTIMORE COUNTY OFFICE OF PLANNING AND ZONING COMMENTS ON THE SUPPLEMENT TO TIE DRAFT ENVIRONMENTAL IMPACT STATEMENT SECTION 4 (f) S'TATEMENT ON THE RELOCATED U.S.ROUTE 140 (NORTHWEST EXPRESSWAY) AND PHASE I RAPID TRANSIT DATED OCTOBER 6, 1975
1.) There are typographical errors on page iv, LIST OF DRAWINGS. Drawirg No. 2, "Land" is misspelled. Drawing No. 3, "Land" is misspelled. Drawing No. 6, "Alternates" is misspelled.
2.) Page $A-1$, second paragraph, last sentence. The right-of-way acquisition percentages should be updated. Or if no additional right-of-way has been acquired since 1972, the year should be changed to 1975.
3.) Page A-4, third paragraph, third line, "Highway" is misspelled. The second and third sentences of the third paragraph should be revised to read, "The current Primary Highway Program (1976-1980) makes funds available for planning and engineering. Projected revenues indicate the programming of some right-of-way acquisition and construction funds in the 1976-1980 Program for 1979 and 1980."
4.) Page A-5, first paragraph, line 7. After "Wabash Avenue," add " (if extended)."
5.) Page A-6, first paragraph, line 2. "A.A.S.H.T.O." should be defined. A new paragraph should be added between the first and second para- graphs which would read, "Although the proposed basic improvement is a six-lane dual highway consisting of a 36 -foot roadway and 10 -foot paved shoulder in each direction, separated by a median, alternatives have been developed subsequent to the 1973 public hearings for the segment between the western boundary line of Baltimore City and Interstate Route 695 (Baltimore Beltway) which l.) indicate the proposed improvement is a four-lane dual highway consisting of a 24 -foot roadway and 10 -foot paved shoulder in each direction, separated by a median, and 2.) eliminate the proposed highway improvement." page A-6 fourth paragraph. Two concluding sentences should be added which would read, "The project also lies wholly within the recommended Baltimore Urban Area Boundary authorized under Section 105 of the FederalAid Highway Act of 1973. The Baltimore County Planning Board approved the Urban Area Boundary on April 17, 1975."
6.) Page $A-7$, second full paragraph, line 2. After "5", add "7."
7.) Page A-8, first paragraph. Accident statistics for Reisterstown Road should be updated to 1974 and broken down into accidents for separate segments of the road. The ADT's should be updated to 1974. The cost of accidents should be updated to 1975 prices. Third paragraph. The year (s) that Reisterstown Road operated at level ' $\mathrm{F}^{\prime}$ service during peak hours, in the vicinity of the Beltway, should be noted. Also, level 'F' service should be defined.
8.) Page A-9, second paragraph, line 3, delete "prepared" and "Office of Planning and Zoning" and insert "adopted" and "Planning Board" respectively. Between the first and second sentence, the following sentence should be added which would read, "The Baltimore County planning . Board is scheduled to adopt a Comprehensive Plan in October 1975 for the purpose of anticipating and projecting growth and development, as

BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION 4 (f) SUPPLEMENT TO THE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6, 1975
well as accommodating existing development, in Baltimore County."
9.) Page $A-6$ to $A-9$. Need for the Project.

The emphasis should be placed on the Need for the Project yesterday and today instead of tomorrow. Baltimore County conceived this project in the 1940 s and in 1952 the state placed the Expressway in its l2-year program for Fiscal Years 1954-1965. Yet in 1975 we are saying that it may be constructed by 1985. Much of the development that has occurred out the Northwest Corridor occurred because of the Northwest Transportation Corridor Plans.
10.) Page A-9, last paragraph and Drawing No. 3. The existing generalized land use should have been developed from the Planning Office's 1975 existing generalized land use map, not a 1967 map. Major land uses, e.g., the Hilton Inn, the Holiday Inn, Milford Mill Senior High School, and Ner Israel Rabbinical College are omitted.
11.) Page A-10, top of the page, lines 3 and 4. Delete "prepared" and "Office of Planning and Zoning" and add "adopted" and "Planning Board" respectively. Drawing No. 4. In the "LEGEND" delete "INSTITUTION
AND TOWN PARK (LOW)" and add " AND TOWN PARK (LOW)" and add "INSTITUTION AND TOWN PARK SEPARATOR STRIP." The 1972 adopted Guide Plan and the 1975 adopted Short Range Element of the Comprehensive Plan both show Milford Mill Road and Milford Mill Road Relocated as a major arterial between Liberty Road and Reisterstown Road. Neither one of the adopted plans shows an interchange or rapid transit station at McDonogh Road and the Northwest Expressway or Phase I Rapid Transit respectively. Valley Ridge Road should read "Green Spring Valley Road." The State Police Headquarters, Owings Mills and Reisterstown Fire Stations, Montrose, etc. should be shown. The legend should indicate what the proposed land use is for the "white arcas" on the drawing. The Proposed Land Map should be corrected to conform to the adopted Comprehensive Plan. Roadside commercial uses on Reisterstown Road, Rolling Road, and Brenbrook Road should All commercial community centers be shown east of Reisterstown Road. "M" for Middle School instead of "J" for Junior in the legend use U.S. 29 from the Northwest Expressway near plor High School. Show ly to a point south of Liberty Road. near Pleasant Hill Road southerReisterstown Road near Painters Mili Road to Butler Road. Show Butler Road east of Hanover Pike. Show estate and low density north of Worthington Avenue. Show the proposed library in Owings Mills. The Northwest Expressway is shown on both adopted plans as an Expressway south of the Baltimore Beltway, not as a Freeway. There is a mixture of major and minor arterials from the adopted Guide Plan shown without any differentiation in the legend on Drawing No. 4. Some minor arterials from the Guide Plan are shown as major arterials. Other major and minor arterials are not shown.
1.2.) Page A-10, first completc paragraph, line 4. At the end of the sentence add "is an industrial park."
13.) Page A-ll, line 1. After "design" add "of any of the alternatives."

Page 3
BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6, 1975
14.) On page A-11, there are conflicting statements. The first paragraph states that the proposed land use adds residential development north of Painters Mill Road and the last paragraph states that the Owings Mills industrial park is being developed north of Painters Mill Roać The latter statement is the correct one.
15.) Drawing No. 5. Show the proposed U.S. 29 extension to the Northwest Expressway and the proposed interchange location near Pleasant Hill Road. Also show Red Run Boulevard and Bonita Boulevard from Reisterstown Road to Butler Road.
16.) Page $A-16$, second full paragraph, line 10. Before "Milford" add "Relocated." On the last line of the second full paragraph and line 6 of the last paragraph, after "stalls" add "and lockers."
17.) Page $A-17$, second paragraph, last line, and the last paragraph, line 6. After "stalls" add "and lockers." Does Alternate 1 go over or under Relocated McDonogh Road?
18.) Page A-19, first complete paragraph, line 2. Add "Relocated" before "Milford." On line 3 of the same paragraph, add "Relocated" before "McDonogh", "Painters", and "Cherry." On line 4 of the same paragraph, add "Extended" after "Drive."
19.) Page A-20, third paragraph, line 14. After "stalls" add "and lockers."
20.) Page A-19, third complete paragraph. What is the road user cost? This cost should be spelled out.
21.) Page A-22, last paragraph. Emphasize the fact that the basic data are 1970-1971 averages if the accident data is not updated. I feel strongly about the need to update the data. On line 5 delete "road" and add "rate."
22.) Page A-23, second paragraph. The argument that a rapid transit line in the right-of-way of the Western Maryland Railway would preclude a station at McDonogh Road because of inadequate access road capacity is weak. Additional access road capacity could be planned. For example, under Alternates 1 and 2 the Maryland Department of Transportation is proposing to relocate McDonogh Road and improve its access capacity.

1995 ADT Table.
Indicate that MD 130 is Greenspring Vallcy Road and that MD 30 is Hanover Pike. Also correct the terminus of the last link - it is Carroll County, not Howard.
23.) Page $A-23$ and $A-24$. Last paragraph on page $A-23$. Delete the last two sentences which continue on page A-24. Baltimore County plans are not the subject of the Section 4 (f) statement. Do not state that Baltimore County may build a highway within the right-of-way of the Northwest Expressway Alternates if Alternative 3 is finally
recommended.

Page 4
BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6, 1975
24.) Page A-25, last paragraph, line 6. Delete "and" and replace with ",", and add ", and industrial" between "commercial" and "growth."
25.) Page A-26, second paragraph. Update the ADT's to at least 1974. In the last paragraph, line 3, delete "prepared" and add "adopted." On line 4 of the same paragraph, delete "Office of Planning and Zoning" and add "Planning Board."
26.) Page A-27, ADT projections. The terminus of the last link should be Carroll County instead of Howard. In the second complete paragraph, the vehicle miles of travel on Existing U.S. Route 140 should be updated as well as the accident statistics and costs. In the third complete paragraph, the data should be updated. The last paragraph which is continued on page A-28 - the data should be updated.
27.) Page $B-1$, second paragraph, last line. Add after "displaced", "in the Sudbrook Park Historic District."
28.) Page B-3, first paragraph, last phrase. Delete "nor will there be any effect upon members of a minority group" unless it can be proved that all persons affected are members of the dominant Anglo-Saxon protestant group. Jews, Catholics, or ethnic minorities may be affected.
29.) Page B-6, first paragraph, last phrase. Delete "nor will there be any effect upon members of a minority group."
30.) Page B-8, last paragraph, last phrase. Delete "nor will there be any effect upon members of a minority group."
31.) Page B-9, last paragraph, item b.), first line. Before "cost" add "construction and right-of-way." Change "cost" to "costs."
32.) The format utilized for evaluating the impact of Alternative 5 on pages $B-9$ and $B-10$ should be utilized in evaluating the impact of each one of the other Alternatives under consideration.
33.) Page B-11, first paragraph, second sentence. Delete "Worthington and Greenspring Valleys" and add "McDonogh School site, Mt. Wilson State Hospital, Ner Israel Rabbinical College, and Woodholme Country Club." If one reads the public hearing transcripts, this was the primary reasoning used.
34.) Show the Proposed Red Run Boulevard on Drawing No. 5 and Drawing No. 6. Correct the proposed alignment for Relocated Painte=s Mill Road on Drawings No. 5, No. 6, and No. 15.
35.) Page B-11, third paragraph, lines 14 and 15. Before "Red" add "the Proposed" and delete the last phrase, "a new road also proposed as part of this alternate." On line 19 delete "24-foot street" and add "four-lane boulevard."

Page 5
BAITTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6, 1975
36.) Page B-12, lines 1 and 2. Delete "24-foot street" and add "fourlane road."
37.) On Drawing No. 15 show Relocated Dolfield Road as extending west of the Proposed Red Run Boulevard.
38.) Page B-13, first complete paragraph, line l. Delete " 24 -foot street" and add "four-lane boulevard." Second complete paragraph, line 15 Existing Painters Mill Road, between S. Dolfield Road and the transit parking lot under Alternative 2 B , is an existing 44-foot road in open section. Why would it be rebuilt as a 24 -foot street? If it is rebuilt, I insist that it be rebuilt with a minimum of four lanes. Access should be provided to the transit parking lot in Alternative 2B from Relocated Dolfield Road. Fourth complete paragraph, line 2 ~ - Delete "Western" and add "Northwestern."
39.) On Drawing No. 5, No. 6, and No. 15, show the Proposed Bonita Boule- vard.
40.) Drawing No. 15.
a.) Include historic Greenspring which was constructed in the early 1700s. It was Ellin North Moale's house and is located on the north side of Maryland Route 130 (Greenspring Valley Road) oppo- site Craddock Lane. Historic Greenspring was built as a summer place by Captain Robert North for his daughter, Ellin. She may have been the first White child born in the Baltimore area. The house is clapboard over stone and brick and the kitchen is built of logs. Greenspring is one of the oldest houses built in Baltimore County. It was included in the HABS Report of 1965.
b.) Note the fact that the Upper, Lower, and Middle Mills were the three ULM Owings grist mills.
c.) Note the fact that 410 Main Street in Reisterstown was the Weist House.
d.) Correct the spelling of "Assn." for Historic site \#73.
e.) Note the fact that 238 Main Street in Reisterstown was the Reister House.
f.) Note the fact that 202 Main Street in Reisterstown was the Reister Inn.
g.) Historic Site No. 98, the Hitshue Hotel - The list indicates that no structure remains, but the map location symbol indicates that the structure does remain.
h.) Historic Sites No. 88 and 89 are reversed on the location map, 64 Main Street and the Forney Inn respectively.
41.) Drawing No. 16

Historic Site No. 85, 151 Main Street (Yellow Tavern) is shown on

## Page 6

BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMIENT TO TIE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6,1975
the location plan as existing. It does not. Therefore, correct.
42.) Page $C-2$, first paragraph, last sentence. After "District" add ", which is eligible for the National Regisier."
43.) Drawing No. 6 and No. 15. Show a grade separation between the Western Maryland Railway and Relocated Dolfield Road.
44.) Page C-3, Table 1. Correct the direction of the distances between the Howard-McHenry Mill (s) and the Alternates, i.e., change "E" to "W"。
45.) Page $C-4$, Table 2. There are inconsistencies in the distances between a) Forest View, Mt. Wilson Sanitarium, and Mt. Wilson House and Barn, and b.) the Alternates. For the first two historic sites, Alternates 2A, 2B, and 2C are 150 feet east of Alternate 2. Yet for the Mt. Wilson House and Barn, the distances are identical. Therefore, correct the distances or explain the inconsistency.
46.) Pages $C-3$ and $C-4$, Tables 1 and 2. Some historic sites have distances denoted from the Alternates, while other sites have a notation which indicates that no conflict is anticipated. Be consistent.
47.) Page $C-5$, Table 3.

Note that the Upper Mill was one of the three ULM Owings Mills.
43.) Drawing No. 15. The reference on this map to the Reisterstown Historic District should read "SEE DWG. NO 16" and not "NO. 14".
49.) Page $\mathrm{c}-7$, Table 4.
a.) No. 69, add "(Weist House)".
b.) No. 73, "Assn." is misspelled.
c.) No. 78, add "(Reister House)"
d.) No. 80, add "(Reister Inn)"
50.) Page $\mathrm{C}-8 . \quad$ In the "Inventory", change the reference to "Drawing No. 13" to "No. 15". Add Greenspring to the Inventory. No. 36 - add "one of 3 ULM Owings Mills"
51.) Page $\mathrm{C}-9$. In the "Inventory", change the reference to "Drawing No. 13" to "No. 15."
No. 41 - add "one of 3 ULM Owings Mills"
No. 50 - add "one of 3 ULM Owings Mills"
No. 69 - add " (Weist House)"
No. 73 - "Assn." is misspelled.
No. 78 - ada "(Reister House)"
No. 80 - add "(Reister Inn)"
52.) Page $\mathrm{C}-11$, third paragraph, last sentence. After "City" add "(sic)".

## Page 7

BAILTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORI'ATION CORRIDOR DAIED OCTOBER 6, 1975
53.) Page $\mathrm{C}-12$, third complete paragraph, last sentence. Change "13" to "15".
54.) Throughout the Supplement, references to Historic Site No. 39 should be "Shull's Tavern" instead of "Shull."
55.) Drawing No. 15. Indicate that Historic Landmark No. 52, the Gunbarrel Tavern, is located within the Belltown Historic District.
56.) Page $\mathrm{C}-34$, last paragraph. Give a brief history of the Historic Buildjngs and Sites for Sites No. 65 to No. 99, inclusive, within the Reisterstown Historic District. Do not discriminate. Tract the Historic Buildings and Sites within the Reisterstown Historic District equitably with the Historic Buildings and Sites ouside the District but within the Relocated U.S. Route 140 Corridor.
57.) Page C-38, first paragraph. Either Archeological Site No. 106 is mapped incorrectly on Drawing No. 15 or the directions in the Statement are incorrect.
58.) Page C-46, first paragraph. Note the fact that Historic Site No. 128, the White House, is eligible for inclusion in the National Register.
59.) Page C-4, Table 2. Would there be a direct physical conflict between Alternate 2 B and Archcological Sites No. 105 and No. 106? If there is a physical conflict, would not the impact of Alternate 2 B be less than that with Alternate 2 or Alternate 2 A ? If the answer to the first question is no, and the answer to the second question is yes, then on page $B-17$, first paragraph, line 3 , change "5" to "3".
60.) Page $B-19$, line 3. Define "L10". In the last paragraph on line 2, possibly "5" and "4" should be "3" and "2" respectively (see detailed comment No. 59).
61.) Page $B-20$, second paragraph, line 4. After "Drive" add "Extended".
62.) Page B-2l, first complete paragraph, last sentence. Delete "EastWest Expressway" and substitute "Piedmont Highway (Maryland Route 23)". In the second complete paragraph note the projected 1995 traffic volumes.

- The 1973 ADT's on Existing U.S. Route 140 and the 1995 projected ADT's in the Statement indicate that traffic volumes are as high for this link as they are south of the Baltimore Beltway (Interstate Route 695).
63.) Page $B-23$, first complete paragraph, line 3. After "neighborhood" delete "character and". In the second complete paragraph on line 7, after "Road" add ", if extended."
64.) Drawing No. 16. Show the proposed Franklin Mall Shopping Center Site.

BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORTAIION CORRIDOR DATED OCTOBER 6, 1975
65.) Page $D-2$, Item la.). Would Alternates $2 B$ and $2 C$ be in direct physical conflict with Archeological Sites No. 105 and 106 (see detailed comment No. 59). For Historic Site No. 5, the right-of-way requirements for Alternaies 1 and 2 should total $100 \%$, $39 \%, 38 \%$, and $23 \%$ instead of $40 \%, 35 \%$, and $22 \%$ respectively.
66.) Page $D-4$, first paragraph, last sentence. Why would not the traffic be maintained on Sudbrook Road with Alternates 9 and 9A, if it can be maintained with Alternates 5, 7, and 8? Under the first major heading, delete "Industrial" and substitute "Historical". In the first paragraph under this heading on line 2, after "industry" add "and rail transportation.". On line 4 in this same paragraph, delete "Industrial" and substitute "Historical."
67.) Page $D-5$, second paragraph, last sentence. Clear up the location of that existing McDonogh Railroad Station by adding "Railroad" after "McDonogh" and adding "of Alternates 2A, 2B, and 2C" after "roadways."
68.) Page $D-6$, line 1. Delete "is" and substitute "would be."
69.) On Alternate 2 B , attempt to keep S . Dolfield Road open to Relocated Dolfield Road for the purpose of providing access to the transit station from Relocated Dolfield Road and Bonita Boulevard.
70.) Page $D-11$, second paragraph, line 5. "Alternates" is misspelled. In the third paragraph on line 2, place a period after "arca" and add "The New Station is" before "approximately".
71.) Page $D-12$, fourth paragraph. Delete the last sentence and substitute "The construction proposed in Alternates 6 and 6 A would have no adverse visual impact on this historic site."
72.) Page D-14, first paragraph, line 3. Delete "except for" and substitute "including."
73.) Page D-19. Include traffic impact statements on the New and old Owings Mills Railroad Stations.
74.) Page D-17, first paragraph, line 6. After "l" add "2". Place a period after "2C". On lines 6 and 7 delete "and, therefore,". The sentence on line 7 should read, "No traffic impact from Aiternates $1,2 A, 2 B$, and $2 C$ is anticipated at these historic sites."
75.) Page D-18, first complete paragraph, line 2. Delete "Dolfield" and the first "and", and substitute "McDonogh" after "on" and add", Relocated McDonogh Road," before "Painters", aná add ", and Relócated Painters Mill Road" before "due." On'line 7, before "Painters" add "Relocated Painters Mill Road and/or". In the second complete paragraph on line 1, "north" should read "northeast"; on line li, before "Painters" add "Relocated": On line l3 in the second complete paragraph, after "Boulevard" add ", Relocated Painters Mill Road."

Page 9
BALTTMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO TILE NORTHWEST TRANSPORIIATION CORRIDOR DATED OCTOBER 6, 1975
76.) Page D-20, last sentence. Delete "local access" and "for shopping" and substitute "collector" before "street."
77.) Page $\mathrm{D}-21$. Update the existing noise levels. In the third paragraph on line 10 , define "NCHRP."
78.) Page $\mathrm{D}-26$, What are the projected 1995 P.M. Peak Hour $\mathrm{L}_{10}$ noise levels on Westminster pike which may or may not impact Historic Site No. l01?
79.) Page $\mathrm{D}-25$, last paragraph, last sentence. Why must an exception be requested for Alternates 2 B and 2 C if Alternates $1,2,2 \mathrm{~A}, 3$, and 4 projections for 1995 P.M. Peak Hour $L_{10}$ noise levels also have an adverse noise impact on Historic Sites No. 42 and 100?
80.) Page D-27.
a.) Site No. 69, add "(Weist House)"
b.) Site No. 77, delete "s" from "Reister"
c.) Site No. 78, add "(Reister House)"
d.) Site No. 80, add "(Reister Inn)"
e.) Site No. 92, delete "s" from "Fisher"
81.) Page D-28
a.) Top heading, delete "Industrial" and substitute "Historical". b.) Site No. 68, Table 4 on page $\mathrm{C}-7$ indicates that no conflict is anticipated.
c.) Site No. 85, add "(Yellow Tavern)"
d.) Site No. 98, "Hitshue" is misspelled and Table 4 on page C-7 indicates that no conflict is anticipated.
82.) Page E-3, under "Trees" under "Landscaping", "Beech" is misspelled.
83.) Page E-5, first partial paragraph, last sentence. Delete last phrase, "nor will there be any effect upon members of a minority group."
84.) Page E-10, first paragraph, last sentence. Delete last phrase, "nor will there be any effect upon members of a minority group."
85.) Page E-13, third complete paragraph, last sentence. Delete last phrase, "nor will there be any effect upon members of a minority
86.) Page E-14, first paragraph, line 3: Add "ly" to "historical."
87.) Page E-15, first paragraph, line 14. "design" is misspelled.
88.) Page $\mathrm{E}-16$, last paragraph, line 7. "Regional" is misspelled.
89.) Page E-17, third complete paragraph, last sentence. Delete last phrase, "nor will there be an effect upon members of a minority group."

BALTIMORE COUNTY PLANNING OFFICE COMMENTS ON SECTION $4(f)$ SUPPLEMENT TO THE NORTHWEST TRANSPORTATION CORRIDOR DATED OCTOBER 6, 1975
90.) Page $\mathrm{E}-18$
a.) First paragraph, line 3. Add "ry" to "historical."
b.) Item 2. Delete "Industrial" and substitute "Historic". i.) Line 7. Delete "industrial" and substitute "historic." ii.) Last line. Delete " 27 " and substitute " $28 . "$
c.) Item 3.
i.) Before "McDonogh", add "2l."
ii.) Before "Owings Mills Station (New)", add "40." iii.) Before "Owing Mills Station (Old)", add "42."
91.) Page E-19, Item 5, line 4. Delete "410" and substitute "406."
92.) Page E-20, first complete paragraph, last line. Delete " 2 " and substitute "3".
93.) We are pleased that the State has indicated directly the acceptance of responsibility for the access roads to the alternate Rapid Transit stations and/or Relocated U.S. Route 140 interchange locations, egg., a.) Relocated Milford Mill Road and the access road to Existing Milford Mill Road,
b.) Relocated Sudbrook Road
c.) Relocated McDonogh Road
d.) Relocated Painters Mill Road
e.) Relocated Dolfield Road including the interchange with Existing U.S. Route 140
f.) Proposed Red Run Boulevard
g.) Relocated Cherry Hill Road, and
h.) Glyndon Drive Extended.

We realize that your responsibility for access road improvements will be confined to the necessary improvements required for the Alternate or combination of Alternates finally recommended for construction.

Response to Comments by Baltimore County Office of Planning and Zoning

A response to the Countys substantive comments are included as follows:

Comment No. 5. The reduction of the Expressway to four lanes occurs only in Alternate 8 and the elimination of the highway south of I-695 is proposed only in Alternate 9. The General Description of the Project at this location in the statement was intended to be as "General" as possible, and specific reference to one part of Alternates 8 and 9 is not appropriate.

Comment No. 7 The accident statistics have been updated in the Final Statement. See page A-7 in this Volume and Volume II.

Comment No. 9 The need for the project now, as well as in the future, has been stated in the summary of the "Need for the Project" on page A-6 in both this Volume and Volume II.

Comment Nos. 10 Drawing Nos. 3 \& 4 have been updated. \& 11

Comment No. 14 The first paragraph states that residential development is proposed north of Painters Mill Road. This is correct in that the Sector Center which includes residential development is proposed in this area.

Comment No. 15 Drawing No. 5 has been deleted from the FEIS. The information on this drawing has been incorporated on Drawing No. 9. The proposed U.S. 29 was not shown on the map because the location has not been determined as of this date. Proposed County roads have not been shown on this drawing in order to avoid confusion.

Comment Nos. 16, Lockers may be included in the design of the Rapid
17\&19 Transit Stations, however, this detail will not be determined until the design phasc of the project. Alternate 1 goes under Relocated McDonogh Road.

Comment No. 21 The accident statistịcs for Alternate 3, which were

Comment No. 20

Comment No. 22

Comment No. 26

Due to similiarity of the alternatives, the road user cost would be relatively the same for all build alternates under consideration. based on 1970-1971 averages has been deleted from the FEIS. The statistics for Alternate 3 were not updated and the 1970 information is not current.

- The recommended alternate does not propose a rapid transit station at McDonogh Road. Therefore, the question of access road capacity is academic.
'The accident statistics have been updated in the FEIS. See page D-13 and D-14 in this Volume, and Section E in Volume II. ,

Comment Nos. 28, The effect on minority groups is a result of the State $29 \& 30$ Highway Administration's study of relocation problems associated with each alternate.

Comment Nos. 35, It is intended that both the proposed Red Run Boule 36 \& 38 vard and existing Dolfield Road be constructed as 24 foot streets as part of this project. Any widcning to a four lane boulevard would be evaluated as part of a future project.

Comment No. 38 Existing Painters Mill Road between S. Dolfield Road and the proposed transit parking lot is 22 feet in width not 44 feet as noted in the comment. This will be upgraded to a 24 foot street as part of the project.

Alternate 2 B was planned so that highway and transit traffic would be separated with access to the expressway being provided at Relocated Dolfield Road, and to the transit parking lot via Painters Mill Road.

Comment No. 40
The historic house "Greenspring" was unintentionally overlooked in developing the inventory of historic sites in this corridor. It has not been added to the inventory at this late date because it is located approximately 4500 feet east of the recommended alternate and is in no way related to the project.

Comment No. 56 Historic Sites No. 65 to No. 99 are all located within the limits of the Reisterstown Historic District. Individual histories of these buildings were omitted at the request of the Maryland Historical Trust and FHWA. It vas agreed that Reisterstown should be discussed as a district, as is. Sudbrook Park, rather than by individual buildings.

Comment No. 59 Alternates 1, 2, 2A, 2B, \& 2C all directly'
\& 60 conflict with Archeological Sites No. 105 and 106, by either the Relocation of Painters Mill Road or by the proposed transit parking lot.

Comment No. $60 \mathrm{~L}_{10}$ is defined in the FEIS. See page D-53, this Volume.

Comment No. 66 Bridges are required at both Sudbrook Road and Greenwood Road with the recommended alternate and traffic will be maintained in this area on one of these roads while the other bridge is under construction.

Comment No. 69 S. Dolfield Road was not connected to the proposed Relocated Dolfield Road with Alternate 2B or 2C. The possibility of a cornection can be considered during the design phase of the project.

Comment Nos. 83, Same response as shown for Comment No. 28 84, 85 \& 89



Re: Metropoliten Clearinghouse Review and Referral Memorandum, Project: 75-379 Supplemential Environmental Impact Statement Section $4(f)$ Statement on (1) Rolocated U.S. 140 (Northwest Expressway Baltimore City Line to Reiaterstown and (?) Mane I Popis Mrensit, Eat timore City Line to Owings Mills.

Dear Mr. Hajzyk:
Attached to this transmittal letter is a memorandum which presents the Metropolitan Clearinchouse comments and includes a certification of Council action. You should now complete and file your formal application. A copy of this menorandum and certification must be attached to your application. If the application reviewed is not the final application, please forward a copy to the Motropolitan Clearinghouse upon final submission. Please make sure, if it is needed, that State Clearinghouse review comnents are also included with your application.

Coments on this application were requested from: Baltimore City, Baltimore and Carroll Counties.

Comments from the following jurisdictions are included with the Clearinghouse .review: Baltimore City,

If you have any questions, please contact us at 383-5840.

Sincerely yours,


Betty Biliske, Coordinator
Motropolitan Clearinghouse

FPMMP:- Larry Reich, Director Department of Planning 222 East Saratoga Street Baltimore, Maryland 21202

B \& P Meeting: November 7, 1975
R P C Meeting: November 21, 1975.

SUBJECT: REFERRAL COORDINATOR REVIEW SUMMARY
Applicant: Maryland Department of Transportation
Project: See Below
R\&RFile No.: 75-379
Comments Should Be Returned By: AS SOON AS POSSIBLE

This project has been forwarded to the following local departments or agencies (wheck appropriate blanks and attach comments from the reviewing agencies):

Public Works

Human Relations

neck one
This jurisdiction has no comments on this particular project.
This project is consistent with or contributes to the fulfillment of local comprehensive plans, coals or objectives.

- This project raises problems concerning incompatibility with local plans, or intergovernmental, environmental or civil rights issues and a meeting with the applicant is requested (attach comments).

This project is generally consistent with local plans, but qualifying comments are necessary (attach comments).

RETUNE TO:
_oorrinatior, Metropolitan Clearinghouse
Rational Planning Council?
701 St. Paul Street
_Baltimore, Maryland 21202


Title__ Referral Coordinator
Agency Aalto. City Dept of Planning
Date

- Dec. 9, 1975

Supplemental Draft Environmental Impact Statement - Section $L(f)$ Statement on (1) Relocaed USS. I! 0 ( $:$ orthinest $X$-hay) Balti:nore City Line to Reistcrstown and (2) Phase I Rapid Transit, Baltimore City line to Owing Mills

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R&R 75-379
Maryland Dept. of Transportation,
Draft Supplemental
    Environmential Impact Statement, Relocated U.S. 140 and
    Phase I Rapid Transit

The City endorses the 4 f Supplement as a complete inventory and evaluation of the impacts of the proposed alternatives on historic and architectural sites.

It is recognized, however, that this Supplement presents for the first time several new alternatives which are proposed to avoid or mitigate negative impacts on the Sudbrook Park Historic District. These alternatives must be fully evaluated before the final EIS is prepared. In a letter of November 28, 1975, the Mayor's Office requested RPC technical assistance in evaluating the impacts of these new alternatives. In addition, the City requests that a formal process be established to involve Baltimore City and County and RPC with the State Highway Administration in full review of these alternatives during the preparation of the final EIS.

REVIEW AND GEFTREAL MEMORANDUM

\section*{PROJECT IDENTIFICATION}

\section*{Jurisdiction: Baltimore County}

Project Name: Supplemental Draft Environmental Impact Statement - Section \(L_{4}(f)\) Statement on (1) Relocated U.S. Rt. 140 (Northwest Expressway) Baltimore City Line to Reisterstown and (2) Phase I Rapid Transit, Baltimore City Line to Covings Mills

Applicant: Maryland Department of Transportation/State Highway Administration Notification/Ayplication received November 3, 1975

\section*{DESCRIPTION}

This is a Supplemental Draft Finvironmental Impact Statement, Section \(L_{4}(f)\) Statement on the proposal for Relocation of U.S. Rt. 140 (Northwest Expressway) Baltimore City Line to Reisterstown and Phase I Ropid Transit, Baltimore City line to Ovinss Fills. The Regional Planning Council endorsed the original Draft linvironnental. Inpact Statement in June, 1973, supporting Altemative 2, the nore easterly, of the two relocation proposals and expressing strong qualifications concerning (1) impacts on storm run-off in the Gwynns Falls watershed (2) design of the proposed transit stations in relation to traffic and adjacent facilities.

Since the original Draft Finviromental Impact Statement was prepared Sudbrook. Park, which is adjacent to the proposed relocation alignuents has been nominated to the National Rogister oî Historic Places. This development plus new federal regulations concerming evaluation of all. impacts of a project on all potential historic sites within a project area gave rise to the preparation of this " \(4(f)\) " Supplemental Statement.

The proposal for Relocated U.S. Rt. 140 includes the following: (1) a . 2 mile section of Vabash Avenue within Balitimore City from the western City boundary line south to Patterson Avenve which would be a six-lane dual roadway with a raised 16 foot nedian strip with a control of access; (2) a 12.4 mile section of relocated U.S. Rt. 140 which will extend generally parallel to and west of Rejsterstown Road from the Bal.timore City line to the Westminster Pike which would be a six-lane dual highway with controlled access; and (3) a 2 mile section of Relocated rid. Rt. 30 beginning at the proposed Relocated U.S. Rt. 140 to the Hanover Pike which would be a six-lane dual highway with controlled access.

In addition, a secment of the Northwest line of the Mass Transit Administration's rapid transit facility would be combined with the highway. The transit route as proposed is located becween Wabesh Averue and the Western Maryland Failroad Coripany's richtani-way. It would deaconri from aerial sturucture to a twonel under-passing the proposed Northwest Expressway and emerge in the median of tho highway south of Milford Mill road. The transj.t line will remain in the median for a distance of 5.5 miles io its teminus in Orings Mills at Painters Mill Roed. Station siter with mojor paris and ride facilities are proposed at Milford mill Road, Old Court Road, MeDonough Road and Painters Mill Poad.

In response to comments received on the Draft Environmental Impact Statement additional alternative relocation alimments for minimizing adversc effects on Historic sites including the Sudbrook Park Historic District were studied. Altcrnatives considered include proposals for a depressed highway through the Sudbrook Park arca. The followinc proposals for eliminating the highway portion of the Northwest Expressway south of the Baltimore Beltway are also included:
- Alternative 7 proposes the southem terminus of the Northwest Expressway at the J3altimore Beltway with no direct highway connection to existing Wabash Avenue in Baltimore City. Wabash Avenue is proposed to be extended to Relocated Milford Mill Road. The rapid transit facility would extend from the City Line to Owings Mills.
- Alternative 9 proposes transit only from the Baltimore City Line to the

Beltway; the southem terminus of the Northwest Expressway would be the Baltimore Reltway with no direct highway conncction to existing Wabash Avenue in Baltimore City.
- Alternative 9-A would provide direct access to the Old Court Road Rapid Transit Station from the Baltimore, Beltway and termination of the Northwost Expressviay at the Baltimore Beltway with no direct highway connection to existing Vabash Avenue in Baltimore City. Wabash Avenue is proposed to be extended to a northern terminus at Relocated Milford Mill Road. The rapid transit facility would continue to Owings Mills.

All alternatives will reguire the displacement of some homes and a few businesses. The \(4(f)\) Statement inventories 133 historic buildings and sites in the Northwest Iransportation Corridor.

The scope of this Supplenent was limited to the evaluation of adaitional alternatives which vould minimize the impact on Historic Sites. The intent of the docurnent was not to address other issues, e.g., impact on the Grynns Falls Watershed, etc., raised as a result of public hearings and meetings and review by other cocencies and iidividuals. These issues will be addressed in the Final Environmental Impact Statement which will be published in March, 1976. in addition, prior to publication of the Final Environmental Impact Statement an additional Supplement addressing air quality will be published.
Because of funding problems related to both the highway and rapia trensit, State Hichway Administration representatives have indicated that construction of both will probably have to be phased.

\section*{combers}
I. The State Highway Administration is to be commended for the inventory and evaluation of historic and architecturally unique areas in the Northwest Expresswoy Corridor. The document points out very clearly the difficulty in developins a transportation-cffective alternative that will not severly impact on the historic districts.

II a. The General Development Plan recoenizes the need for transportation improvements in the Northwest Corrdior to scrve present needs in this important area while responding to future Growth. The Regional Planning Council also recogrizes that the direct impact that this project vill have on adjacent communities and listorical. sites cannot be over-lowed. The chort-conine of this document is that the mily altwmitives consjicrea to ninjmize these jmpacts inside the Beltway are to cither bujd-in very exprensive features such as tunnels or not to build the read at all. Other allematives, involving various combinations of
roadways and public transportation that would respond in a more acceptable manner to both nobility requirewints and local comunity concems need to be considered. Other such alternatives to be evaluated would include:
1. ways of increasine the effectiveness of the ripposed rapid transit as an altemative for impioving mobility in the Northwest section, e.E., a major transit station at the Beltway; or,
2. construction of a smaller roadway of less than frecway proportions.

There may be other altematives which would better meet transportation needs than the no-build while still minimizing adverse impacts.
b. The \(l_{4}(f)\) Statement fails to aduress all potential inpacts of no-huild Alternatives 7,9 , and 9 a which would eliminate various segments of the proposal. In reforence to these three altematives, the followins inpacts need to be further evaluated and documented in the Final Environmental Impact Statenent:
1. the impact on patronace at each of the proposed rapid transit stations;
2. the level of scrvice on the accoss roads fecding the rapid transit stations under cach altomative;
3. the level of service and accident rates anticipated on the Baltimore Beltway under these alternatives;
4. economic impacts on the ontire Northwest Cormicior; and
5. the cost of widening Reisterstovm Poad and/or Liberty Road inside the Beltway to accomodite traffic diverted from the Northwest incorossway at the Reltway.
c. Since the State fichway Administration has indicated that construction of the project (both the higinway and the rapid transit line) will probably cocur in steges over a number of jears due to fundinc problens, the effects of such phasing chould be addcosed in the Final Environmental Impact Statement. Fhased conslmetion would impact on both other transportation facilities and the adjacent comanitios.
III. While recomizing that the purpose of this docurent was specifically to .e evaluat= impacts on historic sites and districte, the Rerional Plaming Councjl tudes this opporturity to ruiterate provious concems expressed recarding impacts on the Gryms idalls watershed and develophent in surround-
 Adninistration have indicated their willingness to work with Baltinore County, the City of Diltinove and the focicnal plannine Council in further dofinini; and evaluating tho potentiol imacts discussed above on historic wites and the browder tinucts of the pruposal on the total area which could be affected by the iroject. The Derionn? Plumine Council will undertake to coordinate a series of metinge wh the Btate Hichuay heministratjon during the noxt theme tomtas bo that the finel bovermental Impact otatewent addmesen all concerns mained at the lonal and meional level. It is esasential that this cooperative offort cecen before the publication of the .

Final Envirommental Smpact Statement in March, 1976 to insure that all impacts are evaluated before a moomendations for a specific alternative io made in the Final Environmental Impact Statement.

THE RXIOMAI, PLAMIMG COUHCIL RNDORSES THIS PROJECT IN CONCEIT: ENDORSFAENT OF TIIS JOCUREMT IS FECOTHHTDED SUIWECI qO TTE PROVISIONS STATED ABOVE.

I ImFBY CEMMFy that the Budect and Program Committee, as per Recional P]inning Council authorization, at its December 12, 1975 meeting coneurred in this Reviev and Referral liemorandum and incorporated it into the minutes of that meetine.

Original Signed By

\section*{Robert 1. Young}
necominer 12, 1975 Date

Comment No. I No response is necessary for this comment.
Comment No. II a.l A major rapid transit station at the Beltway has been developed and is presented as part of Alternate 9A. This was not adopted as the recommended alternate because the concept of a major transit station at the Beltway was developed recently and was never presented to the public for comment at any public hearing. The Mass Transit Administration does intend to pursue this option by holding a separate public hearing at a future date.

Comment No. ILa. 2

Comment No. LIb. 1 A technical evaluation of the effect on rapid transit patronage, as a result of not building the Northwest Expressway inside of the Beltway (Alternates 7; 9 and 9A), was developed in conjunction with the mitigation proosals made for the air quality evaluation. This study indicated that deletion of the Northwest Expressway inside the Beltway would increase rapid transit riders by 400 to 600 patrons per day in Baltimore County. No breakdown is available regarding the increase in patronage at each individual rapid transit station; however, it can be assumed that the majority of the added riders would use the Milford Mill and Old Court stations.

Comment No. LIb. 2

Comment No. LIb. 3

The access road requirements to rapid transit stations and highway interchanges has been developed for the recommended alternate, and this information may be found on page \(\mathrm{C}-10\) of this Volume.

The Level of Service on I-695 is noted on page J-13 of this Volume. Accident data on I-695, available at the time of printing this Final Statement, is included as an SHA memorandum after the response to RPC Comment No. III.

Comment No. LIb. 4

Comment No. LIb. 5

Comment No. Ifc.

Comment No. III

The economic impacts on the entire Northwest Corridor should be minor with the alternates that eliminate various segments of the project inside the Beltway. Overall growth and projected employmont in Baltimore County should not be significantly anis: led.

This comment concerns the need for widening Reisterstown Road and Liberty Road (inside the Beltway) to accommodate the diverted traffic not accessible to the Northwest Expressway under Alternates 7 and 9. The effect on these and other arterials, and the steps proposed to minimize the effect of diverting additional traffic to existing arterials, are discussed on page D-33 of this Volume.

This comment is concerned with the impact on other transportation facilities and adjacent communities, if the construction of the project occurs in stages over a number of years.

A response to this comment cannot be made at this stage of project development. There has been no evaluation made regarding the possible phasing of this project during construction and the effects can only be determined after the exact length and location of each construction contract has been established and the funding has been committed.

A formal process of information exchange was held in

January and February, 1976.
to. Mr. William F: Ling, Jr., Chief Bureau of. llighway Design
from: Paul S. Jaworsit, Chief Bureau of Accident Studies
intr. January E, 1976

subject:
Baltimore County Interstate Route 695 - Supplemental Information for Additional Lanes, Between Dogwood Road and Md. 26

In response to our memo of October 9, 1975, and our subsequent meeting concerning the subject proposed project, we wish to advise the following.

In order to provide additional information as requested by the Federal highway Administration concerning the operational effects of the congestion on I-695, the following information was compiled.

Accident data was prepared for each of the fifty-three road sections between each interchange; by direction, around the entire Beltway in Baltimore County. The accident data was examined with an emphasis towards analyzing the effects of the evening peak period. To this end, traffic data compiled at three permanent counter stations un I-びj y ieiucu diurnal distributions which in turn was utilized to determine the evening peak period. Accident rates were then computed for both a tiventy-four hour period and the four-hour evening peak period (3 PM to 7 PM ). Additional data included the percent of rearend and sideswipe accidents during the peak period (congestion related collisions) to the total accidents.

Statistical tests were then computed to measure the differences between the peak period and total accident rates on I-695 as a comparison to the peak period-statewide accident rates. These tests yielded numerous locations which could be deemed hazardous when considering the peakperiod accident rates. Additional tests of statistical significance were also computed for the peak-period percentages of rear-end and sideswipe collisions, again yielding numerous locations with significantly larger percents of these types of collisions. In order to evaluate this data, "centile ranks" indicating the relative rank of each location on a scale of \(100 \%\) were prepared for each category, ice., total accident rate, peak-period accident rate, and peak percent manner of collision. The average of these three was then computed for each section and then rank ordered accordingly. It was felt that this method permitted


Mr. William F. Lins, Jr.
January S, 1976
Page 2
additional discrimination, over the use of a simple hiarchy of rates with an assumption that road sections with a high total accident rate and peakperiod accident rate would also need to have a large percentage of rear-end and sideswipe collisions to further identify this congestion related problem:

The following list indicates the highest eleven road sections, with their relative "centile rank", peak-period and total accident rates and peak percent of rear-end and sideswipe accidents (MOC).

PRIORITY LOCATION LISTING DETERMINED bY
CENTILE RATING OF ACCIDENT EXPERIEXCE;
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline I-695 Locations & Direction & Centile & \[
\begin{array}{r}
1 \\
\text { Peak Rate } \\
3 \text { PM-7 PM }
\end{array}
\] & Total Rate \({ }^{2}\) & \begin{tabular}{l}
Peak MOC \\
Percent
\end{tabular} & \\
\hline Md. 45 to Md. 146 & NB & . 9860 & 473.57 & 226.72 & 41.03\% & \\
\hline  & iis & . 9798 & 500.82 & 275.07 & 30.83\% & \\
\hline I-83 to Md. 139 & NB & . 9584 & 401.13 & 197.79 & 41.66\% & \\
\hline I-895 to Hollins Ferry & NB & . 9375 & 336.75 & 189.03 & 51.53\% & \\
\hline Greenspring to I-83 & SB & . 9255 & 242.22 & 145.22 & 35.69\% & \\
\hline US 40 to I-70N & NB & . 9189 & 270.35 & 194.24 & 35.24\% & \\
\hline Md. 144 to Edmondson & SB & . 9065 & 275.47 & 205.40 & 30.35\% & \\
\hline Nd. 139 to Md. 45 & NB & . 8754 & 316.08 & 160.77 & 47.00\% & \\
\hline Security Blvd. to Md. 26 & NB & . 8618 & 233.93 & 179.08 & 30.71\% & \\
\hline Edmondson to US 40 & SB & . 8419 & 289.06 & 216.42 & 23.30\% & \\
\hline Edmondson to US 40 & NB & . 8307 & 181.45 & 196.14 & 39.29\% & \\
\hline \multicolumn{7}{|l|}{\multirow[t]{4}{*}{\begin{tabular}{l}
*Determined by an average of the following three factors: \\
1. Peal: hour accident rate per 100 million vehicle miles of travel \\
2. Total accident rate per 100 million vehicle miles of travel \\
3. peak hour manner of collision percent to total manner of collis
\end{tabular}}} \\
\hline & & & & & & \\
\hline & & & & & & \\
\hline & & & & & & \\
\hline \multicolumn{6}{|l|}{The fallowing accident dogo on T. 60,5 from Md. 26 to V.S. 140 and the mean for all I-695 was ob, finced from the Bureau of Alccident. Studies by phone on 1-26-76} & \\
\hline Md. 26 to U.S. 140 & NB & . 3742 & 98.61 & 108.42 & 18.67\% & \\
\hline Md. 26 to U.S. 140 & SB & . 5787 & \[
92.63
\] & \[
142.42
\] & \[
8.79 \%
\] & \\
\hline Masn Rates for all I. 695 & & & 152.30 & \[
140.91
\] & \[
20.96 \%
\] & \\
\hline
\end{tabular}

Mr. William F. Ling, Jr. January 8, 1976
Page 3

As can be seen, seven of these cleven'sections are continuous and form two separate sections in the northbound lane where a series of congestion related problems exist. The first section extends from Edmondson Avenue to Md. 26 and includes the subject locations (from I-70N to Md. 26). There is a significant drop in both the accident experience and the traffic north of Md. 26. We have not been able to determine how much of the accident experience, as related to congestion, is caused by the backup in the I-70-Md. 26 study area. It is however, contributory and we could expect to realize: some residual benefits downstream by the proposed
construction.

The second section extends from I-83 northbound to Md. 146. A major safety improvement project involving the reconstruction of the I-83 Charles Street interchange, some realignment, resurfacing, and "exit only" lane to the Md. 45 interchange was completed in 1974. Since the accident data used herein was compiled from 1973 and 1974 records, any improvement to be realized by this major reconstruction would not yet be evident. It would therefore, seem that the Edmondson Avenue to Md .26 road segments should receive first consideration for any improvement. The enclosed listing of the eleven locations are the most hazardous of the fifty-three locations studied on the Beltway in Baltimore County. Should these additional locations be desired for your study, they can te furnished upon request. They have been omitted due to spacial limitations
only. only.

Please advise if any additional information is needed on this study.


PSI/saw

\footnotetext{
c.c. Mr. N. B. Fries

Mr. H. G. Downs
Mr. A. V. Tate
lir. I. G. Hughes
Mr. T. Hicks
Mr. P. Dionne
Mr. P. licid
}

\section*{better air coalition}

\author{
110 East 25 h Sues
}

Bahimome, Maryland 21218
366.2070

Mr. Robert J. Hiajzyk, Director Office of Planning \& ireliminar Maryland Ecpartinent of Transportation Enghertifir State Highway daministration
301 list Preston Street Baltimore, lid. 21201

Dear Sir:
DEC 121975
Mamemernay


Better Air Coalition has reviewed the Draft Environmental Impact Statement for the Northwest Expressway. When the air quality data is published, we will address that issue in detail. At this time, we would like to offer some general comments.

Better Air Coalition has consistently been opposed to the construction of the Northwest Expressway. Throughout the years, studies have shown that more highways generate more cars; and more cars generate more pollution.

The Impact Statement proposes a 70 mile an hour speed limit for the Baltimore County portion and a 60 mile an hour limit for the Baltimore City portion. It is a proven fact that automobiles emit fewer pollutants and use less gasoline when driven at 50 miles an hour. So that even if the highway enables traffic to flow smoothly (which is questionable at rush hour) the increased number of cars at high speeds could generate more poilutans.

Highways tend to emphasize and increase suburban sprawl, which in turn increases the use of the automobile.
because of the severe air pollution problem in the baltimore Retropolitan area and because fuel is indeed becoming more and more scarce, increased dependence on the automobile should te discouraged in every way.

The Northwest corridor needs an improved transportation system. Setter fir Coalition supports the proposed Phase I Rapid Rail if it can be built in its entirety; to Goings Wills. Ne would also like to suggest'; an interim alternative which could perhaps be initiated in the very near future. The Western Maryland Railway right of way extends from Glyndon and Westminster south into the City. Is it feasible for commuter service to be established on this line on a trial basis and if successful to be used and extended until the Folio Rail is built, if it is indeed built at all.

Finally, we wish to bring to your attention that citizen opposition to this hichway has been persistent and outspoken. Citizens are willing to support a public transportation system that will not disrupt their neighborhoods, theft will be clean, quiet, and efficient. Shark you.

Sincerely yours,

\section*{Response to Comments by the \\ Better Air Coalition}

Comment No. 1 - The reference to 70 mph in the impact statement applies to the design speed not the speed limit. See this Volume, page A-35. The posted speed will be 55 mph or whatever the policy is at the time that the project is opened to traffic.

Comment No. 2 - It is not feasible to establish a commuter service utilizing the Western Maryland Railway because of conflict with freight trains currently operating on this line.
 alimoro county dopor!mem of public works IOWSON, MAPI:IND 21204

ALbert b. KALTENBACH, P.E. DIRECTOR


DEC \(201 \%\)
Wm. i. Lust jer.
Chief. dined ce



Mi: Robert J. Hejzyk, Director
Office of Planning and Preliminary Engineering
State Highway Administration
\(300 \%\). Preston Street
Baltimore, Maryland 21203


Baltimore, 21203
Subject: Comments on the Supplement to the Daft Environmental Impact Statement Section 4(f) Statement on the Relocated U.S. Route 140 (Northwest Expressway) and Phase I Rapid Transit dated October G, 1975

Dear lix. Hajzyk:
As an addendum to lir. 11. D. Fromm's letter of December 9, 1375, Baltimore County's Department of Public Works wishes to have the following comprise considered for the "Final Environmental Impact Statement" and tho facility's ultimate design.

Throughout the shaft Eryironnental Impact Statant crossings
 no mention is made of the treatments for the reads. We feel the following information should 13 shown for each scheme.

Coinhefr No. l. Name of gach County rood that will have crossings of the northwest Expressway with or without an interchange.
ColinitMy Mo. 2. lumber of lanes to be constructed for each crossing of the Nortrivest Expressway along with the design 4 criteria, ie. vidkis of each lane, whether open section, curb and gutter, etc.
COMKAKTilo. 3. Names of all county roads that will be limmirated or

END:JJT:ijh
cor lix. Richard hoincoy - Fila


Albert E. Kalyenbach, P.E. Director of Public Works

Intr. Linty Ficioh - Balinare City
Mr. Vladimir hohbe - Dept. of Slate Planning
Mr. Rijlton H. hinder .- Regional planning Council
Nr. T. G. Venotomias
Mir. A. B. Knaicmbach
Mr. S. E. Collins
Br. Larry italsh
Nit. J. D. Beysiout

Response to Comments by the Baltimore County Department of Public Works

Comment No. 1 County roads crossing the Northwest Expressway with or without an interchange are identified in the detailed project description of the recommended alternate, which begins in this Volume on page A-36. They are also shown on a plan of the recommended alternate included in this Final Statement as Drawings. No. 4 a through 4 g . The names of these county roads are as follows: Relocated Milford Mill Road, Sudbrook Road, Greenwood Road, Old Court Road, McDonogh Road, Painters Mill Road, Relocated Dolfield Road, Pleasant Hill Road, Church Lane, Relocated Cherry Hill Road, Berrymans Lane, Glyndon Drive Extended and Relocated Cockeys Mill Road.

Comment No. 2 The number of lanes planned for each county road crossing of the proposed Northwest Expressway, as well as the width of lanes and edge treatment, will be finally determined during the design phase of this project.

The proposed number of lanes or width of the county roads to be relocated by the project is indicatcd in the detailed description of the recommended alternate. See this Volume, page A-36.

Comment No. 3 The county roads that will be terminated or cul-desaced by the recommended alternate are included in the detailed project description noted in Comment No. 1. The names of these county roads are as follows: Mellinee Road, Howard Road, Milford Mill Road, South Dolfield Road, Dolfield Road, Delight Road, Stocksdale Avenue and Chatsworth Road. DOT intends to comply with County laws to close these roads.

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT. CORPS OF ENGINEERS
P.O. BOX 1715

BALTIMORE. MARYLAND 2i203

REPLY TO ATTENTION OF:
NABPL-E
5 January 1976

Mr. Robert J. Hajzyk
Director
Office of Planning \& Preliminary Engineering
State Highway Administration
P.o. Box 717

300 West Preston Street
Baltinore, Maryland 21203


Dear Mr. Hajzyk:
The Supplement to the Draft Environmental Statenent: Relocated US Route 140 and Phase I Rapid Transit has been forwarded to this office by higher authority for review. We are somewhat constrained in our review insofar as we did not receive the basc document which the Supplement states was prepared and forwarded to selected agencies for review and comment in February \(19 \% 3\).

This review of the Supplement is confined principally to this office's direct responsibilitics which in the instant project center on stream data, existing flood problems and the possibility of increased flooding potential. Responses to questions asked at public hearings and provided in Attachment 4 indicate that interest has been expressed in these concerns. There is an indication that floodplain problems were considered in the Draft Environmental Statement.

Wue to the organization and lack of page numbers in Attachment 4, however, it is difficult to determine the responses to stated flood problem concerns. We are also unable to make reference to originator(s) of specific comments. It would, therefore, seem appropriate to provide a pagination system and organization of comments as to origin in future documentation.

This office is in the process of studying flooding problems in Metropolitan Baltimore with the prospect of making recommendations for flood control protection measures. Therefore, cven though we may be unable to offer comment at this late date on the Draft Environmental Statement, we would

NABPL-E
5 J anuary 1976
Mr. Robert J. Ilajzyk
appreciate receiving a copy of that document for our ongoing studies.

Copies of these comments are being furnished to the Council on Environmental Quality as well as to the North Atlantic Division of the Corps of Engineers.


CF: CEQ NAD

\section*{Response to Comment No. 1:}

The public meeting referred to in Attachment 4 was very informal with no record kept of the testimony, either by a tape recurcier or public stenographer, and the various individuals commenting on the project were not generally known. In order to have some record of the meeting, each person representing the State or other agency was requested to record the comment made and his response in the form of a memorandum. The record of this meeting has been included as Attachment No. 3 in this Volume.

MARYLAND
DEPARTMENT OF STATE PLNNNING

301 WEST PFESTON STREET
BAL.TIMORE. MARYLAND 21201
TELEPHONE: 301.303.2451

VI ADIMIR A. WAMBE secrectary or btate marnulic: MADRLIRE L. SCHISSTIR DEF:Hy shertitahy

December 30, 1975

Mr. Robert Hajzyk, Director
Office of Planning and Preliminary Engineering
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21201
SUBJECT: ENVIRONNENTAL IMPACT STATEMENT REVIEW



Applicant: Maryland Department of Transportation
Project: Draft EIS - Relocate U.S. Rt. 140 and Phase I Rapid Transit from Baltimore City to Owings Mills
State Clearinghouse Control Number: 76-10-260
State Clearinghouse Contact: Warren D. Hodges (383-2467)
Dear Mr. Hajzyk:
Ihe State Clearinghouse has reviewed the above project. In accordance with _ the procedures established by the Office of Management and Budget Circular A-95, the State Clearinghouse received comments (copies attached) from the following:

Department of Natural Resources, Department of Economic \& Community Developmont and the Department of Public Safety \& Correctional Services: noted that the statement appears to adequately cover those areas of interest to their agenceres

Environmental Health Administration: noted that the air quality portion of statement is being submitted as a separate supplement and indicated that the could not complete their review until this air quality supplement is evaluated.
Public School Construction Agency: expressed some concern over the possible splitting of school districts by the proposed highway. This could necessitaचe a greater demand for busing while reducing the access routes for such transportation. The Agency suggested that further consideration be given to providing overhead walkways and sidewalks on all overpasses.

Department of Education: also noted that the proposed highway will create another major arterialdivider in the area which will affect school districti:and busing plans.

Energy Policy Office: advised that additional data should be presented on energy consumption. Further evaluation needs to be made on the amount of

\section*{- December 30, 1975}
energy use and auto emisrions under present conditions and those anticipated wi.th each alternative discuissed in the statement.

Department of Budget \& Fiscal Planning: has not responded to inquiries as of this date. However, if comments are received, they will be forwarded.

Our staff reviewed the statement and commended the analysis which relates to - the protection of historical sites in the project area. However, it is suggested that some other important aspects of the project be given additional coverage as part of the review process. The following. are some areas where further discussion and evaluation are warranted:
- Further attention should be given to the possibility that traffic congestion in the area could be substantially reduced by improving the safety and
(1) capacity of existing Route 140 . These improvements may include the addition of left turn slots where right-of-ways are available, extended green time on signals at peak traffic hours, the elimination of on-street parking in high
- congestion areas, and the enhancement of bus service in the area.
- Statistics used in the statement appear outdated. The accident rate statistics cover the years 1970 and 1971 while the average daily traffic numbers are from the year 1973. The "energy crisis" of 1974 may have greatly affected the validity of these statistics.
- - Although the basis for promoting the Northwest Corridor transportation plans is to accommodate the existing and expected growth demands in the area, some additional attention should be given to the land use plans being developed for the area. These land use plans are to assist in determining the best possible use for Maryland remaining land resources.
- Some criticism of the proposed subway system has recently surfaced. Much of this centers on the issues that the costs for the construction and operation of the subway are enormously high; that the land acquisition and construction
-) process is too disruptive; and that existing right-of-ways are available within the same corridor for consideration as alternatives. The statement should evaluate these contentions in an effort to explore and document all the issues dealing with these proposals.

We hope these comments will assist you in your preparation of the final statement on these proposals and we look forward to continued cooperation with your agency.

Sincerely,


Encl.
cc: Paul. McKee, Jerold Gettleman, Robert Lally, Donald Noren, J. R. McDonald, Percy Williams, Bernard Payne, R. K. Barnes, Frank Aluisi, Philip Clayton

Maryland Department of State Plarining
State Offlce Bullding
301 West Preston Street
Baltimore, Maryland 21201
Date: December 5, 1975
SUBJECT: ENVIRONMENTAL IMPACT STATEMENT REVXEW
Applicant: Md. Dept. of Transportation
Project: Supplement to Draft EIS - Rolocate US Rt. 140 and Phase I Rapid Transit (Balto. City to Owings Mills) State Clearinghouse Control Number: \(\quad 76-10-260\)

We have reviewed the above draft environmental impact otatement and our commenta as to the adequacy of treatment of physical, ecological, and sociological effecte of concern are shown below:
\begin{tabular}{|c|c|c|}
\hline & \multicolumn{2}{|l|}{Check (X) for each ltem} \\
\hline & Prone & Comment enclosed \\
\hline 1. Additioral specific effects which should be assessed: & X & \\
\hline 2. Additional alternatives which should be considered: & X & \\
\hline 3. Better or more appropriate meabures and otandsris which should be used to eveluate enviromental effecta: & X & \\
\hline 4. Additional control measurea which ehould be applied to reduce adverse enviromental effecto or to avold or minimize the irreversible or irretrievable comaitment of resources: & X. & \\
\hline 5. Our assessincnt of how serious the environvental damage from this project might be, using the beat alternative and control measures: & X & \\
\hline 6. We identify ibeues which require further diocussion of resolution as shown: & X & \\
\hline
\end{tabular}



Date:


Maryland Department of State Planning
State Office Building
301 West Preston Street
- Baltimore, Maryland 21201
subject: project suirary notification review
 . State clearinghouse control number: \(176-10-26\)

CHECK ONE

This agency has reviewed the above project and has determined that:
1. The project is not inconsistent with this agency's plans, programs or objectives.

2. The project is not inconsistent with this agency's plans, programs or objectives, but the attached comments are submitted for consideration by the applicant. \(\qquad\)
3. Additional information is required before this agency can complete its review. Information desired is attached.
4. The project is not consistent with this agency's plans, programs or objectives for the reasons indicated on attachment.


Meryland Department of State Planning State Office Buliding
301. West Preston Street

Baltimore, Maryland 21201
Date: NOY 0.1975

\section*{SUBJECT: ENVIRONMENTAL IMPACT STATEMENT REVIEW}

Applicant: Maryland Department of Transportation
Project: Supplement to Draft EIS - Relocate US Rt. 140 and Phase 1
State Clearinghouse Control Number: 76-10-260
We have reviewed the above draft environmental impact otatement and our coments as to the adequacy of trectment of physical, ecological, and cociological effects of concern are ohown below:
\begin{tabular}{|c|c|c|}
\hline & \multicolumn{2}{|l|}{Check ( X ) for eech item} \\
\hline & None & Comuent enclosed \\
\hline 1. Additional specific effects which should be asвebsed: & X. \({ }^{\text {X }}\) & \\
\hline 2. Additionel alternatives which should be considered: & Y X & , \\
\hline 3. Better or more sppropilate measures and atanderds which should be ueed to evaluate enviromental effects: & \% \(3:\) & \(\vdots\) \\
\hline 4. Additional control messures which should be applied to reduce adverse envirommental effects or to evoid or minimize the irreversible or irretrievable conmitment of resources: & X: & \(\because\) \\
\hline 5. Our esoescrient of how serious the environsental dewage from this project might be, woing the best alternative and control measures: & X X & \\
\hline 6. We identify isques which require further discussion of resolution as shown: & X \(\times\) & \\
\hline \begin{tabular}{l}
Signat ritle \\
Agency
\end{tabular} &  &  \\
\hline
\end{tabular}

\author{
DEPARTMENT OF HEALTH AND MENTAL HYGIENE ENVIRONMENTAL HEALTH ADMINISTRATION 201 WEST PRESTON STREET \\ BALTIMORE 21201 \\ DONALD H. NOREN PHONE - 301.3A3. 2740 DIRECTOR
}

NEIL SOLOMON, MD., PHI.

November 13, 1975

Mr. Warren D. Hodges, Chief
State Clearinghouse
State Office Building
301 West Preston Street
Baltimore, Maryland 21201
Dear Mr. Hodges:
RE: Supplement to Draft EIS - Relocated O.S. Route 140 and Phase I Rapid Transit; Project No. 76-10-260

The Environmental liealth Administration has received four copies of the above EIS for review. However, this EIS does not contain any air quality analysis. The air quality portion of the statement is being submitted as a separate supplement.

Since it would be premature to make comments with respect to the air quality impact at this time, I an withholding statement until such time as the Air Quality Analysis is received. I am also returning the four EIS's as we have no need for them.

Sincerely yours,

Donald H. Noren, Director
Environmental Health Administration

\section*{DHN: bact}
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cc: Mr. Ferveri

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Enclosures

\section*{SUBJECT: ENVIROMMENTA) ImpaCT STATEMENT REVIEN}

Applicant: Maryland Department of Transportat Supplement to Draft EIS - Relocate USTRE 440 -and Phase Project: \(\begin{aligned} & \text { Supplement to Draft EIS - Relocate } \\ & \text { Rapid }\end{aligned}\)
State Clearinghouse Control Number: 76-10-260
We have reviewed the above draft environmental impact atatement and our comments as to the adequacy of treatment of phyaical, ecological, and sociological effecta of concern are shown below:
\begin{tabular}{|c|c|c|}
\hline .. & \multicolumn{2}{|l|}{Check ( \(X\) ) for each 1 tem} \\
\hline & Nonc & Comment enclosed \\
\hline 1. Additional specific effecte which chould be aszesqed: & & (Over) \\
\hline 2. Additional alternatives which ohould be conoldered: & X & \\
\hline 3. Better or more appropriate measurea and otandards which ehould be used to evaluate environmental effects: & X & \\
\hline 4. Additional control reasures which ahould be applied to reduce adverse environaental effects or to avold or miaimize the irreversible or irretrievable comitnent of resources: & X & . \\
\hline 5. Our assessinent of how serious the enviromental derage from this project might be, using the best alternative and control measures: & X & \\
\hline 6. We identify isoues which require further diocusaion of resolution as shown: & X & \\
\hline
\end{tabular}



The applicant should be advised to contact any utility company for necossary final arrangements for changes in thelr facilities.


\title{
TO: \\ Bryan Catch
}

\section*{FROM:}

Bob McDonald
Baltimore County Board of Education Comments RE: Draft Environmental Statement Report No. FHHA-MD-EIS-73-01-DS. Clearinghouse Control No. 76-10-260

In the attached memo from Mr. Walter Gordon to Mr. Robert Dubel concern is expressed over the splitting of school districts by arterial divider. This becomes a problem because many present walk-to-school students will be unable to cross the highway to attend their assigned school. This will in turn necessitate the need for more bussing. Not only does this create financial strains on the county, but if busses have to negotiate deadend streets, the potential for accidents is greatly increased since a significant number of accidents occur while busses are backing.

One solution would be to provide for overhead walkways and sidewalks on all overpasses. This would admittedly add to the project's cost, however, it may be well worth it. At this stage our office would encourage a study of the costs and benefits to be derived from such walkways.

Finally, with regard to future construction, based on materials now in our: office and the knowledge and experience of our staff, we foresee no problems with this road conflicting with long range proposed school sites or plans for immediate future school construction.

_D: Mr. Robert Y. Dubel

:ROM: Walter M. Gordon
RE: Northwest Expressway materials
Mr. Edwin A. Rommel and I have revicwed these materials, and we believe ch construction as indicated would have some effect upon long range proposed hool sites, plans for the immediate future school construction, and would fffect some existing and possibly future now school temporarily planned boundaries.

Specifically, we have used the Reisterstown Road as the major arterial road when considering school sites, school boundaries, and bus routing. For example, Timber Grove Elementary was constructed on the east side of this road and Cedarmerc Elementary on the west side. This proposed road will.


To lend another cxample to the districting and transportation problem, Berkshire !lills Development is east of the proposed expressway and is in the -Hinand Elementary School district which is west of the expressway. Sudbrook• Junjo: Hjgh School boundaries lie east and west of the proposed expressway. The sanc applies to Franklin Junior and Franklin Senior High Schools.
\(r\)
can be routcd to overcome sone obstacles, but the demand upon bussing must be reighed in the light of the new road. To know what tine new demands may be, I recomend that this material be reviewed by those closely involved in site acquisition, school planning and school boundaries.

I irust wic have provided sore help as to what should be done, and if we can be of any further assistance, please let us know.

Maryland Department of State Plannifis
State Ofilce Building
301 West Prebton Street
Baltimore, Maryland 21201
Date: November 7, 1975

\section*{SUBJECT: ENVIRONMENTAL IMPACT STATEIENT REVIEW}

Applicant: Maryland Department of Transportation Project: Supplement to Draft EIS - Relocate US Rt. 140 and Phase 1 Rapid Transit (Balto. City to Owings Mills)
State Clearínghouse Contiol Number: 76-10-260
We have reviewed the ebove dreft environmental impact otatement and our comments as to the adequacy of treetment of phyaicel, ecological, and sociological effects of concern are shown below:
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\hline & None & Comment enclosed \\
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\hline 2. Additional alternatives which should be consiocred: & \(X\) & \\
\hline 3. Better or more appropilate meacureo and otandards which should be ueed to evaluate enviromental effecte: & Y & \\
\hline 4. Additional control measures which should be applied to reduce adverbe environmental effecto or to avoid or minimize the irreversible or irretrlevsble comsitment of resources: & \(X\) & - \\
\hline 5. Our abeegment of how serious the enviromental damage from this project might be, uaing the beet alternative ard control messures: & \(Y\) & . \\
\hline 6. We identify logues which require further discussion of resolution as shom: & \(X\) & \\
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\end{tabular}
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\hline Signature & \[
\therefore / \sqrt{9} / 6(\ln )
\] \\
\hline Tite & /J.R. McDonald 1) scigne \\
\hline Agency & Intcragency Comaittee for Public School Construction \\
\hline
\end{tabular}

Theryland Depminat of State Plaming State Office Buildins
301 Heat Preston Street

\section*{Date:}

\section*{SUBJECT: ENVIROMMENTAI IMfaCT STATEAENT REVJEH}

Applicent: Maryland Department of Transportation
Project: Rupplement to Draft EIS - Relocate US Rt. 140 and Phase 1 Rapid Transit (Balto. City to Owings Mills)
State Clearinghouse Control Number: 76-10-260
We have reviewed the above draft enviromental impact atatenent and our comments as to the adequacy of treatment of phyoical; ecolosical, and sociological effects of. concern are show below:

Check (X) for each item
1. Additional epecific effecto which ohould be aboersed:
2. Additional alternatives which ohould be coneldered:
- 3. Betier or more appropisate meabures and standards wich ehould be ueed to evaluate environmentai effecto:
4. Additional control measures which ahould be applied to reduce adverte envirowatal effecto or to avold or rainimize the frreverbible or irretrievable comitnent of resources:
5. Our absebement of how serfous the envirompental demage from this project night be, using the bebt alternative and control meabures:

We identify levues ehich requlie further diocussion of resolution as ehown:
- See memonandur of Harct: 29, 1973 and letter of November 25, \(19 \% 5\) attacheci. the materials in question have been turned over to M. Walter
- M. Gordon, Director of irangiortation, Balatimore County Board of Elloation.



Title Divisjon of Compensatory, Lirban, and Suphemantary jograms
Agency

\title{
BOARD UL EDUCATION OF BALTINIORE COUNTY
}

November \(25,1.975\)

TO: Mr. Bernie C. Hartman
FRom: Walter M. Gordon
RE: Project Book - "Environmental Impact Statement Review"

Dropping this booklet with me was one thing. Hoping to get sone output from me by November 25 th was and still is "Something el se".

I have enclosed a copy of my memo of March 19, 1973 to our Dr. Robert Dubel, Deputy Superintendent. That will give you sone of our concerns.

In looking at the two location maps - Relocated U.S. M:0 and Northwest Boressiay gives us cotecrin when wo ole at the location oi our existing schools and the above relocation mays. One of the big problems could be the dividing of present school boundaries which would necessitate increased bus service.

I have not had tins to read the printed materials of the vast book. J have contacted Ir. Harvey W. Kreuzburg, Jr., Associate Superintendent - Fhysj.cal Facilities, who certainly would be interested in this material but he has not received such materials.

WMG: at
Latin morin


BOARD OF EDUCATION OF BALTIMORE COUNTY TRANSPORTATION DEPARTMENT

March 19, 1973

T0: Mr. Robert Y. Dubel
FROM: Halter M. Gordon
RE: Northwest Expressway materials
Mr. Edwin A. Rommel and I have reviewed these materials, and we believe such construction as indicated would have some effect upon long range proposed
- affect some existing for the immediate future school construction, and would
nw school temporarily planned boundaries.
Specifically, we have used the Reisterstown Road as the major arterial
- road when considering school sites, school boundaries, and bus routing. For example, Timber Grove Elementary was constructed on the east side of this road and Cedamere Elementary on the west side. This proposed road will
- establish another arterial divider.

To lend another couple to the districting and transportation problem,
- Berkshire llills Development is east of the proposed expressway and is in the Winand Elementary School district which is west of the expressway. Sudbrook Then or 11 sh shool bomdaics lice east and west of the proposed expressway.
- Sane applies to Franklin Junior and Franklin Senior lligh Schools.

From the transportation viewpoint we are somewhat flexible and buses
- Weighed in the light of the new obstacles, but the demand upon bussing must be I recommend that this material be review e know what the new demands may be, acquisition, school planing and school bound those closely involved in site
\(\qquad\)
\(-\)

I trust we have provided sone help as to what should be done, and if we can be of any further assistance, please let us know.

\section*{}

Director of Transportation
bill :ch

Response to Comments from the
State Clearinghouse
Maryland Department of State Planning

Environmental Health Administration:
The air quality analysis has been included in this Volume, Section C-12 of the Final Environmental Statement.

Public School Construction Agency:
The provision of overhead pedestrian walkways and sidewalks on overpasses will be considered during the design phase of the project.

Energy Policy Office:
Research of this subject failed to uncover any procedure or guidelines on how to evaluate the types and amounts of energy consumption that are associated with this project. A quantitative value of the energy requirements would be, at best, a viery approxiimate estimate; however, it can be assumed that the energy usage would be relatively the same for all of the build alternatives.

State Clearinghouse Staff Comments:
Comment No. 1 The State Highway Administration is aware of the need for improvements to existing U.S.. Route 140 in addition to the need for the proposed Northwest Expressway and Rapid Transit Facility. This is stated on page A-9 of this Volume. The improvements recommended by the Clearinghouse, such as left-turn lanes, more green time, prohibition of parking, etc., has been discussed on page D-33 of this Volume.

Comment No. 2 Accident statistics have been updated in the Final Statement. See this Volume, Section C-3.

Comment No. 3 A discussion of the relationship of the project to land use planning has been included in the Final Statement. See this Volume, Section B. In addition, the Regional Planning Council has prepared a report on the "Preliminary Projections of the Growth Effects of the

Northwest Corridor Transportation Improvements", which has been included as Attachment 1 in this Volume.

Comment No. 4 The question of whether or not to build the proposed rapit transit line has been covered in the Phase I, Section A grant application and the supporting State determinations, with the result that the system has been accepted and has received a \(\$ 573,000,000\) Federal commitment. The Environmental Impact Statement for Section A, Phase I Rapid Transit Project addressed all environmental issues, including disruption due to the construction process. The Impact Statement went through a most rigorous and extensive review process prior to adoption.


\title{
United States Department of the Interior
}

\author{
Office of the sfereitars \\ WASHINGTON, D.C. 20240
}

In Reply Refer To:
L7619-MQ
(ER-75/1030)
DEC 1.81975

Dear Mr. Ackroyd:
This is in response to the request for the Department of the Interior's comments on the supplement to the draft environmental statement and the draft Section \(4(f)\) statement for proposed relocated U.S. Route 140 (Northwest Expressway), Baltimore City Line to Reisterstown and Phase 1 Rapid Transit, Baltimore City Line to Ownings Mills, in Baltimore County, Maryland.

ENVIRONMENTAL STATEMENT COMMENTS

\section*{a. Recreation Resources}

The supplement to the draft statement is inadequate from a park, recreation and open space standpoint.

Pages A-10 and 11 describe two existing parks, Sudbrook and Gwynvale Parks, on either side of the proposed facility between Sudbrook Road and Old Court Road. Purportedly, "the proposed project docs not affect either playground, as rights-of-way for the Northwest Expressway were acquired prior to their construction." This reference should be clarified in the final statement with information on the dates the parks were established and the rights-of-way acquired.

It appears highly unlikely that Expressway - Mass Transit construction
 between these two parks would have no adverse effect on them. Any parklike setting would appear to be adversely affected. The final statement should provide information on any such impacts, including noise levels and air quality before and after project completion. Planned mitigation measures should be discussed, e.g., the noise barrier mentioned on page A-ll should be briefly described with specific information on noise attenuation effectiveness.

There are several references in the draft statement to a proposed stream valley park along Gwymns Falls, Horsehead Branch, and Red Run (pages A-12 and 17, drawing 5). The proposed project follows these open space corridors and thus would adversely impact park potentials. On this matter, it appears that some coordination with the Baltimore County Department of Recreation and Parks has taken place (page A-17). The final statement should present a detailed evaluation of the impact of the proposed project on park plans and should contain evidence of recent

consultation with the park agency concerning possible mitigation measures. The commitment (page \(A-17\) ) not to relocate streams and to preserve 200 feet of undeveloped land on either side thereof is excellent.

Since both a park and transportation facility are proposed for the stream valley areas, the final statement should contain a definite response to PPM 90-5, Multiple Use-Joint Development. Specifically, we recommend initiation of a "joint development reconnaissance" at this stage of project formulation and inclusion of information from the reconnaissance in the final statement. Multiple use proposals to implement bicycling hiking opportunities also should be initiated in terms of developing a radial connector to the Baltimore Beltway. This particular project appears to offer a good opportunity to insure that "to the extent possible and practicable highways, in addition to their basic purpose of fulfilling the important goal of improved transportation, should make a positive contribution toward enhancement of the environment through which they pass and assist communities in attainment of their stated goals and objectives" (PPM 90-5).

The attachments contain evidence of considerable concern about flooding impact from the proposed project along Gwynns Falls. On this matter the statement contains no information in specific compliance with Executive Order 11296. This Executive Order directs the evaluation of such hazards when planning the location of federally financed or supported facilities such as highways. FHWA has issued memorandum 20-1-67 to implement the Executive Order. Subsequently, in April 1972, the Water Resources Council issued "Flood Hazard Evaluation Guidelines" which are to be utilized by Federal executive agencies in complying with Executive Order 11296. Information about the potential environmental impacts of the project on the flood plain should be included in the final statement.

\section*{b. Cultural Resources}

The description of historic resources is extensive, but there are some unclear passages in discussions of individual properties, and the maps appear in some instances to contradict the text. For example, a property may be indicated as a site on the map while the text may be unclear as to whether or not buildings are still standing. Two examples are historic sites 27 and 28 . This should be clarified in the final statement.

Excellent early coordination with the Maryland Historic Preservation Officer has already been accomplished as regards the identification of historic resources. This process should be completed prior to preparation of the final statement by requesting that the State Historic Preservation Officer provide gaidance in completing an archeslogical survey of the corridor through the office of the State Archeologist. The State Historic Preservation Officer should then be requested to certify in writing that all archeological resources have been considered, and this statement should be included in the final statement with a summary of
the archcological report. Construction contracts should provide for archeological surveillance during. construction and should include stop work and salvage clauses.

Section 106 procedures should be completed with the State Historic Preservation Officer and (as appropriate) with the Advisory Council on Historic Preservation prior to preparing the final statement. These procedures should be documented in the final statement.

SECTION 4(f) STATEMENT COMMENTS

\section*{a. Alternatives}

This document is, in general, satisfactory in its project and environmental description and analysis (except as noted above), and the project sponsors are to be commended for their study, after the public hearings, of 12 alternate segments to avoid or minimize Section 4(f) involvements. After careful review, the Department of the Interior concurs that there are no feasible and prudent alternatives to some limited taking of Section \(4(f)\) land for this transportation project. However, we would note that, pursuant to proviso 1 of Section 4(f), each \(4(f)\) involvement must be evaluated on its own merits and in this case, certain of the alternatives presented constitute a measure to minimize harm to the 4 (f) property. Accordingly, we recommend that the alternatives, as discussed below, be selected for project implementation.

In considering alternatives for the proposed mass transit project within the Baltinore Beltway, it appears that Alternate 9, utilizing cut and cover through the Sudbrook Park Historic District, minimizes impacts to areas of concern to this Department while still meeting basic transportation objectives. Alternate 9 should be followed to just north of Sudbrook Park. From that point, we recommend that consideration be given to the use of the Alternate 5 route for mass transmit only from there to the Beltway. We support Alternate 5 as a combined facility from the beginning of the Expressway (at the Beltway) to the junction of Alternates 5 and 2 south of the McDonogh School Historic District. This use of Alternate 5 would eliminate the need to demolish the Mt. Wilson Sanitorium House and Barn and minimize the impact on the Howard-McHenry Mill.

These alternatives del.ete the Expressway from the Beltway to the Baltimore City Line, but maintain the mass transit facility in that area. While there is some effect upon traffic volumes on other roadways (page E-9), overall these alternates have approximately the same degree of effectiveness in meeting transportation needs as do the alternates involving the entire Northwest Expressway (Alternate 1 and 2).

Alternate \(z\) as a combined facility should be followed from the junction of Alternates 2 and 5 north to its point of intersection with Alternate 2C. Careful consideration should be given to minor route relocation as necessary to avoid the necessity for moving the McDonogh Railroad Station and for adapting it to modern day use as a mass transit station.

Relative to project impacts upon the proposed stream valley park, the statement notes that "Alternate 2 would have an Expressway classification (Freeway be A.A.S.H.A.T.O. Definition), conform to regional and State plans, have the sanc major design features, and provide the same excellent transportation service as Alternate 1. The impact on the Gwynns Falls Valley, the proposed trail system and water quality from north of the Baltimore Beltway to Painters Mill Road is minimized with this alignment (Alternate 2) as compared to Alternate 1.".

Alternate 2 C should be used for the combined facility from the Alternate \(2-2 C\) intersection north to Painters Mill Road, thus minimizing impacts upon the McDonogh School Historic District and the Punp House. Consideration should be given in the final statement to adjusting 2 C so as to minimize or eliminate harm to identified archeological sites, utilizing the services of the state archeologist as advisor.

Alternate \(2 C\) should be carried north into its merger with \(2 B\), and \(2 B\) should be carried north into its merger with the 1 and 2 Expressway Alternates. From there 1 and 2 should be carried into the Reisterstown vicinity. We recommend that special consideration and study be given to utilizing the western Alternate 1 and 2 as a single combined Northwest Expressway and Relocated Maryland Route 30 around Reisterstown Historic District with a northern tie-in to Route 30. The Expressway tie-in to Westminster Pike should avoid the connection right at the 18 Mile House so as to avoid impacts thereto.

The statement notes, pages E-8, that the Lraffic analysis associated with alternate considerations, and thus with Section \(4(f)\) issues, is based upon the Baltimore Regional Environmental Impact Study. We have reviewed that study and it does not contain any alternative discussions directly related to the proposed project or General Development Plan proposals minus only the presently proposed project. The final statement for the project should describe the methodology used to derive projected traffic volumes for Alternates 7, 9, and 9a. This is important information since the statement indicates that, today, the existing road operates at an " \(F\) " Level of Service during peak hours, a generally unacceptable level, and that even with the Northwest Expressway the road would operate at about the same level for the design year, 1995.

\section*{b. Specific measures to minimize harm}

In addition to the careful selection of alternatives to reduce overall 4(f) area impacts, the draft Section (f) statement discusses many potential site-specific measures which could be taken to minimize harm to affected Section \(4(f)\) areas. The project proponents are commended for this work. Notwithstanding, the Department of the Interior defers comment on the second proviso of Section \(4(f)\) until selection of a final project proposal and alignment has been made and there has been coordination with the National Park Servicc and the Advisory Council on Historic Preservation relative to all site-specific measures which will be taken to minimize harm.

\section*{SUMMARY COMMENTS}

When the proposed final Section \(4(f)\) statement is completed, we request the opportunity to review it and provide such further comments as appropriate. In the meantime, if you have any questions or need for technical assistance, please contact the Regional Director, Mid-Atlantic Region, National Park Service, 145 South. Third Street, Philadelphia, Pennsylvania 19106, telephone 215-597-7013, who is assigned the field-level responsibility for coordinating Interior's interests in this case.

We appreciate the opportunity to review the subject document and hope that our comments will assist you in preparation of a final Section 4(f) statement.

Sincerely yours,


Mr. Richard Ackroyd
Room 206, Geo. IL. Talon
Federal Building
31 Hopkins Plaza
Baltimore, Maryland 21201

Response to Comments by the
U. S. Department of the Interior

Comment No. 1 - Gwynnvale Park was dcdicated in May, 1971 ind Sudbrook Park in June, 1971. The right-of-way for the proposed Northwest Expressway in this area was acquired by the State Highway Administration in June, l96l. In fact, part of Sudbrook Park is constructed on extra land purchased by the State and leased to the County for recreational purposes.

Comment No. 2 - Noise impacts resulting from the project are included in Section C-ll of this Volume. Air quality impact is also included in this Volume under Section C-12. Noise attenuation devices, as required, will be provided throughout the project; however, specific types of noise barriers will not be determined until the design phase of the project.

Comment No. 3 - An integrated account of the proposed linear park concept, including the impact of the proposed project on the Gwynns Falls Park plans, has been included in the Final Environmental Statement (See Section C-8 of this Volume.)

Comment No. 4 - The completion schedule of the Final Environmental Impact Statement for this project precludes the initiation of a "joint development reconnaissance", as suggested by this comment. The alternate recommended by the State avoids, to a great extent, the area through which the stream valley parks are planned, and in these areas multiple-use proposals are not possible. The project is located in the Gwynns Falls valley in the immediate vicinity of I-695, and in this location, the State has and will cooperate with Baltimore County in the development of the proposed linear stream valley park.

Comment No. 5 - Data with reference to the impact of the project on the Gwynns Falls floodplain has keen included on page J-4 of this Volume.

Comment No. 6. - The maps and text relating to historic resources have been coordinated as much as possible in the Final Statement.

Comment No. 7 - The State Historic Preservation Officer has been lentinformed of the detailed archeological surveys conducted in the Northwest Transportation Corridor. Two separate archeological surveys were made (see page H-2, this Volume); one identifying industrial archeological sites, and the other prehistoric archeological sites.

Comment No. 8 - Executed Memorandums of Agreement between the Fedcral Highway Administration, Urban Mass Transportation Administration, State Historic Preservation Officer and the Advisory Council on Historic Preservation have been included in this Final Statement for those historic sites adversely impacted by the project that are on or eligible to be placed on the National Register of Historic Places (see page \(\mathrm{H}-5\) in this Volume).

Comment No. 9 - The alternates recommended by the State Highway Administration differ from that recommended by the Department of the Interior in the following locations:

Sudbrook Road to Mt. Wilson Lane: Within these limits, the State is recommending Alternate 7 Modified (see page A-31 in this Volume). Berrymans Lane to Reisterstown: Within these limits, the State is recommending Alternate 6 (see page A-34 in this Volume).

Comment No. 10 - The traffic analysis is based on the Regional Environmental Impact Study (BREIS). This comprehensive transportation planning process in the Baltimore Region is a collaborative effort of the Regional Planning Council and the Maryland Department of Transportation through its agencies, the State Highway Administration and the Mass Transit Administration. Comprehensive transportation planning in the Baltimore Region began in 1962 in accordance with the Federal.Aid Highway Act of 1962. The 1976 Annual Report of the Unified Transportation Planning Program describes the status of the transportation planning process in the Baltimore Region, including the status of the adopted Regional Plan and the

Cooperative Process. It summarizes the major accomplishments of technical planning during the past year, including activities in surveillance, reappraisal, service and procedural development. The BREIS Study was used as the basic framework for the Northwest project; however, additional assignments were made for the project. Included in these assignments were computer runs with and without the proposed expressway. Also, selected link analyses were made on various links to aid in this study. An assignment without the link from the City Line to the Beltway was also studied.

Maryland, Northwest Expressway, Baltimore suencr:County, Draft Environmental impact Statement/Section 4(f), FHWA-MD-EIS-73-01-DS

19 DISC 1375 refer tor
rom , Assistant See, chary for Environment,
Safety, and Consumer Affairs
to , Chief, Environmental Programs Division FHWA/HEV-1. 0

> rigi, BTry=

We have reviewed the subject supplemental draft EIS and offer the following comments for your consideration.
1. The final statement should contain evidence that the various citizen groups in the corridor area received copies of the supplemental draft and that the issues raised by X those groups have been resolved':
2. The extension of Glyndon Drive through the Reisterstown Historic District will require a section 4 (f) determination.
03. 'he Department of the Interior should be consulted on fin the eligibility of sites in the project area which appear y to be potential National Register sites.
*gi. The final pis should include evidence of compliance with the section 106 procedures of the Advisory Council l on Historic Preservation.

We appreciate the opportunity to review and comment on the EIS supplement.


\section*{Response to Comments by the}
U. S. Department of Transportation


McDonogh Railroad Station McDonogh School Historic District Owing Mills Railroad Station (Old) Owing Mills Railroad Station (New) Reisterstown Historic District

Comment No. 4 - Executed Memorandums of Agreement between the Federal Highway Administration, Urban Mass Transportation Administration, State Historic Preservation Officer, and the Advisory Council on Historic Preservation have been included in this Final Statement for those historic sites adversely impacted by the project that are on or eligible to be placed on the National Regiser of Historic Places (see Volume I, page H-5).

\section*{I. COORDINATION:}

Subsequent to the Public Hearing in April of 1973, the project has been coordinated with Elected Officials, Governmental Agencies, and Community Organizations regarding all types of issues and concerns, including historic sites. The following record of coordination, in chronological order, provides evidence of the involvement of other agencies and the public during development of this project. These meetings were held in addition to the formal coordination conducted through the distribution of the Draft Statements and the Cor ridor Location Public Hearing, both of whichwcre previously discussed in this final statement.

Specific reference is made to the Public Information Meetings held on December ind and 5th, 1974. These meetings were held to advise interested citizens of the progress made on the issues brought up at the Corridor Public Hearings of April, 1973. In addition to concerns raised about the Gwynns Falls floodplain, the Expressway Interchange and Rapid Transit Station at McDonogh Road, and the terminal interchange in the Reisterstown area, Sudbrook Park was placed on the National Register of Historic Places requiring a major restudy of possible alignments and/or alternatives inside of the Balimore Beltway. Also, the Federal Highway Administration has since is sued HPM 7-7-9 establishing now air quality standards which require the preparatimon of a new air quality study. The meetings were not formal public hearings and public testimony was not recorded. Summaries of the discussions held at these meetings and copies of the newspaper, radio and TV notices of the Public Information Meetings are included in this Volume as Attachment No. 3.

As an example of community participation, the questions asked by frivale citizens at the meetings of June 2 and 16, 1975, and the answers to those questions, were included as Attachment No. 5 in the Supplement to the Draft Statement (FHWA-MD-EIS-73-01-DS).

> \begin{tabular}{c}  Public and Agency Contact on the \\ Northwest Transportation Corridor \\ since the Public Hearings \\ \hline \end{tabular}

Abbreviations for Governmental Agencies arc listed below:
ACHP - Advisory Council on Historic Preservation
DAR
EPA - Department of Natural Resources
\begin{tabular}{|c|c|}
\hline Datc & Organization \\
\hline & \\
\hline 4/25/73 & MTA, RPC, SHA \\
\hline 5/18/73 & DNR \\
\hline 5/25/73 & RPC, SHA \\
\hline 5/30/73 & Baltimore City Staff \\
\hline 7/17/73 & EPA \\
\hline 7/19/73 & ACHP, MHT, UMTA, USDOT \\
\hline 11/5/73 & MHT \\
\hline 11/6/73 & FHWA \\
\hline 11/9/73 & ACIP , FHWA, MHT, UMTA \\
\hline 12/11/73 & \begin{tabular}{l}
Elected Officials \& \\
Citizens Groups
\end{tabular} \\
\hline 1/17/74 & RPC \\
\hline 3/18/74 & McDonoghSchool, Ner Is rael Rabbinical College, Valleys Planning \\
\hline 3/19/74 & Baltimore County Staff \\
\hline 5/14/74 & RPC \\
\hline 5/24/74 & RPC, SHA \\
\hline 5/28/74 & Baltimore City Staff \\
\hline 8/14/74 & MHT \\
\hline 10/29/74 & M \({ }^{\text {M }}\) \\
\hline 11/21/74 & ACHP, FHWA, MHT, UMTA \\
\hline 12/2/74 & Public Information Mtg. FranklinSr. High School \\
\hline 12/5/74 & Public Information Mtg. Sudbrook Jr. High School \\
\hline 1/27/75 & \begin{tabular}{l}
Sudbrook Club - \\
Citizens Group
\end{tabular} \\
\hline 5/2:/75 & FHWA, MDOT, MHT, MTA, SHA, UMTA \\
\hline 5/21/75 & Baltimore County Executive \& Sudbrook Park Citizens \\
\hline 6/2/75 & Task Force \& Baltimore County Staff \\
\hline 6/10/75 & MDOT, MHT, MTA, SHA \\
\hline 6/16/75 & Task Force \& Baltimore County Staff \\
\hline 6/23/75 & MDOT, MHT, MTA, SHA (Field Review) \\
\hline 6/27/75 & MHT \\
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Entire Corridor

Storm Water Management
Entire Corridor
Northwest Expressway Change - Baltimore City Line to Baltimore Beltway Sudbrook Park Historic District
Sudbrook Park Historic District
Sudbrook Park Alternates
Sudbrook Park Alternates
Sudbrook Park Alternates and Historic
District
Baltimore City Line to Baltimore Beltway
Secondary Impact Study
McDonogh Road

Entire Corridor
Entire Corridor
Entire Corridor
Baltimore City Line to Baltimore Beltway ~
Corridor Historic Sites
Sudbrook Park Historic District
Sudbrook Park

Entire Corridor
Entire Corridor
Sudbrook Park

Corridor Historic Sites
Baltimore City Line to Baltimore Beltway

Baltimore City Line to Baltimore Beltway
Corridor Historic Sites
Baltimore City Line to Baltimore
Beltway
Corridor Historic Sites
Corridor Historic Sites
\begin{tabular}{|c|c|c|}
\hline Date & Organization & Subject \\
\hline 7/ 2/75 & FHWA, MDOT, MHT, MTA, SHA (Field Review) & Corridor Historic Sites \\
\hline 7/16/75 & Elected Officials \& Baltimore County Staff & Baltimore City Line to Baltimore Beltway \\
\hline 7/17/75 & Task Force \& Baltimore County Staff & Baltimore City Line to Baltimore Beltway \\
\hline 7/18/75 & County Executive \& Task Force & Baltimore City Line to Baltimore Beltway \\
\hline 7/24/75 & Elected Officials & Baltimore City Line to Baltimore Beltway \\
\hline 7/31/75 & Willow Glen North Task Force & Baltimore Beltway to McDonogh Road \\
\hline 11/7/75 & ACHP, FHWA, MHT, UM'TA, MTA \& SHA & Corridor Historic Sites \\
\hline 12/1/75 & RPC, Baltimore City Staff \& Baltimore County Staff & Review of 4(f) Statement \\
\hline 12/12/75 & State Archeologist & Review of Archeological Reports \\
\hline 1/12/76 & RPC, Baltimore City Staff \& Baltimore County Staff & Review of Status of N. W. X. Project \\
\hline 1/21/76 & \begin{tabular}{l}
RPC\& Balrimore \\
County Staff
\end{tabular} & Review of Sector Center in Relation to Recommended Alternate \\
\hline 2/5/76 & RPC, Baltimore City Staff \& Baltimore County Staff & Review of Status of N. W. X. Project \\
\hline
\end{tabular}
-ATTACHMENTS.
\[
-
\]

\section*{ATTACHMENT 1}

\section*{Technical Service Report 9}

This is a technical service report on the "Preliminary Projections of the Growth Effects of the Northwest Corridor Transportation Improvements" and was prepared as part of the Baltimore Region Continuing, Comprehensive and Cooperative Transportation Planning Process by the Regional Planning Council.

PRELIMINARY PROJECTIONS OF THE GROWTH EFFECTS OF THE

NORTHWEST CORRIDOR TRANSPORTATION IMPROVEMENTS

\section*{TECHNICAL SERVICE REPORT 9}

A Technical Service Report
Prepared for the Maryland Department of Transportation

September 2, 1975

BALTIMORE REGION CONTINUING, COMPREHENSIVE, AND COOPERATIVE TRANSPORTATION PLANNING PROCESS

\title{
Preliminary Projections of the Growth Effects of the Northwest Corridor Transportation Improvements
}

TECHNICAL SERVICE REPORT 9

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General Development Plan Forecasts: 1980-1995 ..... 6
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Impact of New Transportation Facilities ..... 10
AUTHOR: Daniel L. Heiser, Planner
C. William Ockert, Technical Director

The preparation of this report has been financed through funds provided by the Maryland Department of Transportation and the Regional Planning Council as matching shares for funds from the Federal Highway Administration and the Urban Mass Transportation Administration of the United States Department of Transportation.

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Figure 2 Traffic Volumes on Reisterstown Road ..... 7
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\section*{INTRODUCTION AND SUMMARY}

This service report documents an analysis conducted by the Continuing, Comprehensive, and Cooperative Transportation Planning Process (3-C Proces8) of the likely implications of construction of major new transportation facilities on growth and urbanization in the Northwest Corridor of Baltimore County. The 3-C Process is an integral component of the Unified Transportation Planning Program (UTPP), a cooperative effort of the Regional Planning Council, the Maryland Department of Transportation, and the lora: fovernments within the Baltimoxe Region-- Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties. The major purpose of the UTPP 18 the coordination of transportation studies and planning efforts in the Baltimore Region. The 3-C Process is the element of the UTPP responsible for maintaining up-to-date information on socioeconomic, land use and transportation data. This information provides the basis for the modification and updating of regional transportation plans and programs. This work is carried out as part of the development and updating process for the General Development Plan, adopted by the Regional Planning Council as the official plan for the Baltimore Region. This analysis was undertaken at the request of the Maryland Department of Transportation, acting as coordinator of joint project planning/environmental impact studies concerning the Northwest line of the Phase I Rapid Transit System and the Northwest Freeway. These joint studies, being performed by the Mass Transit Administration and the State Highway Administration, primarily focus on the direct impacts of the new facilities on adjacent commities and nearby environmental features. This analysis serves to complement the planning/environmental studies by examining the secondary
impacta, 1.e., impacts on the level of urban activity in the corridor. Transportation accessibility has long been recognized as a consideration in prdvate decisions to change land use activities. In turn, changes in land use patterns have direct effects on transportation usage and levels of traffic congestion. At the same time, many factors other than transportation accessibility \(\rightarrow\) such as sewer service, zoning, land. - - - ... celative importance of these various factors on development is not completely understooi, a great amount of progress has been made to develop procedures which can be used to estimate growth patterns. These procedures have previously been applied by the Regional Planning Council in projecting the urban development patterns recommended in the regional General Development plan. The approach in this analysis historically related corridor growth with corricior accessibility levels in an attempt to determine the degree to which growth has been either constrained or stimulated by changes in accessibility. Based on this historical relationship, certain inferences can be made about future corridor growth. The focus of this report is that area, shown in Figure 1, outside I-695 (Baltimore Beltway) in the Northwest Corridor between Liberty Road and Reisterstown Road. The area inside the Beltway, because of its established development patterns and sparse parcels of vacant land, has not shown the same propensity for rapidly changing land uses as the area outside the Beltway. Consequently, improved access to the corridor inside I-695 is not expected to significantly stimulate growth rates.


In summary, it has been found that the Northwest Corridor in Baltimore County hes experienced extremely high growth over the last fifteen years (about 20\% per year increase in population) despite deteriorating traffic conditions and decreasing accessibility levels. This growth rate is expected to be severely curtailed by the building moratorium imposed by the State Department of Health and Mental Hygiene in response to the overloading of the sewer trunk line serving the corridor. With the lifting of the moitorium, expected in 1979, it is anticipated that growth in the corridor will return to about the same rate experienced over the past fifteen years. This would be consistent with activity projections previously made by the Regional Planning Council.

It is plausible that increases in accessibility levels provided to the Northwest Corridor could result in corridor growth rates which are even higher than the high growth rates experienced over the past fifteen years. Potentially, the construction of the Northwest Freeway and the Northwest Line of the Phase I Rapid Transit System could bring about such an increase in accessibility. However, travel analyses indicate that, at best, construction of these facilities would allow system capacity to just keep up with increases in traffic resulting from corridor growth. In fact, some deterioration in the level of peak highway service is projected near the Beltway. In other words, overall accessibility will be neither improved nor decreased if expected growth occurs and the Northwest Freeway is constructed. Accessibility will decline if growth occurs without the Northwest Freeway.

It should be emphasized that these preliminary conclusions apply to the overall growth likely in the corridor. It is recognized that development patterns within the corridor could be influenced by the location of specific access and terminal facilities. Local development plans, zoning, and other local factors, could also have a significant effect on shaping local development patterns.

Another concern of this analysis is the effect of decisions to either delay or not build major transportation facilities in the corridor. It is clear from travel analyses conducted by the 3-C Process that travel conditions would continue to worsen through time should this happen. Although sophisticated techniques are not available at this time to fully assess the growth implications of this possibility, past experience in the corridor indicates that corridor growth would continue at a high rate. The question, how high will future growth rates be, cannot be answered until a new growth forecasting technique is available, although one likely result of a "no-build" decision would no doubt be more scattering of development within the corridor.

HISTORICAL GROWTH OF THE CORRIDOR: 1960-1970
Since 1960, the Northwestern Corridor Study Area has experienced an extremely high rate of growth, nearly ten times that of Baltimore County and almost fifteen times that of the Baltimore Region. At the start of the last decade, the area contained only \(1.4 \%\) of Baltimore County's residents. By 1970, this share increased to \(7.0 \%\) through a phenomenal averaged growth rate of approximately \(20 \%\) per year or 3,700 new residents annually, \({ }^{1}\) During the same time period, the Northwestern Corridor increased its share of County

\footnotetext{
\(1_{\text {Regional Planning Council, 1960-1970 Census Trends, Census \& Data Base }}\) Report Number 6.
}
jobs from \(4.9 \%\) in 1964 to approximately \(6 \%\) by 1970 . This increase translates to an averaged annual growth rate of approximately \(14 \%\) per year. \({ }^{l}\) Consequently, traffic on both Reisterntown and Liberty Roads has steadily increased (shown in Figures 2 and 3) since 1960 with severe congestion occurring during the peak hours.

GDP FORECASTS; 1980 and 1995
While the rate of development in the Northwest Corridor between 1960 and 1970 had been extremely high, the continuation of this rapid development was considered unlikely. In fact, population projections (Table I) made as part of the General Development Plan assumed lower growth rates of between 2,700 and 2,900 new residents annually between 1970 and 1995 . These growth rates were expected to result in the corridor study area containing \(9.6 \%\) of all Baltimore County residents by 1080 , and \(12 \%\) by 1995 . In addiion, \(6.0 \%\) of the employment in Baltimore County was expected to be located In the corridor by 1980 , and \(8.5 \%\) by 1995 (Table II).

Although the forecasting methodology included both the completion of the Northwest Freeway by 1980 and a determination of the relative attractIveness of the area for future development, these "best" estimates appear too low when compared to recent data on households and population. \({ }^{2}\) This discrepancy, discussed in the next section, between recent growth rates and forecasted rates of development appears to be due to an underestimation of the corridor's attractiveness in terms of development potential.

\footnotetext{
13-C Technical Memorandum 4, Employment Changes in the Baltimore Region1964 to 1970
23-C Technical Memorandum 10, Forecast of Land Use and Socio-Economic Data - 1980 and 1995.
}



\section*{RECENT TRENDS: 1970-1974}

A recent survey of housing and population in the region by the 3-C Process has revealed a rather atartilng condition in the Northwestern Corridor. \({ }^{1}\) The rate of development in the Northwest Corridor has not tapered of as expected, but has continued its historical rate of growth through the year 1974. Even the significant deterioration of peak hour access to the corridor does not appear to have impeded corridor growth.

Between 1960 and 1974 approximately 3,700 new residents have found homes in the study arca sach year. Extending this rate of growth, the corridor would have achfeved 1980 forecasted population levels by 1977. In fact, a continuation of historical trends would have resulted in approximately \(15 \%\) more population by 1980 than anticipated and \(21 \%\) more than 1995 GDP population forecast. However, the recent imposition of a sewer moratorium in the Gwynn Falls Watershed has altered these conclusions somewhat.

SEWER MORATORIUM: 1973-1979
Although any analysis of the effect of the sewer moratorium on housing permits are inconclusive at this time, preliminary indications from the Regional Planning Council's housing permit monitoring process show a decrease in authorized units. Neither the cause nor the severity of this decrease can be adequately determined, although a combination of economic conditions and the sewer moratorium is probably responsible.

The decline in housing starts in the corridor could have far-reaching implications depending upon the duration and the severity of both the sewer moratorium and the economic conditions of the housing industry. A preliminary

13-C Technical Memorandum 20, Population Growth Patterns - 1970 to 1974.
calculation of housing permits authorized for the years 1974 through 1979 (anticipated termination date of the sewer moratorium) shows approximately 3,100 new residential units wili be allowed in the study area. Based on historical family size trends for the area, these units will house approximately 10,400 new residents during this five-year period. The average annual addition of residents \((2,100)\) for 1974 to 1979 will bring corridor population in line with previous 1980 forecasts.

Figure 3 and Table \(I\) show the relationships of historical and forecasted population \(g=\) wth and the anticipated impact of the sewer moratorium. Depending on whether the corridor's growth resumes historical rates or conforms to the GDP, 1995 population levels for the corridor could vary by as much as 12,000 residents. Regardless, this would mean at least 43,000 new residents in the study area between 1980 and 1995, or a doubling of 1974 population levels 1974 population levels by 1995.

\section*{IMPACT OF NEW TRANSPORTATION FACILITIES}

There is no evidence that poor access has adversely affected development of the Northwest Corridor. To the contrary, this area of the region has sustained one of the highest growth rates in spite of having some of the poorest traffic conditions. Even without the retarding effect on growth imposed by the sewer moratorium, a worsening of congestion and accessibility might have restrained corridor development as well as imposing other constraints on mobility within the corridor. Once the sewer moratoriuin is iffted, construction of the Northwest Freeway and the Phase I Rapid Transit will only allow a level of service comparable to 1970 traffic conditions. This is due to a projected three-fold increase in corridor traffic between 1970 and 1995. In other words, these facilities will not create substantial incresses in corridor accessibility during the peak hours of the dey.

table I - CORRIDOR POPULATION GROWTH \& FORECASTS
\begin{tabular}{|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Year} & \multirow[t]{2}{*}{Historical Trends} & \multirow[t]{2}{*}{Impact of Sewer Moratorium} & \multicolumn{2}{|l|}{Forecasts Based On} \\
\hline & & & \begin{tabular}{l}
GDP \\
Growth Rates
\end{tabular} & MistoriNal
Growth
Rates \\
\hline 1960 & 7,200 & & & \\
\hline 1970 & 44,000 & & & \\
\hline 1974 & 5?,30 & & & \\
\hline 1975-1979 & & +10,400 & & \\
\hline 1979 & & 69,700 & & \\
\hline 1980 & & & 71,000 & 73,000 \\
\hline 1995 & & & 116,000 & 128,000 \\
\hline & & & & \\
\hline
\end{tabular}

TABLE II - CORRIDOR EMPLOYMENT GROWTH \& FORECASTS
\begin{tabular}{|c|c|c|}
\hline Year & \begin{tabular}{c} 
Historical \\
Trends
\end{tabular} & \begin{tabular}{c} 
GDP \\
Forecasts
\end{tabular} \\
\hline 1964 & 8,510 & \(\ldots\) \\
1970 & 14,500 & \\
1980 & & \\
1995 & & 16,600 \\
& & \\
\hline
\end{tabular}


\section*{ATTACHMENT 2}

\section*{Environmental Assessment Form}

The Environmental Assessment Form is a requirement of the Maryland Environmental Policy Act of July, 1974.

The following questions should be answered by placing a check in the appropriate column (s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

In answering the questions, the significant beneficial and adverse, short and long term effects of the proposed action, onsite and off-sitc during construction and operation should be considered.

All questions should be answered as if the agency is subject to the same requirements as a private person requesting a license or permit from the State or Federal Government.

Comments
A. Land Use Considerations
1. Will the action be within the 100 year flood plain?
2. Will the action require a permit for construction or alteration within the 50 year flood plain?
Yes No Attached
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?

11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?
12. Will the action affect the use of any natural or man-made features that are unique to the county, state or nation?
13. Will the action affect the use of an archaeological or historical site or structure?
B. Water Use Considerations
14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?
15. Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?
16. Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?.
17. Will the action require a permit for the drilling of a water well?
18. Will the action require a permit for water appropriation?
19. Will the action require a permit for the construction and operalion of facilities for treatment or distribution of water?
20. Will the project require a permit for the construction and operation of facilities for sewage treatment anchor land disposal of liquid waste derivatives?
21. Will the action result in any discharge into surface or subsurface water?
22. If so, will the discharge affect
22. ambient rater quality parameters and/or require a discharge permit?
C. Air Use Considerations
23. Will the action result in any discharge into the air?
24. If so, will the discharge affect

2 ambient air quality parameters or produce a disagreeable odor?

25. Will the action generate additional noise which differs in character or level from present conditions?
26. Will the action preclude future use of related air space?


\(\qquad\)

Will the action generate any radiological, electrical, magnetic, or light influences?

D. Plants and Animals
28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?

29. 'Will the action result in the significant reduction or loss of any fish or wildlife habitats?

30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?
E. Socio-Economic
31. Will the action result in a presemption or division of properties or impair their economic use?


3\%. Will the action cause relocation of activities, structure:; or result in a change in the populartion Jen!ijty or distribution?
33. Will the action alter land values?

31. Will the action affect traffic flow and volume?
35. Will the action affect the production, extroction, harvest or potential use of a scarce or economically important resource?
36. Will the action require a license to construct a sawmill or other. plant for the manufacture of forest products?
37. Is the action in accord with federal, state, regional and local comprehensive or functional plans-including zoning?
38. Will the action affect the employment opportunities for persons in the area?
39. Will the action affect the ability of the area to attract new sources of tax revenue?
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?
11. Will the action affect the ability of the area to isttract tourism?

\(\qquad\)
\(\qquad\)


-

14. Will the action be of statewide significance?
45. Are there any other plans or actions (federal, state, county or private) that, in conjunction with the subject action could result in a cumulative or synergistic impact on the public health, safety, welfare or environment?
16. Will the action require additional power generation or transmission capacity?
G. Conclusion
17. This agency will develop a complete environmental effects report on the proposed action.


An E.IS. Has Bean Prepared For This Actor,

- Policy Act.

\section*{ATTACHMENT NO. 3}

\section*{SUMMARY OF PUBLIC INFORMATION MEETINGS} HELD IN DECEMBER OF 1974
(21 PAGES)


Maryland Department
of Transportation

The Marytand Department of Transportation will hold public information meetings on the proposed Northwest Transportation Cortidor!'The meetings will bo held at:
Franklin Senior High School Cafeteria, 12000 Reisterstown Road, Reisterslown Monday, December 2, \(1974: \therefore: \cdots\) 7:00 p.m. to. 10:00 p.m.


PUBLIC INFORMATION MEETING ON THE NORTHWEST TRANSPORTATION CORRIDOR

Sudbrook Junior High School Cateteria, Bedford Road and Alter Street Thursday, December 5, 7974 7:00 p.m. to.10:00 p.m.

The meetings are being held to advise citizens of progress on the issues brought up at the Corridor Public Hearings of Aprit, 1973. At the April, 1973. hearings, the Department of Transportation presented four alterrative plans for the Northwest Corridor, two dealing with the proposed expressway/rapid transit project, a third, the widening of Reisterstown, Road and a fourth, "do nothing" alternative.

Questions on several major issues were raised at the hearings including the Gwynn's Falls Flood Plaln, the expressway interchange and rapid transit station at Mc. Donogh Road and the expressway interchange at Reisterstown Road (U.S. Route 140 and Maryland Route 30.) Subsequent to the hearing: Sudbrook Park was placed on the National Register of Historic Places, requir-: ing a major re-study of possible alignments and/or possible alternatives inside the Beltway. Also. the Federal Highway Administration has since issued Policy and Procedures Memorandum \(\# 9 C-7\). setting new air quality standards which require the Department to perform additional air quality monitoring' and to. prepare a new air quality sludy.

Department representatives will be available al each meeting from 7:00 p.m. to 10:00 p.m. 10 answer questions and inquiries relative to the Northwest Transportation Corridor and the studies: since the Corridor public hearings. These will be informal meetings. Interested persons may stop in at any time between 7:00 p.m. and 10:00 p.m. either evening and receive personat attention io specilic questions. It is emphasized that the meeting is not for formal: public testimony, but rather to inform individuals or representatives of organi-zations on the status of studies performed by the Department of Transportation since the Northwest Corridor hearings.

For further information, contacl Raymond V. Bartlett, Office of the Secrelary, Maryland Department of Transportation, 768-9520, extension 250.

Harry ․ Hughes
Secretary of Transportation

Dale November 8, 1974
Order.No. E-2656

\section*{MEMORANDUM}


Attached is the original and one onionskin copy of the Public Notice on the subject project. The approved notice was forwarded to us by Raymond V. Bartlett, Department of Transportation. It is requested that the notice appear in the following papers:

Lialumore News American
November 12 and 26
(To the published as display advertisement).
Afro American (Balumore) November 12 and 26
Jeffersonian November 14 and 21
Northwest Star November 14 and 21
Commenter Times . Noveriber 14 and 2.1
Carroll County Times . November 23 and 25
The ads should be charged to Contract iso. 3-693-20-471; F.A.P. No. F-910-1 (6) .

Please send this office two (2) copies of the confirmed publication plus cost for our files.

ON THE

\section*{NORTHWEST TRANSPORTATION CORRIDOR}

The Maryland Department of Transportation will ind public information meetings on the proposed Northwest Transportation Corridor. The meetings will be held at:

Franklin Senior liligh School Cafeteria, 12000 Relsterstown Road, Relsterstown Monday, December 2, 1974 7:00 p.m. to 10:00 pom.

Sudbrook Junior High School Cafeteria, Bedford Road and Alter Street
Thursday, December 5, 1974
7:00 p.m. to 10:00 p.m.
The meetings are being held ate advise citizens of progress on the issues brought up at the Corridor Public Hearings of April, 1973. At the April, 1373, hearings, the Department of Transportation presented four alternative plans for the Northwest Corridor, two dealing with the proposed exprensway/rapld transit project, a third, the widening of Relsterstown Road and a fourth, "do nothing" alternative.

Questions on several major issues were raised at the hearings Including the Gwen's lolls Flood Plain, the expressway interchange and rapid transit station at Mc Donogh Road and the expressway interchange at Relsterstown Road (U.S. Route 140 and Maryland Route 30). Subsequent to the hearing, Sudbrook Park wis placed on the National Register of Historic Places, requiring a major restudy of possible alignments and/or possible alternatives Inside the Beltway. Also, the Federal Highway Administration has since issued Policy and Procedures Memorandum \#90-7, setting new air quality standards which require the Department to perform additional air quality monitoring and to prepare a new air quality study.

Department representatives will be available at each meeting from 7:00 p.m. to 10:00 p.m. to answer questions and inquiries relative to the Northwest Transportation Corridor and the studies since the Corridor public hearings. These will be Informal meetings. Interested persons may stop In at any time between 7:00 p.m. and 10:00 pm. elther evening and receive personal attention to specific questions. It is emphasized that the meeting is not for formal public testimony, but rather to inform individuals or representatives of organizations on the status of studies performed by the Department of Transportation since the Northwest Corridor hearings.

For further information, contact Raymond V. Bartlett, Office of the Secretary, Maryland Department of Transportation, 768-9520, extension 250 .

WTTR AM \& FM
P. 0. Box 828

Westminster, Maryland 21157
Atten: Dick Story
Dear SIr:
Please broadcast the enclosed Publlc Notlce with your Clulc affalrs announcements.

Thank you for your cooperation.
Very truly yours,

> Albert C. Oster
> Planning Support Section offlce of Planning and Prellminary Engineerling Phone: \(383-4283\)

WBAL
Community Notes
3300 Hopper Avenue
Bultimore, Maryliand 21211
WCi3M
Town Crier
Su Rondio Pluza
Owings Mills, Maryland 21117 Atten: Mrs. Ethel Nolan
WFITR
13 East 20th Slroet
Boltinume Calendar
[3ll imore, Marylund 2.1218
Atlen: Mary Liberio
WAYF:
Centhouse sutton rime Bult inores, Maryland 21201

WMA:P-TV
Public Service items
Box. 5
Baltimore, Maryland 21203

NCAO
40 West Chas: stropl
[OR PUBLIC ANNOUNCLMLNT IY LOC:AI, RADIO MNI I I.V SUTATIONS

Notice is liereby given that the Maryland Department of Iransportation will hold public informalion meetings, with respect to the proposed "Northwest Transportation Corridor":

The first meeting will be conducted in the cafeteria of Frantilin Senior High School on Monday, December 2, 197.4.

The second inecting will be conducted in the cafeteria of Sudbrook Junior High School on Thursday, December 5, 1974.

Interested persons may stop in at any time between 7:00 p.m. and 10:00 p.m.
Department representatives will be avallable at each nueting to answer =- questions and inquiries relative to the studies developed since the \(\Lambda\) pril. 1973, public hearings.

MEMORANDUM

TO:

Harry R. Hughes
Bernard M. Evans
Northan B. Fricse
Hugh G. Downs
Robert J. Hajzyk
Allen W. Tate
Lrvin C. Hughes
Jerry L. White
William F. Lins, Jr. Eugene T. Camponeschi Calvin W. Recse

Harry J. Pistel
Thomas S. Champness
James \(\Lambda\). Hester
Andrew Schwalier
Michael Debernard
Colin Lewis
Sylvia Schechter
Louis R. Rainone
Gus Noack
Dave Clawson
Walter J. Addison

Phillip R. Miller
Albert C. Oster
Frederick Gottemoeller
David Herring
Buzz Bartlett
Frank Hoppe
Mike West
Gunther Gottfeld

FROM: G. Elmore Evans
Director of Community Relations
DATE: November 14, 1974
SUBJECT: Northwest Transportation Corridor

In accordance with the Northwest Transportation Corfidor Public Hearing Program, the attached letter was mailed on November 13 th to 2.03 individuals. The mailing list is on file in the Community Relations Department of the MTA and generally breaks down as the following:

Baltimore City Exccutivés and Councilmen-22
Baltimore County Councilmen, Executives and Officials - 39
State Department Heads and Executives - 51
Civic Associations and Indivicluals - 91
If you have any questions call me at 539-ن́281, ext. 248.

\title{
Maryland Department of Transportation
}

Moveminer 13, 10;1
year Vortherest Corridor Resident:
During the past year and a half since the Anvil, 1073, public hearings on the reposed Northwest Transportation Corridor, the Department of Transportation has been forking on major issues raised at those hearings. ."e have scheduled two public information etinas to advise you of progress on those issues. The meetings will be held at Franklin , ion !'inch School, in the cafeteria, 12000 ?eisterstown no ad, "ondav, December ?, 1974, and Sudhronk Junior High School cafeteria, Redford nad and Alter Street, Thurstav, December 5, n74. Rot il meetings will run from \(7: 00 \mathrm{p} . \mathrm{m}\). to 10 :no n .

At the April, 1973, hearings, the Department of Transportation presented four 1 ternative plans for the Northwest Corridor, two dealing with the proposed expresswaypaid transit project, the third for the widening of neisterstown Board, and a fourth, "do rothing" alternative. As you inlay rural, major issues were raised, concerning the fivynns -all flood plain, the exorssway in a expressway interchange :! lopimstu:n Road (II.S. 1 an and Md. an) and others. Subsequent. bo the 1073 hearings, Sudbront Fart :as placed on the National Denister of Historic Places, consequently requiring a major re-utudy of possible alignments and/or alternatives inside e Beltway. Miso, the Federal Highway Administration has since set now air quality standards _ och require the !epartment to perform additional air quality monitoring and to prepare a ַِw air quality study.

Representatives of the liaryland Department of Transportation will be available
 to the !!northwest Transportation Corridor and the studies since the Corridor public hearings. ese will be informal meetings. You may stop in at any time between 7:0n pom. and 10: \(00 \mathrm{p} . \mathrm{m}\). bother evening and receive personal attention to your specific questions. I emphasize that this meeting is not for formal public testimony, but rather to inform vol on the status of is wort performed by the Department of Transportation since the Northwest Corridor hearings.

If yo: have any further questions, please contact Mr. F. Fillmore Fans, Mass sit. Administration, !laryland Department of Tramsontation, 53n-6281, extension \&4.9.


\section*{Format}
1. Robot Slide Presentation with Taped Speech
2. Set up Groups to Answer Individual Questions *
a. General Questions (Relocation Assistance, Gwynns Falls Floodplain, Scheduling, etc.)
G. Gottfeld - MTA (Group Leader)

Frederick Gottemoeller - DSPD
L. Age - SHA

Relocation Assistance from SHA
b. Inside the Beltway
W.F. Lis - SHA (Group Leader)
G. Noach - RKK
L. Rainone - MTA
c. Beltway to Dolfield Road
T. van Brieson (Group Leader)
P. Miller - SHA
D. Clawson - RKK
d. Dolfield Road to U.S. 140 and Md. 30
D. Herring - DSPD (Group Leader)
H. Downs - SHA
B. Wilkinson - RKK
3. Meeting Coordination
B. Bartlett - DPA
E. Evans - MTA
A. Oster - SHA
4. Support

Personnel from SHA \& MTA to prepare meeting, set up displays, direct public to proper group, etc.
5. Back up Group
H. Pistol - SHA
R. Hajzyk - SHA
F. Hopple - MTA

The purpose of the backup group is to fill in if someone in the other groups is absent and to help out if any of the groups need additional personnel to aid in the answering of public inquiries.
* Displays would be set up by each group in separate locations.

DEPARTMENT OF TRANSPORTATION MAPYLAND
ro: File

FROM:


Date: January 14, 1975
subsect: Northwest Transportation Corridor Public Information Meetings (December 2 and 6, 1974)

The meetings were held from 7:00 p.m., to \(10: 00 \mathrm{p} . \mathrm{m}\). on December 2, 1974 at Franklin Senior High School and December 6, 1974 at Sudbrook Junior High School.

The meeting format was four (4) informal groups which answered questions on án individual bäsis. Baltimore County also had representatives at the meetings to answer questions on the project which related to County planning and zoning.

Approximately 60 persons attended the December 2 meeting with most interest in the McDonogh Road alternatives. Approximately 100 persons attended the December 6 meeting with most interest in the alternatives for inside the Beltway.

I have the following comments on the section of the proposed Northwest Expressway from Dolfield Road to Reisterstown Road:

There were few questions on this section especially at the December 6 meeting.

Most of the inquiries were related to the location of property to the proposed alternatives.

Several area businessmen wanted to know if the project could be accelerated.

Several persons received information on right-of-way acquisition and relocation assistance.

There were a few adverse comments on this section of the proposed Northwest Expressway. The interchange developed since the Public Hearing received favorable comments cxcept for the developer of the proposed Franklin Mall.

Also, attached to tifis report are comments on other sections of the Northwest Expressway by various consultant, MTA, and SHA personnel.

DH: si
Attacliment

1035 N. CALVERT ST • BALTIMORE. MD. 2120? • 301-685-3105

December 19, 1974

Mr. Fred Gottemoeller
Division of Systems Planning \& Development
Maryland Department of Transportation
P. O. Box 8755

Baltimore-Washington International Airport. Baltimore, Maryland 21240

\author{
Reference: Northwest Transportation Corridor Baltimore City to Reisterstown Public Information Meetings
}

WIlLIAM R, KAMI
AUGUST W. NOACK, JR. EMIL KOROISK BURTON N. COX. JR R. M. REINOOLLAR. JR. C. ROBERT VARNDELL

RALPH C. MARQUIS CHARLES G. CLARKE ALBERT L. DEN. JR. JOHN L. BELL
w. S. WILKINSON

EOWAROI. Z\&IGLER HARRY F. SCHMALC. JR., C.P.A. DONALD W. CLEM H. LEROY VIHIYELEY. JR. ERIC K. WEBER
C. ROBERTSEIT?

EVERETT C. C. MOORE

Dear Fred:

As requested by Mr. David Herring, I am enclosing copies of memoranda from those in our office who participated in the Northwest Transportation Corridor Public Information Meetings on December 2 \& 5, 1974.

Very truly yours,
ROMMEL, KLEPPER \& KAHL


AWN, JR./blm
Encl.
cc: Mr. William F. Lis
Mr. Louis Rainone

Franklin Scnior High School
December 2, 1974

Reference: Northwest Transportation Corridor
Baltimore City to Reisterstown

The most asked question by the individuals from the Ner Israel College was the need for a rapid transit station at McDonogh Road. Others commented that the Baltimore County Guide Flan shows the McDonogh Road area as green and the rapid transit station would be in violation of proposed land use. A few persons were interested in how the adiitional studies were different from the public hearing alternates. One comment overheard was that the project has not progressed since there is still no recommended alternate.

A few persons were interested in the differences between Alternates 2 A and 2 B . One lady expressed opposition to any Alternate 2 alignments because they would be too close to her house.

A few persons wanted to know how soon the project would be under construction.

BY:
David L. Clawson
DLC/blm
cc: AWN,JR.
DLC WSW

Sudbrook Junior High School
December 5, 1974
Reference: Northwest Transportation Corridor
Baltimn=c City to Reisterstown
Detailed Drainage Discussions with two individuals -
Reporter for Randallstown Times
\[
\begin{aligned}
\text { Gary D. Caplan }- & \text { Administration AsEistant - } \\
& \text { Greater Communiry Council and } \\
& \text { President of the } \because=\text { Serleigh } \\
& \text { Development Asso }=\text { tion }
\end{aligned}
\]

Described in detail the system of retai-ing runoff from the NWX and releasing it the rate of 2 year storm before :onstruction. This would control the runoff from the many minor storms jut would not control major storms that now flood Silver Creek and \(\because a\). Nova. Baltimore County has also adopted a similar policy for controli=z runoff from all new development. Mr. Caplan was aware that these Zaeasures were designed to protect the stream from sedimentation \(2=\) Erosion and were of no value for the protection of lives and property \(i=\) ine downstream flood plain. Mr. Caplan also stated that they would \(\vdots=\) opposed to the highway until some reasonable measures of relief weze provided to those afflicted by flood flows.

I explained that the County had made \(E\) study of Gwynns Falls to see if measures would be developed to cont=ol flood flows. Mr. Caplan was also aware of this study and he sこied that no real control measures were proposed in this report.

BY:
William S. iflkinson
WSW/blm
cc: AWN,JR.
WSW
DLC

RUMMEL. KLEPPER \& FAAHL G::Ilnng engineers

\title{
Franklin Scnior High School \& Sudbrook Junior High School
}

December \(2 \& 5,1974\)

Reference: Northwest Transportation Corridor
Dolfield Road to Md. Route 140

The Northwest Expressway in this sector is not as controversial as its southern brother and as such did not have many citizens viewing the display panels. To my knowledge there weren't any adverse comments on the Public Hearing Plan or the Alternate Plan in the Reisterstown Area. Basic comments were approval of the Alternate 6 Plan for its less aggressive property talings and cost savings. The over riding comment was "when are you going to stop talking and start building'.

BY:
Donald C. Leverton
DCL/blm
cc: AWN,JR.
DCL
DLC
WSW

\section*{PUBLIC INFORMATION MEETING}

Sudbrook Junior High School
December 5, 1974

Reference: Northwest Transportation Corridor Baltimore City to Reisterstown

The same question was asked consistently by individuals from the Ner Israel College concerning the need for a rapid transit station at McDonogh Road. A few persons questioned whey the enlarged rapid transit station was proposed at Owings Mills within the future Sector Center site thus requiring use of very expensive land now zoned for commercial use. A man and wife inquired how Alternate 3 would affect their property on Reisterstown Road, how would they be compensated for property needed from them, what are the chances of Alternate 3 being selected and how soon will it be constructed.

BY: \(\qquad\)
David L. Clawson
DLC/blm
cc: AWN,JR. DLC WSW

Franklin Senior High School \& Sudbrook Junior High School
Decernber 28:5, 1974
\begin{tabular}{ll} 
Reference: & Noitiwest Transportation Corridor \\
& Baltimore City to the Beltway
\end{tabular}

There was a good deal of opposition expressed to the construction of any highway inside the Baltimore Beltway. This included opposition to an extension of Wabash Avenue from Patterson Avenue to Milford Mill Road.

Most people did seem to favor transit within this section, although the rapid transit station sites were still a point of controversy. Improvement to Milford Mill Road west of the station site would be inevitable according to many citizens, and the damage to properties resulting from this would be extreme. The station site at Old Court Road was less controversial but some still questioned access.

There was little, if any, support for the alternative alignment which avoided Sudbrook Park or for the alignment adjacent to the Western Maryland Railway.

The subject of flooding of Gwynns Falls was an issue again, although people seemed more resigned to the fact that the transportation project was not a major contributing factor. Some were rather pleased with the thought of retention ponds to control the running off from the project.

There was concern expressed on the effect on air quality by the construction of the project, and I would imagine this would remain the controversial issue.

The treatment of noise from the project seemed to be adequately explained to those who questioned this issue.

The subject of the traffic impact on Wabash Avenue inside the City from the Northwest Expressway was not raised.

As far as the entire length of project is concerned, the major opposition seemed to come from the "McDonogh Coalition" and their objection to any rapid transit station planned at McDonogh Road.

RUMMEL•KLEPPER \& KAHL consulting engineers

There was also some objection to the Dolfield Road plan, primarily on the basis of cost.

It was somewhat difficult to explain that these alternafives proposed were not necessarily equal in all respects, but some had features which would be advantageous in one case but not in another.

All in all, I think the Public Information Meetings went well. Most people appreciated being brought up to date, although some objected to the lack of significant progress.
\[
\frac{A 1, Y /,}{\text { A. W. Nock, Jr: }}
\]

AWN, JR. /bIm

To: Mr. Frederick Gottemoeller Div. of Systems Planning Md. Dept. of Transportation

From: William F. Line, Jr., Chief Bureau of Highway Design
subject: Northwest Transportation Corridor
atc December 10, 1974 Public Meetings of Dec. 2 and 5, 1974

The following is a list of questions which were most often asked at the Public Meetings by the persons with whom I discussed the various studies:
1. Why build anything? Leave us alone.
2. Can Rapid Transit be built without the highway?
3. Can highway be built without Rapid Transit?
4. Are we going to build inside the Beltway?
5. If not building inside the Beltway, why extend Wabash Avenue?
6. When can we get a chance to comment on the alignments?
7. When will the E.I.S. be completed?
8. Who decides what alignment will be selected, and when?
9. How will each alignment affect me and my property?
10. Has the Historical Trust approved any tunnel scheme yet?
11. When will it be under construction?
12. What line are we going to recommend?

WFL: rs


TO: Gunti.ar M. Gottfeld

FROM: Louis R. Rainone
DATE: \(\quad\) December 19, \(1974^{\circ}\)
SUBJECT: Northwest Transportation Corridor Public Information Meetings - December, 1974 Issue Highlights
1. Re: to "Additional Studies" Alternative with Rapid Transit. Station south of Dolefield Road and Northwest of highway Interchange

McDonogh Coalition charged that Rapid Transit Station was in conflict with Town Center Concept and was choosing more expensive industrial zoned land and avoiding a site north of Dolefield Road that was less expensive and not zoned industrial and better serving the Town Center Concept.
2. The "John Funk" plan presented at the Public Hearings was charged without good reason at Dolefield Road.
3. We were misrepresenting the project at Milford Mill Road by not showing any necessary improvement to Milford Mill Road west of the Northwest Expressway. Milford Mill Road will need widening in order for the Northwest Transportation Corridor project to function and we were not sharing the implication.
3. (Marsha Caplan) Even though " \(90 \%\) of the people" at the Public Hearing were against the road, we were still going ahead with it. We did not show an alternative with rapid iransit only, with no new Northwest Expressway. The no-build plan did not show a transit project.

LRR/mte

\author{
MEMORANDUM
}

TO: Gunther M. Gottfeld
FROM: Ted von Briesen
DATE: December 19, 1974
SUBJECT: Northwest Transportation Corridor Public Information Meetings - December, 1974

During the NWTC Public Information review meetings, there were few new major points raised by those in attendance relating to the project between Mt. Wilson Lane and Pleasant Hill Road:
1. The Ner Israel Rabinical College students and faculty wanted to support the higher priced spread (Alternate 2B) of a Dolefield Interchange and Painters Mill Road Station. They saw the merits in this plan of traffic separation; an interchange with Reisterstown Road; as well as no McDonogh Station or interchange. However, they were greatly disturbed that the higher price tag would lead to its rejection. It was explained that many factors would enter the decision process and cost alone could not rule out any alternative.
2. The tone of the citizen opposition to McDonogh interchange and station has mellowed. Now, instead of arguing against the merits (or lack thereof) in the P.H. plan, they call it "stupid."
3. I think it is significant that so.far, no one has raised the question "could you build a McDonogh Station in the future?" The closest anyone came is to assure themselves we would have to have Baltimore County Council action on a McDonogh Station proposal.
4. Several McDonogh school officials sounded "resigned" to losing their water supply because of the project.
5. No one verbally supported the local McDonogh Station alternative, Alignment \#1, nor 2A with the Painters Mill Road Interchange.

\section*{MEMORANDUM}

FROM:
Gunther Gottfeld
Frank Hopper

DATE: December 20, 1974
During the public information meetings of December 2 and 5, the following comments are my observations:

\section*{NORTHWEST CORRIDOR}
1. Outside the Beltway

The majority of the citizens who attended preferred no McDonogh Road Station. These people consisted mainly of homeowners or property owners of Berkshire Hills and members of the Rabbinical College. There were a few citizens from further on out Reisterstown Road who expressed approval of a McDonogh Road Station.
2. Inside the Beltway

The majority of the people I talked with expressed the opinion that transit inside the Beltway was desired, but a no-build sentiment was expressed toward the highway, even to the extension from Patterson Avenue to Milford Mill Road.

FH/vhb```


[^0]:    * No adjustment for pavement elevations, surface types, grades or barriers.

[^1]:    -Actual NMHC and $\mathrm{NO}_{2}$ concentrations were not modeled.

[^2]:    "Reduction in Automobile Use Due to Transit Scrvice Improvements in the Northwest Transportation Corridor," Naryland Mass Transit Administration, January 8, 1976.
    2
    ibid

[^3]:    4 ibid

[^4]:    1 The SHPO determined subsequent to this memorandum that Foxleigh is not eligible for the National Register.

[^5]:    

[^6]:    Applicant - 4 copies
    Referral Coordinator - 1 copy
    State Clearinghouse - 1 copy

[^7]:    Tyler bastian
    Divisjion ot Areneology
    Harylant Geolopical survey itracin 1.973

