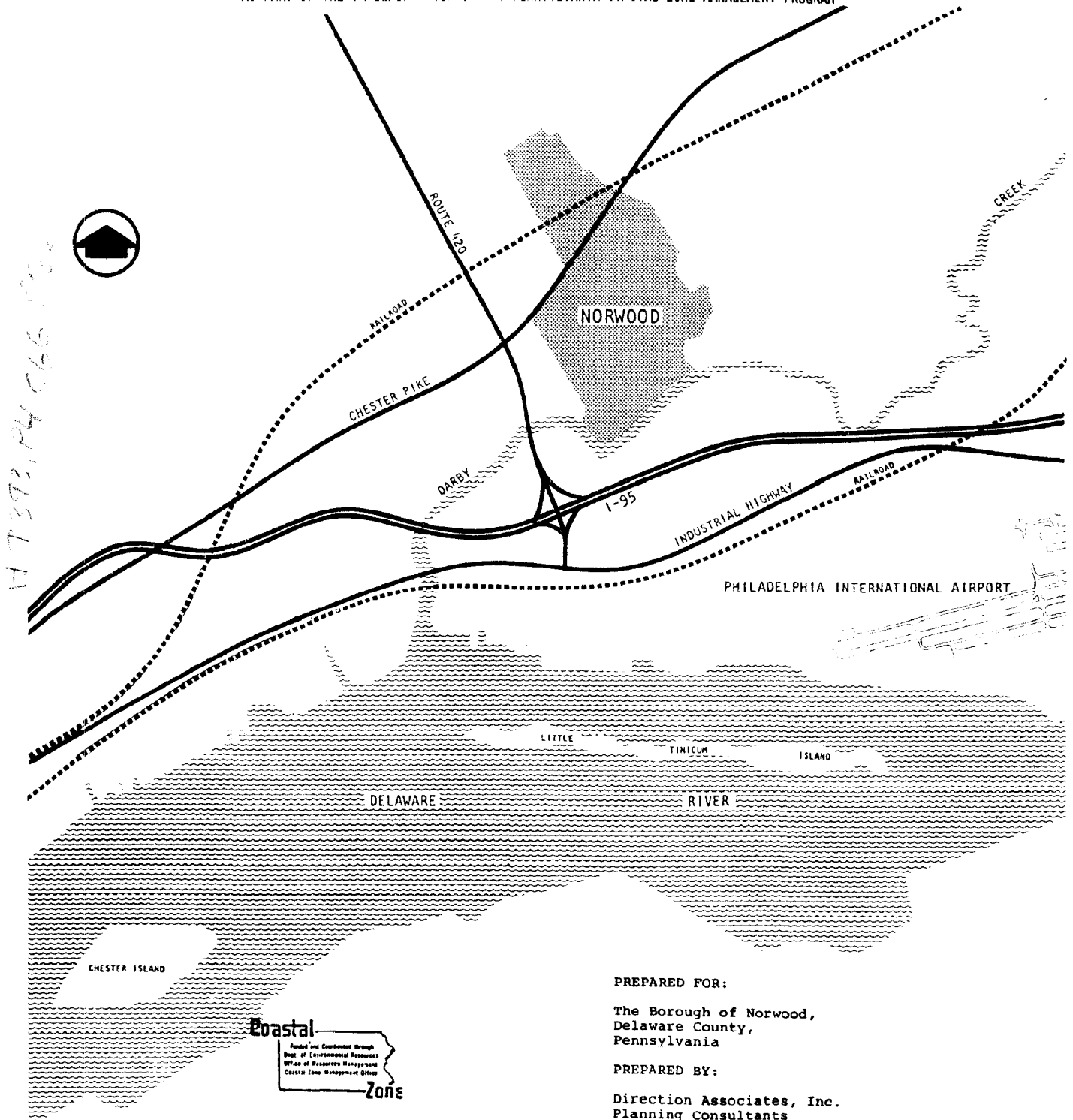

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COMPREHENSIVE PLAN

AS PART OF THE IMPLEMENTATION OF THE PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM



PREPARED FOR:

The Borough of Norwood,
Delaware County,
Pennsylvania

PREPARED BY:

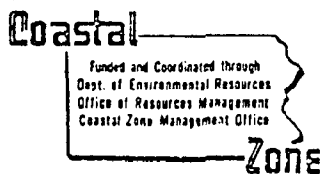
Direction Associates, Inc.
Planning Consultants

BOROUGH OF NORWOOD

COMPREHENSIVE PLAN
FOR THE BOROUGH OF NORWOOD

As Part of the Implementation of The
PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM

NOVEMBER, 1982



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Charleston, SC 29405-2413

NOVEMBER, 1982

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BOROUGH OF NORWOOD

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Borough Council

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TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1.0
GOALS AND OBJECTIVES	2.0
HISTORICAL DEVELOPMENT	3.0
- Brief History	3.1
- The Regional Setting	3.3
- Possible Effects on the Borough of Norwood by Regional/County Plans:	3.6
- Philadelphia International Airport	3.6
- Blue Route (I-476)	3.11
- Delaware Expressway (I-95)	3.17
- Year 2000 Plan for the Delaware Valley	3.19
- Tinicum National Environmental Center	3.20
NATURAL FEATURES:	4.0
- Soils	4.1
- Drainage Patterns and Localized Problems	4.5
- Flood Plain Areas	4.6
- Water Resources	4.8
- Sanitary Sewer	4.9
- Wetlands	4.10
- Topography	4.13

Table of Contents

	<u>Page</u>
POPULATION ANALYSIS	5.0
EXISTING LAND USE	6.0
HOUSING CHARACTERISTICS	7.0
COMMUNITY FACILITIES AND SERVICES	8.0
TRANSPORTATION:	9.0
- Local Road Network	9.1
- Availability of Mass Transit	9.3
EMPLOYMENT	10.0
PROPOSED LAND USE PLAN AND OTHER RECOMMENDATIONS	11.0
BASE MAP	12.1
TABLE OF MAPS	iii
TABLE OF CHARTS	iv
ATTACHMENT TO ZONING ORDINANCE: ANALYSIS AND PROPOSALS	

TABLE OF MAPS

<u>Map Number</u>		<u>Page</u>
1	Aerial	1.3
2	Locality Map	3.5
3	Airport Noise Impacts - 1980	3.8
4	Airport Noise Impacts - 1990	3.9
5	Airport Noise Impacts - 2000	3.10
6	Blue Route - Simplified Map	3.14
7	Location of the Blue Route and I-95	3.18
8	Future Conditions Map	4.12
9	U.S.G.S.	4.14
10	Existing Land Use map	6.4
11	Community Facilities Map	8.5
12	Traffic Circulation Map	9.2
13	Mass Transit Map	9.4
14	Proposed Land Use map	11.4

TABLE OF CHARTS

<u>Chart Number</u>	<u>Page</u>
1. Blue Route Construction Schedule:	3.13
2. Local Usage of Proposed Expressway:	3.15
3. Short Distance Commuting on Proposed Expressway:	3.16
4. Population Breakdown by Age and Sex: -1980	5.2
5. Change in Number of Households: 1970-1980	5.3
6. Change in the Number of Persons Per Household: 1970-1980	5.4
7. Percentage Breakdown of Population by Marital Status: 1970-1980	5.5
8. Age and Sex Distribution: 1970-1980	5.6
9. Comparison of Single-Family Detached Housing: 1970-1980	7.2
10. Average Number of Persons Per Unit: 1970-1980	7.3
11. Average Size of Housing Unit: 1970-1980	7.3
12. Percentage Breakdown of Housing by Occupant Type:	7.5

INTRODUCTION

NEED FOR A PLAN

Webster's International Dictionary defines the word "plan" as "a proposed method of action." By nature, most individuals plan their activities to one degree or another to insure their continued existence. For most businesses and other organizations, planning for the future is vital to their continued viability. Yet, many modern American communities have allowed their futures to be determined not through a rational planning process but, rather, through the vagaries of market conditions and political processes.

Over the course of history, some of the most successful urban communities have been those which resulted through conscious planning, London, Rome, Paris, Center City Philadelphia, and Savannah, Georgia, were all planned to some extent. These places, because they are vital, ordered, and diversified places to live have all survived hundreds of years of changing conditions and cultures, and remain relatively successful even today.

Eddystone, Folcroft, and Norwood are obviously not places of this magnitude, nor should they hope to be. However, planning is still extremely important to these communities and their futures. While there are examples of places which have thrived without planning, the conditions of the 20th Century have made these accidental successes all but impossible to achieve.

Modern urban communities are highly complex structures. Numerous support systems exist, and interrelationships among these systems are extensive. A change in land use, for example, has potential impacts on the transportation network, sewer and water facilities, schools, parks, and public services such as police and fire protection. These interactions occur not only within a community but between communities in a region, and even between regions of the country.

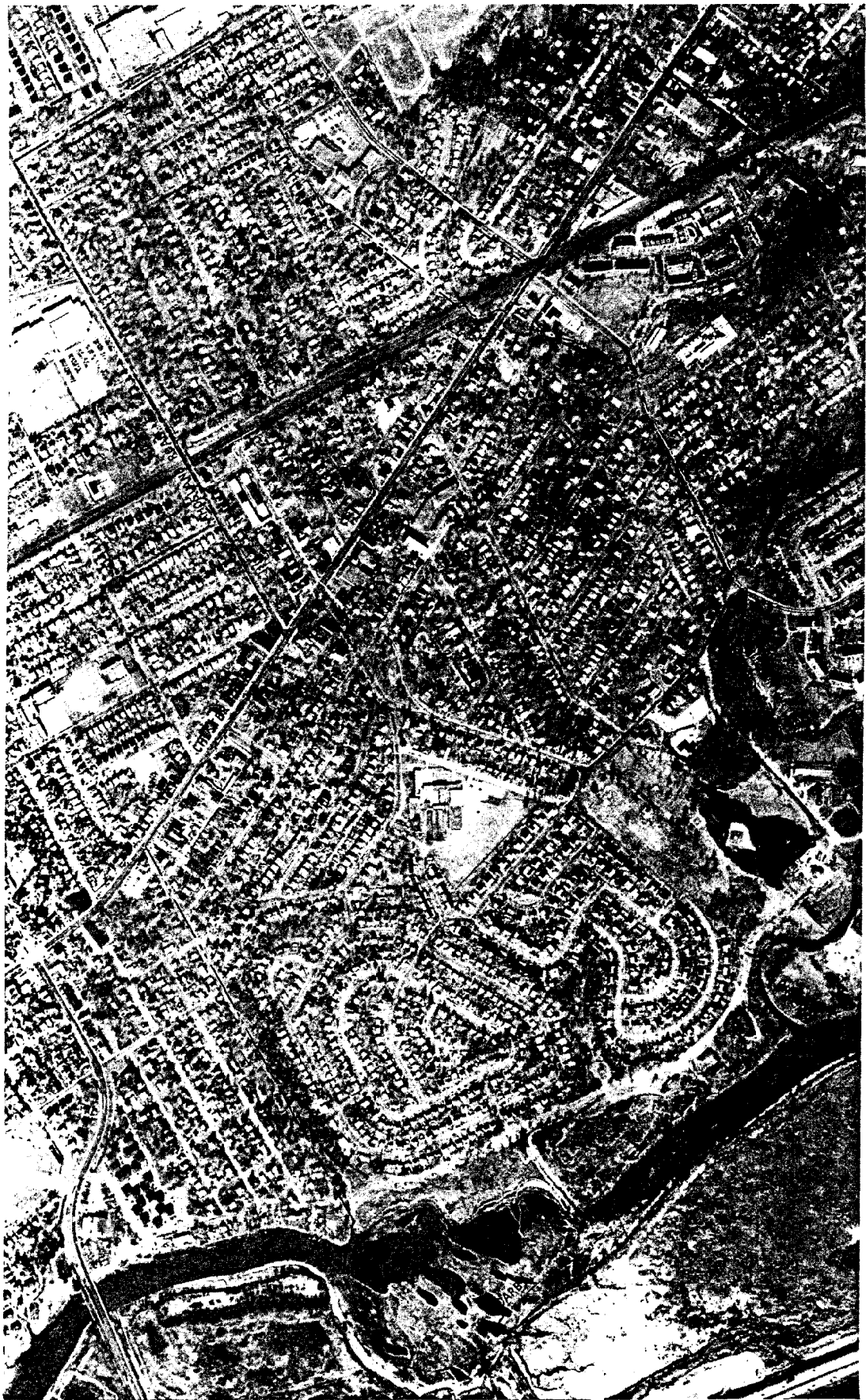
One ironic aspect of modern urban America is that, although the series of interrelationships between communities exists, the governmental structure is such that, in most cases, each separate community acts independently. An action by one community may have an impact on another, with the

impacted community having little or no input into this action. To protect its citizens against decisions over which they have little or no control, it is important that each community, to the extent possible, provide a diverse environment where its residents cannot only live, but enjoy opportunities to work, shop and play.

A Comprehensive Plan has the potential to produce a diversified community structure by setting up goals, objectives, and guidelines for future decision making in the community based on a series of studies to determine community strengths and weaknesses. Unfortunately, until this point in time, the Boroughs of Eddystone, Folcroft and Norwood have not had a plan on which to base their futures.

By allowing growth to be controlled by market forces and zoning ordinances not based on a Comprehensive Plan for rational decision making, these communities have not developed a healthy diversity of land uses necessary to their vitality. For example, Eddystone has become highly dependent on manufacturing as its dominant land use; while manufacturing industries in the northeast have experienced many problems over the past twenty years. Folcroft and Norwood, on the other hand, are dominated by residential uses, which historically have experienced difficulties generating revenues to cover the costs of services needed for residential quality.

Eddystone, Folcroft and Norwood are already highly developed communities; and it may seem that a Comprehensive Plan is not necessary. However, urban areas are continuously evolving and changing. Every individual action has some impact on the character of these areas. A Comprehensive Plan which establishes a framework for these changes is necessary to insure that these impacts are not negative but, rather, positive steps into the future.



Map Number 1
Aerial
BOROUGH OF NORWOOD

GOALS AND OBJECTIVES

GENERAL GOALS

It is the aim of every government, borough, township, city, or state, to insure the quality of life within its environs. Among the many elements which measure the quality of life for citizens are a secure job, decent housing, convenient and safe recreation, adequate and efficient community facilities and services, and an environment which is relatively pollution free. In light of these basic goals, it is the general goal of the Borough of Norwood to:

- Stabilize, improve, and/or expand the tax base.
- Plan for improvements which will be required by the community within the next ten years.
- Retain the current population.
- Preserve the housing stock.
- Preserve and enhance recreation areas.
- Provide adequate, efficient, and economic community facilities and services.

SPECIFIC GOALS - NATURAL ENVIRONMENT

- Protection and development of the coastal zone.
- Preservation of the waterways, in particular Ridley Creek and Muckinipates Creek.
- Preservation and protection of the Tinicum Marsh.
- Maintenance of open space, such as parks and green areas.

SPECIFIC GOALS - POPULATION

- Maintenance of the current population.

SPECIFIC GOALS - LAND USE

- Preparation of a good and usable base map.
- Establishment of an "Historical Zone" to include the Morton Mortonson Home next to the Darby and Muckinipates Creeks.
- Establishment of a "Recreation Zone" to include existing parklands and the landfill area adjacent to Darby Creek from the Morton Mortonson Historical property to the Prospect Park border.
- Development of a light industrial park at the site of the phased-out Muckinipates Sewer Authority land with easement for a strip park along the Muckinipates.
- Promote the southern portion of the Borough which borders Darby Creek for inclusion in the Tinicum National Environmental Center. While a problem of access to this land from other sections of the park does present a problem, this land, because of its unsuitability for development and environmental importance to Darby Creek and the remainder of the Environmental Center, should be included as part of the preserve.

SPECIFIC GOALS - HOUSING

- Maintenance of the Borough's existing housing stock.

SPECIFIC GOALS - COMMUNITY FACILITIES

- Replace and upgrade traffic signalization, in particular at Chester Pike and Winona Avenue.
- Improvement to playgrounds, in particular at Winona Avenue in the Lower Park and on Harrison Avenue adjacent to the Amtrack Railroad.
- Maintenance of the local highway transportation system.

SPECIFIC GOALS - JOBS

- Maintenance of the current skilled, semi-skilled and unskilled work force.
- Encouragement of light industry, such as office use, to locate within the community, in particular on the Muckinipates Sewer Authority site.
- Use of various Federal and State programs, such as Urban Development Action Grant (UDAG), to attract new business to both the Central Business District and the Muckinipates site.

HISTORICAL DEVELOPMENT

BRIEF HISTORY

When incorporated as a Borough from Ridley Township in 1893, Norwood had been in existence as a community for 20 years. In 1873, John Cochran purchased farmlands, laid out streets, and offered lots for sale. This Cochran Tract consisted of three parcels of farmland fronting Chester Pike and Amosland Roads, were held under three large oak trees, one of which still exists on the corner of Seneca Avenue and Amosland Road. Additions were made to this original tract, and when Norwood was incorporated, it consisted of .81 of a square mile, as does present day Borough.

Norwood takes its name from a novel titled, "Norwood or Village Life in New England" by Henry Ward Beecher, which was widely read at the time.

In order to advertise the new town and attract potential purchasers, the Norwood Hotel was constructed by Cochran in 1873. For many years the hotel was a successful resort. During the Philadelphia Centennial of 1876, it served many foreign visitors as a first class country hotel with easy access by rail to the Centennial. The hotel was destroyed by fire in 1905.

The first buildings in Norwood were the farm houses of the Gesner and Bonaffon Farms on the original Cochran tract on Winona Avenue. These farms have since become sites for residential development.

The first store in Norwood was a country store patronized by farmers and located on what is now 294 East Winona Avenue. The present Parkinson Store was opened as the first meat store in Norwood in 1890.

The first school in Norwood was the Old Ridley Township School, now a used car lot located on Chester Pike above Summit Avenue. The school was built in 1877 and enlarged in 1890.

The first church in Norwood was Norwood Methodist, established in 1888. It was moved from its original location at

the corner of Mohawk Avenue and Cleveland Avenue to its present location on Chester Pike. The new modern stone structure was subsequently added.

The Norwood Fire Company, although in a new building, has been at its site on Winona Avenue since 1901.

Another structure with historical significance is the Morton Mortonson House, which was built by Morton Mortonson prior to 1680. It was inhabited until 1950 when it fell into such disrepair that it was abandoned. It has since been restored and is operated as a museum by the National Trust for Historic Preservation.

The present day park is indicated on the original plan of Norwood as grass plots. The courts later interpreted this to mean that these plots had been deeded to the Borough as open space.

Norwood today remains a predominantly residential suburb of Philadelphia with a population of 6,647, and with very little remaining undeveloped land.

THE REGIONAL SETTING

The Boroughs of Eddystone, Folcroft, and Norwood are affected by a variety of local, regional, and national conditions.

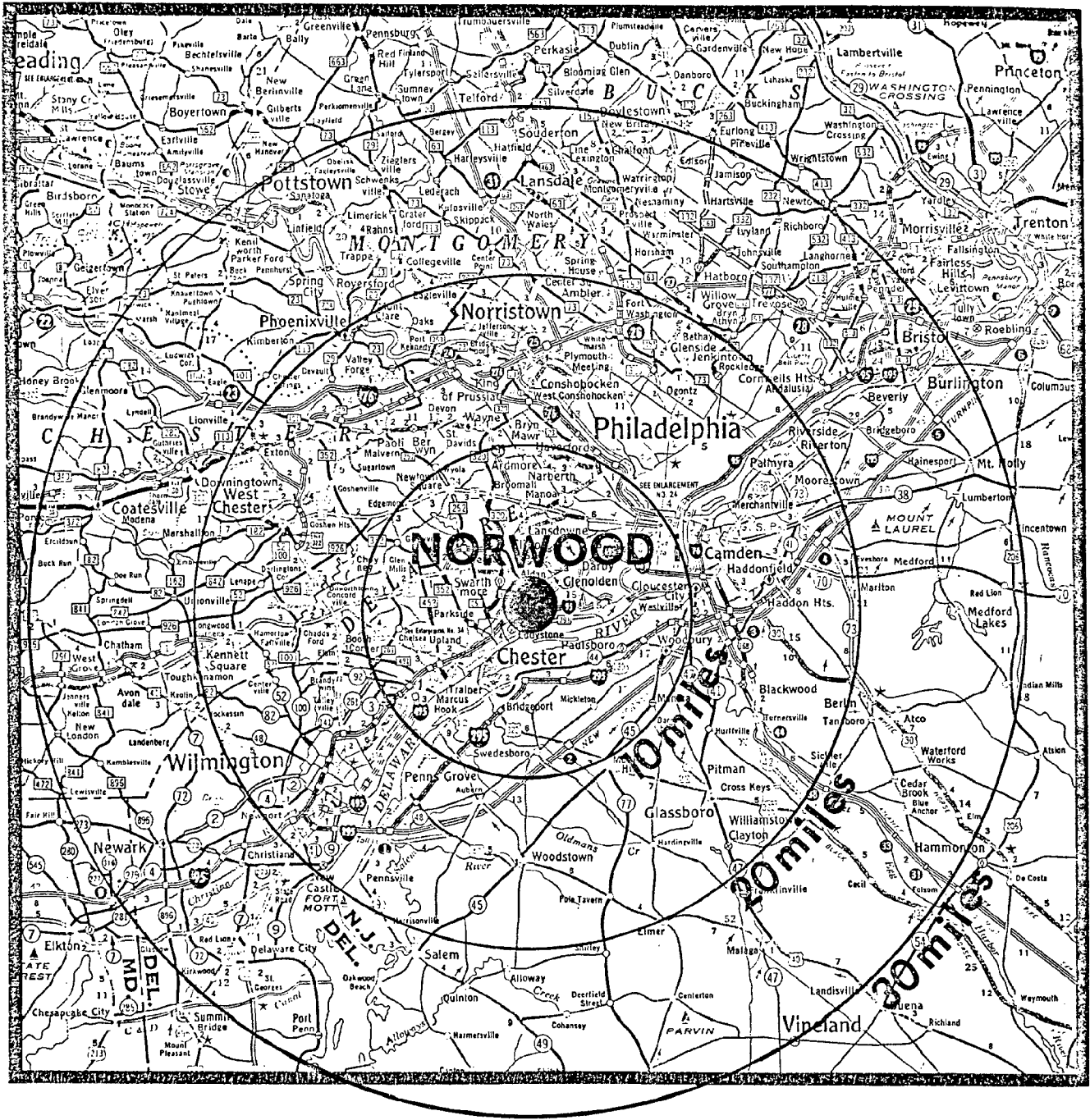
Locally, the three Boroughs lie in the southeastern portion of Delaware County to the southwest of Philadelphia. Eddystone is approximately 5.5 miles west of the Philadelphia city limits. It is bordered on the north by U.S.13, and on the south by the Delaware River. Access to the City is provided by I-95 and the river, and also by the Penn Central Railroad. The proposed Blue Route from I-95 into Montgomery County is planned to intersect I-95 north of Eddystone.

Folcroft and Norwood are contiguous communities to the west of Philadelphia. Folcroft lies within one mile of the City's southwestern boundary, and Norwood is located adjacent to Folcroft on the west. Both Boroughs are served by the Penn Central Railroad and enjoy easy access to Philadelphia via Chester Pike and I-95. Darby Creek flows along their southern boundaries into the Tinicum National Environmental Center. Southern Folcroft encompasses approximately 44% of the Center. Philadelphia International Airport is approximately three miles to the southeast of these communities.

Delaware County is a part of the eight-county Philadelphia SMSA, and the larger 3,833 square mile Delaware Valley Region. The Delaware Valley lies in the center of what has been commonly known as the Eastern Megalopolis, that densely populated urban region stretching from Boston, Massachusetts, to Washington, D.C.

Many economic and demographic changes have occurred in the Megalopolis over the past twenty years. The economy of the region has been transformed from one heavily dependent on manufacturing and industrial production to one increasingly dependent on service industries. This has been necessitated in part by the migration of both population and industry, not only to suburban and rural areas of the region, but to the more economically attractive southern and western states.

As Eddystone, Folcroft, and Norwood are part of the older suburban areas of Philadelphia, they have not avoided the effects of these trends. All three Boroughs have experienced a decrease in population since 1970. In addition, Eddystone has suffered some damage to its industrial base, most notably the closing of the Baldwin Locomotive Factory, which remains vacant, and the uneasy future of the Penn Shipbuilding Company, formerly operated by the Sun Shipbuilding and Drydock Company.



Map Number 2
Locality Map



POSSIBLE EFFECTS ON THE BOROUGH OF NORWOOD
BY REGIONAL/COUNTY PLANS

The Borough of Norwood is a part of a large, interdependent region. Therefore, when planning for the future of a community such as Norwood, it is important to understand the impacts on the community resulting from regional and county plans.

PHILADELPHIA INTERNATIONAL AIRPORT

Lying approximately two miles to the southeast of Norwood, Philadelphia International Airport services over 60,000 scheduled air carrier departures each year. Two of its three runways are oriented east-west, and service most of its commercial flights. Seventy-two percent of the flights serviced by these runways approach from or depart in a westerly direction and have noise impacts on Norwood.

In the 1980 EPA and Department of Transportation sponsored report to Congress intitled, "Effects of Airport Noise on a Neighboring State", the noise impacts of Philadelphia International were analyzed and proposals formulated which were aimed at minimizing these impacts. Noise levels from the airport were mapped as a series of noise contours superimposed on a map of the region.

The unit of measurement utilized in this mapping was the Ldn. Ldn measures sound in decibels over a twenty-four hour period. Noise is considered to have a cumulative effect, and noise which occurs at night is given a higher weight than that which occurs during the day. Typically, a farm would register a Ldn level of 40 decibels (db), while an apartment by a freeway registered 90 db.

Most Federal agencies accept 65 db as the level about which sleep, speech and other interferences occur. Ldn levels below 65 db are generally considered acceptable for residential uses. However, the EPA has recommended 55 db as the acceptable level and indicates that between 55 and 65 db, measures should be taken to protect the public health and welfare.

As indicated on Map #3, currently, the southern third of Norwood is experiencing noise levels from the airport of 60 to 65 db. Technological innovations which will reduce noise emissions of aircraft in the next twenty years will have little effect by 1990 (Map #4), and will only slightly reduce the impact by the year 2000 (Map #5). Many of the Borough's residents will still be exposed to noise levels above 55 db by 2000.

Of the five alternatives explored in the report as a means to reduce noise generation by the airport, the extension of the north-south runway to accept commercial traffic, and the total night time curfew would have the most positive impacts on Norwood with noise levels reduced below 65 db in virtually the entire Borough.

As the community will be experiencing noise impacts from the airport for the foreseeable future, sound insulation in any new construction may be an option the Borough should consider.

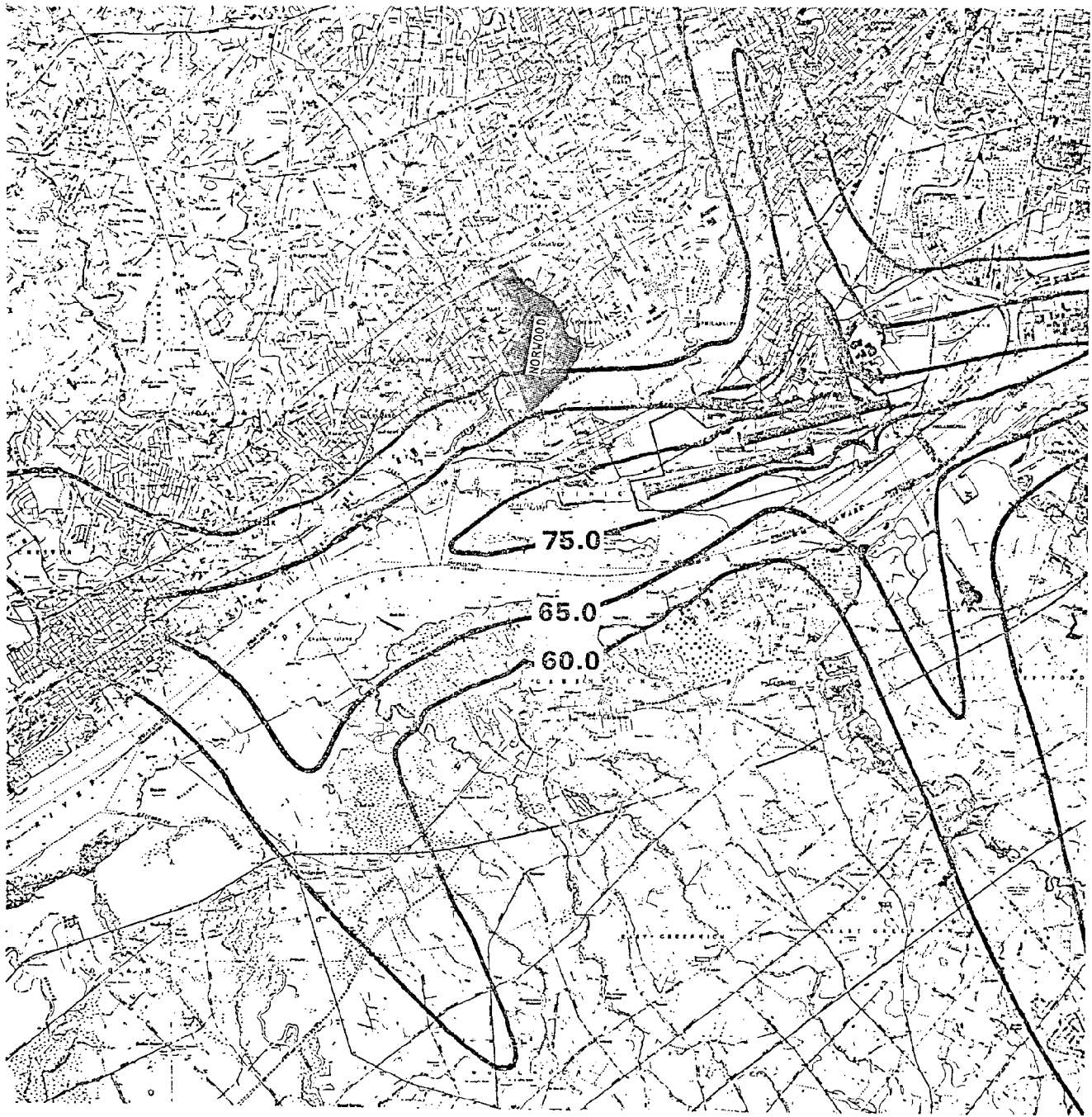
However, Philadelphia International Airport brings with it some positive aspects. Due to the airport and the need for easy access to this important facility, Borough residents benefit from ease of access to the airport, central city Philadelphia, and points north through Route 291, and the completion of the Airport High Speed Line, as well as the completion of I-95 in 1985.



Map Number 3

Airport Noise Impacts 1980

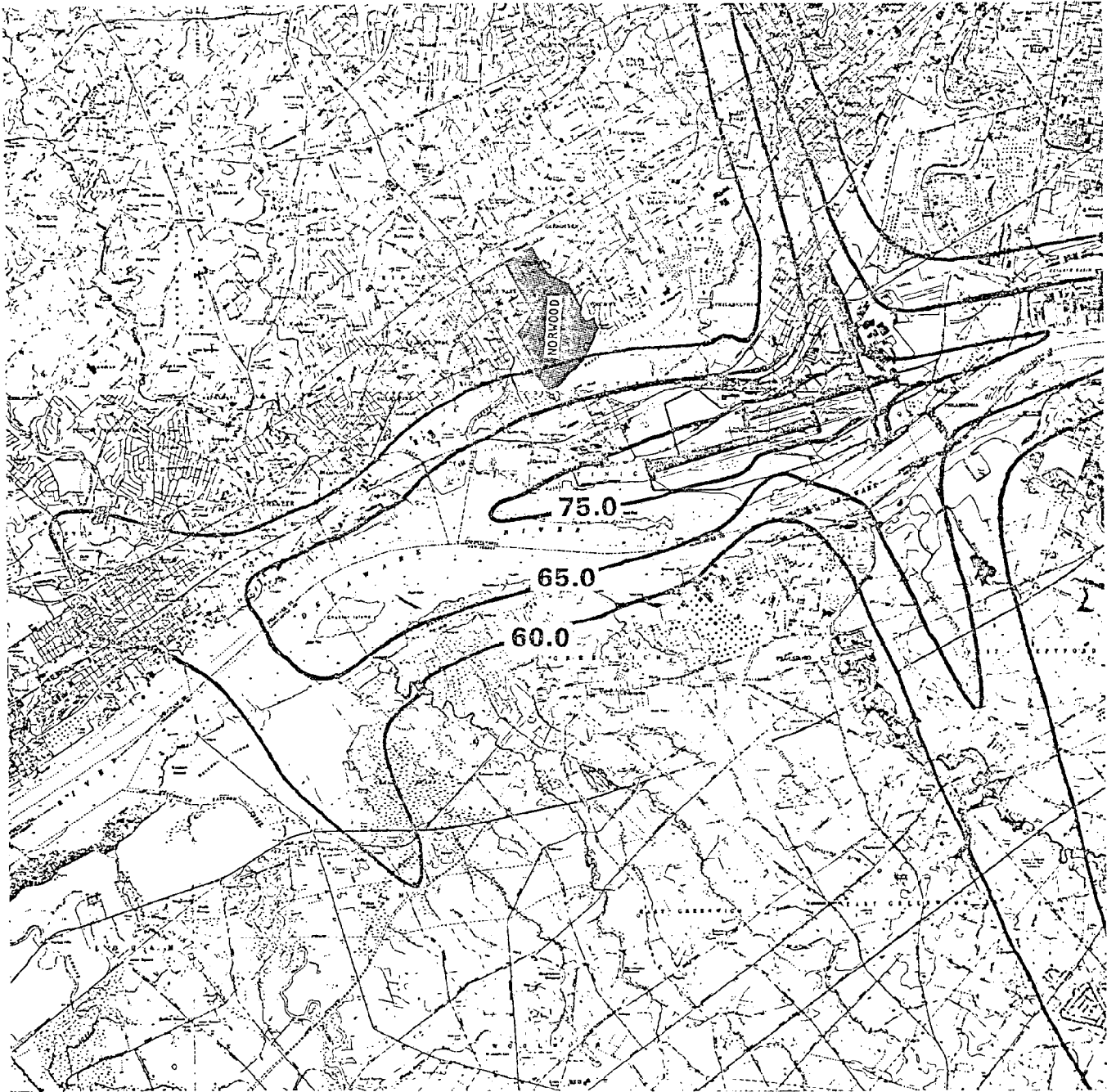
Source: Report to Congress, Effects of Airport Noise on a Neighboring State, October, 1980, Prepared by the Office of Noise Abatement and Control, Environmental Protection Agency, AND Office of Environment and Energy, Federal Aviation Administration, Department of Transportation.



Map Number 4

Airport Noise Impacts 1990

Source: Report to Congress, Effects of Airport Noise on a Neighboring State, October, 1980. Prepared by the Office of Noise Abatement and Control, Environmental Protection Agency, AND Office of Environment and Energy, Federal Aviation Administration, Department of Transportation.



Map Number 5

Airport Noise Impacts 2000

Source: Report to Congress, Effects of Airport Noise on a Neighboring State, October, 1980, Prepared by the Office of Noise Abatement and Control, Environmental Protection Agency, AND Office of Environment and Energy, Federal Aviation Administration, Department of Transportation.

BLUE ROUTE (I-476)

The Blue Route of Mid-County Expressway (L.R. 1010) is a proposed six-lane divided limited-access highway facility with provision in the median for expansion to eight lanes or possible exclusive mass transit lanes. It is planned as part of the Interstate Highway System and is designated I-476.

The proposed Expressway will extend 21.5 miles from the Delaware Expressway (I-95) at Crum Lynne, Delaware County, to the intersection of the Pennsylvania Turnpike (I-276) at the Turnpike's Northeast Extension (Pa-9) in Plymouth Meeting, Montgomery County. See Map #6 for illustration.

In Delaware County, the Expressway will extend 15.2 miles long and is an integral part of the Delaware Valley Regional Planning Commission's 1985 Adopted Freeway Network for the Philadelphia Metropolitan Area. It will become the western link of a beltway route around Philadelphia, and provide a limited-access highway system for north-south travel.

The routing of the Blue Route is between communities rather than through them. It is believed that the Expressway will provide the link to other transportation channels which will assist in the economic revitalization of southern Delaware County.

Information gathered from the Pennsylvania Department of Transportation indicates that the earliest possible date for completion of Blue Route is 1988. Chart #1 following illustrates the timetable for construction of various sections of the expressway. Also included is a simplified map illustrating the sections of the Blue Route which have been completed and those which are to be built. The map is keyed to the timetable for clarity.

Although the construction of the Expressway will create an impervious surface, runoff is not expected to significantly increase flooding potential in surrounding flood-prone areas. Crum and Darby Creeks will drain most of the area.

No significant adverse affects will occur at the Tinicum National Environmental Center. In addition, the final design of the Blue Route will incorporate significant noise abatement measures.

The major impact of the Blue Route will be ease of transportation. The Blue Route will connect with three Interstate Highways: the Schuylkill Expressway (I-76), the Delaware Expressway (I-95), and the Pennsylvania Turnpike (I-276). The Blue Route will also connect with existing major radial highways, including the Media Bypass/State Road (US-1), Lancaster Avenue/Lincoln Highway (US-30), West Chester Pike (US-3), and Baltimore Pike and McDade Boulevard.

The Pennsylvania Department of Transportation has provided an estimate of Year 2000 uses of the Blue Route including both long and short-distance commuting. These can be found on the Charts 2 and 3 which follow. Among its many uses, the Expressway will provide easier access to the Philadelphia International Airport and could encourage mass transit services, such as a bus link between Chester and Norristown.

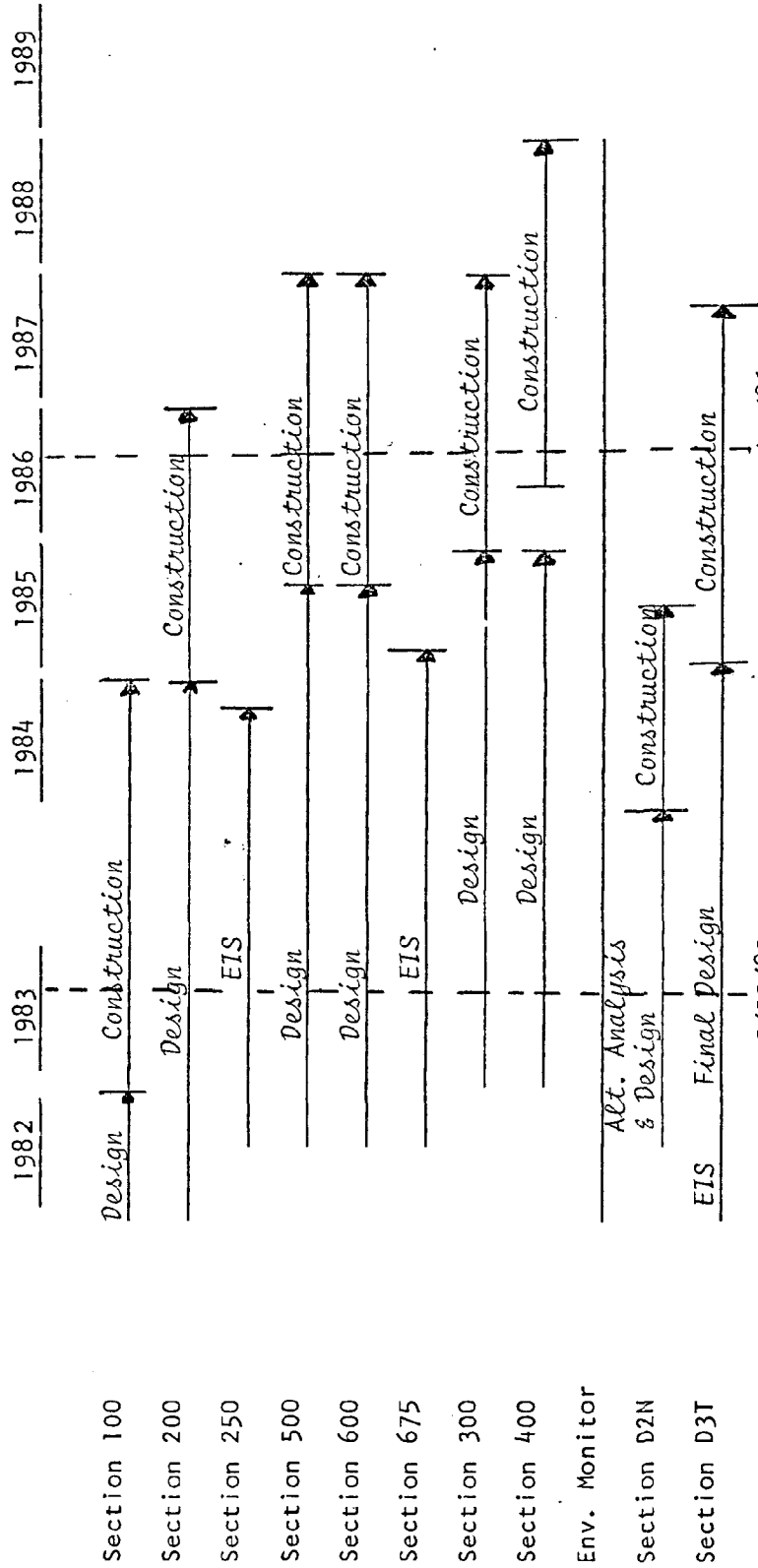
It is expected that new development will occur at the Blue Route's interchanges, although not at a rapid pace since these areas can be classified as moderate to low suburban built-up areas. As a result of this development, some eventual traffic congestion can be expected.

No part of the Blue Route is or will be within the Borough limits. Therefore, Norwood escapes the adverse impacts of construction and utilization of the highway.

Norwood may, in fact, benefit from the Expressway. Via the Blue Route's interchange with MacDade Boulevard, Borough residents will find easier access to points north which could open up greater employment opportunities. In addition, the Blue Route's expected impact on industrial development in southern Delaware County should result in job opportunities for Borough residents who live in relative close proximity to industrial areas located particularly in Chester and along the riverfront. These new job opportunities, in turn, could help to stabilize the Borough's population.

CHART NO. 1

I-476 - MID-COUNTY EXPRESSWAY
BLUE ROUTE CONSTRUCTION SCHEDULE



9/30/83
Deadline for
Transfers

9/30/86
All interstate projects
must be under contract.

NOTE: EIS: Executed contract to FHMA signoff.
 Design: Executed engineering agreement to letting.
 Construction: Letting to final inspection.

SOURCE: Pennsylvania Department of Transportation
 St. Davids, Pennsylvania

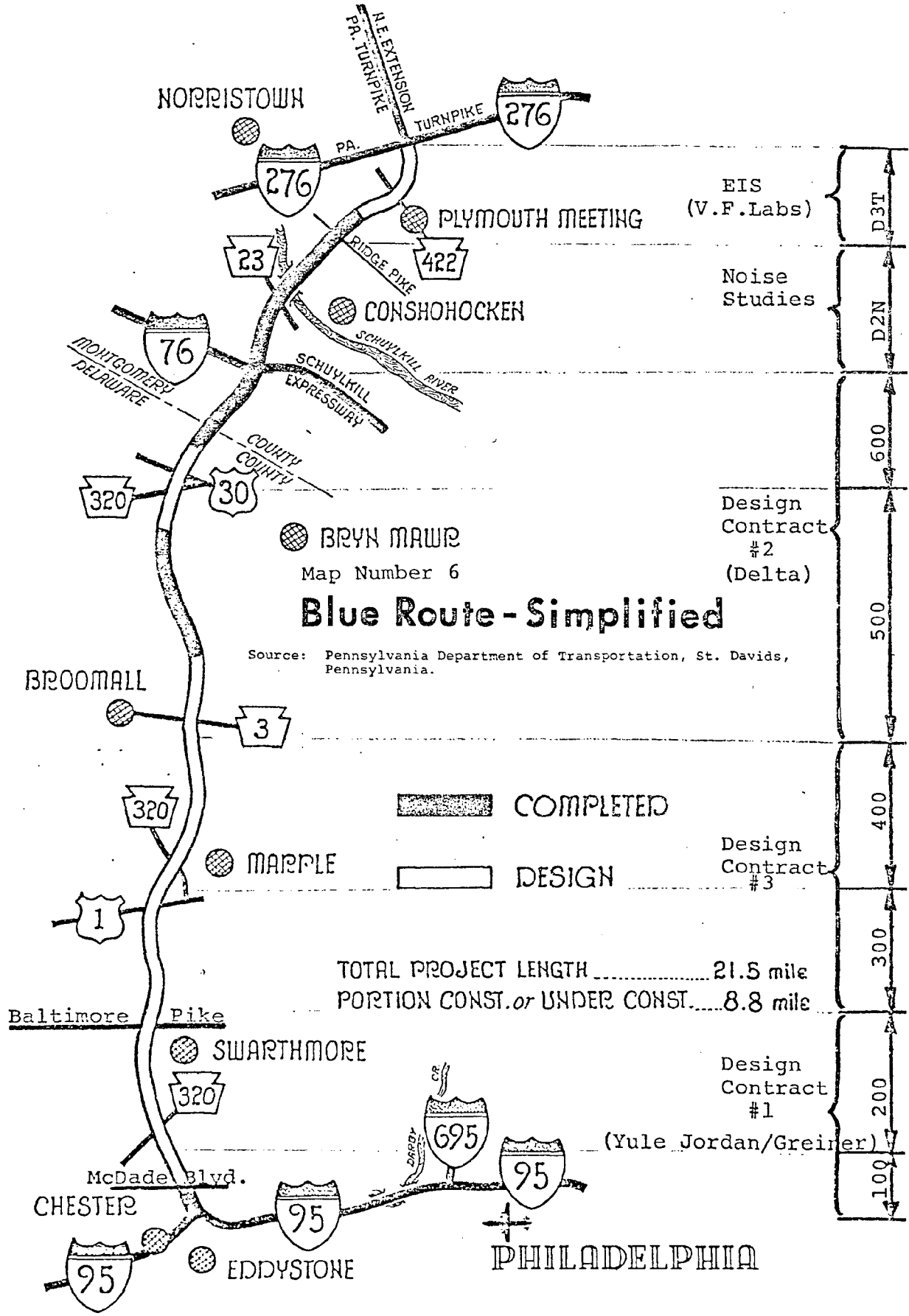
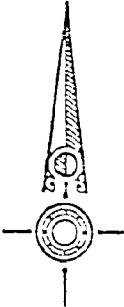
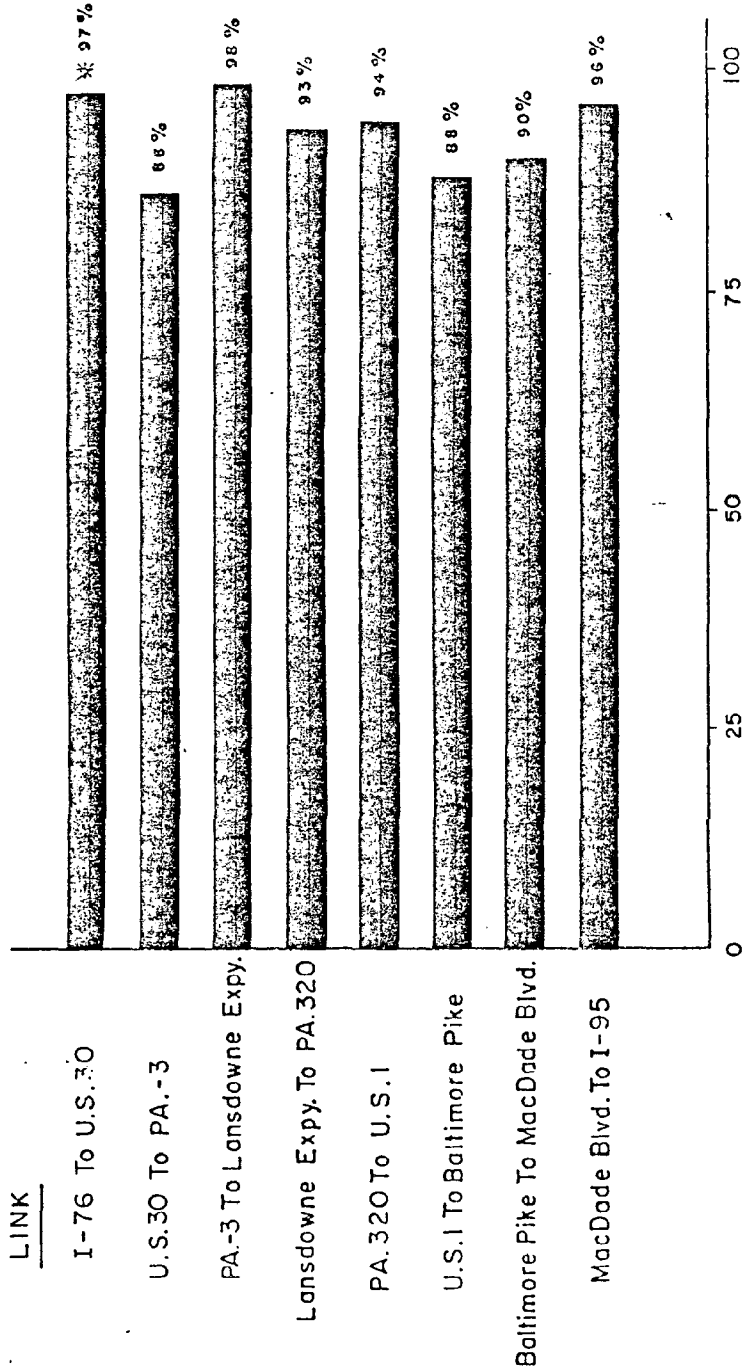


Chart Number 2

LOCAL USAGE OF PROPOSED EXPRESSWAY (YEAR 2000: ALTERNATE AI - BUILD I - 476)



Percentage Of Trips On Link With Origin And /Or Destination
In Delaware County.

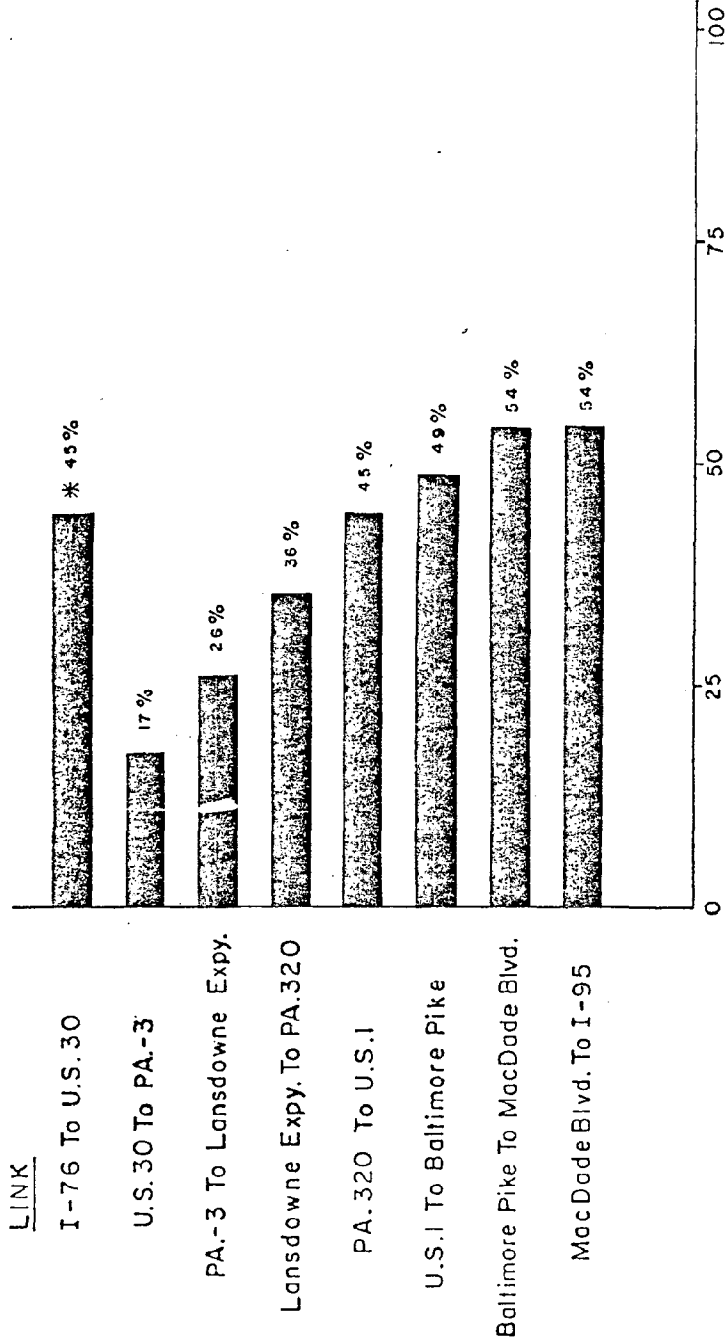
* Includes Trips Which Started Or Ended In Montgomery County.

Source: Mid-County Expressway (I-476).

Final Environmental Impact/Section 4(f) Statement,
August 8, 1980, Pennsylvania Department of
Transportation, St. Davids, Pennsylvania.

Chart Number 3

SHORT-DISTANCE COMMUTING ON PROPOSED EXPRESSWAY (YEAR 2000: ALTERNATIVE AI-BUILD I-476)



Percentage Of Trips On Link With Origin And Destination In Delaware County.

* Includes Trips Which Started Or Ended In Montgomery County.

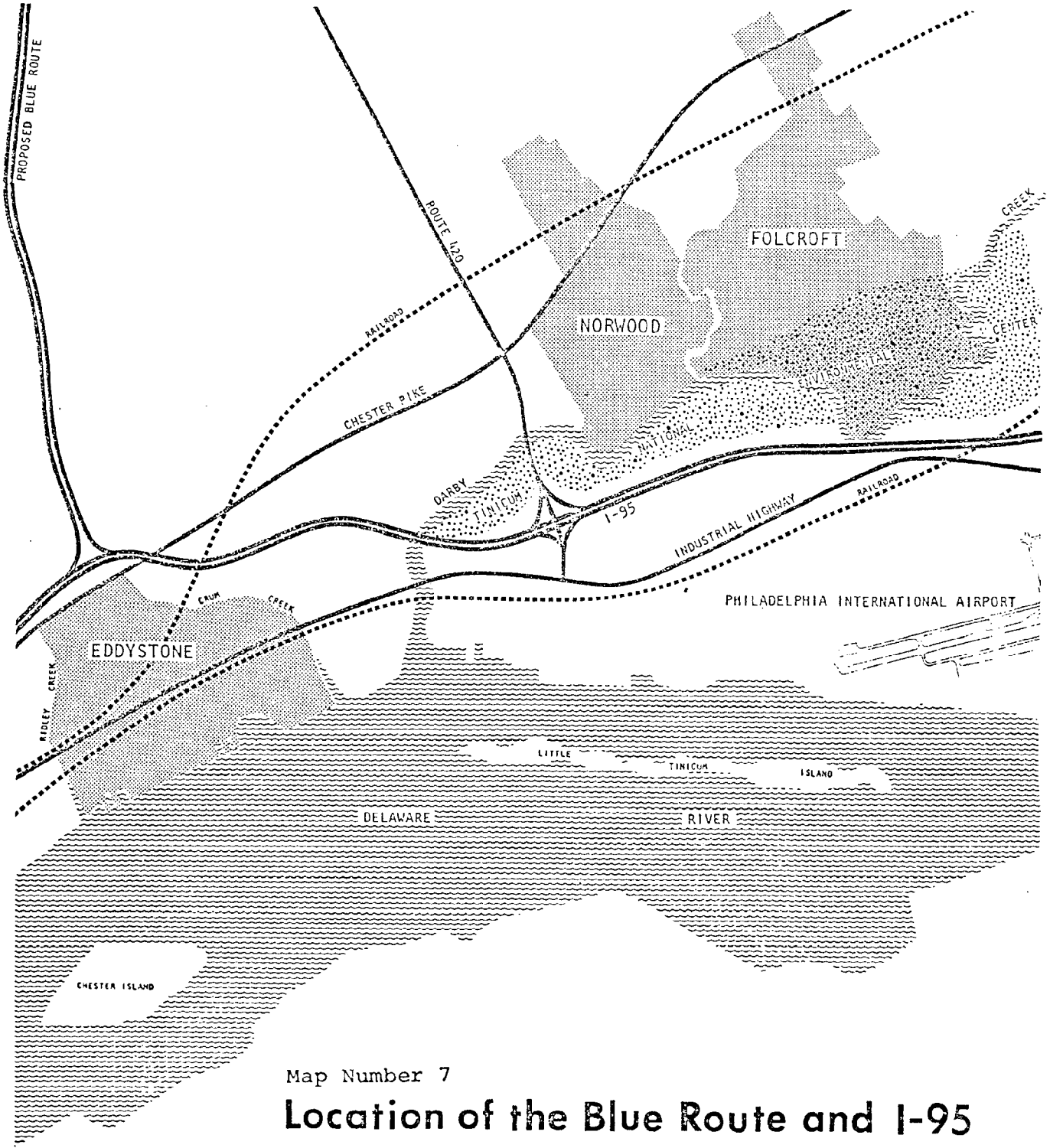
Source: Mid-County Expressway (I-476).

Final Environmental Impact/Section 4(f) Statement,
August 8, 1980, Pennsylvania Department of
Transportation, St. Davids, Pennsylvania.

DELAWARE EXPRESSWAY (I-95)

Interstate 95, as it passes through Southern Delaware County, is a six to eight lane, limited access highway running the length of the County from the Delaware State border into Philadelphia. The expressway is largely completed with the last segment at the Philadelphia International Airport scheduled for completion in 1985.

The expressway passes just to the south of Norwood in Tinicum Township and is the southern boundary for the Tinicum National Environmental Center. Because it is elevated nine feet above the marsh level, it is visibly apparent from some southern parts of the Borough. Noise impacts will be minimal in comparison to noise generated by the airport. The other potential impact is that Norwood may become a more attractive location for business and residents as access to Philadelphia will be much improve when the final segment of the expressway at the ariport is completed in 1985.



YEAR 2000 PLAN FOR THE DELAWARE VALLEY

To guide this change in the region, the Delaware Valley Regional Planning Commission (DVRPC) has prepared a regional plan. This plan is important because it looks at Norwood and other communities not as independent entities, but rather as interdependent components of the region. Each component, because of its unique characteristics, is best suited to perform some function or functions in the economy of the region.

In its Year 2000 Plan for the Delaware Valley, the Delaware Valley Regional Planning Commission identifies Norwood as a developed community with some potentially valuable open space lands along Darby Creek in the south. As such, their only recommendations made for the community would be that any vacant land or buildings in the Borough be developed or filled.

As costs for installing new infrastructure increase, it will become increasingly important in minimizing costs for communities to utilize existing infrastructure such as roads, sewer and water lines, and utilities at near capacity.

There are no planned changes to the Philadelphia International Airport which will have any significant impacts on Norwood.

TINICUM NATIONAL ENVIRONMENTAL CENTER

The Tinicum National Environmental Center (TNEC) is a part of the Delaware Estuary. Extending from the mouth of Delaware Bay to the falls at Trenton, the Estuary and TNEC are part of Pennsylvania's Coastal Zone Management Program.

The Coastal Zone Management Improvement Act of 1972, amended 1980 has as its goal the encouragement of states to achieve significant improvements in meeting national coastal management objectives, including among others, "the protection of natural resources, including wetlands, floodplains, estuaries, beaches, dunes, barrier islands, coral reefs, and fish and their habitat, within the control zone," and "the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone areas and in areas of subsidence and saltwater intrusion and by the destruction of natural protective features such as beaches, dunes, wetlands, and barrier islands.

Tinicum Marsh occupies the lowlands along the channel of Darby Creek in Delaware and Philadelphia Counties and is located on the primary Atlantic Flyway. It is heavily used as a resting place by migratory birds and contains a wide variety of vegetative species, while playing a significant role in improving the water quality of Darby Creek.

Most of the marsh was in private ownership and plans for developing it for industry were often considered. However, legislation (PL 92-326 of June 30, 1972, amended by PL 94-548 of October 18, 1976, amended by PL 95-152 of November 4, 1977) authorized the TNEC to carry out the intent of Congress which was to establish a center to provide for the last remaining marshland in Pennsylvania. The U.S. Department of the Interior, Fish and Wildlife Service, was instructed to acquire lands necessary to preserve the marsh and make necessary adjustments to the land.

When the lands of the Tinicum National Environmental Center are fully acquired, they will encompass 1,220 acres. Some 50 of those acres are Borough lands in private ownership. At the present time, acreage owned by Darby Realty and GGG Corporation has not been acquired. Negotiations, while unsuccessful in the past, have been halted due to a lack of funds to continue acquisition.

Most public services will be provided by the City of Philadelphia including police, fire and ambulance service. TNEC expects that local police will continue to patrol near their respective borders. It is expected that local fire and ambulance services would respond in time of extreme emergency, such as a widespread fire.

The Tinicum National Environmental Center has already begun and will continue to remove trash and debris from all areas of the Center. TNEC as a preservation area will provide a nearby safe and educational recreation area for Borough residents.

No increased traffic flow is expected to result from TNEC since the major public entrances to the preserve are from Lindbergh Boulevard through Darby Township from the east and Wanamaker Avenue through Prospect Park Borough from the west.

NATURAL FEATURES

INVENTORY AND ANALYSIS OF IMPORTANT SOIL CONDITIONS

Situated in southeastern Delaware County, the Borough of Norwood is generally bounded by Prospect Park Borough, Glenolden Borough, Folcroft Borough, Tinicum Township and Ridley Township.

The soils identified within the confines of the Borough include:

- BeA - Beltsville Silt Loam (0 to 3% slopes)
- BeB2 - Beltsville Silt Loam (3 to 8% slopes)
- Cn - Congaree Silt Loam
- GeC2 - Glenelg Channery Silt Loam
- Ma - Made Land, Gravelly Materials
- Me - Made Land, Schist and Gneiss Materials
- Tm - Tidal Marsh
- We - Wehadkee Silt Loam

For ease of discussion the various soils can be found generally in the following areas:

<u>Soil Types</u>	<u>Area</u>
Me	From approximately Mohawk Avenue northwest to the Borough limits:
Me-approximately 98%	Below the area described above, running from the southwestern Borough boundary about 2/3 of the way across Norwood:
Me-approximately 1%	
We-approximately 1%	

Soil Types

Area

BeA, BeB2, Cn, GeC2,
Ma, Me, and We.

The eastern portion of the Borough approximately between Mohawk Avenue and the Tidal Marsh eastward from Cleveland Avenue to the Borough limits on the Muckinipates Creek:

Tm

The Tidal Marsh:

The soil designation, BeA - Beltsville Silt Loam, is concentrated in an oblong shaped tract of land in the easterly portion of the Borough below Chester Pike near the Muckinipates Creek.

BeB2 - Beltsville Silt Loam is found adjacent to BeA though in a much smaller configuration.

In general the Beltsville Series of soils consists of moderately well-drained soils formed in silt over coastal plain unconsolidated sand, clay and gravel. The surface layer of the soils is dark grayish-brown silt loam. The subsoil is yellowish brown. The soils have moderate to slow permeability and are acid. BeA has slopes in grades of 0 to 3%. BeB2, having higher slopes of 3 to 8%, has lost nearly 50% of the original surface through erosion. These soils have a seasonal high water table each year which can cause sealing and drainage problems. This land is favorable for stores, factories, schools, and similar commercial, industrial or institutional construction. At present, the predominate use is public.

Along the northeastern boundary of the Borough, between the two points at which the Muckinipates Creek form that border, the soil type is Cn - Congaree Silt Loam. Current use of this land is residential.

Congaree Silt Loam is made up of deep well-drained soils of the flood plain, with thick brown, silty surface layer underlain by stratified silty or loamy material. The land is vacant and in the flood plain. The area is not normally suitable for homes or other buildings.

Forming a very minimum part of the soils which make up Norwood Borough, GeC2 - Glenlg Channery Silt Loam is located adjacent to BeA and BeB2 soils discussed above. Vacant land, public and semi-public uses occupy this soil.

The Glenlg series consists of deep, well-drained soils of uplands. The soils developed in material weathered mainly from granite, gneiss and mica schist. The surface layer is dark-brown silt loam. The subsoil is dark-brown to strong dark-brown silt loam, and it contains a little more clay than the surface layer. In some places, there are flat channery fragments, as much as 2 inches across, in the surface layer; slightly larger fragments are in the subsoil. Beneath the subsoil is strong-brown or reddish brown loam that contains many bright fragments of mica. This is well-drained soil with slopes steeper than 25%, too steep for ordinary housing. The best uses for this soil would be parks, forests, game preserves or luxury housing.

Approximate of the land in the Borough of Norwood consists of Ma - Made Land, Gravelly Materials. Ma - Made Land, Gravelly Materials is a mixture of grayish-brown material from the surface layer, silt loam from the subsoil, and partially weathered schist and gneiss rocks. The majority of this land is in residential use with a small portion in public uses.

The upper third of the Borough, from approximately Mohawk Avenue to the Borough limits, the soil type is Mc - Made Land, Silt and Clay Materials. This is a miscellaneous land type consisting of areas in which the profile of normal soil has been destroyed or covered by earthmoving equipment. In most places, the exposed materials consist of silt and clay, but small areas of sandy and gravelly materials are intermingled with the silt and clay. These are deep, well-drained soils.

Me - Made Land, Schist and Gneiss soil exists in the north-eastern portion of the Borough, running in a slender column from the Borough limits near the lower part of Woodland Avenue and finally spreading into a large flat area around Elmwood and Henderson Avenues. At present, these lands are in residential use.

The term "Made Land" means areas in which the soil has been covered by other materials from which the soil has been moved about or removed to provide materials for urban or industrial development. All are deep, well-drained, moderately slow to moderately permeable soils with slopes of 9 to 8 percent. This soil type provides good foundations with no seasonal high water table is generally suitable for building sites.

The Tm - Tidal Marsh designation appears only at the lower limits of the Borough along Darby Creek and abuts the Tinicum Marsh. This soil type is made up of a mixture of mineral soil materials. This area is affected by tidal action from the Delaware River.

The soil material consists mostly of dark-gray, gray or black, smooth silty clay or clay. At a distance of 1 or 2 miles from the mouth of Darby Creek, the silty deposits that make up the tidal marsh have been capped by coarse-textured material washed from coastal plain sediments.

On either side of the Borough where the land meets the tidal area, exist small tracts of land consisting of We - Wehadkee Silt Loam. These areas are in public use or are vacant.

The Wehadkee series consists of deep, poorly drained soils on flood plains. The soil formed is general alluvium washed by streams from upland soils underlain by schist, gneiss, quartzite, anorthosite, quartz, monzonite and granite. The surface layer is dark grayish-brown silt loam. The subsoil is yellowish-brown silty clay loam that is mottled with various shades of gray. In most places, stratified layers of sand and silt occur in these soils.

We - Wehadkee Silt Loam soil is moderately permeable. The water table is high and the land is subject to frequent flooding. Deposits of silt and sand added to this soil by overflow are greater than the amount removed by erosion. This soil is not suitable for homes or other buildings.

DRAINAGE PATTERNS AND LOCALIZED PROBLEMS

Approximately 8-1/4 miles from Philadelphia and located in southeastern Delaware County, the Borough of Norwood is approximately 2 miles north of the Delaware River. The Borough, a Delaware River Basin town, is within the Philadelphia Standard Metropolitan Statistical Area (SMSA).

Norwood's topography can be described as generally hilly. Elevations range from a low of less than 10 feet above sea level near the tidal marsh to 100 feet above sea level at the Borough's northermost limits.

The topography is so arranged as to funnel drainage in the direction of the Muckinipates Creek and into Darby Creek. In short, the Muckinipates Creek flows into Darby Creek forming the major drainageway for the Borough.

Drainage problems occur in times of heavy rains along the Muckinipates Creek in the area of Amosland Road. This is aggravated by fluvial flow from Darby Creek which is, in turn, affected by tidal action of the Delaware River.

In this area, approximately 40 residences and the Norwood Swim Club are affected by flooding and drainage problems.

FLOOD PLAIN AREAS

In general, the Borough of Norwood is unaffected by floods. However, in the area of Amosland Road and the Muckinipates Creek, residential development has taken place in the flood plain, as well as a commercial development, known as the Norwood Swim Club.

According to the U.S. Department of Housing and Urban Development, Federal Insurance Administration, flooding problems are caused by large fluvial flows on Muckinipates Creek during regional storms characterized by long-duration, medium intensity rainfall.

In the area of Amosland Road, high stages of Darby Creek aggravates flooding of the Muckinipates Creek. In turn, Darby Creek is influenced by tidal action of the Delaware River.

The Federal Insurance Administration has designated the following areas as in the flood plain:

ZONE A

- Description: Areas of 100-year flood; base flood elevations and flood hazard factors not determined.

- Areas:
 - The northeastern boundary of the Borough, along the Muckinipates Creek, from the Conrail tracks to the point where the Muckinipates Creek no longer acts as the Borough boundary just north of Ridgeway Avenue.

 - A triangular tract of land formed by the intersection of South Avenue and the point where the Muckinipates Creek again acts as the Borough boundary, along the easterly Borough limits.

ZONE A6:

- Description: Areas of 100-year flood; base flood elevations and flood hazard factors determined.

- Areas: Along the southeasterly Borough boundary, following the Muckinipates Creek. Ranging in width from approximately 50 feet to 400 feet.

Along the southerly boundary, following the Darby Creek, ranging in width from approximately 200 feet to 1,200 feet.

WATER RESOURCES

Water has played a key role in the development and history of Delaware County. However, in Norwood, water has not influenced the development of industry within the Borough.

In Delaware County, an overwhelming majority of communities are serviced by private water companies. The Borough of Norwood is serviced by the Philadelphia Suburban Water Company (PSWC). In the County of Delaware, in general other sources of water include ground water and surface supplies which are influenced by geology, physiography, and land use, as well as climate. These sources would, of course, include the Muckinipates Creek and Darby Creek.

Supply capacity for ground water is dependent upon rock and soil foundations, and its purity is the result of the soils and rocks through which it passes. Surface supplies are dependent upon precipitation, run off and ground water discharge.

In Delaware County, surface water supplies are drawn from streams, lakes and reservoirs and account for most of the public water in the County. For the Philadelphia Suburban Water Company, the source of supply is the Crum Creek which flows for a distance of 15.5 miles through the County. Northwest of the Borough is a main pump station. Crum Creek forms a reservoir known as Springton Lake from which water is released on a timed basis to supplement the yield of the creek during periods of low flow.

PSWC's treatment plant is located in Nether Providence Township, Delaware County. This plant, the Crum Creek Treatment Plant, processes an average of 16 million gallons daily. Increased demand from the County will be met at PSWC's Pickery Creek station near Phoenixville and the Upper Merion Station in Bridgeport.

SANITARY SEWERS

Currently Norwood's sewage is pumped by DELCORA at its pumping station located on a portion of the Muckinipates Sewer Authority grounds. The waste is pumped to the Southwest Philadelphia Treatment Facility.

WETLANDS

Wetlands are lands or areas with soils which contain much moisture, such as tidal flats or swamps. Of particular interest to the Borough of Norwood are the wetlands known as the Tinicum Marsh.

The Borough contains about 4% of the total marsh within its corporate limits, including some 29 acres of tidal marsh and 11.9 acres of stream channel.

The Federal Government, through the U.S. Department of the Interior, Fish and Wildlife Service, proposes to acquire approximately 50 acres of land in the Borough for inclusion in the Tinicum National Environmental Center. The land is currently owned by Darby Realty and GGG Corporation and is located south of Martin Lane and Winona Avenue. Negotiations with these landowners have been unsuccessful in the past. At the present time, negotiations have been halted due to a lack of funds to continue acquisition.

As can be seen from the Future Conditions Map, Map No. 8. within the Borough of Norwood, the U.S. Department of the Interior has divided the area to be included in the Tinicum National Environmental Center into four Resource Planning Units. Brief descriptions of those units and proposed actions are as follows:

TW-3: Tidal Wetland, containing approximately 10.6 acres.

Proposed Action: This area is to be preserved as a tidal marsh. Existing conditions will be maintained.

TL-1: Tidal Lagoon, containing approximately 16 acres.

Proposed Action: This area is to be restored and maintained as a freshwater tidal marsh. This area will be allowed to fill through natural siltation. However, if the time required through natural siltation is estimated to take longer than to artificially fill the lagoon, steps will be proposed to accelerate the fill efforts.

FL-5: Filled Land, containing approximately 13.7 acres

Proposed Action: Between Darby Creek and 4 feet above sea level, a lowland transitional forest is to be created by planting and natural succession. On the remainder of the land, upland forest is to be established through natural succession.

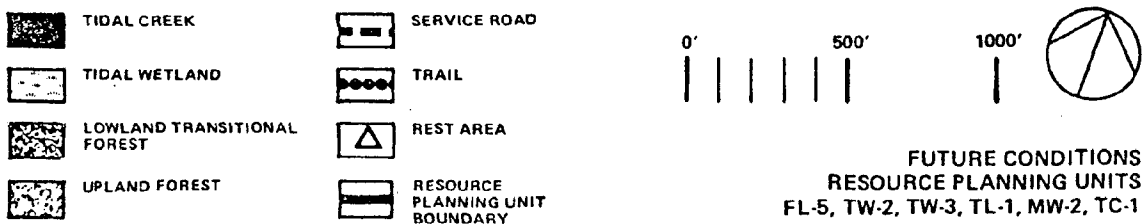
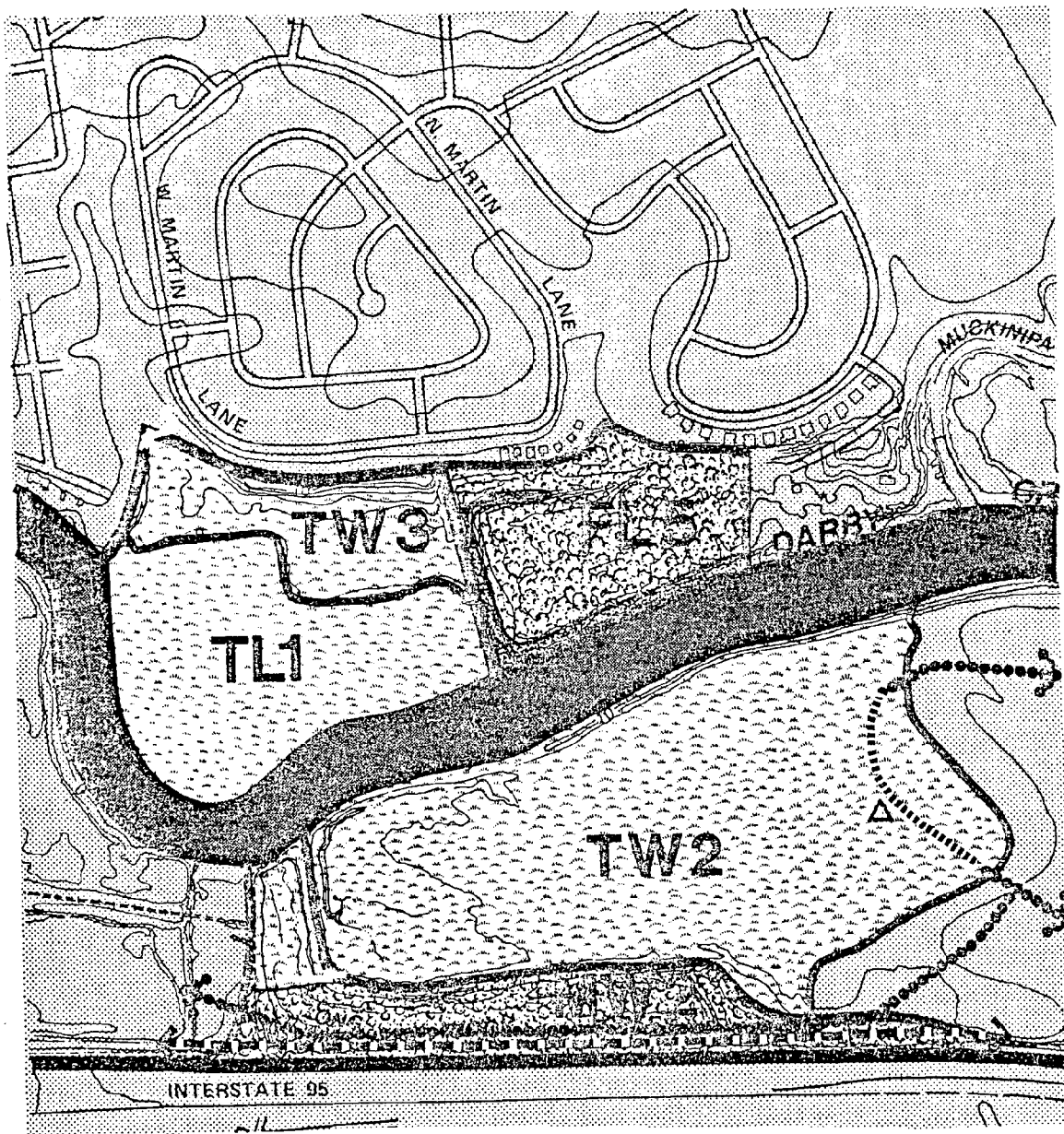
TC-1: Tidal Creek, includes 90 acres throughout the entire Tinicum National Environmental Center.

Proposed Action: The Department of the Interior has a number of proposed actions in connection with the Tidal Creek, including: Implementation of a water quality monitoring program and installation of trash racks to prevent movement of trash into the tidal marsh with the tides.

Across Darby Creek outside of the Borough limits, the area marked as TW-2 - Tidal Wetlands is to be restored and managed as a freshwater tidal marsh through removal of existing embankments and tide gate and channel relocation for Long Hook Creek.

The Department of the Interior will construct no buildings on these lands.

With respect to the Tinicum National Environmental Center (TNEC) in general, 900 of the 1,200 acres proposed to be acquired have been acquired. Planting of some 500 white pine seedlings has taken place. The TNEC has a Youth Conservation Corps Program in place this summer, as in the past eight summers. This corps performs duties ranging from litter pick up to erosion control. A new water control structure has been constructed, which is a dike at the eastern boundary of TNEC inside Philadelphia City limits. With respect to Norwood, in particular, no work has been accomplished.



MAP NO. 8.

Source: Draft Master Plan, Tinicum National Environmental Center, Philadelphia, Pennsylvania, Department of the Interior, U.S. Fish and Wildlife Service, September 1978.

TOPOGRAPHY

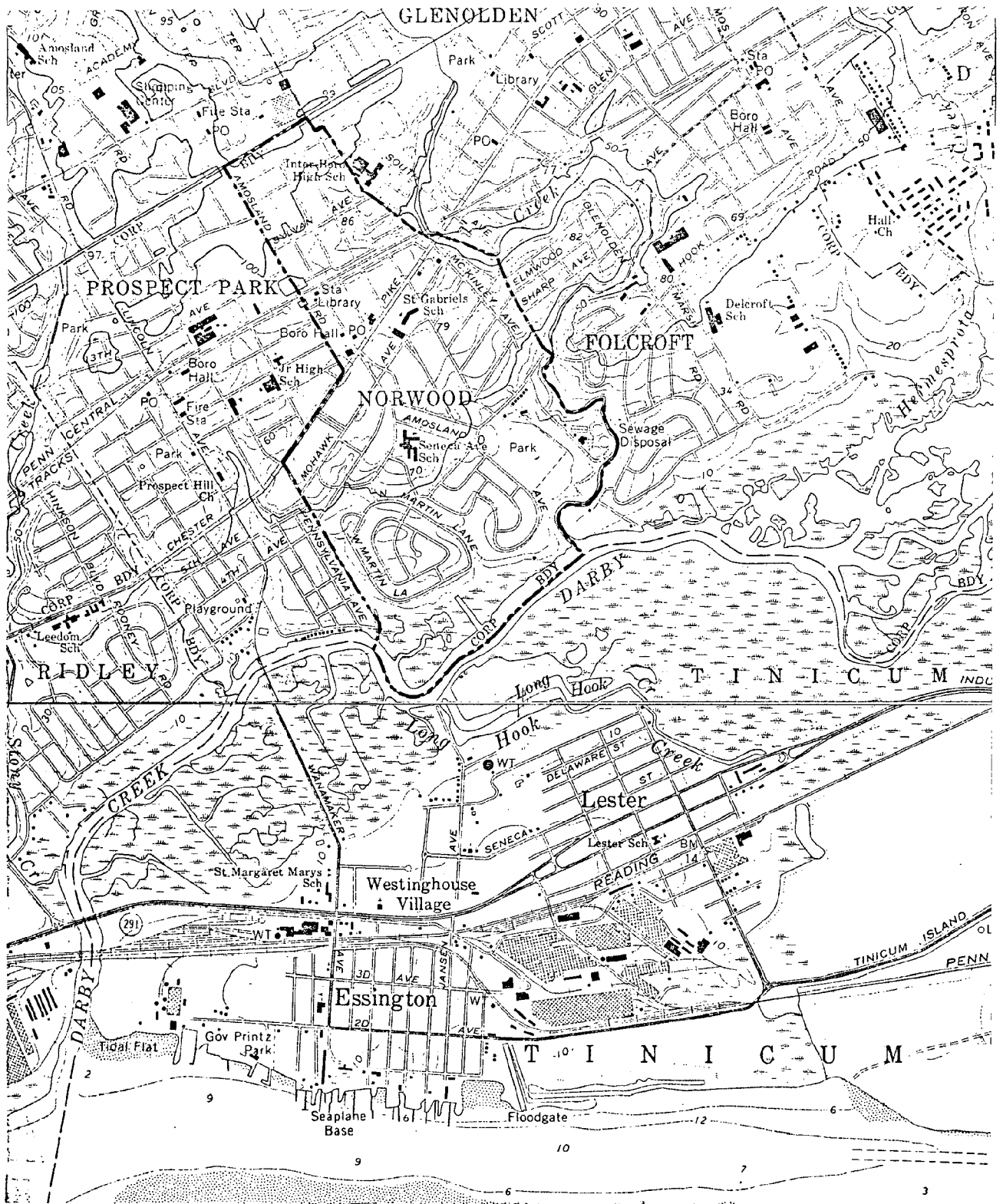
The Borough of Norwood is approximately .81 of a square mile in size and is located within both the Philadelphia SMSA and the Delaware River Basin. It is bounded by Folcroft, Glenolden and Prospect Park Boroughs. The Borough's southern corporate boundary is formed by the Darby Creek, while its southeastern and northeastern boundary is the Muckinipates Creek.

The Borough's buildable land is almost entirely developed with residential uses predominating. Strip commercial and mixed uses appear along Chester Pike, while public uses such as parks appear near the confluence of the Muckinipates and Darby Creeks. The remaining land in the Borough is tidal marsh.

The topography of the Borough is generally hilly with elevations rising from a low of less than 10 feet above sea level near the tidal marsh to a high of 100 feet above sea level at the Borough's northernmost limits. In the area of the tidal marsh, the topography is generally flat.

Vegetation throughout most of the Borough consists of residential lawns and trees. Along the tidal marsh, marsh grasses can be found; while a small forest of deciduous trees can be found along the Muckinipates Creek near Amosland Road.

Chester Pike is the major highway separating the upper third of the Borough from its lower portion. Running parallel to Chester Pike through Norwood are the railroad tracks for Penn Central's Baltimore-Washington Main Line.



Map Number 9
U.S.G.S.

POPULATION ANALYSIS

POPULATION

An analysis of the population of Norwood is essential in the preparation of plans for future growth and development in the community. Total population figures alone are insufficient for this purpose. Other characteristics, such as racial makeup, age, and sex distributions, the number of households and persons per household, and the marital status of the population, must also be compiled.

Comparisons should be made between the current population and past populations. This information can assist in establishing the Borough's current requirements for residential space for various dwelling types, community facilities, such as parks and schools, and services, such as police and fire protection.

After making comparisons, trends can often be seen and used to make predictions. However, regardless of the trend, predictions must be couched in terms of uncontrollable elements affecting Norwood, such as the economy. The resulting predictions can then be used as the basis on which to project Norwood's future requirements.

POPULATION CHARACTERISTICS

Norwood's 1980 population of 6,647 persons is fairly evenly distributed between the sexes. There are 3,287 males and 3,360 females.

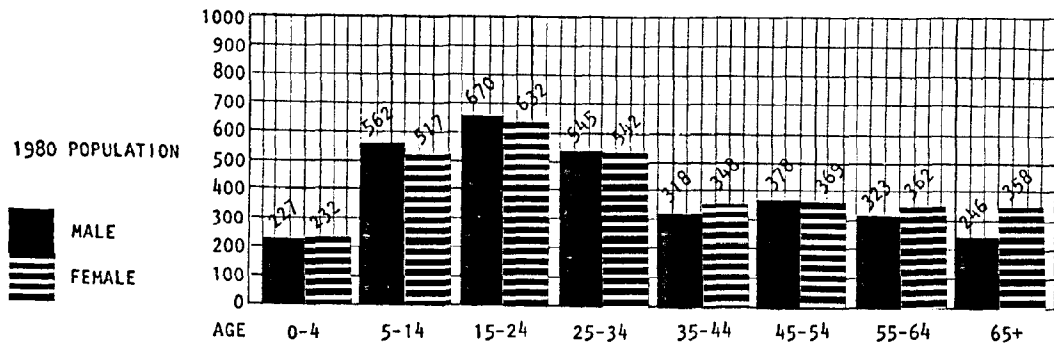
Racially, the Borough is predominantly white with totals of only 21 blacks and 23 of other racial backgrounds, as well as 6,603 whites. Of the 5,091 persons over the age of 15, 28% are single and 58% are married.

The median age of the population is 29.2 years.

CHART NO. 4

POPULATION BREAKDOWN BY AGE AND SEX

1980



As illustrated on Chart No. 4, the breakdown by sex for 1980 shows that males outnumber females significantly in the 5 to 14 and the 15 to 24 age cohorts. Females over the age of 55 significantly outnumber males, as do females in the 35 to 44 cohort.

CHANGES - 1970 TO 1980

Norwood's population decreased by 8% from its 1970 total of 7,229. This represents a loss of 582 persons over the period. The relationship of males to females remained unchanged with males accounting for 49% of the population and females 51%.

This loss of 582 persons, while the ratio of males to females remained unchanged, is an indication that families are moving out of Norwood, possibly due to a lack of job opportunities in the area.

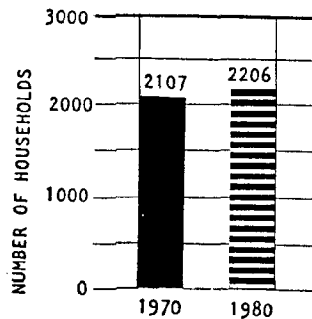
The racial composition of the Borough remained virtually unchanged during the period 1970-1980 with minorities accounting for less than 1% of the population.

During the period 1970-1980, the number of households increased by 5% from 2,107 in 1970 to 2,206 in 1980. Chart No. 5, following, illustrates this change.

CHART NO. 5

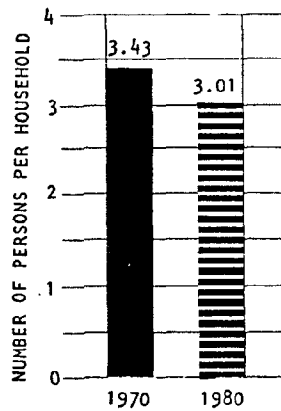
CHANGE IN THE NUMBER OF HOUSEHOLDS

1970-1980



At the same time as the number of households increased, the number of persons per household decreased. This decrease is illustrated on Chart No. 6, following:

CHART NO. 6
CHANGE IN THE NUMBER OF PERSONS PER HOUSEHOLD
1970-1980

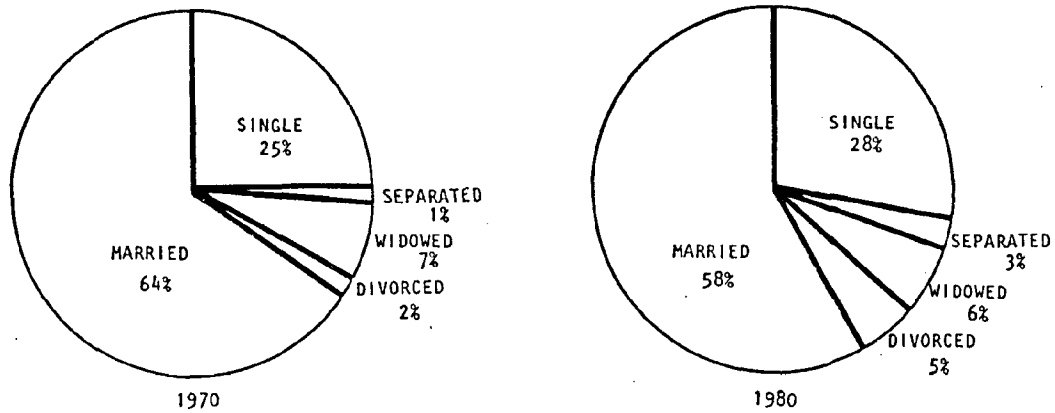


The rationale for the above phenomena is explained in part by referring to Chart No. 7.

CHART NO. 7

PERCENTAGE BREAKDOWN OF POPULATION BY MARITAL STATUS

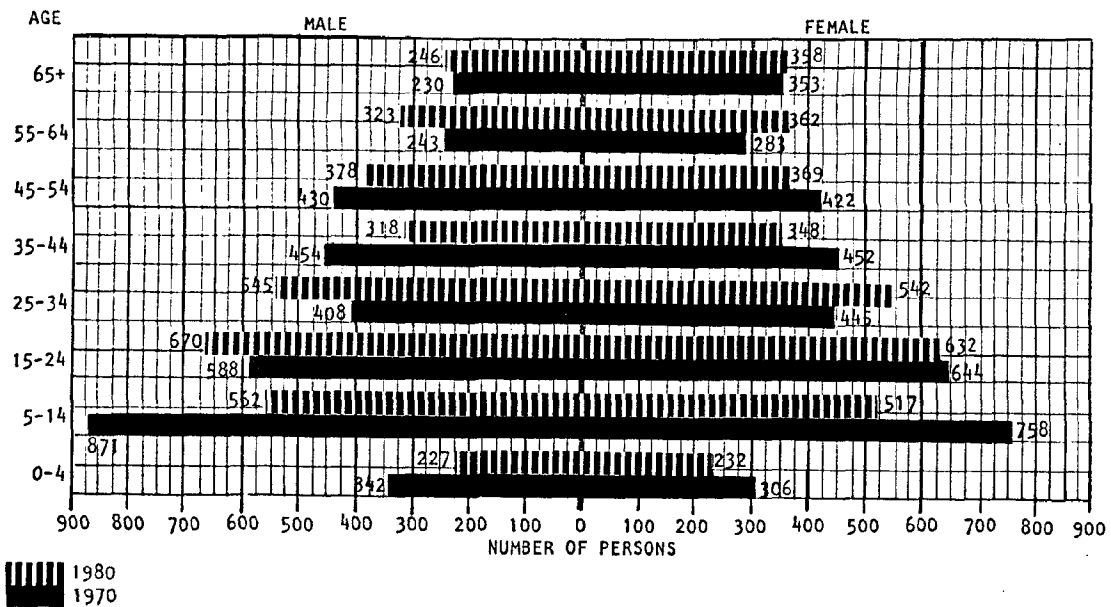
1970-1980



Comparison of the 1970 and 1980 percentages above illustrates that households with fewer people are in existence. For example, the single population has increased by 3%; and single people are just as likely as married couples to set up separate quarters. Separated and divorced persons have also increased by 2% and 3% respectively. These persons also tend to set up separate households.

Chart No. 8, following, shows a significant decrease in the age 5 to 14 category, a drop of approximately 40%. At the same time, the number of persons in the over-55 group actually increased in number.

CHART NO. 8
 AGE AND SEX DISTRIBUTION
 1970-1980



Note should also be taken of the small number of persons in the population category 0 to 4 years of age. Further, in the prime wage-earner and established-family categories of 35 to 44 and 45 to 54, population has also suffered a loss. The only categories of wage earners and potential wage earners to show population growth are the 15 to 24 and the 25 to 34 groups.

The increased population in this 15 to 34 age group more than offsets the losses experienced by those in the 35 to 54 group.

The most significant trend which will have the greatest impact on the community in the level of services it

demands and on Norwood's population and economic trends in the future is the enormous loss of population in the 0 to 14 age group, as well as the increase in population in the over age-55 group.

These segments of the population are most dependent on, not only their families but, on services such as health care, transportation and education. The depth of impact on these services will be determined by close watch on developing trends in the above age groups.

POPULATION PROJECTIONS

The preceding analysis sets forth the fact that Norwood Borough's population declined by approximately 8% during the 1970 to 1980 decade. The Borough's present population of approximately 6,650 persons is well established in existing housing, and appears to be subject to only slight changes. Normal turnover of housing units through sale can be anticipated, but no major alterations in the basic structure of the community's population are anticipated.

Norwood Borough is almost totally developed in terms of land use and evaluation of the Existing Land Use Map and a comparison with the Proposed Land Use Map indicates that there are no significant areas for new residential development. Therefore, the Borough's residential holding capacity has been reached, and only internal changes can be anticipated which relate to age of population.

Based on these local factors, it has been deemed inappropriate to utilize linear projection methodology in projecting future population. Projecting previous trends or relating Norwood Borough's population to County or National growth trends is inappropriate, since land is not available for future residential development. Norwood Borough's population requires commuting for most industrial and service employment since the amount of industrial land in the Borough is extremely limited. Therefore, regional employment and unemployment factors and trends may have a significant impact on the Borough's future population in terms of potential numerical loss.

Based on factors dealing with lack of existing land area for new residential construction, present type of housing and its potential for conversion to multi-family use, proposals set forth by the Comprehensive Plan for future land use within the Borough and regional factors concerning employment and population trends, it can be anticipated that the Borough's population will remain basically static during the current decade and in 1990, Norwood Borough's population of 6,650 is projected. It can further be anticipated that the Borough's population will change through a process of aging with growth numbers of persons in the post-55 age group, and declines in the number of persons in school-age group categories.

EXISTING LAND USE

SURVEY OF THE LAND

A windshield survey of all of the land in the Borough of Norwood was performed. Basically, the survey confirmed that the majority of the land is in residential use, 47.21%, supported by an extensive right-of-way system, 20.81% of the land. No industrial uses exist at the present time within the Borough limits. Public and vacant land make up 28.51% of the total land area of Norwood.

The survey formed the basis for the Existing Land Use Map, Map No. 10, and for the descriptions which follow.

In addition, the survey proved valuable in determining land use patterns, traffic circulation patterns, community facilities, and the impact of the Tinicum National Environmental Center.

CHARACTER

Norwood is located in the southeastern section of Delaware County in the Chester Pike area. The use of the land is predominantly residential with little commercial or industrial uses. The close proximity to the City of Chester and the highly industrialized areas along the Delaware River have, in the past, made Norwood a choice community for residential development.

Because Norwood is located along several main highways and commuter rail lines, it is within easy access to many major employment centers in the Philadelphia Metropolitan Area.

The general topography of the area is a rise in elevation from near sea level at its southern boundary near Darby Creek to 100 feet above sea level at the northern boundary of the Penn Central Baltimore and Ohio railroad tracks.

All surface water eventually makes its way to the Muckinipates Creek or the Darby Creek.

TYPE

Land use in Norwood is predominantly residential. The last large parcel of vacant land was subdivided in 1954. As a result of this, population gain was experienced during the 1950's and 1960's due to construction and occupation of new dwelling units build on previously unused land. Today, very little unused land remains for new construction.

Most of Norwood's commercial area exists along Chester Pike with northward branches of commercial on Amosland, Winona, Ridley, Garfield and Leon Avenues.

The areas south of Chester Pike encompass the largest concentration of residential units. Commercial activity in this area is lightly interspersed. Areas of recreation are also found south of Chester Pike.

DISTRIBUTION

Total Area:	.81 of a square mile
Total Area:	519 acres

Distribution Continued:

<u>Land Uses</u>	<u>Acreage</u>	<u>Percent of Total Land Area</u>
Residential	245	47.21%
Commercial	10	1.93%
Public	68	13.10%
Semi-Public	8	1.54%
Vacant	80	15.41%
Right-of-way	<u>108</u>	<u>20.81%</u>
TOTALS	519	100.00%

HOUSING CHARACTERISTICS

INVENTORY OF HOUSING

A community's residential neighborhoods are generally the most important determinant of a municipality's image and, therefore, its attractiveness to potential residents and future development.

In preparing a plan for the future of the Borough of Norwood, an analysis of the existing housing stock must be made not only to determine the existing condition and attractiveness of the housing, but its characteristics, such as size, price, and type, since these determine its suitability to various segments and income levels of the population. Only then can recommendations be made which will enable the community to best meet the housing needs of its current and future residents, whether that be new construction or Borough encouragement of homeowners and landlords to rehabilitate their units.

CHARACTERISTICS

Single-family, detached dwellings comprise 75% of Norwood's housing stock. The remaining 25% consists of various attached forms of housing, including apartments.

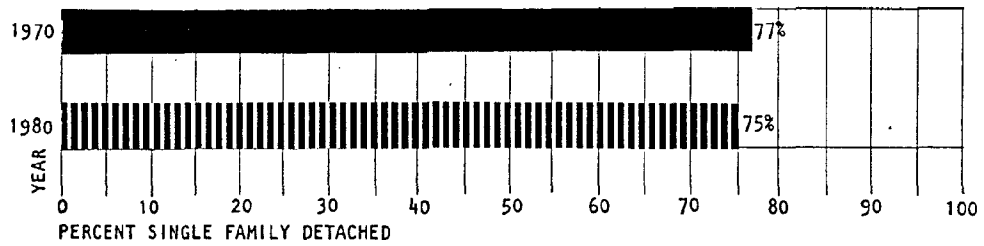
As is typical in an older suburban community, much of the housing is over 20 years old. Sixty-five (65%) percent of the units were constructed before 1950, and 21% in the decade 1950-1959. Only 8% of the existing units were built in the 1960's, while 6% were constructed in the 1970's.

To develop an understanding of recent trends in housing, some comparisons between the housing stock existing in 1970 versus that existing today must be made.

CHART NO. 9

COMPARISON OF SINGLE-FAMILY DETACHED HOUSING

1970-1980



Of the total housing units in Norwood, Chart No. 9 indicates that the percentage of single-family housing units dropped from 77% in 1970 to 75% in 1980. The housing units constructed during the 1970's were not as dependent upon the single-family detached form.

CHART NO. 10

AVERAGE NUMBER OF PERSONS PER UNIT

1970-1980

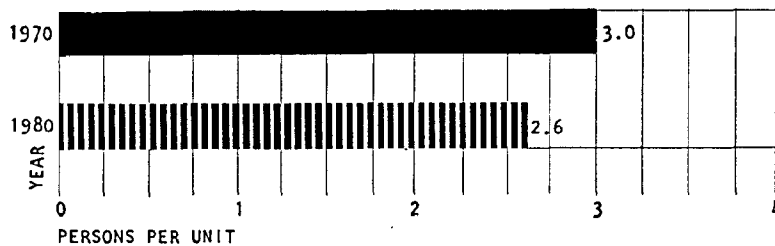
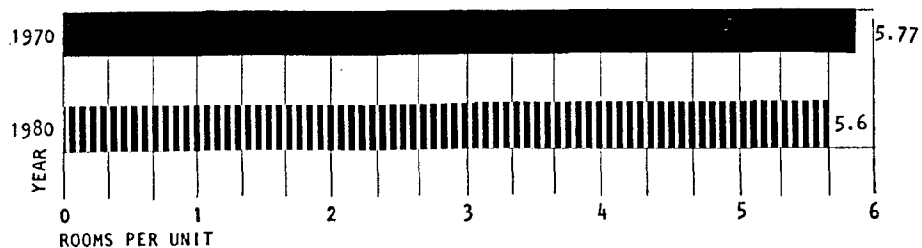


Chart No. 10 illustrates the fact that the number of persons housed in an average unit decreased by 13% over the period, from 3.0 persons per unit in 1970 to 2.6 persons per unit in 1980. This is a partial confirmation of the Borough's population loss.

CHART NO. 11

AVERAGE SIZE OF HOUSING UNIT



The fact that fewer persons were being housed per unit during the decade was reflected in the size of the units constructed during the period 1970-1980. Basically,

fewer people requiring housing per unit results in the need for smaller units.

This fact is illustrated in Chart No. 11. In 1970, the average size of a housing unit in the Borough was 5.77 rooms. By 1980, however, the average had dipped to 5.6 rooms per unit, indicating that units constructed during 1970-1980 were significantly smaller than those already in existence.

Therefore, national cultural and economic trends toward smaller families and smaller housing is reflected in the trends which have developed for the Borough of Norwood. The requirement for smaller units may pose a problem for the Borough. Norwood's housing stock, for the most part is made up of older, larger units. These units will create problems for the Borough in terms of their salability, expensive upkeep and underutilization.

GROWTH IN THE PAST DECADE

The total number of housing units has increased by 118 units since 1970. The increase from 2,151 units in 1970 to 2,260 units in 1980 represents a 5% addition to the total housing stock.

SUPPLY AND DEMAND

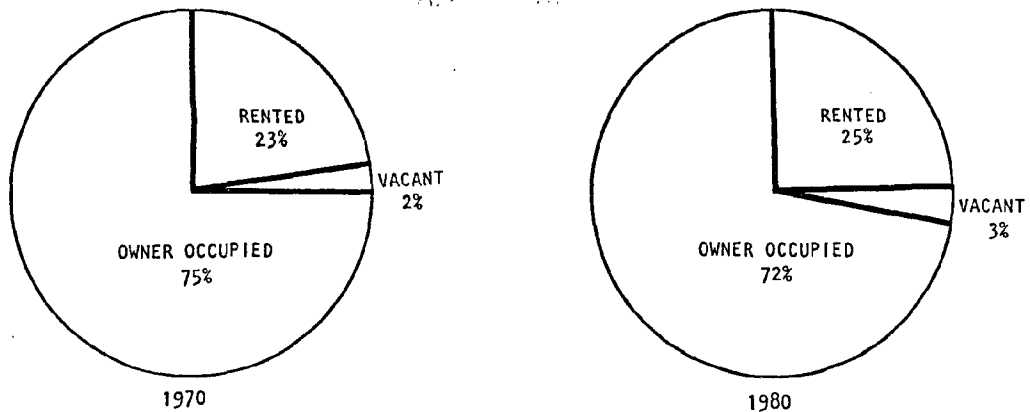
In 1970, 75% of the Borough's year-round housing units were owner-occupied, 23% were renter-occupied, and 2% were vacant. In 1980, this relationship among the types of housing

demand by Borough residents remained virtually unchanged and showed only a slight shift of 3% from owner-occupied to renter-occupied, while vacancies increased by 1%.

CHART NO. 12

PERCENTAGE BREAKDOWN OF HOUSING BY OCCUPANCY TYPE

1970-1980



The demand for housing over the last decade remained strong. This is borne out by the fact that, while Norwood's population actually decreased by 8%, vacancies only increased by 1%. This 1% increase in vacancies and the shift, although slight to renter-occupied housing, may indicate a trend and a need for housing conversions from one-family units to two-family units.

COSTS

As would be expected, the costs of housing in the Borough of Norwood has escalated significantly over the period 1970-1980, as the Borough reflects national trends in this area.

In 1970, the median housing value was \$15,000. By 1980, the median value had risen to \$37,900.

Monthly rentals which averaged \$99 in 1970, rose to more than double the 1970 average to a median average of \$210 per month in 1980.

AREAS OF DETERIORATED HOUSING

No significant concentration of deteriorated housing exists in the Borough of Norwood, indicating the pride Borough homeowners take in their homes by providing long-term and continual maintenance.

Nevertheless, there are some units of disrepair. These are well dispersed throughout the Borough's residential areas. The Borough of Norwood should give consideration to encouragement of property owners to maintain their properties, as well as to enforcement of Borough codes.

COMMUNITY FACILITIES AND SERVICES

INVENTORY

Community facilities are those amenities of a community which improve life by making the area comfortable, safe, and attractive as a place to live. Following is a brief description of the Borough of Norwood's community facilities and an inventory including ownership and operation responsibilities for those facilities.

A map indicating the location of each of the facilities follows and is entitled, Community Facilities Map, Map No. 12.

DESCRIPTION

Schools

Norwood Borough is a member of the Interboro School District, as are Tinicum Township, Prospect Park and Glenolden Boroughs.

As the population continues to mature and grow older and younger families are having fewer children, the pupil enrollment projections are declining.

The elementary school serving the Borough of Norwood is located on Senca Avenue. The Norwood School is a school district-owned and operated facility.

In addition to the schools operated by the Interboro School District, St. Gabriel's School and Church, located on Cleveland and Mohawk Avenues accommodates students up to the eighth grade. This facility is owned and operated by the Philadelphia Archdiocese.

Recreation Areas

The area known as Lower Park is a Borough-owned and maintained recreation area just east of Amosland Avenue. This area consists of ball fields, tennis courts, swings, and other play apparatus.

On the eastern end of Winona Avenue is the Norwood Athletic Club, which is owned by the Borough. The club leases the building from the Borough for its activities.

Small park areas are located at the intersection of Winona and Mohawk Avenues. These areas contain open space and benches. They are Borough-owned and maintained.

Borough Garage

The Borough of Norwood utilizes a garage which is located on Amosland Avenue to house trucks, tractors, and park maintenance equipment.

This facility is owned and operated by the Borough of Norwood.

Sewage Treatment Plant and Landfill

At the present time, the Muckinipates Sewer Authority is an inactive treatment plant. A portion of its grounds have been taken over by DELCORA and is being used as a pumping station.

Borough Hall

This facility was recently purchased by the Borough of Norwood and houses the Borough's offices and police force. It is a Borough-owned and operated facility located on Cleveland Avenue.

Fire Station

Located on Winona Avenue, the fire station is completely owned and operated by Norwood Fire Company No. 1. The Borough assesses millage in its tax structure for fire company support.

Library

The library can be found between Amosland and Winona Avenues on Welcome Avenue. This is a Borough owned and operated facility which was opened in 1951.

Swim Club

The Norwood Swim Club on Amosland Avenue is a privately owned and operated club.

Morton Mortonson House

This historic structure is found adjacent to the Norwood Athletic Club below Winona Avenue. It is a Borough-owned and operated facility and is currently on the National Register of Historic Places. It is a residential structure with a family living in it as full-time grounds keeper and watchman.

FACILITY CONTROL AND RESPONSIBILITY

<u>Facility and Address</u>	<u>Ownership/Responsibility</u>
Borough Hall 10 West Cleveland Avenue	Borough of Norwood
Lower Park Amosland Avenue	Borough of Norwood

Facility Control and Responsibility Continued:

<u>Facility and Address</u>	<u>Ownership/Responsibility</u>
Norwood Athletic Club Byron Holmes Boulevard	Borough of Norwood/ Athletic Club
Open Space Limited Recreation Winona and Mohawk Avenues	Borough of Norwood
Borough Garage Amosland Avenue	Borough of Norwood
Sewage Pumping Station Amosland Avenue	DELCORA
Norwood Library Winona and Welcome Avenues	Borough of Norwood
Morton Mortonson House Byron Holmes Boulevard	Borough of Norwood
Norwood Swim Club Amosland Avenue	Norwood Swim Club
Norwood Fire Company No. 1 26 West Winona Avenue	Norwood Fire Company No. 1
Norwood School Seneca Avenue	Interboro School District
St. Gabriel's Cleveland and Mohawk Avenues	Archdiocese of Philadelphia

TRANSPORTATION

CHARACTERISTICS AND CIRCULATION PATTERN
OF THE LOCAL ROAD NETWORK

The circulation system in Norwood exhibits the distinct road hierarchy typical of most urban areas. Chester Pike is the only road which can be classified as a primary road. A primary road is one which carries traffic entering, leaving, or through a community. Chester Pike is a 4 lane, north-south heavily traveled Federal Highway (U.S. 13).

Secondary or collector roads are those which move traffic within the community to either residential or commercial areas, or to the primary roadways. Norwood's major collector roads are Amosland Road (running east-west), Welcome Avenue (running north-south), Cleveland Avenue (running east-west), Elmwood Avenue (running north-south), Mohawk Avenue (running north-south), and Winona Avenue (running east-west) between northern and southern Amosland Road.

Tertiary roads are those which primarily serve those who live or work in the immediate vicinity. Those roads generally do not serve as a thoroughfare to those moving through the community. All roads not classified as primary or secondary, fall into this category. The majority permit two-way traffic, but some one-way streets do exist on part of Trites, Sylvan, Harrison, Ridley, Winona and School Lane.

AVAILABILITY OF MASS TRANSIT

Bus service in Norwood is provided by Septa's Route 74, which runs through the Borough on Chester Pike, and Route 107, which runs two blocks to the north and west along McDade Boulevard and Lincoln Avenue.

Route 74 buses to Darby or Boothwyn run approximately every half hour, from 5:00 a.m. until 11:00 p.m. on weekdays, and approximately every hour on weekends and holidays. Route 107 buses to 69th Street or Essington run on weekdays and Saturdays. Half hour service is provided on weekdays and one to two hour service on Saturdays. Buses on both routes stop every two to three blocks.

Trains to Wilmington or to Center City Philadelphia run about every half hour during rush hours, about every hour during non-rush hours on weekdays, and less frequently on Saturdays and Sundays.

EMPLOYMENT

EMPLOYMENT

Because of a lack of industry in Norwood, most residents seek employment in other communities. Due to this fact, the Borough is impacted to a greater degree by regional economic conditions and changes than would be a community which was able to provide employment for its residents in stable, secure industries. In recent years, the regional economy has been relatively unhealthy.

Dependent for many years on heavy manufacturing industries, the northeastern United States has in recent years suffered a significant decline in manufacturing capacity. This is the result of the obsolescence of some of these industries, and the migration of others to locations both national and international, thought to be more conducive to their operations. Because Norwood is contained in an older suburban area which was for many years dominated by heavy manufacturing industries, it has not escaped the effects of these changes. There has been a fairly significant loss of population over the past ten years, and as industry continues to move out of the region, those residents who wish to remain in Norwood may be forced to look to more remote portions of the region to secure acceptable employment. As transportation and fuel costs continue to rise, traveling to more remote locations does not appear to be an efficient or economical alternative.

There are other negative impacts to the Borough caused by the lack of industrial uses and employment opportunities. Communities without significant industrial tax base generally have higher tax rates and/or lower levels of community services provided to residents. This is because residential uses place higher demands on the system for education and other community services than do industrial uses. However, industrial property values and tax revenues are higher, so they are in effect helping offset the higher costs created by residential areas of the community.

There are in the community several commercial areas which do employ some people. However, commercial establishments are generally not able to pay a wage many employees need to meet expenses. For this reason, commercial establishments

are more appropriate sources of employment for students and others who cannot work full time or during traditional work hours. Commercial uses are important to a community, in that they permit residents to purchase consumer products in the community and allow money to be retained and circulated within the community. It is generally thought most beneficial to a community when money can be circulated through a community one or several times, as this helps generate economic activity and health. For this reason, a diverse commercial area which can supply needs of residents and industries, and who support each other, is very desirable.

In summary, while Norwood provides some employment opportunities for residents, they are not of the nature that would be acceptable to most full time employees. It would be to the Borough's advantage to develop or allow to develop in the Borough an industrial area. Because of the limitations imposed by a highly residential community, the environmentally fragile nature of much of the Borough's remaining land, and the recent economic difficulties experienced by heavy manufacturing industries, it is recommended that the nature of any industry located here be a light manufacturing or services industry. It is these types of industry which have proven more resistant to the recent problems of heavy manufacturing industries, and which seem best able to provide stable, secure, and environmentally satisfactory employment opportunities for Norwood residents.

PROPOSED LAND USE PLAN
AND OTHER RECOMMENDATIONS

RECOMMENDATIONS

The Proposed Land Use Plan for Norwood Borough deals primarily with recommendations for the use of vacant land within the community. More than 75% of the Borough's land area exclusive of public rights-of-way is fully developed and the predominant land use is residential.

The Proposed Land Use Plan recognizes these facts and recommends preservation of the existing residential neighborhoods and the continuation of commercial facilities along Chester Pike, the primary thoroughfare which extends through the community. The northern portions of the Borough, those above the Penn Central Baltimore-Washington Main Line tracks, are almost exclusively residential. With the exception of a small portion of commercial land at the extreme north-western limits of the Borough, the area is exclusively residential.

This extremely pleasant residential neighborhood is proposed to remain in its present configuration without the intrusion of any multi-family housing, commercial or industrial land uses.

Extending to the south is a triangular-shaped area, a mixed use neighborhood, extending from Chester Pike to the Penn Central Baltimore-Washington Main Line tracks. This area is a mixed use commercial/residential "Village Center" in close proximity to the commuter rail station serving Norwood Borough.

Residential uses are proposed for continuation on both the east and west side of the Village Center commercial/residential zone. In this area store fronts and signs need to be carefully controlled. Parking on Winona Avenue needs to be limited and improvements to the pedestrian bridge linking this area to the railroad station is critically important to the future well-being of the community.

The fragmented commercial land uses on both sides of Chester Pike are proposed for consolidation, and it is recommended that the phased conversion of residential properties on this major thoroughfare occur. Office commercial activities are recommended as part of this conversion and mixed residential/commercial uses are also suggested.

To the south within Norwood Borough, an almost exclusive zone of residential and public and semi-public facilities exists and should be retained. Centrally located within this area is the Norwood Elementary School and a series of public parks well-placed between the one-way portions of Winona Avenue.

To the extreme south is located a large land area which is undeveloped and is immediately adjacent to the Tinicum National Environmental Center. It is proposed that this land area be left undeveloped and that it ultimately become a part of the Tinicum National Environmental Center. Slightly to the north of this area of open space is located the historic Morton Mortonson House, and the Comprehensive Plan calls for the retention and continued improvement of this historic facility. A public park and recreation area already exists adjacent to Winona and Amosland Avenues near this historic site. This recreation area is presently developed with actively used athletic fields and the continued utilization of this area for public and semi-public functions is recommended.

East of this area and south of Amosland Road is located property owned by the Muckinipates Sewer Authority. This complex is no longer in use since the DELCORA Sewer Authority has phased out the operation of the Muckinipates plant. Only a 1 acre site needs to be maintained for a pumping station. Approximately 19 acres of land presently exists generally located south of the existing Swim Club and adjacent to the park. In light of the fact that Norwood Borough is almost totally devoid of industrial development, it is, appropriate in terms of balanced land uses to recommend that a portion of this land be carefully developed with a combination of light industrial office and small industrial sites. The areas immediately adjacent to the Muckinipates Creek are proposed for preservation as natural open space since they are subject to flooding and contain alluvial soils that are inappropriate for development.

The Land Use Plan recommends that access to the proposed light industrial area of Norwood Borough occur only off of Amosland Road where vehicular traffic and light truck movements will not impact adversely on residential areas.

In conclusion, the Comprehensive Plan calls for the retention and improvement of residential, commercial, public and semi-public activities where they generally exist within Norwood Borough, recommends the acquisition and preservation of marsh lands by federal agencies, and expanded portions of the Tinicum National Environmental Center, recommends retention of recreation facilities and sets forth the proposal to use a portion of the vacant lands adjacent to Muckinipates Creek for light industrial activities.

Attached exhibits illustrate the location of community facilities throughout Norwood Borough which appropriately serve the population.

BASE MAP

BASE MAP

A reproducible base map of the Borough has been prepared at a scale of 1" = 400', indicating:

- Road locations and names.
- Highway locations and names.
- Street locations and names.
- Stream locations and names.
- Location of bodies of water and names.
- Borough corporate boundaries.
- Rail line locations.
- Alleyway locations.

The Base Map is utilized throughout the Comprehensive Plan as a base on which information is set forth respecting physical development conditions within the Borough.

Existing and proposed land use are graphically depicted on the base map. Principal thoroughfares are shown, as are existing zoning classifications.

The base map will be useful to Borough officials both in the context of providing information in the Comprehensive Plan and also as a readily available instrument for plotting important information concerning the Borough's physical condition, demographic characteristics and other material.

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BOROUGH OF NORWOOD
ZONING ORDINANCE
ANALYSIS AND PROPOSALS

BOROUGH OF NORWOOD
ZONING ORDINANCE
ANALYSIS AND PROPOSALS

The process of developing the Comprehensive Plan for the Borough of Norwood included an analysis of the Borough Zoning Ordinance and Subdivision Regulations. This analysis in conjunction with input from the Borough Council and Planning Commission, led to the following recommendations.

BOROUGH OF NORWOOD
ZONING ORDINANCE
ANALYSIS AND PROPOSALS

The zoning regulations guiding growth and development in Norwood are relatively uncomplicated and are similar to those which have been employed in numerous other urban and suburban communities for many years. The current Ordinance was first adopted in 1927, but has been altered over the years by the addition of numerous amendments.

The traditional notion in community development that the many activities which occur in a typical community are conflicting and should be segregated into separate zones or districts is very evident in Norwood's zoning plan. The Borough has been divided into three districts, two of which are residential, with the third permitting business and commercial uses. The types of activities which may occur in each zone is very well defined by the ordinance. The physical relationship of the zones with the commercial area being centrally located is very appropriate.

However, there are some problems with the Zoning Ordinance as it relates to the Comprehensive Plan which has been prepared for the community. An implicit objective of any Comprehensive Plan is that all land in a community should be devoted to the use for which it is best suited. In the Comprehensive Plan, the land in the southern portion of the Borough has been identified as being susceptible to flooding from Darby Creek and therefore, would be best suited to open space and recreational uses. However, these areas are currently zoned for single family detached dwelling units. In addition, the Morton Mortonson House, which has been identified as having historical significance, is in this section of the community, and its integrity may be threatened if this portion of the community is developed.

Another expressed goal of the Comprehensive Plan is the preservation of the Borough's current population level. Current zoning may not help facilitate this goal, as the majority of the Borough is zoned for detached dwelling units. This housing form is not only generally more expensive and land intensive than other forms, but also is geared more to larger families which population trends indicate are becoming less and less common in the Borough.

In order to make the Zoning Ordinance consistent with the goals and objectives of the Comprehensive Plan, the following change is recommended:

1. The creation of a Recreation-Conservation District in which should be included all areas of the Borough subject to flooding, all areas deemed suitable for active or passive recreation, and any structure or property with historical significance. The appropriate application of this zone to the community is illustrated on the Proposed Zoning Map.

In addition, the Borough should consider some changes in the provisions of the Zoning Ordinance regarding the uses allowed in each zone. Many activities once thought to be the source of conflicts in a community and which were segregated or excluded, may actually produce in a community a diversity which is not only more dynamic and interesting, but more adaptable to the rapidly changing conditions in modern urban and suburban communities.

The Borough, for example, currently prohibits town or row-houses and medium rise towers from being utilized in the community as a form of housing. Ironically, it may be these forms which, if subjected to appropriate design standards and combined with the current stock of housing, may be best able to meet the needs of today's smaller families and single households in a highly developed area, such as Norwood. The Borough has the proven capacity to support a larger population than it is currently, and if sociological trends toward smaller households continue, these housing forms may be a way for the Borough to maintain or even increase its population if regional economic conditions improve in the future.

The notion of mixed use development where residential areas are allowed to coexist with compatible commercial or office uses should also be employed wherever feasible in future development.

SUMMARY

Norwood's Zoning Ordinance has proven effective for many years in regulating growth and development in the Borough. As the Borough Solicitor, Joel Robbins, has indicated that the Ordinance is legally sound, it is recommended that the Ordinance be retained and that only the minor change outlined above be implemented. This will allow the Borough to retain its character, but also be better able to meet the needs of current and future residents.

PROPOSED: RC RECREATION-CONSERVATION DISTRICTS APPLICABILITY OF REGULATIONS

In the Recreation-Conservation District, the following regulations shall apply:

Permitted Uses:

A building may be erected or used and a lot may be used or occupied for any of the following purposes and no other:

1. Wildlife preserve; stream valley or forest preserve; any other conservation purpose.
2. Public park, recreational, or historic area owned and operated by Norwood Borough, or other governmental or private nonprofit agency.
3. Park, picnic area, swimming area or outdoor recreational use, other than a use permitted in this section above, customarily located in rural areas, including a country club or other structure in conjunction with and incidental to any permitted outdoor use, when

authorized as a special exception by the Zoning Hearing Board, and provided that:

- a. The use and its design are compatible with the natural character of the area and the conservation purpose of the district.
 - b. Each use or activity shall be screened or separated from a public street and adjoining property by a landscaped planting strip not less than one hundred (100) feet in depth.
4. Accessory use on the same lot with and customarily incidental to any of the foregoing permitted uses. The term "accessory use" shall not include a business but may include:
- a. Incidental use in conjunction with outdoor recreation uses as permitted in subsection 3. above, such as charging of admission or sale of refreshments, provided that any such use shall be located or screened so that it shall not be visible from the public street or an adjoining property.
5. Signs, subject to Borough standards and regulations.

SUBDIVISION REVIEW

The Borough has no Subdivision Review Ordinance of its own, and all subdivision reviews for Norwood Borough are carried out by the Delaware County Planning Commission. The County Subdivision Ordinance has been reviewed, and its provisions have been determined not to be in conformance with the goals and objectives of the Comprehensive Plan.

All subdivision proposals must be submitted for review by Borough Council and the Planning Commission, and must be in conformance with all appropriate provisions of the Zoning Ordinance, including Section 90, Norwood Design Standards, as well as building code and fire code regulations.

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