

## 2000 MASTER PLAN



OVERVIEW

GOALS AND OBJECTIVES

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PLANNING RELATIONSHIPS



2000 MASTER PLAN



Adopted by  
THE WASHINGTON TOWNSHIP  
PLANNING BOARD  
December 2000

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December 2000





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# OVERVIEW

## A. INTRODUCTION

**T**his Master Plan represents a real vision for the future of the Township. While it builds upon previous planning efforts, it also emphasizes the fundamental goal of preserving the community's rural character and heritage. The Plan focuses on the need to guide further development towards a pattern of compact villages and commercial crossroad nodes, thereby ensuring that farmland is preserved and farming activities remain viable. It further proposes the maintenance of open spaces and the current quality of life standards. Although these recommendations are based on a vision, they also consider the realities of growth trends, policy changes at County and State levels, infrastructure needs, and real estate markets. It is a real and practical plan that will accomplish the remarkable goal of addressing both growth and preservation.

It is, most importantly, a plan for the ultimate development of the entire Township. It is not merely a plan for types of growth, but is a plan for everything that will take place in the future. As a consequence, it seeks a delicate balance between preservation and development, and offers as many tools as possible to achieve that balance.

## B. PLANNING HISTORY

In accordance with the Municipal Land Use Law (Chapter 291, Laws of NJ 1975) this Master Plan serves to replace the previous Washington Township Master Plan last adopted in 1990. It features current financial analyses and includes the rudimentary components which comprise a foundation for the Township's planning efforts. Its policies, derived from the Municipal Land Use Law, will be the basis for local land use controls that will protect its residents' health, safety, and general welfare.

In August 1975, the state of New Jersey enacted a new Municipal Land Use Law which, empowered Washington Township with the authority to plan and control development. In response to the new law, the Township amended its planning and land development regulations to incorporate the law's administrative and procedural provisions.

The Township began a formal planning initiative with the adoption of its first Zoning Ordinance in 1949, a Land Subdivision Ordinance in 1954, and its first Master Plan in 1971. In 1978, the Township received a grant to prepare a Growth Management Plan, which was completed in 1980. This Plan addressed new development phasing as well as development approvals throughout the early 1980's.

On March 28, 1985 the Township adopted a new Master Plan,

featuring a long-term land use plan. It was amended on October 29, 1986, and based on the proposals featured in a preceding short-term plan. This short-term land use plan served as a foundation for the Township's zoning regulations, which were adopted in 1987.

To comply with the Fair Housing Act of 1985 the Township also amended its Master Plan to include a Housing Plan Element and a Fair Share Plan (October 1986). This Housing Plan Element was updated in August 1988 and the Township received Substantive Certification from the New Jersey Council on affordable housing on September 6, 1988.

In response to the N.J. Statewide Mandatory Source Separation and Recycling Act of 1987, Washington Township again amended its Master Plan to include a Recycling Plan Element, which was adopted in December 1989.

In 1987, the Freshwater Wetlands Act was adopted by the State of New Jersey. In response to this Act, Washington Township shortly thereafter prepared a hydric soils map which provided a general guide for the location of wetlands within the Township. Based upon this map, a large portion of the Township was found to contain hydric soils (which are indicators of wetland conditions). Many of the areas identified as potential wetland locations were later verified by field delineations conducted in support of new development proposals within various locations of the Township. As a result of the Freshwater Wetlands Act, revisions were made to residential developments prescribed in the Zoning Ordinance, along with changes to commercial office use zones found along Route 130. At this time, the Township also modified its zoning for the historic village of Windsor and initiated a process of evaluating sanitary sewer service areas as part of a Water Quality Management Planning Program.

The USDA Soil Conservation Service identified more soil types as hydric soils, which resulted in an additional 20 percent of the Township's land area consisting of hydric soils. In conjunction with the earlier classification of hydric soils, another investigation identified approximately 50 percent of the Township land area consisting of hydric soils.

In accordance with the Municipal Land Use Law, in 1988 Washington Township also prepared a reexamination report of its Master Plan and Land Use and Development Ordinance. This report, compiled by officials of Mercer County as well as adjacent municipalities, noted that the previous Master Plan studies had adequately addressed planning needs documented by the Township's first reexamination report of 1982.

In 1990 the Township completed a Master Plan Update several years prior to the MLUL requirement. As stated in this 1990 plan update, the Township stressed the need to revise its Master Plan for the following reasons:

- A number of policy initiatives, legal decisions, and technical analyses by federal, state and local governments took place

prompted a review of the Township's Master Plan. Fundamental to this review was the recognition that the increasingly strict regulations governing environmental protection (Freshwater Wetlands Act, et. al.) would affect the potential to develop certain areas within the Township and to maintain the densities that had been proposed.

- The Freshwater Wetlands Act had a similar affect on the necessary infrastructure designed to support future development. In particular, constraints on a proposed loop road were identified; as a result, this road was never constructed. These constraints were later determined to have a significant impact on the ability to service the developments anticipated under the 1990 Master Plan's long-range land use plan.
- Coinciding with the need to review the Master Plan, was the realization that there were physical limitations on the sanitary sewer system. These limitations, in the form of treatment capacity allocations to the Township, could further have limited development, and would have resulted in an unattainable long-range land use plan that was focussed primarily on growth.
- With the receipt of substantive certification on its Housing Plan Element and Fair Share Plan, the Township also developed a plan to provide for its low and moderate income residents. As a result, the Township faced the need to provide substantially fewer units than originally anticipated.
- Other analyses, based in part on the above factors, revealed that there was little or no need to provide additional school sites at that time. Studies of the Township's park and recreation sites, however, revealed the need to substantially revise plans for development of these sites.
- In 1997 the Township amended its Master Land Use and Transportation chapters to include a Town Center.

## ***C. MASTER PLAN 2000 UPDATE***

In 1998 the Township initiated this Master Plan to:

- Update the information in the prior plan that would serve as the foundation for planning recommendations such as demographic projections, and planning related legislation.
- Consider revisions to land use, farmland preservation, open space planning and conservation policies in order to deter sprawl, to encourage development that efficiently utilizes existing infrastructure, to protect the continued commercial viability of agriculture, and to preserve both the rural heritage and character of Washington Township.
- Consider revisions to the land use policies, to encourage commercial development that supports the land use, farm preservation, and open space/conservation policies of this Plan.
- Consider revisions to the provision and planning of sewer

services, so those services would support the goals of this Plan.

Provisions within the MLUL concerning preparation of master plans (40:55D-28) require preparation of goals and objectives governing future development of the municipality as well as a land use plan chapter; it also suggests that chapters regarding housing, traffic and pedestrian circulation, utilities, community facilities, recreation, conservation, historic preservation, and recycling facilities should be provided as needed. This Master Plan, as presented in the ensuing chapters, fully conforms to this requirement. Each chapter has been prepared based on an assessment of present conditions and requirements, future needs, benefits, and drawbacks of various alternatives, within the context of Township goals and objectives. The Plan has these specific chapters:

- Descriptions of the Goals and Objectives set the bases for all of the Plan's recommendations.
- The Land Use Plan and Farmland Preservation Plans draw upon current land use surveys, and offer recommendations to guide future development which will ensure the protection of the Township's farmlands and the open spaces, and which will serve to create a unified community.
- The identification of natural features (in the 1990 Plan), that could constrain development, has generated techniques which would preserve open space and protect endangered lands.
- The circulation system, including both roads and trails, makes recommendations which further support the intentions to create compact communities and to preserve farmland and open space.
- The utilities (especially the sewer service area) are fundamental features of this planning initiative, especially in regard to the establishment of compact development patterns.
- The advice of public safety officials, school administration officials, and municipal agencies has been sought during the preparation of the Community Facilities Plan, to identify municipal needs for police, fire, first aid, recreation, education, and library services. Similarly, a Park and Recreational Facilities Plan was prepared in concert with the Township's Recreation Director and planning officials.
- The Housing Plan reflects the philosophical development of the Township's overall housing stock, and affordable housing needs, as determined by COAH.
- An Historic Preservation Plan has been included to recognize the Township's heritage, and to provide a program for resource conservation and preservation.

# I. GOALS AND OBJECTIVES

## A. INTRODUCTION

**T**

he Goals that are expressed here, and their supporting Objectives, are the foundation and framework for the entire Master Plan. They evolved from extensive community discussions, from the input of the Township professionals, and from the guidance given by many other public agencies. They therefore represent the Township's vision for its future.

## B. HERITAGE

### GOAL:

*Protect the rural character, the rural quality of life, and the cultural heritage, of the Township.*

### OBJECTIVES:

- Provide an environment where farming can continue as a viable economic activity, and the farmlands are therefore preserved.
- Promote the preservation of natural open spaces, stream corridors, wetlands, view sheds, forests, and the quality of the water and air.
- Promote the preservation of historic sites and buildings. Take steps to assure that this will take place in the near future, to prevent further loss of the Township's historic heritage.
- Plan the pattern of future development so that traffic does not adversely affect the character of the rural roads.
- Establish planning and design standards so that new developments are of a scale that is compatible with the Township's historic and rural characteristics.
- Promote a variety of housing types and sizes, including a variety of house lot sizes.
- Take all steps that are available to direct growth in a way that discourages sprawl type of development.
- Encourage the provision of small community parks in residential developments (clusters, centers) that are accessible to the whole Township community. These parks will add to the open quality of the community fabric that is so important to the Township's heritage and character.

## C. COMMERCE

### GOAL:

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

## **OBJECTIVES:**

- Village commercial and highway center uses should relate to the local marketplace. Commercial and office campus uses near the Turnpike should relate to the regional marketplace, and should be concentrated in the vicinity of the I-195/Turnpike intersection. In no event should large regional shopping centers be encouraged.
- Encourage the development of new businesses, and the expansion of existing businesses, in appropriate areas, which result in jobs that can be filled by the residents of the Township.
- Identify the Trenton-Robbinsville Airport as an economic asset to the Township; balance this value of the Airport with the needs of the adjacent residential and commercial properties. Remember that the preservation of the rural character and quality of life applies to the Airport's residential neighbors as much as it does to the rest of the Township.
- Continue to support the development of the Town Center concept, and apply that concept to other commercial/retail nodes.

## **D. LINKAGES AND EDGES**

### **GOAL:**

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

### **OBJECTIVES:**

- Respect and respond to the adjacent communities at the Township's edges, including especially their aspirations to preserve farmland and to create regional trail systems. In addition, respond to any plans of these communities that could have an adverse affect on Washington Township.
- Encourage patterns of development, and create connections between the various development areas, that will promote walking and biking to the schools, the library, shops, employment, and nearby neighborhoods.
- Promote patterns of development that will eventually permit the use of public transportation.
- Promote interconnecting bike and walking trails throughout the Township. Develop a plan for the trails that takes full advantage of both the open spaces and the edges of the rural roads.
- Establish visual and operational design criteria for roadways that preserve their rural character.

- Encourage commercial developments that take advantage of the existing roadways, and that encourage walking among them, so that new roads and road widenings are unnecessary.
- Recognize and define the Trenton-Robbinsville Airport's development constraints, and the potential impacts on adjoining properties. Carefully evaluate the impact on roadways, noise, safety, air quality and, perhaps most importantly, the activities of the Sharon School.
- Recognize the historic character, infrastructure, and special scale of Allentown in the planning of future development and future traffic movements in the southeastern corner of the community.

## **E. INFRASTRUCTURE AND SUSTAINABILITY**

### **GOAL:**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

### **OBJECTIVES:**

- Identify the immediate and future needs of the schools.
- Identify the future needs of public facilities and lands; take steps for early acquisition of those lands.
- To help prevent increases in real estate taxes, and to create a sustainable economy for the Township, assure that housing development is balanced with new commercial development.
- Support the Township's commitment to provide recreational and cultural facilities and programs that are designed to accommodate the needs of residents of all ages.
- Encourage development that promotes walking, biking, and (in the future) the use of public transportation - thus reducing automobile trips in the Township.
- Promote the recovery of recyclable materials from solid wastes.
- Encourage the use of building and landscape materials, and individual building designs, that promote energy efficiency and that are environmentally sensitive in their manufacture and use.
- Encourage development that promotes resource conservation and, where appropriate, the reuse of farmland for recreational purposes.
- The planning of public parks and/or playgrounds should make them easily accessible to all of the population groups of the Township. This planning process should include small community parks in the various neighborhoods of the Township.

- Coordinate public open spaces with a larger regional plan for conservation and recreation.
- Take steps to assure that the results of large commercial developments in adjacent communities do not adversely affect the traffic and development in the Township, and that the Township retains its ability to achieve its Goals and Objectives.

## **F. COMMUNITY**

### **GOAL**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

### **OBJECTIVES**

- Create trail and sidewalk connections between the various development areas, to promote walking, bicycling, jogging, etc. to all of the activities of the Township.
- Revise the current planning methods for cluster design and planning, to assure that they become neighborhoods that are linked in many ways to the wider Township community. Discourage site design proposals that isolate residents by buffers, berms and reverse frontages.
- Preserve the narrow rural roads, to minimize the speed of traffic, and to encourage safety. Roads should be designed so that easy access between neighborhoods is maintained, and that they will accommodate walkers and bikers as part of a pedestrian linkage system for the whole Township.
- Create a place where people of all ages can live, and can circulate easily to join in community life. Avoid creating a place that relies entirely on the automobile for movement and connection.
- When residential development occurs, public parks and/or playgrounds should be planned that accommodate recreational demand anticipated by the new residents. These parks should be designed to be readily available and accessible to others in the Township.
- Encourage the creation of jobs in the Township which can be filled by the residents of all ages, and which can be easily accessible to the community by its roads and trails.
- Establish circulation and land use patterns that make the Town Center become the focus of Township life.



## II. LAND USE PLAN

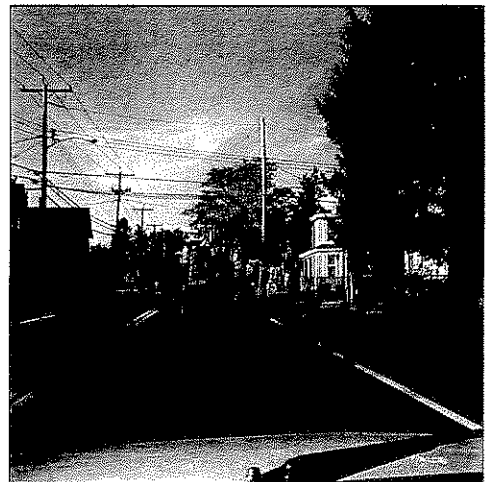
### A. INTRODUCTION

**T**he Goals of this Master Plan have made it clear that the preservation of the agriculture and the historic rural way of life that now exist are a high priority in Washington Township. This intention is consistent with the planning areas indicated in the State Development and Redevelopment Plan. It also suggests that "land use" in Washington Township includes the farms (and agricultural-related businesses) and open spaces as much as it does conventional forms of development. This Land Use Plan must therefore be seen as an integral part of the recommendations for farmland, open spaces, conservation, parks and recreation that are described in Chapters III, IV, V, and VI. In summary, the Land Use Plan makes recommendations based on the following eight fundamental planning actions:

- Farmland and open spaces are recommended to be preserved through a number of methods, as described in Chapters III - VI. The criteria for their preservation will ensure that all types of open (or, "undeveloped") lands can function in the way they are intended, and are not constrained by building development patterns. Planning for farms and open spaces should therefore be based on positive actions, and not merely be residual after the decisions about building development are made. Both the farming lands and the open spaces will be made fully viable for a variety of functions. They will not only be useful for farming, trails and recreational opportunities, but also for the maintenance of a rural place as depicted in the "view from the road". Thus, the undeveloped lands will be as significant as those surrounding the built environment. Both land types will reflect a harmonious coexistence where changes in one area will not threaten the existence of another.
- Residential growth should be limited to a total population that can be sustained by the following management factors: the extent of the actual buildable land (especially in the large open areas at the north and east of the Township), the total amount of development which can be built under the existing zoning ordinance, and the total number of houses which fit within the constraints of the waste water treatment system. In general, the future population under these physical limitations, including the development of the Town Center, is expected to be only fifty percent greater than exists now.
- Future residential developments should be directed to take place in compact communities or carefully designed clusters, so that farmlands will remain, forests and wetlands will be protected, and traffic control will not require significant changes to the rural character of the roads, a quality that the Township seeks to preserve.
- Commercial growth should be managed to best serve the goals of this Plan and the needs of the Township. It is not the



The "view from the road" includes views of agribusiness, which is an essential part of the life in Washington Township



Most of the roadways and villages of the Township - seen here is the main street of Windsor - retain a rural character, and serve as access to the working farms. These roads must accommodate trucks and tractors of the farms as much as they accommodate the cars of the residents.

intention to minimize the amount of commercial development. Rather, the Plan's intent is to determine both the arrangement and type of development within the region. It is acknowledged, however, that there is a relationship between commercial growth and residential growth: added commercial developments (especially retail and offices) can create market pressures for additional residential units; added residences can generate the need for retail and office spaces.

- Future commercial development will be encouraged to be located in nodes. The purpose of this type of site planning is to preserve the viability of agricultural fields and forests, to obtain views of these open spaces from the road, and to promote pedestrian oriented shopping and office areas. Commercial development along Route 130 should be compatible with the historic, small-scale character of the Township, and with the Goals and Objectives of this Plan.
- The location and character of all future development should occur in a way that preserves the nature of the rural road network. For example, road widening should be prevented, the use of curbs in many cases should be discouraged, and other roadway improvements should take place only where appropriate. It has been demonstrated, for instance, that road widenings and other 'improvements' can open up lands for more development and can therefore actually generate more traffic. On the other hand, changes to the roadways that would safely accommodate walking and biking could help to reduce traffic, so the exact details of these roads must be carefully considered. The visual and operational characteristics of rural roads are absolutely fundamental in preserving the viability of a rural community and its agribusiness.
- A sense of belonging to the larger "community" will be planned for, unlike the sense of separation that is promoted by the existing types of cluster developments. The intent is to establish a set of planning criteria that will guide individual developments, and that will assure that real neighborhoods are created. One essential criteria should be the prevention of "reverse frontage" residential developments, where the houses turn their backs on the community. In addition, a connected network of greenways and bike trails will become the "backbone" for most of the future physical planning in the Township. These trails are intended to link neighborhoods, institutions, businesses, and recreation areas, and will thereby help foster the transformation of the many parts of the Township into a single community.
- The Sewer Service Area delineation is critical in directing recommended patterns of development, since compact communities require the use of some type of common public wastewater treatment system. Planning for its change must therefore be done in support of the overall plan, and not merely to serve one development or another. Since the Township's sewer capacity is a function of an inter-local agree-

ment with Hamilton Township which provides limitations, it is the intention to make the system work to meet the recommendations and goals of this Plan.

As a consequence, all of the Township systems - farmlands, open spaces, roadways, sewers, etc. - must work together with the pattern of building developments to realize the Goals of the Master Plan. This is a single plan, and not merely several isolated categories of planning steps, and each Goal and each Objective listed in Chapter I must be met.

## **B. GOALS AND OBJECTIVES**

The Goals of this Plan are consistent with the goals of previous plans, but a great deal has changed in the Township, region, and state in the last ten years. These changes make this update necessary. It is now realized that the large lot pattern of residential development and the continuous strip highway commercial development which are permitted by current zoning, and which have actually occurred in several locations, will very quickly transform the rural quality of life in the Township into a considerably more "suburban" community. It has also been realized that these existing planning criteria will not permit the Township to achieve the goals that have been anticipated in earlier plans, and that are consistent with the intent of this Master Plan. The recommendations of this Land Use Plan are specifically established to support *all* of the Objectives of the five basic Master Plan Goals:

### **1. HERITAGE**

*Protect the rural character, the rural quality of life, and the cultural heritage of the Township.*

### **2. COMMERCE**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

### **3. LINKAGES AND EDGES**

*Connect centers, neighborhoods, and other destinations. Improve the clarity of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers, and buffers to distinguish agricultural lands from developing areas, thus creating an enduring landscape which minimizes land use conflicts.*

### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities, and public open spaces.*

### **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops*

*promote their connections to each other and to their adjacent neighborhoods.*

## **C. RESIDENTIAL USES**

There are seven different residential development types, within the various residential zoning districts, that support the Goals of this Plan. Note that some designations remain the same as they are in the existing regulations, but that some require significant changes:

### **Rural Agricultural - RA**

The characteristics of this use type are the heart of the recommendations of this plan, since they focus on the large farming and open space areas of the Township, and since they deal specifically with the nature of development in those areas and with the simultaneous preservation of farming.

### **Low and Medium Density Residential**

Little is recommended for change to these development districts. Note that they are primarily located in the Sewer Service Area, and include cluster provisions.

### **Town Center**

The provisions of this Master Plan are designed to support the continuing efforts to realize the creation of the new Town Center.

### **Senior Citizen Housing**

The criteria in this Plan recognize the need to meet the housing needs for a growing senior population, and the need to have their facilities and residences integrated into the fabric and life of the community. Note that this residential type is not confined to one zoning district, but could apply in some way to all residential districts, if the Township chooses.

### **Mobile Home Residential**

No changes are recommended for this use.

### **Historic Windsor**

This historic village is to be preserved, even as it grows. New developments adjacent to the existing residential areas are to be residential, and will be based on the pattern and character of the existing neighborhood.

### **Airport Residential**

Although no changes are recommended for this area, the uses of the Airport itself must be carefully studied to measure their impacts on the wider community, and to assure that they do not adversely affect the residential quality of life.

## **1. RURAL AGRICULTURAL - RA**

(Formerly Rural Residential , or RR)

Note the change in the name of this district. This simple language change for the district is symbolic of the Township's goal to "protect the rural character." This designation is a clear sign that farming, as an industry, is important, and that development will take place in a way that preserves the farms and the business of farming.

This change is especially necessary since the Township has come to realize that subdivisions (as suggested in the former RR zone), which require relatively large lots and septic systems, will only serve to hasten the demise of farming in the community. The existing zoning regulations for the RR zone are antithetical to Goals of the Township for the following reasons:

- Large land areas are required for this type of residential development. As a consequence, any remaining open farm land will ultimately not be viable for farming operations if the farmed parcels lack significant size.
- Additional burdens are put on the road system by sprawl type development. This added traffic disrupts farm equipment movement.
- Potential conflicts (such as the use of fertilizers and pesticides, and the creation of dust and noise) are created along the extensive boundaries that exist between residences and farming operations. Farming is an industry that is incompatible in many ways with residential living. The large buffers required add to the land area needed for those residential developments that coexist with farming.
- The continued use of septic systems presents a potential danger to community water supplies in many areas of the State.
- Other environmental constraints that limit or compromise the potential for development of large lot residential patterns include the significant extent of wetlands and other protected areas in the Township.
- Large residential lots that include wetlands can be counterproductive to wetland protection, and thus can be detrimental to the entire community ecosystem.
- Large lot developments are incompatible with the historic character of the Township, and therefore will, in the end, cause the demise of much of the cultural heritage of the community.

As a result, it is recommended that an overlay zoning category be created which, while it leaves the current zoning in place, will establish planning criteria that help protect the viability of the operating farmlands, and which strongly encourages the building of compact neighborhoods. Two types of neighborhoods are recommended: villages and clusters. The villages will generally

require the use of public water and waste water treatment service, will need shorter edges and buffers to protect the residents from adjacent working farmlands, should promote more walking and less driving, and should utilize Transfer of Development Rights (TDR's) as discussed below. The clusters will continue to use septic systems, although they may require innovative designs which can help create more compact communities. The ultimate result of these planning recommendation will be to preserve more of the useful farms and open spaces.

In developing the specific recommendations for these two neighborhood types, and for the amount of farmland and open space to be preserved, a possible build-out analysis was undertaken (see Table on Page II-7, "Analysis of Possible Preservation and Development Techniques"). This analysis uses assumptions that are based on reasonable possibilities for preservation and development in the future, including the uses of TDR's for village development, the use of cluster developments, and the amount of lands to be preserved. Based on these assumptions, approximately 380 houses could be built in TDR villages, 110 houses could be built in clusters, and 110 houses might be built under existing 2 acre zoning. In addition, approximately 900 acres of the developable farmland could enter the State Agricultural Protection Program, and the Township could purchase the development rights of 400 acres (particularly for the preservation of farming). If this were the case, 2,400 acres of farmland and open space would be preserved, in addition to the 2,970 acres that are already preserved under various programs. The totals therefore could include 600 additional houses built, and a total of  $(2,400 + 2,970)$  5,370 acres of farmland and open space preserved. It is essential to understand, however, that these totals and subtotals are approximations and targets only: each preservation effort should be continued, regardless of whether any of these targets are reached. These targets and these steps, regarding the preservation of farms and open spaces and the patterns of residential development, are the most essential foundations of this Master Plan: they are not interim steps about growth, but are a complete plan for the future.

As stated above, the recommended mechanism to achieve the Plan's above-stated development and preservation goals is the creation of an Overlay Zone. The guide to this pattern of development will best be created if the Zone also includes some large open areas that are not zoned RA: specifically, the PCD Zone, the OW zone at the northern part of the Township, and the two adjacent zones on Robbinsville-Allentown Road (ORH and RR-T1). The total of all the areas in the Overlay can create several opportunities for establishing villages as receiving areas, and can preserve farming in even more areas than just the RA zone.

By seeking to preserve such a large area of its land for farming, Washington Township has committed itself to preserving its agricultural economy, and to preserving farming as a profitable

business. In many communities, farmland has often been considered a "temporary" land use, classified and planned for as vacant and developable land awaiting a "higher and better" use. In contrast to this view, and in order to realize the Goals of this Plan, Washington Township must consider farmland as a permanent use, and farming as a high level, profit-oriented business activity with rights of its own. Specific techniques for preserving the agribusinesses of the community must therefore accompany the plans for compact residential developments in the Overlay Zone. These farm preservation techniques are described in detail in Chapter III, Farmland Preservation.

There are two basic types of compact communities that will be a major part of the effort to preserve open space and farmland. One type is villages, which require sewer service. The second is clusters, which use septic systems.

In addition to the preservation of farming, these two development types also better permit the locations of development to

**TABLE: ANALYSIS OF POSSIBLE PRESERVATION AND DEVELOPMENT TECHNIQUES IN REMAINING UNDERDEVELOPED LANDS IN THE "RA" ZONE OF WASHINGTON TOWNSHIP**

DEVELOPABLE AREA		# OF HOUSES	ACRES PRESERVED	ACRES BUILT ON	OTHER	TOTAL ACRES	
		•	•	1093	1093	Public lands and deed restricted farms	
		•	•	1861	1861	Remaining Wetlands in the RA District	
		•	•	16	16	Cemetery	
10%	110	0	300	¥	300	<b>Underlying Zoning</b>	
30%	0	900	0	¥	900	<b>State Preservation</b>	
<b>35%</b>	<b>380</b>	<b>900</b>	<b>200</b>	¥	<b>1100</b>	<b>Receiving Area/TDR Covenants</b>	
10%	110	200	140	¥	340	<b>Cluster/Hamlet</b>	
15%	0	400	0	¥	400	<b>Municipal Purchases</b>	
				¥			
<b>100%</b>	<b>600</b>	<b>2400</b>	<b>640</b>	<b>2970</b>	<b>6010</b>	<b>TOTAL</b>	

The numbers and areas in this table are general targets, based on possible percentages of the various land areas available. They are not intended as an end state for any of the development and conservation possibilities. The purpose of the chart is to demonstrate a method of open space and farmland conservation; therefore it is the intention of this Plan that every effort be made to use each conservation technique to the maximum extent possible. If any of these targets are met, the conservation technique should continue to be used to preserve even more land.

The numbers and areas in this table are general targets, based on possible percentages of the various land areas available. They are not intended as an end state for any of the development and conservation possibilities. The purpose of the chart is to demonstrate a method of open space and farmland conservation; therefore it is the intention of this Plan that every effort be made to use each conservation technique to the maximum extent possible. If any of these targets are met, the conservation technique should continue to be used to preserve even more land.

respond to the conditions of the natural environment. Wetlands, steep slopes, soil suitability, and landscapes can all be accommodated with these compact villages and clusters. The Map in Ch. V. Conservation, "Development Suitability," (p. V-21) indicates the general areas of the Township where development can most readily be accommodated based on these environmental criteria. The locations of the TDR Villages and the Clusters should be also be based on this type of evaluation.

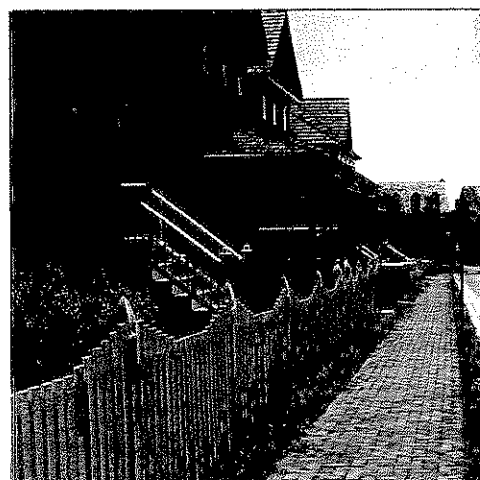
### **Villages:**

The creation of new villages can be planned as part of a Transfer of Development Rights program. The actual locations and designs of the villages are determined based on criteria that serve the objectives of the overall community, including the farming interests. These locations and design criteria should not be dictated by the intentions of an agreement between a developer/buyer and a farmer/seller.

Transfer of Development Rights (TDR) is an adjunct to what is generally considered as a cluster concept, in which the development potential of a farm parcel or other open land, called a "Sending Area," is transferred usually by direct purchase from the property owner to an entirely different parcel called a "Receiving Area", which is often owned by someone else. A deed restriction would be placed on the farm or open space parcel, which permits the continued use as a farm, but prevents any future development. Houses would then be permitted on the Receiving Area site, which is more suitable for development.

The advantages of TDR are similar to those for standard clustering, except that, in addition, the farm area can be more readily planned to truly function for farming, and the village can be more easily located and designed to meet the larger objectives of the Township. In addition, TDR receiving areas can reflect the goals that should be applied to other developments, by planning for truly beneficial open spaces that would otherwise not be preserved by NJDEP regulations. The disadvantage is that TDR's might be more administratively complex than other techniques, requiring careful crafting of legislation and a skillful creation of the buying and selling environment for the development credits.

As a result of the additional complexities, some form of bonuses could be required. If these bonuses are necessary (see TDR Development Analysis, Pp. II-21 and 22), they are intended to be an inducement to developers and landowners to take advantage of this type of community plan. Two bonus types are contemplated: if a village is in a location that is not within the sewer service area, our analysis indicates the extension of the sewer is a sufficient inducement for development; on the other hand, if the village is already within the sewer service area, a bonus in the form of the right to build some additional houses might be enough of an incentive.



New villages, built on the model of older historic communities, are being developed in many parts of the country. The form of these communities, like that of Town Center in Washington Township, can be the precedent for all new village planning in the Township



Some TDR programs are mandatory; in Washington Township and in New Jersey the most effective use of this open space preservation technique is to make it voluntary. The Township has already employed this technique in the creation of the Town Center and the PCD District.

In order for the TDR process to meet Township goals, Receiving Areas must be established. The Receiving Areas Map on page. II-11 indicates several recommended possibilities. The locations were established based on these criteria: the sites are large enough to be developed as villages or hamlets; they are to be located adjacent to, or near, a Sewer Service Area; they are to be connected to key access roads; they can be linked to a community-wide open space and trail system; and, they are sited on properties that have buildable (but not necessarily suitable for septic) soils.

In order to fully meet the objectives of saving open space and creating viable neighborhoods that are part of a single Washington Township community, design and planning criteria must be established. A set of general objectives, which are described here, should apply to all new villages. On the other hand, the unique characteristics of each community suggest the need for guidelines that are specific to each one.

### **General Planning and Design Standards for Villages:**

Lots should be small, but larger than those in the Town Center, reflecting their rural locations and their proximity to large open farm lands. The lots under these circumstances could be as small as 4,000 sf and as large as 25,000 sf, with an average goal of about 12,500 sf. This range will permit a variety of house types and yard configurations, will create sufficient proximity among residences to encourage walking in the neighborhood, and yet will have a sense of openness between the houses that in many cases could afford views out to the surrounding open lands.

Lot frontages should be no wider than 80', to assure that street lengths are minimized and that the village remains compact.

The streets, in general, should be arranged in a grid-like pattern, which can be an efficient use of the land and which offers considerable variety for house types and locations. It should be possible to 'walk around the block,' no matter what the exact street layout is like, which can help promote a sense of community in the neighborhood.

The streets should all include sidewalks and large spreading shade trees, to create comfortable walking throughout the village. If possible the use of rolled curbs, or no curbs, should be considered, since these details are far more evocative of country living than the customary urban-like straight curb.

Front porches are encouraged; houses should be located near the sidewalk with setbacks of about 20' to 35'.



Houses in the villages should be a variety of sizes and styles, and located on differing lot sizes. The compact form of the blocks and lots makes for a handsome walkable community, a character that has been created in other new developments throughout the nation.

Some houses should face the adjoining Township road, to reinforce the connection to the wider community, with no use of reverse frontages. These lots could have slightly larger setbacks, such as 30' to 50', but not so far back as to feel removed from the rest of the community.

There should be multiple street connections to the Township road, again to connect to the whole Township.

The shape of the village should be compact, and should create as few edges to adjacent farmland as possible. In addition, a landscape buffer must be created between the houses and the farm fields to minimize the conflicts between quiet living and the noise, smells, and dust of farming.

Each village should have some place at its center which is a common public open space (for instance, a "village green"), as a focus of neighborhood life. This open space should also be planned to be accessible to the whole Township community, and could include uses around it that are not residential, such as day care centers, churches, and perhaps even some small offices or convenience (pedestrian-oriented) retail where economically feasible.

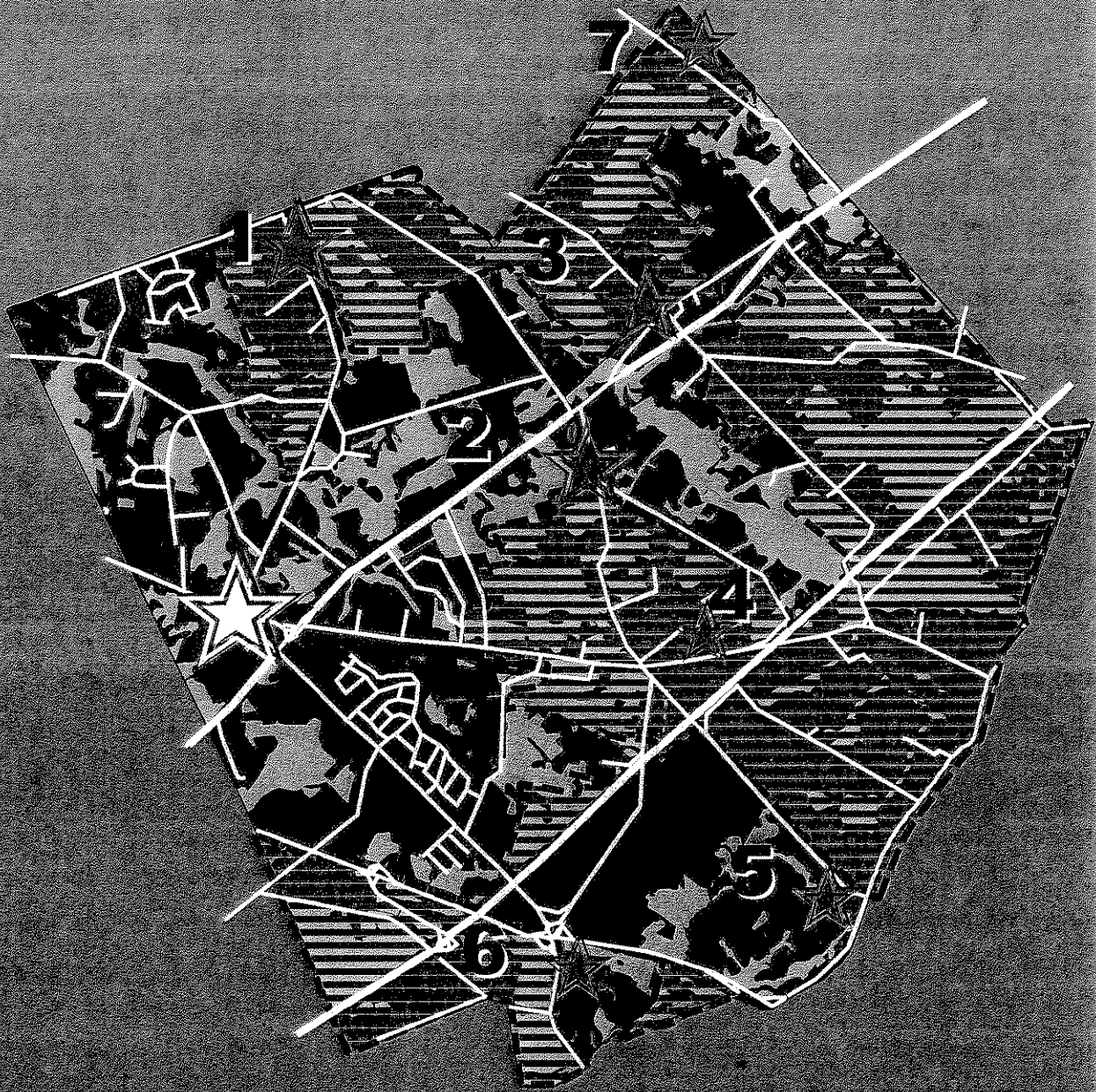
All open areas that are preserved should be located and arranged to be useful for their intended purpose. For instance:

- Farmland should be contiguous and large enough to support farming operations. Farmland preservation efforts should therefore be directed where possible to larger tracts, particularly in those areas where additional farmland may be available for preservation. Interviews with New Jersey farmers have also suggested that farm field widths of at least 500' are usually necessary to optimize (and therefore to preserve) farming operations. These areas and dimensions also tend to minimize conflicts with residential life.
- When a village adjoins a working farm, a landscaped buffer of at least 100' must separate the residential area from the farming activities.
- Trails and bikeways that link the village to the wider community should also be provided in the open space designs.
- The views from the roadways outside the village must appear open and rural.

The fundamental intention is that all open lands are not merely residual after the village is planned.

The attached diagrams of three possible village plans (see the plans for villages at Gordon Rd., Sharon Rd., and Allentown Rd., on pages 11-12 to 16) illustrate the general precedents that could apply to any TDR village development.

## POTENTIAL RECEIVING AREAS



In order for the TDR process to achieve Township goals, receiving areas (the locations to which the development rights are transferred) must be established. Several locations meet the criteria are shown here.

1. Robbinsville-Edinburg Road
2. Gordon Road
3. Windsor Extension
4. Sharon Road
5. Old York Road
6. Robbinsville-Allentown Road
7. Hankins Road

## **Specific Guidelines for each of the Seven TDR Villages:**

Within these General Planning Standards, each of the seven villages will have their own distinct design needs, and will be of different sizes. Note that the estimates of possible numbers of dwellings can vary modestly as the Township creates its ordinances. However, the range indicated for each village points to a relative scale which is believed to be appropriate for that location. The villages will therefore have these unique additional characteristics:

- **Robbinsville-Edinburg Road:**

The village can take place on one or both sides of the road, so the road should become the central street for the community. Although this is a County road, and a current County regulation requires "reverse frontage" houses, it is essential that some of the village houses face the road. A path or sidewalk should be located on both sides of the road to connect the houses. If the County's intention is to have "no new driveways" on County roads (which normally results in reverse frontage houses) access to houses facing the road can be accomplished by rear driveways to neighborhood streets or drives.

The suggested central open space should therefore face the Robbinsville-Edinburg Road. More than one roadway access should be created from Robbinsville-Edinburg Road to the residential streets on both sides of the road. The result will create new opportunities for easier crossing by cars, bicycles, and pedestrians at the intersections of the new residential streets.

In addition to having some of the development face Robbinsville-Edinburg Road, most of the existing rows of large shade trees that now spread across the road should be preserved. This tree-shaded roadway is one of the special places in the Township. That appearance, as a concept of a landscaped gateway into the community, should remain intact as much as is possible.

The sewer access could come from one of two locations: one could be from the Windswept residential development to the south; the other could be from Saran Woods to the east.

If (for example) an estimated 150 - 250 residences were built in this two-part village, 225 - 375 acres of open space would be preserved through the TDR process.

- **Gordon Road:**

The location for this village is part of a much larger single property that includes farming, wetlands, and commercially-zoned parcels along Route 130 (see the Route 130 Area description, on pages II- 27 to 35 of this Plan, for details). The village should be sited behind any commercial developments on Route 130, and should also be integrated with commercial



**DIAGRAM OF A POSSIBLE VILLAGE ON GORDON ROAD, WHICH HAS THESE CHARACTERISTICS:**

A wetland is preserved as a central green, which opens onto a Township road, and which can be faced with a mix of uses.

The neighborhood street pattern forms a variety of block, lot, and house sizes.

There are several village street connections to the Township roads.

Easy walking connections are made to the nearby shopping area, to the large public conservation area, and - via trails - to the Township at large.

A distinct edge is formed between the village and the farmland; farming operations therefore can continue without disruption; farmland and wetlands are protected and preserved.

uses in a mixed-use pattern. It should be possible to have pedestrian access between the residential and commercial area.

It is recommended that the village be located on the south side of Gordon Road. Only a small area across the road can be developed, due to existing wetland areas. The recommended "green space" at the center of the village could be a small existing wetland area that faces Gordon Rd. Several village streets could then open onto Gordon Rd.

The layout of Gordon Road itself should be changed when this development takes place, since it could become a through route for trucks and automobiles to the PCD Zone on Old York Rd. (see a more detailed description in the PCD section in this Land Use Plan, pages II- 35 and 36, and on page VII-28 in the Circulation Plan).

Sewer service can be extended from west of Route 130. The extension of this service will also enable a more compact retail/ office development to occur here.

If (for example) 150-225 residences were built in this village, 225 - 350 acres of open space would be preserved through the TDR process.

- Windsor Extension:

Only a small amount of new development can take place adjacent to this historic village. As is stated in the Historic Windsor section of this Land Use Plan, which relies in part on the Historic Feasibility Study for Village Expansion completed by Kathryn Ann Auerbach, (dated July 1999), it is appropriate to

extend the village fabric on a parcel south of Windsor Rd. and west of the railroad. This open land can have access from both Windsor Rd. and Main St.. Adding to the historic district could result in the preservation of much of the open space setting, which is so contributory to the village's historic status.

Since only about 55 to 75 houses are possible in this village extension, and since it does not face a main street, only residential uses are recommended. It is essential that the street and block pattern, and the designs of the individual houses, are compatible with the existing village. Details of the guidelines, and the siting of the development, are described in the Historic Feasibility Study.

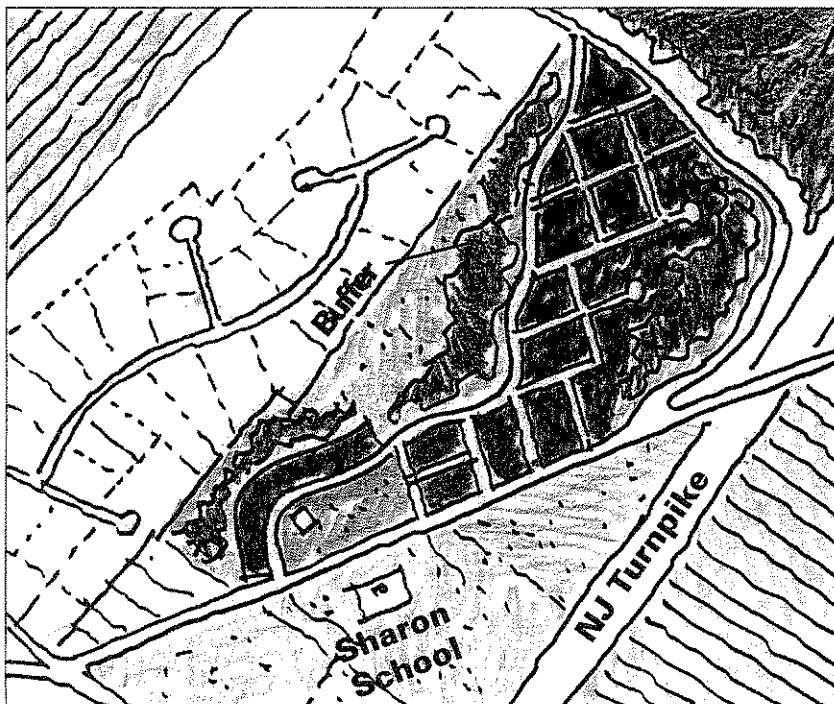
Since the existing village already has sewer service, an extension of the service to the proposed area of development should be possible. If these houses are developed, approximately 75 - 110 acres of open space could be preserved - preferably at the edge of the village.

- Sharon Road:

Located across the road from the Sharon Elementary School, this gently sloping site offers unique design opportunities. The site is constrained by wetland areas, could be affected by noise from the Turnpike, and could be limited by recommended buffers from the existing large-lot residential development on Barto Way.

Road access should be designed to come from both Sharon Rd. and Bresnahan Rd.

The focus of the village should face Sharon Rd., since a benefit



**DIAGRAM OF A POSSIBLE VILLAGE ON SHARON ROAD, WHICH HAS THESE CHARACTERISTICS:**

A central open green faces Sharon Road, and the Sharon School, so that the school can be integrated into the life of this village. A mix of institutional uses can therefore be possible at the center of the village.

A variety of block sizes permits the development of a variety of houses and lots.

Several streets give access to the Township roads.

Wetlands are preserved, which create buffers with the adjoining neighborhoods, and with the nearby Turnpike.

There can be an easy walking connection to the nearby soccer field and the large conservation area.



of living here is the short walk to the school and the nearby soccer fields. Direct walking access could also be provided into the preserved natural woodlands (and the possibility of a regional trail system) along Assumpink Creek. Although this village is somewhat remote from the rest of the developed areas in the Township, it has linkages to education and recreation facilities, and the preserved open spaces.

Sewer access could be extended a short distance from the area of the school, which has sewer service, by a limited expansion of the sewer service area. This extension would thus serve the purpose of aiding open space preservation.

If 50-75 residences were built here, 75 - 125 acres of open space would be preserved through the TDR process.

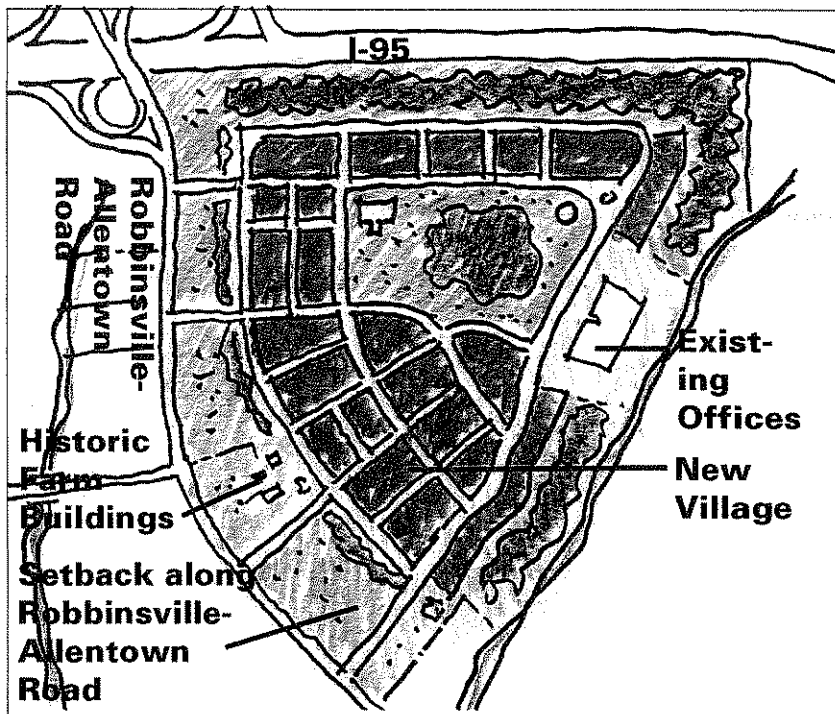
- Old York Road:

This village could range in size from quite small (approximately 50 houses) to quite large (as many as 200), since it is located on a large site now zoned for warehouse uses (the PCD Zone; see pages II- 36, 37 ). The portion of this large site that could be used for a residential village would be along Gordon Road, near the intersection with Old York Road. The proximity to Gordon Road is necessary to make a direct connection to the center of the Township. Neighboring warehouse uses should therefore be located at the rear of the site, and near exit 7A of the Turnpike.

If this option is considered, it should be part of a mixed-use Overlay Zone that is added to the PCD regulations. The mix of uses should include not only residential, but other activities that are compatible with that type of development. A golf course, plus a hotel/conference center related to the golf course, could be included. The development of a normal 18-hole golf course would require much of the property, so warehousing would no longer fit. In the absence of a golf course, a village and/or a conference center could be developed, with appropriate (e.g., about 50' of evergreen and deciduous forest) visual buffers and truck movement patterns, in conjunction with the already permitted warehousing.

If a village occurs in this location it should preserve the historic character of this portion of Old York Road, which is one of the oldest roads in the state. A new village here should therefore be designed to be compatible with the existing hamlets of New Sharon and Canton, which are also located on Old York Road.

As in other TDR villages that are located on one side of a road only, the recommended open space that would be the focus of the village should face Gordon Road. In addition, several village streets could connect with Gordon Road and, if located at the corner, onto Old York Road. A significant landscape buffer would be needed to shield the village from the view of the warehousing area. The village should be located right on Gordon Road.



**DIAGRAM OF A POSSIBLE VILLAGE ON ROBBINSVILLE-ALLENTOWN ROAD, WHICH HAS THESE CHARACTERISTICS:**

A landscaped buffer of open meadows and trees preserves the rural vista of the entrance to Allentown, and of the historic farmstead.

A detention basin is designed as the center piece of a village green. The existing office building, as part of a compatible mix of uses, faces the green.

A variety of block sizes permits the development of a variety of houses and lots.

Walking linkages can be made to downtown Allentown.

Sewer is available, by virtue of the 208 Plan for sewer service (see the Chapter IX, Utilities Plan).

If a range of 50 to 200 houses were built here, approximately 100- 400 acres of open space would be preserved through the TDR process. Not that the total development parcel is so large that many of the acres which would be preserved could be on this tract itself.

- **Robbinsville-Allentown Road:**

Two adjoining parcels at the bend in the road between I-195 and the Allentown border could be developed jointly as a residential TDR village, with several road accesses from Robbinsville-Allentown Road. Unlike other villages, this development should be set back from the road to preserve the existing vistas, especially of the historic farm house and barns adjacent to the roadway, which are cherished qualities of the entrance to Allentown. It is recommended that this setback be a landscaped buffer that ranges from 300' to 500' in width, with an average of 400'; the exact form of this buffer should be determined by a careful evaluation of the vistas as the road bends and enters Allentown.

Because this is at the entrance to historic Allentown, the character of the houses and other buildings must be compatible with those of that neighboring community - much as the houses that would adjoin the village of Windsor.

If 170 residences were developed on the two parcels, approximately 340 acres of open space could be preserved through the TDR process.



On the other hand, the smaller of the two parcels (a.k.a. the Wittenborn property) is zoned RR T-1, which already permits residential uses. A TDR village could therefore be developed here independently, and without coordination with the larger (zoned ORH) adjacent property.

The construction (by the developer) of an eastbound entrance ramp to I-195 could allow the total area of commercial buildings of 770,000 sf to be constructed.

If this ramp is not built, however, this site should be reevaluated regarding its zoning. New criteria for its development should be tailored to prevent new traffic, especially trucks, from driving through Allentown to get to I-195. The village alternative described here could be utilized to meet that standard. (See Pp. II-36 and 37, regarding the potential commercial development of these two parcels.)

- **Hankins Road:**

Located at the far north corner of the Township, this small hamlet-like village would be an extension of the few houses that are now clustered there. The new houses could be located on both sides of the road and, with the small size of the community, Hankins Road would be its center, with no need for a separate open space.

The plan of any new development here must acknowledge the needs for access, privacy and neighborliness of the existing houses.

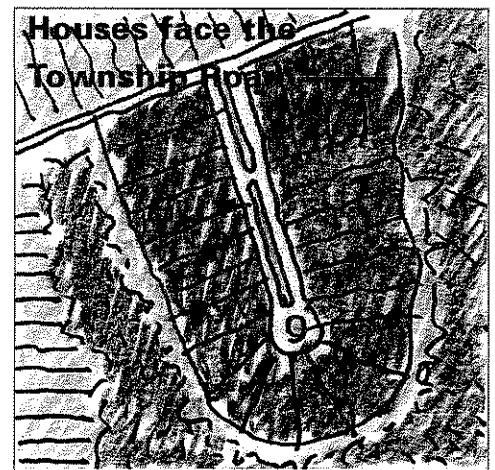
It is estimated that up to 55 new houses could be built, which could preserve about 75 acres of open space through the TDR process.

### **Clusters:**

Clustering is the redistribution of an entire parcel's development potential to one smaller portion of the same parcel. A deed restriction is then placed on the farmland (or other open space) portion of the development, to permanently prohibit future building, since its "development rights" have been utilized in the cluster.

There are two types of cluster development that are recommended for Washington Township to help preserve farmland and open space. One is the Cluster that requires individual septic systems on each lot, and the second is the Cluster that locates the individual septic system(s) on common property within the development.

If the Planning Board can be convinced that current waste water technology provides a means to accomplish these two cluster types, that technology should be encouraged. Township verification of the suitability of the lands and the design appropriateness should be clearly addressed in the implementing ordinances.



### **DIAGRAM OF A POSSIBLE CLUSTER TYPE 1, WITH INDIVIDUAL SEPTIC SYSTEMS, WHICH HAS THESE CHARACTERISTICS:**

The houses are built close to the central road, with some facing the Township road, which make a development act as a neighborhood, and which links it to the Township. No road buffers or reverse frontages are included.

The small "boulevard" at the center acts as a central common green, and gives two access points to the Township road.

Wetlands and farms are preserved.

There are several advantages to clustering. There are no direct costs to the Township; appropriate compensation for the land is provided to the original land owner by the developer. Lower cost agricultural land is available upon resale; permanent protection from further development on the open space is thus established. Lot yield in either cluster type is not increased over that which would be possible under conventional development. It is a familiar concept. Additionally, an efficiently designed cluster will have reduced infrastructure requirements, and therefore can reduce Township maintenance costs.

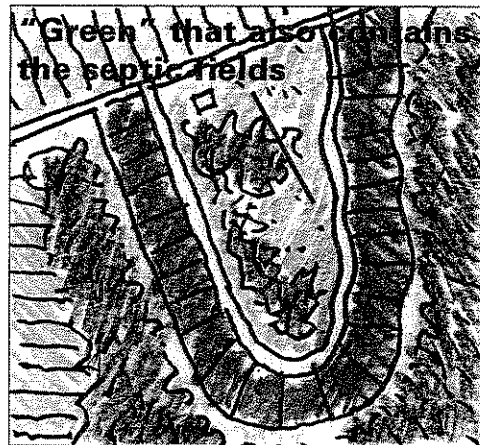
The disadvantages of this planning technique relate more to the character and function of the development, and to the implementation procedures. In order to develop properly, very specific planning and design criteria must be established by the Township, and developers must adhere to them. If this is not done, the cluster pattern will continue to create isolated neighborhoods that are not part of the larger community; will continue to have open space of little value to the Township; will continue to put added burdens on rural roads; and will continue to be more disruptive to farming operations.

For any cluster, criteria must be included that deals with the location and use of the preserved open space. These criteria should require that agricultural soils are preserved for farming; that open fields for farming be contiguous with (and accessible to) existing farmland and are large enough for farming; that open space is visible from other parts of the Township; and that environmentally sensitive areas are protected. In addition, it should be possible under certain circumstances to make the open space (if not farmed) publicly accessible and visible, as part of a Township-wide trail system.

Criteria should also be established so that the adjacent lands (farms and preserved open spaces) are wide enough and large enough to meet their particular purposes. As stated in the General Planning Standards for Villages, the operations of farming generally require a minimum clear field width between residential developments of about 500', to assure that the farmland is viable. As also stated for the villages, the recommended minimum width of a landscaped buffer between residential areas and farm fields is 100'.

It also may be useful to limit the number of houses in any cluster, to assure that it is, indeed, 'clustered.' Twenty to thirty houses, for instance could be considered a maximum. Any more than this would begin to approach the size of a village, which would require all the planning and design conditions discussed above.

In addition, each of the two Cluster types has its own specific design and planning criteria; they are both illustrated with conceptual diagrams, as seen on these pages.



**DIAGRAM OF A POSSIBLE CLUSTER TYPE 2, WITH A COMMON SEPTIC SYSTEM, WHICH HAS THESE CHARACTERISTICS:**

The cluster road has two connections to the Township road.

The smaller lots permit the saving of more wetlands, and the creation of a central, common, green for the neighborhood. The green opens onto the Township road, creating a real link to the wider community.

The variety of lot sizes and of the central green permits more flexibility in designing the required septic system(s).

The house will be closer to the community road, and some will face the township road, which creates the feeling of a neighborhood among the residents, and one that is connected to the township.

### **Cluster Type 1: those that require individual septic systems:**

These developments typically require large areas for the house and septic system. A unique type of 'cluster' is required if the goals of saving farming areas and of creating connections between the cluster and the rest of the community are to be realized. For example:

The existing (RR) zoning requires a minimum of two acre lots, with a minimum lot width of 250'. In a revised "RA" zone, a cluster could be permitted to have these new criteria: the maximum lot size could be established at one acre (or whatever is needed to accommodate the septic system, based on technology and soil characteristics), and a maximum lot width could be 100'. Criteria such as this will make more compact roadway neighborhoods, with shorter distances between houses.

More than one roadway access should be included to prevent the isolated 'cul de sac' effect.

Some houses should face the adjacent Township roadway, with no reverse frontages (backs of houses facing the roadway) being acceptable. The intention is to make connections to the wider Township community, and to not turn away from it.

### **Type 2: Clusters that locate the septic systems in a common open space.**

This method has been called the 'Open Space Subdivision' by the Natural Lands Trust, of Media, PA. As an alternative cluster option, this cluster will have the same number of lots on the site as Cluster Type 1, and the same number of lots that could be developed under existing 2-acre lot zoning. The criteria for these subdivisions include standards for the location of houses at the edges of preserved open fields, or even within the adjacent woodlands, so that the view of the fields remains open and the roadside farmland remains viable. The land is preserved as part of the development property, and is located and planned to be useful in a number of ways. The planning and design standard for this type of development should include:

- In this type of cluster, the use of smaller lots is possible, which will enable the preservation of more open space. Lot sizes therefore could range from 7,500 sf to 15,000 sf, and maximum lot widths could be 80' to 100'. These lots are smaller than Cluster Type 1, but are larger than those in Town Center.
- Front yard setbacks should be smaller, to maximize the open back yard areas, and to help create a sense of community among the neighbors.
- The roadways should be narrow, to slow traffic, should be lined with spreading shade trees, and should encourage biking and walking. It may also be possible to forego the use of curbs and sidewalks, and to create truly rural lanes that are consistent with the rural roads of the Township.

## **Summary: General Conclusions and Recommendations Regarding the Rural Agricultural (RA) Areas:**

- The underlying zoning of two acre lots should remain, but the name should be changed to Rural Agricultural (RA).
- Calculations have been made, which indicate that approximately 1,066 additional houses could be built in the existing RR area, under existing zoning. The calculations were based on the amount of buildable lands which would be left in the RA zone, after the identification of preserved conservation areas, open spaces, preserved farmlands, and wetlands. In contrast, if the preservation efforts and development patterns that are recommended in this Plan are implemented, the number of additional houses would be about 600, and about 2,400 additional acres of farmland and open space would be preserved. The positive consequences of the specific recommendations listed are therefore clear, and are essential to meet the Goals and Objectives of this Plan.
- The existing right-to-farm ordinance should be amended to include more business options for the farmer and land owner, and to provide greater protection for agribusiness.
- Cluster provisions must be established to accommodate both of the described options for clustering, and therefore to save open space and farmland.
- An overlay zone should be created which establishes most of the RA zone as a (voluntary) TDR sending area, and which permits the identification of TDR receiving areas. These receiving areas should be the locations of new compact villages. Conditions should be established that make the selling and buying of Development Rights an attractive option in creating these villages, especially when compared to the current two-acre pattern of development.
- Design and planning criteria should be created that guide the nature of the villages, and each of the cluster types. These criteria should include not only internal layouts and designs of these new neighborhoods, but specific criteria for the location and uses of the preserved open spaces. Certain key details that create the sense of country living should also be included, such as yard sizes and set backs, front porches and other architectural characteristics, the locations of garages, tree-lined streets, curb and sidewalk designs, public open space designs, and so on. The building guidelines that are now incorporated into the ordinances for Town Center, and the open space guidelines (Town Center Open Space Design Standards, 2000) also prepared for Town Center are excellent models for the type and character of the guidelines needed for the villages and the clusters. Both the Town Center Master Plan and the Design Standards are incorporated into this Master Plan by reference.
- Criteria should also be established so that the open lands

preserved by either TDR or cluster developments are truly useful and meaningful. These open lands could be preserved for farming, and therefore should meet the criteria necessary for agricultural operations. They also could be preserved for recreational or environmental uses, and therefore should be planned as part of larger Township and County wide systems. They should not be lands that merely would have remained open anyway for wetlands and private development landscapes, and they should not merely be residual after the development is planned.

- Conditional uses should be added which will permit the reuse of existing farm buildings, thus preserving the historic character of the farmstead even if the farming operations no longer require these buildings. Specifically, bed and breakfasts, professional offices, and some retail businesses (plus their required parking) that fit within the historic buildings and that preserve their architectural character and setting should be permitted as conditional uses. The conditions that would make them acceptable include: the repair and preservation of the buildings; the design and location of parking areas in a way that preserves the landscape and the overall historic character of the property; the appropriate size, location, and design of signs; and the design of building additions that are compatible with the existing buildings. All of these design and planning conditions should be codified by ordinance.
- Amendments to the 208 Plan should be carefully considered and documented to precisely meet the needs of the TDR villages, but only to meet those needs. Any changes to that Plan should therefore be made in conjunction with preservation planning, and not made to support any other residential developments. Note that Chapter IX, Utilities Plan, addresses this issue, and considers the build-out capacity of the entire township, and the need for phasing of any changes to the sewer system.
- A continued evaluation of the possibilities for public purchase of development rights (or of the land itself) should be made, and must be balanced against the costs of providing schools and other public services. In addition, the Township should continue to assist and encourage the farmers in their applications to the State Farmland Preservation Program.

### **Transfer of Development Rights: Development Analysis**

The proposed Transfer of Development Rights (TDR) process would encourage private developers to increase residential density in designated receiving areas through the purchase of development rights from property owners in designated sending areas. As a result, open space would be preserved in the sending areas. Current zoning in both sending and receiving areas requires two-acre lots.

The economics of this TDR process has been analyzed based on

current economic conditions in Washington Township, as of 1999. However, the numbers in the following analyses are constantly changing as the residential real estate market changes. Therefore, these calculations should be reevaluated on a regular basis, to determine accurately the up-to-date values of development rights.

In the Sending Areas, the land value in 1999 was approximately \$10,000 per acre, of which \$3,500 per acre was the underlying agricultural use value. Based on these values, a thirty acre parcel was worth \$300,000, of which \$105,000 was its agricultural use value and \$195,000 represented its development rights value. Based on 75% efficiency in development at two acre lot zoning, this 30 acre parcel could expect to yield eleven single-family home sites. Dividing the \$195,000 development rights value of this parcel by the eleven potential home sites, we estimated the value of each "development right" at \$17,727, as of the date of these calculations.

Similarly, the economics of development in the proposed Receiving Areas has been analyzed for two home types: (1) single family homes built at a density of two units per gross acre and selling for \$300,000-\$350,000; and (2) zero-lot line homes built at a density of six units per gross acre and selling in the \$200,000-\$250,000 range. Under current zoning in the receiving areas, an eight-acre parcel would allow development of three homes, assuming that the parcel is 75% developable (which is typical). In Washington Township, the value of such parcels as raw land varies; for this analysis, in 1999, we have considered a range of values from \$45,000 to \$100,000 per homesite. The higher values considered here exceed any known values to date. This typical eight-acre parcel would have a current land value of \$135,000 to \$300,000, based on this range of homesite pricing.

For single family home development at two units per gross acre, this eight-acre parcel would allow 16 units of development. Assuming \$35,000 (again, 1999 prices) as the unimproved land value for the anticipated \$300,000 to \$350,000 house, the developer of this eight-acre parcel could have afforded \$560,000 in land cost. Comparing this capacity to purchase land with a \$135,000 to \$300,000 cost of land in the receiving areas, the developer could have afforded, in 1999, to expend from \$260,000 to \$425,000 for the required 13 additional development credits. These sums are more than sufficient at the expected \$17,727 per credit cost.

Similarly, for zero-lot line development at six units per gross acre, this eight-acre site would allow 48 units of development. Assuming \$22,000 as the unimproved land value for the anticipated \$200,000 to \$250,000 house, the developer of this eight-acre parcel can afford \$1,056,000 in land cost. Comparing this capacity to the \$135,000 to \$300,000 cost of land in the receiving area, the developer could afford to expend from \$756,000 to \$921,000 for the required 45 additional development credits.

These sums are more than sufficient at the expected \$17,727 per credit cost, except for development sites with very expensive land (e.g., \$300,000 purchase price).

Based on these cost and development factors, it appears that current economic conditions will support an active TDR market without the Township providing bonus development credits.

## **2. LOW AND MEDIUM DENSITY RESIDENTIAL**

There are four basic zoning categories within the Low and Medium Density Residential housing types: R1.5, RR T-1, RR T-2, and VD. The criteria concerning densities and lot sizes vary from one district to another, but they are all within the Sewer Service Area, and have been the location of most of the cluster developments in the community. Two sets of cluster planning criteria currently exist in the Zoning and Subdivision Regulations; each set of criteria has different densities and apply to different districts. As is described in the section on the RA Zoning district, the criteria for cluster developments in these regulations have been found to create isolated groups of houses that are disconnected from the rest of the community.

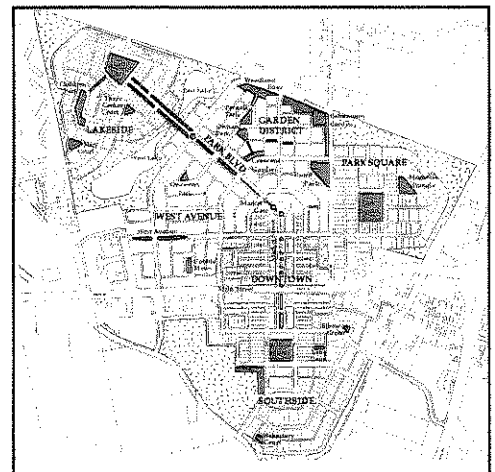
Given these conditions, no change to these various zoning regulations is recommended, except that the existing planning criteria for clusters should be revised, and new design criteria created for those clusters, to help future developments better realize the Township's goals. These criteria should be the same as those recommended for the compact villages and clusters described for the RA zone.

The existing zoning regulations incorporates, as an option within portions of the R 1.5 land use category, a provision for Planned Village Development (PVD). The PVD option provides for single family detached dwellings, patio homes, semi-attached dwellings, duplexes, townhouses and condominium flats, select commercial uses, nursing homes, and day care centers. The latter category was created specifically for the Foxmoor development, which is now largely completed.

It is recommended that Transfer of Development Rights, as described in the Rural Agricultural (RA) section of this Plan (see pages II-4 to 8, and II-21 to 22), should apply to the undeveloped property in the Low and Medium Density Residential Districts. These undeveloped properties could be considered as Sending Areas for development rights, which could be utilized in more desirable locations, such as those described for the villages in the RA recommendations. These properties could therefore serve as vehicle for the Township to help realize the goal of a green belt around Town Center.

## **3. TOWN CENTER**

Since the adoption of the 1990 Township Master Plan, a Master Plan amendment (1997) as well as Zoning and Design Regulations (1997) for the Town Center have been created and ap-



The plan of Town Center shows a mix of uses, a variety of street types, and a network of open spaces throughout

proved. The Center is anticipated to be the major focus of Washington Township's future growth. It is intended to establish the sense of place and community that is currently lacking in the Township. As such, the Center will be developed with a mix of uses that includes retail, services, offices, and a great variety of home types. It's focus on Route 33 will transform that road into a more pedestrian friendly place, and will include the village of Robbinsville. This is a significant step in not only Washington Township, but in the entire State of New Jersey: a new, walkable community is to be built, from the ground up, that will be the focus of Township life and that will help promote the preservation of open land.

The current Regulating Plan of the Town Center provides for about 1,000 houses and, in the downtown area, about 180,000 sf of retail space, a hotel, an open market shed, and about 230,000 sf of second floor space for offices, residential, or additional retail uses. Residential lots are intended to be relatively small, and arranged on a grid-like pattern of streets. There will be a wide variety of house types: single family detached houses, twin houses, town houses, and some rental apartments. Design criteria for the design of the buildings have been established, and similar criteria for the design of the streets, sidewalks, parks, and open spaces are incorporated in the Town Center Ordinance.

The Town Center extends from the limits of the PVD zone (Foxmoor), across Route 130, and south on Route 130 to North Gold Business Park. This area thus encompasses many existing commercial structures, and the Municipal Complex.

Traffic evaluations have set the widths and designs of the various streets, sidewalks, and roads - including not only the residential streets, but the streets at the commercial center, Route 33, and the southern bypass that leads to Route 130.

#### **4. SENIOR CITIZEN HOUSING**

The guidelines described below establish recommended criteria for the development of Senior Citizen housing. Since it is hoped that people of all ages and interests will find Washington Township an attractive, economical, and safe place to live, housing for senior citizens is not limited to any single zoning district. The intention is to permit and encourage an integration of people of all ages into the life of the community.

In order to assure that housing for seniors is not isolated from the rest of the Township, and that the services and facilities of the community are readily available to seniors, these planning and design criteria should be considered:

- New developments for seniors, no matter their form or size, should be located near the services that are now provided in the Township: sewers, ambulance, police, fire, trash removal, recreation, library, etc. Indeed, the preferred locations for



senior housing are those that are linked to, or within, the TDR villages.

- These developments should be of a size that is compatible with the scale and size of other neighborhoods in the Township. Accordingly, an appropriate maximum size would be no more than 100-150 dwelling units, as is generally recommended for many of the TDR Villages.
- The street plan of a seniors-focused development should include several connections to the Township road system; the criteria for new TDR Villages are a precedent for this recommendation. In particular, gated-type communities and their prominent signs do not support the Goals and Objectives of this Plan, since these details suggest that the residents are completely isolated from the rest of the Township community,
- The plan and location should permit easy walking to community facilities (e.g., the shops of Town Center, the village of Windsor, and Allentown; the Library, and the proposed community-wide trail system). Sidewalks must be included that link to the sidewalks and trails of the Township, just as is recommended for the cluster and village developments in the RA zone.
- The buildings should be designed to be compatible with the houses of the Township, employing wherever possible the standards for the design of houses in Town Center, and in the TDR Villages.
- The common facilities (dining, exercise, shops, banks, etc.) of the senior housing development should be designed to provide additional linkages to the rest of the Township. Where possible the design, planning, and management should encourage use by other Township residents and business people. The basic intention is to integrate the senior residents, and their specific needs and services, into the life of the whole Township.

## **5. MOBILE HOME RESIDENTIAL**

This zoning category, which is established for mobile homes in mobile home parks, is located in one district, at the south end of the Township along Route 130. This development type requires a minimum of 50 acres, and has a maximum density of 5 1/2 mobile homes per acre. There is no reason to change this use, or its criteria, at this time.

## **6. HISTORIC WINDSOR**

The Village of Windsor is valued not only because of the character of the individual buildings (primarily houses on modest sized lots), but also because of its relationship to the surrounding farmland. The farms are very visible from most of the village roads, and any additional development near the village must be located and designed to preserve these characteristics. Windsor is on the National Historic Register and the State Register. A key reason for these designations is, among other

criteria, its context within its agrarian surroundings.

As is stated in the RA section of this plan, regarding the use of TDR's to create new compact villages, future developments within the village of Windsor should be limited almost exclusively to residential uses. Some selected small-scale commercial and retail uses can, however, be located near Route 130. The analysis of the basis for growth of an historic community, guidelines for new development, and site analyses indicating recommended development locations, are included in the Feasibility Study prepared by Kathryn Ann Auerbach, as referenced in the RA District recommendations.

## **7. AIRPORT RESIDENTIAL**

The State Air Safety and Hazardous Zoning Act regulates uses which lie within the Airport Hazard Safety Zone. Under these regulations, the minimum residential lot is 3 acres. This requirement overrides those of the RR, R 1.5, and VD zones which lie within the Airport Hazard Safety Zone. (See D. Commercial Uses, for more details of this area, including reference to its newly-prepared master plan.)

## **D. COMMERCIAL USES**

There are six separate and very distinct areas of commercial development in the Township. Each serves a very different set of uses, and a very different set of purposes for the Township:

- **Route 130:**

Route 130 is a corridor with a number of permitted uses and a consequent pattern of development of various uses and characteristics. These uses follow the highway, and are recommended to become a series of developments rather than a continuous unbroken strip.

- **Exit 7A/PCD District:**

The PCD District, located near Exit 7A of the Turnpike, has been established for office/warehouse use, due to that proximity to the interstate highways and to its separation from the residential community.

- **Office Warehouse:**

Office Warehouse (OW District) includes two areas: one is very large and is located at the north end of Route 130, at the intersection of Voelbel Rd. Although it is a satisfactory site, based on size and location for office/warehouse uses, if it were proposed to be fully developed, the impacts of truck movement on other areas in the Township would have to be studied.

- **ORH/RR T-1:**

The ORH district adjoins an RR T-1 district at a location on the Robbinsville-Allentown Road. Because of the proximity of

these two districts to each other, they can be considered as sites to be developed together as a single project, or separately as two projects. Both of them can be developed for a variety of developments, including both residential and offices. Because of their location, any development proposals should consider their affects on Allentown, an older community with an especially fragile infrastructure of roads, homes, and landscapes.

- **Airport Commercial:**

The Airport Commercial district is the Trenton-Robbinsville Airport property. Of particular importance are the facts that it adjoins residential areas, is very close to the Sharon School, and is limited in its potential for development by the regulations of the Air Safety Hazard Zone.

- **Golf Course Commercial:**

The Miry Run Golf Course, formerly known as the Skyview Country Club, is partially located in the Air Safety Hazard Zone adjacent to the airport, and includes a restaurant and club house.

## **1. ROUTE 130 AREA**

The current pattern of highway-type development, which is permitted by the existing zoning code to be continuous along the entire length of Route 130, contradicts most of the goals of this plan. That pattern is, in effect, a plan for the development of all of the farmland and forests that now border much of the roadway. It also relies entirely on the automobile, so that each development is isolated from the other and from the larger Township community.

The corridor is currently divided into three commercial use categories (OC-1, OC-2, and OR) that border the roadway, and one (OW) that is very close to the road. This division of uses suggests separation and isolation. The uses permitted in these four districts are:

- **OC-1:** Retail, Restaurants, Offices, Municipal Facilities, Churches, Building and Garden Supplies, Auto-Related Businesses, and 'Standard Industrial Classification Group' uses.
- **OC-2:** Retail, Restaurants, Offices, Municipal Facilities, Churches (only).
- **OR:** Fruit and Vegetable Markets as the only permitted Retail use, Restaurants, Offices, Municipal Facilities, Churches, and Motels.
- **OW:** Offices, Light Manufacturing, Warehouses and Wholesale Distribution, Research, Utilities, and Farming.

Note that none of these districts permit residential uses, that OW does not permit retail uses, that OC-1, OC-2, and OR do not permit farming, and that motels are permitted in OR only.



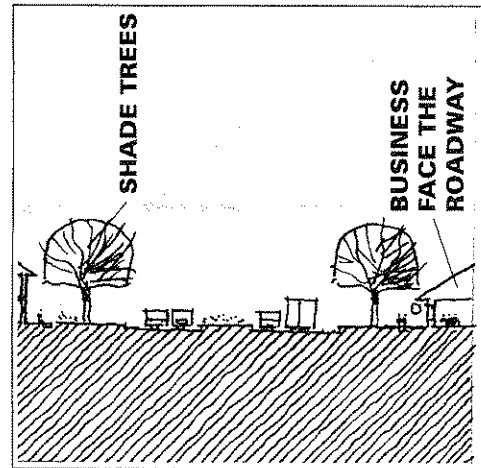
Route 130 appears quite open now, and has a low-density pattern of commercial developments that are highway-related. Note that this photo, which shows the open and rural character, does not reflect the heavy volume of traffic that can take place at peak times.

A study of the zoning classifications indicates that the bulk requirements for each zone differ from those in the other zones in important ways. In addition, these various requirements restrict the current development capacities of many individual parcels along the road, and they significantly limit the opportunities for future developments to realize the Goals of this plan.

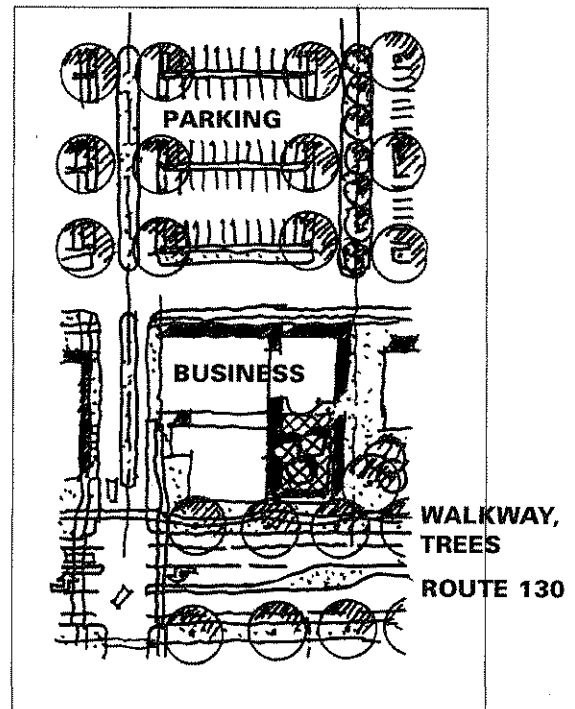
A detailed analysis of the entire corridor has revealed several interesting governing conditions, which significantly affect the recommendations for changing the development to support the community's goals:

- The available wetlands information demonstrates that many of the sites now zoned for large development are significantly limited in their actual capacity. This limitation, when combined with the existing large setback requirements and small lot sizes, severely hampers the possibility of quality development in the area.
- A study of each parcel reveals that, on the whole, the existing code permits more development than can actually fit in one place. In the OR site at Woodside Rd., for example, approximately ten times more density is permitted than actually can be developed, due to the existence of wetlands.
- The areas of the corridor with the largest development area available are located to the northwest of the zone along Gordon Rd., and from Town Center north to Sharon Rd.
- The design of the roadway itself, with a green median in much of its length, limits access (no left turns in or out) to many parcels. In addition, the only access to the large northern OW site is at the Voelbel Road intersection. An analysis of that intersection suggests that the total development capacity of the site, based on the number of cars that the intersection and the highway can handle at peak hours, is about 800,000 sf (in contrast to the 3.6 million sf by zoning, and 1.9 million sf by physical fit). These two criteria - left turn access and total intersection capacity - can therefore be important guides regarding the extent and nature of the development that could take place here.

The current zoning for strips of highway commercial development is an outgrowth of past development, and is reflective of outdated commercial planning. As such, it is inconsistent with many of the goals of this Plan. The new Goals and Objectives, when combined with the apparent natural factors that should limit development, suggest that the plan for Route 130 consist of "nodes" of commercial development, with a "green" pattern of development and open spaces between the nodes. Each node is to be designed as a walkable place, and is to be planned wherever possible to be conveniently connected to adjacent existing (or future) residential developments. The four new land use districts, which include both the nodes and the spaces between the nodes, and which are to replace the existing OC-1, OC-2, and OR Land Use Districts, are:



The cross-section of Route 130 should include rows of shade trees, a well-landscaped median, and businesses that are close to, and face, the roadway. Walkways and bike lanes can be included.



A commercial development in the BC District on Route 130 should be located closer to the road than is currently permitted, should face the road, should have walking connections to other developments, and should not have its parking in the front and along the roadway.

### **TCC Town Center Commercial:**

This district, located at the intersection of Route 33, Sharon Rd., and Route 130, will have a similar architectural and planning character as Town Center buildings. More intensive pedestrian-related commercial uses are anticipated, which are also clearly visible from the highway. This intersection should develop as an important “crossroads destination” in the Township. This location is the entrance to Town Center’s Main Street, to the Municipal Building, to the Public Library, to the Senior Center, and to various types of convenience and food-related retail stores.

### **LC Local Commercial:**

Similar in character to Town Center Commercial, these locations are at important local crossroads, connecting existing neighborhoods to the 130 transportation corridor. This allows local retail and other business to serve their neighbors, the residents of the Township, and highway travellers.

### **BC: Boulevard Commercial:**

Between the commercial nodes at Main Street, Woodside Rd. , Gordon Rd., Windsor Village and Voelbel Rd. are three areas with frontages well suited to support roadside commercial activities. Since these sites are located between nodes described above, and are constrained in their lot dimensions, they will be attractive to a different type of business than the Local Commercial Districts or the Town Center Commercial District. New buildings in the BC Districts should be sited to face Route 130, with large planted areas in front. The nature of the planted area should follow the guidelines outlined below. Parking areas should be located to the side or rear of the structure and should be generously shaded.

### **HC: Historic Commercial:**

Located adjacent to historic Windsor, this area should be developed in a way that is compatible with the scale and character of the existing historic area. The size, location, and design of the individual buildings is especially important. Just as in the existing village, buildings should face roads and drives, parking should be located in the rear, and the new developments should be so integrated into the fabric of the village that it is part of the area’s walking experience.

### **Summary of Route 130 Recommendations:**

In creating these four distinct districts, several important steps should be taken:

- All current uses that are now permitted in the three existing Zoning Districts that face Route 130 directly, should be permitted in each of the new districts. However, the following changes are also recommended:

(1) Change the use criteria for motels, so that small hotels and bed-and-breakfasts are permissible.

(2) Change the design criteria for the motels, hotels, and bed-and breakfasts to include provisions that reinforce the various criteria recommended for all of Route 130. For example: no parking in front; signs that are compatible in size and character with the buildings; buildings that have an appearance that is compatible with older houses in the Township; and, the inclusion of a green landscape with trees, grass, and shrubbery (see the criteria for the commercial nodes listed below).

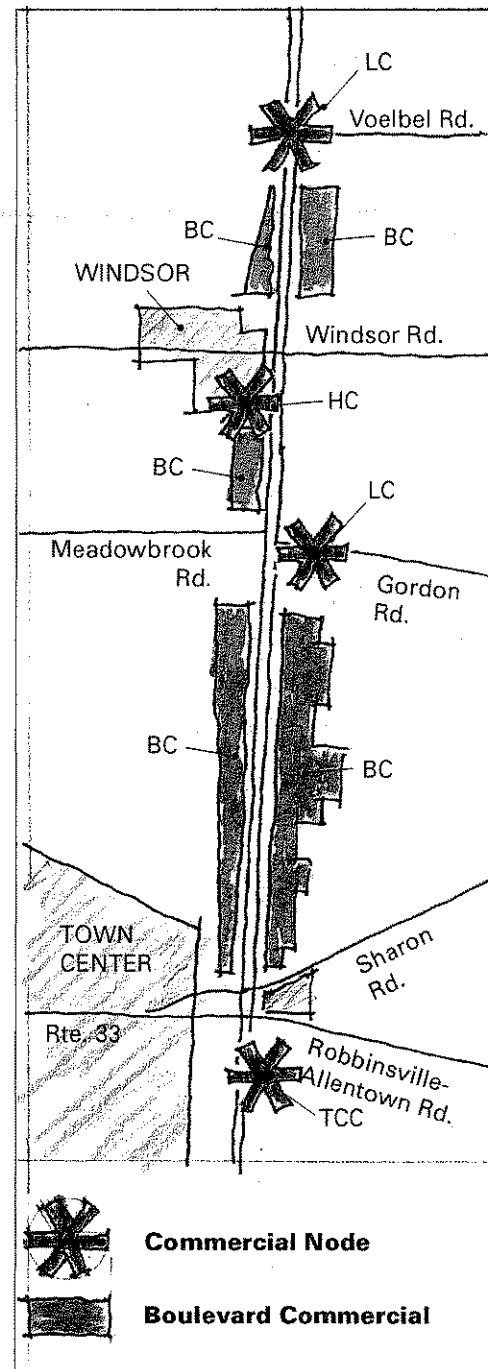
(3) The existing criteria for gas stations should remain. Consideration should be given for gas stations with convenience stores, as a conditional use.

(4) Churches, schools, other buildings for social organizations and institutions, and indoor athletic facilities should be permitted as conditional uses in all four districts, provided that they comply with the design and planning criteria established for the district in which they are located.

(5) Add farming as a permitted use in BC, Boulevard Commercial.

(6) Establish criteria that would regulate and permit farm markets along Route 130.

- Continue to permit industrial/warehousing uses in the OW sites only. In addition, as conditional uses, other use types could be permitted which support the industrial/warehousing activities. Specifically, restaurants, cafes, delicatessens, day care centers, health clubs, and retail establishments (that sell the products that are being made or stored on the site) should be permitted as conditional uses. In addition, criteria should be established for the OW area that would discourage uses that require rail service, since the unused rail right-of-way is an integral part of the community-wide trail system described below (in E. Open Space/Conservation/Recreation).
- Create incentives using the design of access from Route 130 to further encourage the development that does take place in concentrated nodes. Such incentives could be the creation of signalized, left-turn, intersections at Voelbel Road, Windsor Road, Gordon and Meadowbrook Roads, and Woodside Road.
- Take advantage of the incentives and the wetlands locations to preserve the farms and forests that now adjoin the highway within the BC District - and thereby preserve the rural feeling in spite of the heavy traffic.
- Consider direct purchase of development rights in certain key locations, especially within the new BC District.
- Establish design and planning standards for the various nodes (Districts TCC, LC, and HC), to assure that they are compatible with adjacent developments and communities, and that they are developed in a pedestrian friendly manner. For example:



**DIAGRAMMATIC PLAN OF ROUTE 130, SHOWING THE RECOMMENDED PATTERN OF USES.**

Note the locations of the compact nodes, and the more open Boulevard Commercial areas between them.

(1) All buildings should face roadways, and not be set back behind parking lots. Parking lots should not face any major roadways.

(2) All buildings should be located close enough to permit pedestrian access between them. Normal walking distances in these situations are well documented, and must be considered carefully. For example, as found in research by Jeffrey Zupan ("Urban Space for Pedestrians") and Lawrence Houston ("Nine Minutes to Retail," Urban Land Institute), people will not walk further than about 500' from a parking space to an office or shop, and the maximum distance people will walk in a shopping area is about 1,500'.

(3) Buildings should have a shape, size, scale, and general appearance that is compatible with the existing rural houses in the Township, and with the standards set for Town Center.

(4) Landscaping facing the roadways should include large shade trees and other plantings (grasses, shrubs, flowers) that are planned to reinforce the green and rural feeling of the Township. This is not an urban or suburban area where hard surfaces (plazas, parking lots) and formal landscapes dominate.

(5) Working and shopping areas should be planned to be linked to adjacent residential neighborhoods, by both walking and biking. Distances should be short, and the trails must be smooth, safe, and ADA compliant.

- Establish specific guidelines for the Town Center District:

(1) The buildings and general layout should appear to be as an extension of the commercial/shopping area planned for the center of Town Center.

(2) Walking connections to Town Center (via a future pedestrian bridge), Township Hall, and the Library should be accommodated by the plan of this area. Parking lots and building entrances (front doors and truck docks) should not be located in a way that prevents this set of pedestrian linkages.

(3) Office and retail buildings should be of a size that is compatible with scale of Town Center, and that would attract businesses whose traffic, customers, and employment are supportive of the goals for the Center. Office buildings should therefore have a maximum footprint of 25,000 sf; retail buildings should generally have a maximum area of 15,000 sf. However, the Township may consider permitting that area to be increased to 25,000 sf, as covered by a conditional use permit. This permit would be based on architectural design and site planning criteria.

(4) The appearance of buildings should follow the guidelines set for commercial buildings within the center of Town Center.

- Establish specific guidelines for the Local Commercial Districts:

(1) Buildings should be located close to the roadways. Indeed, walkways in the fronts of businesses along the roads would give the appearance of a pedestrian area, should reduce the sense of "highway commercial", and should link the various shops and offices.

(2) Parking lots should be well landscaped and include at least one large shade tree for every four parking spaces.

(3) Roadways within the nodes should be arranged in a grid-like pattern (much like the center of Town Center), and should link to adjacent developments (whether residential or commercial).

(4) In order to maintain the small scale that is desired, and still accommodate the types of retail and office uses that should occur in these nodes, the maximum building footprint size for retail should be 15,000 sf, with the opportunity to be 25,000 sf based on a conditional use permit, just as in the Town Center District (see P. II-31). The maximum building footprint for office buildings should be 25,000 sf. This will create a series of buildings that are separated by landscaping and plazas, but will be connected by shopping sidewalks and walkways.

- Establish specific guidelines for the Historic Commercial District:

(1) Individual buildings should be of a size and scale that is compatible with the buildings of the existing village. This suggests a maximum footprint of 5,000 sf, and a maximum height of two stories.

(2) The arrangement of the buildings and the parking lots should be as an extension of the regular pattern of streets and buildings in the historic village. The streets should be generally planned in a rectilinear form, and should be connected by tree-shaded walkways. It should be possible to easily walk between the village and this commercial area.

- Establish specific guidelines for the Boulevard Commercial District:

(1) In order to create the feeling of openness, a setback of about 50' from Route 130 is recommended for both parking lots and buildings. This is in contrast to the 100' building setbacks and 20' parking setbacks now required as minimums. Lawns, shrubs, and large shade trees should be included in the design of the setback landscapes.

(2) The maximum size of a building footprint should be about 5,000 sf in order to assure that the area feels and looks open and that it has a pattern of smaller buildings set into the landscape.

(3) Parking lots should not be located in front of buildings.

- Consider using Municipal Redevelopment powers, as permit-



ted under the State Local Redevelopment and Housing Law, to implement some portions of these recommendations.

### **Development Impacts of the Recommendations for the Route 130 Area:**

- **Introduction:**

The proposed zoning classification adjustments along Route 130 are intended to achieve three general objectives:

- (1) To create better defined village-like node development patterns at four defined locations: at the current Town Center, at Gordon Road, at historic Windsor, and at Voelbel Road;
- (2) To create a significant, continuous, and generally uniform landscaped setback of buildings and parking from the roadway, in areas between these defined nodes; and
- (3) To encourage buildings to face Route 130, with parking areas generally located at the rear.

Properties impacted by this proposed rezoning are currently zoned in four classifications: TC, OR, OC-1, and OC-2. The proposed new zoning classifications are Boulevard Commercial (BC), Local Commercial (LC), Historic Commercial (HC), and Town Center Commercial (TCC).

- **Current TC Zoned Properties:**

All properties along Route 130 currently zoned TC would be rezoned TCC. The only impacts of this rezoning would be to encourage development to occur within 25 feet of the right-of-way of Route 130, and to provide that parking be placed to the rear of buildings. This front setback dimension would permit tree growth, the addition of a continuous walkway, and the visibility of the businesses from the road. Current zoning requires a minimum 75 foot landscaped setback, so this change will allow property owners greater flexibility in the development of properties.

The suggested front setback of 25 feet from the R. O. W. will require careful site planning and building designs in order to have businesses face the roadway. This is especially true of shallow parcels (generally, those that are less than 230 feet deep), where variances to put parking at the side may be necessary. In these situations it is essential that buildings face Route 130 as well as their parking lots; no blank walls should face the roads.

Developers of smaller multi-tenant retail centers will also need to think carefully about the means for locating their facilities close to the road but, with the increased site area that is suggested here, should have the flexibility to do just that. Each tenant will desire some means of roadway visibility or identification, but, at the same time, the common front landscaped walkway that connects all businesses is also necessary. Route

130 should no longer be lined with parking lots, so the design of each parcel should meet all of these objectives.

- Current OC-2 Zoned Property:

One property along Route 130 is currently zoned OC-2. Its new zoning would be TCC. This rezoning would allow greater density through increased Floor-to-(site) Area-Ratios ("FAR's") and greater flexibility in development because of the reduced setback requirements. This parcel is sufficiently large to allow for effective internal circulation and parking areas.

- Current OR Zoned Properties

Seven properties along Route 130 are currently zoned OR. Two of these properties near Gordon Road are proposed to be rezoned LC; the remaining five would be rezoned BC. Rezoning to LC will allow greater density through increased FAR's and greater flexibility in development because of the reduced setback requirements. These parcels are sufficiently large to allow for effective internal circulation and parking areas.

All five OR parcels proposed for rezoning to BC include more than 50% undevelopable property due to wetlands and other topographical constraints. As a result, the proposed 50 foot landscaped setback will reduce the effective development potential of these parcels somewhat. It is estimated that this increased setback will reduce the development capability of these five parcels by as little as 3% to 18%, depending on the configuration of the parcel. Note that some of these parcels are owned by businesses that could benefit substantially from this overall change in zoning classifications, in spite of the setback. For example, some property owners may find the increased range of uses allowed under BC zoning to be a sufficient offset for small reductions in overall development potential. Others may own more than one property, with the other properties actually having increased development potential.

- Current OC-1 Zoned Parcels:

79 of the Route 130 parcels proposed for rezoning are currently classified OC-1. 40 of these parcels will be rezoned TCC, LC, or HC. This rezoning will increase the range of potential uses, in some cases increase allowable FAR, and greatly reduce the minimum front yard requirement. The only circumstances in which this proposed zoning change would create the need for careful design are the two mentioned above in "Current TC Zoned Properties:" (1) Owners of shallow parcels, which are less than 230 feet in depth, may require variances to locate parking on the side and (2) developers of small multi-tenant retail centers must find methods to have stores face the road without parking lots in the front.

The remaining 39 OC-1 parcels are proposed to be rezoned BC. They will benefit from the increased range of potential uses and the ability to situate buildings as close as 50 feet from the roadway, instead of the currently required 100 foot setback.

Their development capability may be limited by the increased parking setback, and they may face the same issues of parking location described in other situations above.

As a general rule, these 39 parcels will not face new restrictions on development capability under the proposed BC zoning if they are regularly-shaped (generally rectangular), if they are a conforming parcel under OC-1 zoning (i.e., the parcel has a minimum depth of 250 feet) and if no more than 30% of the parcel is undevelopable. The reasons for this are geometric:

- (1) Development of a parcel under current OC-1 regulations allows a maximum coverage of 50% of the site to be developed. The maximum FAR of 0.2 allows an area equal to 20% of the site for a one-story building while parking and circulation generally utilize an additional 30% of the parcel.
- (2) If a parcel is at least 250 feet deep, then 20% of the site will be consumed in the proposed 50 foot setback.
- (3) If no more than 30% of the parcel is undevelopable, then at least 50% of the site remains for development, even if 20% is used for the proposed setback.

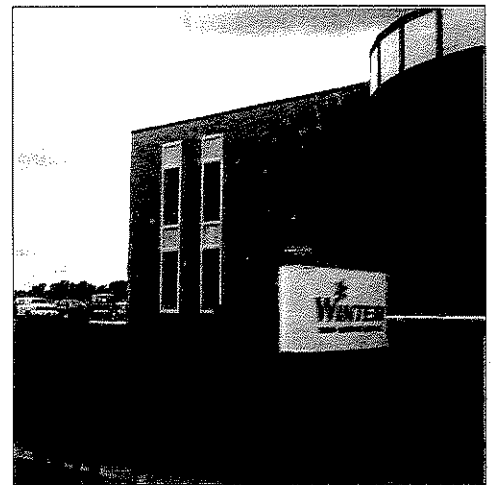
Twelve of the OC-1 parcels proposed for BC zoning meet this test (i.e., they are regularly-shaped, conforming parcels with no more than 30% undevelopable property). The remaining 27 parcels present alternative circumstances:

- (1) Nine of these remaining parcels are fully buildable and have minimum depths of 150 feet. These parcels can be fully developed while still allowing the 50 foot setback, although there may be a need to alternate buildings and parking areas along the Route 130 frontage because of the shallow depths of the parcels.
- (2) Three parcels appear to be 100% wetlands and new development would not be allowed under any zoning.
- (3) Two parcels, while fully buildable, are extremely shallow and irregular. Another four parcels contain 80% or more wetlands. These six parcels might be considered for conservation easements or open space acquisition.
- (4) Nine parcels are generally wetlands in the rear, but developable along the road frontage. These parcels will be impacted by the proposed 50 foot setback in the range of 20% to 33% of their current total development capability.

- Overall Impact:

Based on the above analysis, it appears that the overwhelming majority of Route 130 parcels will retain the same development capability under the proposed zoning or will be provided with noticeably greater potential for development.

Fourteen parcels in the proposed BC zone (five currently zoned OR and nine zoned OC-1) will have somewhat less total devel-



The Exit 7A / PCD District is being developed with large industrial and warehousing buildings set in large open landscapes

opment capability because of the proposed 50 foot setback of parking and buildings. Total development potential of these individual properties will be reduced by 3% to 33% depending on their property configurations. In spite of these reductions, some parcels are owned by businesses that could benefit from the other aspects of this overall zoning change; such conditions as the increased range of uses allowed, and the ability to situate buildings closer to Route 130, could actually increase development potential in many cases.

Six other parcels in the proposed BC zone are either extremely shallow and irregular or contain 80% or more wetlands. These six parcels might be considered for conservation easements or open space acquisition.

## **2. EXIT 7A AREA / PCD ZONING DISTRICT**

This use category provides for development of a variety of nonresidential uses including offices, research and laboratory facilities, warehouses, and hotels within planned office/industrial parks. It is situated in an area east of the N.J. Turnpike, south of Gordon Road and west of Old York Road, and north of the Allentown border. The majority of this area remains largely undeveloped at the present time, although development has commenced in what is known as the Northeast Business Park. A General Development Plan has been approved for the western portion of this large site, which includes approximately 350 acres.

The remaining 400 +/- acres in the district currently has no development approvals. This area is viewed as an appropriate location for future economic development, given the availability of such a large tract of undeveloped land, with well-established regional highway connections to the N.J. Turnpike and I-195, and with the recent extension of sewer and water to the area. The absence of significant development limitations in the form of environmental features and adjacent land uses also suggests commercial suitability. In addition to the offices and warehouses that are the primary permitted uses, this location could also be appropriate for regional hotels, with supporting uses of conference centers and golf courses, and village types of residential uses (see pages II-15, 16 for a discussion of a TDR village on this site).

Given the existing zoning, and the community support for the general nature of these developments in this location, the following steps should be taken to assure that any future developments are supportive of all of the Goals of the Township:

- Revise the permitted uses to include golf courses and hotel/conference centers.
- Revise the uses to permit compact center-like residential development, and to specifically locate a potential residential Receiving Area at the corner of Old York Road and Gordon Road .

- Revise the setback and landscape criteria for buffers along Gordon and Old York Roads. A minimum setback of 150' is recommended for Gordon Road, with woodland vegetation that includes large evergreen and deciduous trees. The objective is to create a filtered landscape buffer from new developments, and to maintain a 'view from the road' that appears open and rural. A setback of approximately 300' is recommended for Old York Road, since this historic road includes vistas of the New Sharon and New Canton hamlets, and is an entrance into Allentown.
- Revise the Zoning regulations to permit the use of Transfer of Development Rights, whereby existing development rights on existing RA properties can be transferred for nonresidential uses to existing commercial properties. With this change, the Exit 7A/PCD district can be a commercial Receiving Area; therefore additional development of existing permitted uses can take place while farmland is preserved. A careful study must be made of the appropriate amount that can be transferred (per acre) under these circumstances. For example, if each developable two acre lot in the RA zone could hold one 2,500 sf house, the amount that could be transferred, including a bonus, might be 3,000 sf. This example therefore equals about 1,500 sf of building area (1/2 of 3,000 sf) that could be transferred to one developed acre for commercial development purposes.
- Create roadway and site design conditions that either forbid or discourage truck and other traffic from using Gordon Road. The intention, as with other large landscape and farming buffers, is to preserve the rural feeling and the views of farms and open spaces, and to protect the viability of farming on the north side of Gordon Rd. These farms are now in the farmland preservation program. The road should remain narrow, and should be useful for tractors and other farming equipment. Fast-moving truck traffic and road widenings are often in conflict with this objective.
- Redesign Old York Road (but only in the short distance between I-195 and the required access drives to the new developments) to accommodate the traffic generated by those developments which seek to connect to I-195. The intention is to minimize traffic on local roads as much as possible, and to protect the historic quality of the remainder of Old York Road. (See Circulation Plan, page VII -28, for further discussion of this issue.)
- Create criteria that will assure that the woodlands and wetlands are preserved.
- Investigate criteria that will assure that the hamlet of houses ('New Canton') at New Canton and Stone Tavern Road remains.

### **3. OFFICE / WAREHOUSE**

This land use provides for development of offices and light manufacturing uses on two acre or larger lots, distribution

centers and warehouses on minimum five acre lots, and research/ industrial parks on minimum 20 acre lots. This land use is found in the southernmost portion of the Township within the Route 130 corridor adjacent to the Hamilton Township border, and in the northernmost portion of the Township also within the Route 130 corridor and adjacent to the East Windsor Township border.

The existing OW area in the northern sections has important constraints on development that must be recognized:

- The size and configuration of the Voelbel intersection with Route 130 will limit truck access to the entire OW area. This suggests that the development of uses on this site that require major truck movement could be limited.
- The use of railroad right-of-way for a "rails to trails" pedestrian/bicycle linkage throughout the Township is essential to meet the goals of this Plan. Therefore uses that require train access should not be permitted here.

As a result of these conditions, the Zoning in the northern OW area should be re-evaluated to discourage uses that are in conflict with the capacity of the site and of other objectives of the Plan.

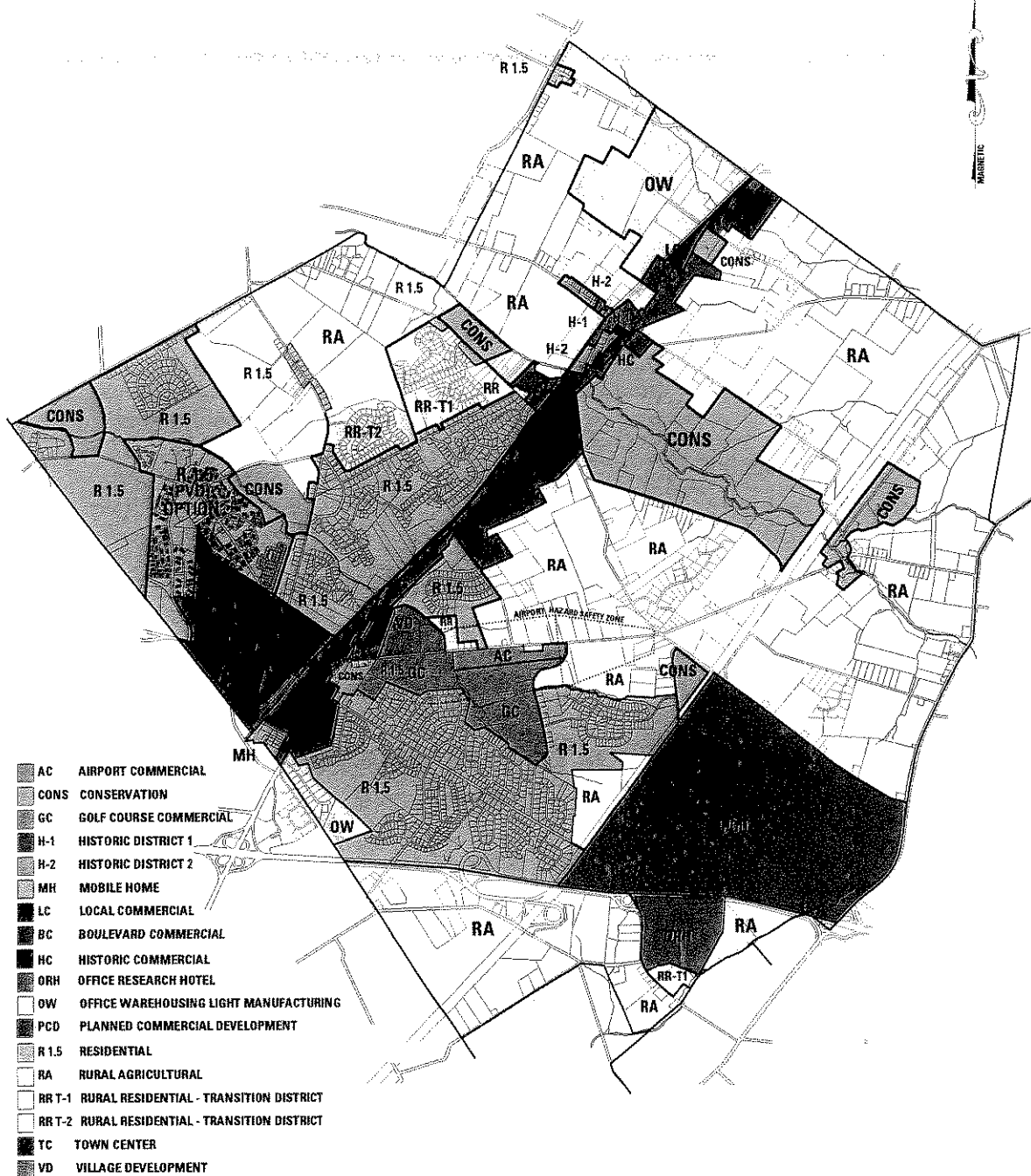
The southern OW area, adjacent to Town Center, is severely limited in its development capacity by existing wetlands, and by its constrained access from Route 130. If larger development is to occur here, constraints dictate that it will be located in the southern portion of the site. Additional road access from South Gold Drive is recommended.

#### **4. ORH AND RR T-1**

These two districts adjoin each other on County Route 526, between I-195 and the entrance to Allentown. ORH permits a variety of commercial uses, including offices, research laboratories, banks, hotels, health clubs, and farms. RR T-1 permits developments related to residential uses, including single family houses, cluster developments, churches, and schools. Farms are also permitted. Studies for development of the RR T-1 zone (known as the Wittenborn property) which show a variety of options, including a residential community that takes place on the ORH property also (and retains the existing office building there). They also show the preservation of the group of historic buildings, and the views of those buildings and their open spaces, from the Robbinsville-Allentown Road. As a consequence of these studies, and of the recommendations for the residential areas in this Plan, these additional possibilities are recommended as conditional uses in an Overlay Zoning category that could include both parcels:

- The combined development of the two districts as a residential village, as part of the TDR process previously described in the Residential RA District (see pp II-16 and 17).
- The development of the RR T-1 District as a TDR village, inde-

# ZONING DISTRICTS



**TABLE: CHANGES IN LAND USE DISTRIBUTION**

<b>Land Use</b>	<b>1990: Acres</b>	<b>Changes in 2000: Acres</b>	
Residential			
Single Family, 2-4 family	1,066.0	+ 1,540	2,606.0
Multi-Family	179.0	+ 54	233.0
Commercial			
Retail	74.0		
Office/Warehouse	296.0	+ 113	409.0
Public			
Parks and Recreation Lands	1,105.0	+ 110	1,215.0
Schools	23.0	+40	78.0
Other Public Buildings and Lands	143.0		
Streets and Railways	716.0		
Quasi-Public			
Houses of Worship	10.0		
Other Quasi-Public Lands	24.0		
Quasi-Public Open Areas	199.0		
Utilities	36.0		
Agriculture	7,831.0	-1,355	6,776.0
Industrial	134.0		
Vacant	1,277.0	-520	707.0
Airport	42.0		
Railroad Right-of-Way	93.0		
Total	13,248.0 acres		

**TABLE: LAND USE DISTRIBUTION BY PROPOSED ZONING DISTRICTS**

<b>Land Use</b>	<b>Acres</b>	<b>% of Total</b>
RA	5,666.0 acres	42.9%
Residential 1.5 (R 1.5)	2,690.0	20.3
Rural Residential Transition (RRT1 + RR-T2)	304.0	2.3
Village Development (VD)	54.0	0.4
Town Center	429.0	3.2
Historic Windsor (H-1 + H-2)	51.0	0.4
Mobile Homes	17.0	0.1
Route 130: Local Commercial	148.0	1.1
Route 130: Boulevard Commercial	258.0	2.2
Route 130: Historic Commercial	14.0	0.1
Route 130: Town Center Commercial	73.0	0.5
Office Research Hotel (ORH)	134.0	1.0
PCD	1,110.0	9.1
Office - Warehouse (OW)	411.0	3.1
Airport Commercial	42.0	0.3
Golf Course	216.0	1.6
Conservation/Recreation	1,631.0	12.4
Total	13,248.0 acres	100.0%



pendent of the ORH district.

- A conditional use of all office development in the RR T-1 District also, provided the architecture is designed to be consistent with the historic buildings and landscape of this site.

The conditions for these development options should include the following:

- Provision of a 300' to 500' landscaped setback (with an average of 400') from County Route 526, to preserve the existing open, rural, and historic character (see pp II-16 and 17).
- The preservation and the adaptive reuse of the existing historic farmstead. Conditional uses to allow bed-and-breakfasts, professional offices, and farm-related retail development in the RR T-1 district should also be permitted, provided that the architecture of any new structures is designed to be consistent with the historic buildings and landscape.
- If the development includes a village, it should follow the criteria established for TDR village development.

## **5. AIRPORT COMMERCIAL**

This use is located within the area of the Trenton/Robbinsville Airport, which is in the central portion of the Township along Sharon Rd. and Spring Garden Rd.

The Airport is recognized as an important asset to the Township. Actions that encourage and promote the continued operation of the airport should be studied by the Township on an ongoing basis. At the same time, however, the need to minimize the adverse affects on adjacent land should be recognized and addressed in all of the Township's planning exercises. Considerations of the health, safety, and welfare of the neighboring residences must be a part of planning and development in this District.

The State Air Safety and Hazardous Zoning Act regulates uses within the Air Safety Hazard Zone overlay of the Airport. In addition, the Township's own zoning regulations add even more restrictive limits on development in this area. The overlay includes portions of the Rural Residential, Low Density Residential, Airport Commercial, and Golf Course Commercial land use categories and comprises a total of approximately 378 acres.

Under State regulations, permitted uses within this area include residential uses (at a density no greater than one dwelling unit per three acres), open space, agriculture, transportation and airport-related development. Developments predating enactment of the regulations, including residential uses, are permitted to continue in use.

As this Plan is being prepared, the Airport is undertaking its own master plan studies. A careful evaluation of the Airport's intentions must take place, to assure that there is consistency between its plans and this Master Plan (note that this Master

Plan does not presume such a consistency).

## **6. GOLF COURSE COMMERCIAL**

This land use category was originally established to accommodate the Miry Run Golf Course. As noted above, portions of this use are overlaid by the Air Safety Hazard Zone. The existing clubhouse buildings are served with sanitary sewers, but it is not the intent of this Plan to extend sewer service to other areas of the golf course tract. No changes to the existing zoning regulations are recommended.

## **E. COMMUNITY FACILITIES**

Approximately 166 acres of the Township's land area are devoted to public facilities in the form of public schools, municipal government offices, fire company station, NJDOT lands, utility company properties and facilities, etc. Recommendations concerning these uses are described in Chapter X, Community Facilities Plan.

## **F. OPEN SPACES IN THE TOWNSHIP**

### **1. OVERVIEW AND VISION:**

Washington Township is blessed with a landscape that has sweeping, unobstructed views of large open spaces and working farms. It is the absolute intention of the community, and therefore of this Master Plan, that these characteristics remain. Farmland is the largest part of this character. The balance of the open spaces in the Township includes conserved wetlands, stream corridors, preserved forests, privately preserved areas adjacent to residential developments, and recreation fields and school grounds. Collectively they provide a rich mix of visual and recreational experiences that are essential to the Township, and to its rural character.

In order to promote the long term preservation of these visual qualities, three basic conditions should be met:

- Views of the open vistas from arterial and collector roads should be preserved. This characteristic is at the heart of the visual perception of the Township.
- Farmland must remain functional and profitable. This requires the preservation of farmable lands that are large and contiguous, and the preservation of enough farms so that the employee base and the necessary support services remain available. Small, isolated farms surrounded by developments will not accomplish this.
- Other preserved lands, such as conservation areas, wetlands, the right-of-way of the former United Jersey Railroad, recreation areas, and dedicated open spaces adjacent to private

developments, must be planned as a complete and integrated system. This opportunity for a single and united open space system, which does not exist in many communities, can be a major factor in fulfilling not only the goal of preserving rural character, but also the goal of making one "place" out of the many neighborhoods in the Township.

## **2. NEW OPEN SPACE ZONING DISTRICTS**

In order to accomplish the vision for the future of open space in the Township, the differences between the open space types should be recognized in the zoning regulations. Three district types are recommended:

- **Natural Preservation Areas:**

Those areas that are designated for natural conservation (stream corridors and wetlands) have very different use and preservation needs; the Assunpink Wildlife Management Area and the County-owned Dam Site 21 property are the major areas in the Township of this type.

- **Active Recreation Areas:**

The public outdoor recreation facilities now include William Tantum Park, Municipal Park, and the Township Community Park.

- **Public Institutional Open Spaces:**

These uses include playing fields and open lawn areas of the public schools, which can be used for recreational purposes.

The exact definitions of these areas, and their precise locations should be studied further. Therefore they are not indicated on the Zoning Districts Map on page II-39.

## **3. THE LINKAGES IN THE OPEN LANDS:**

Chapters IV (Farmland Preservation), V (Open Space Preservation), VI (Conservation), and VII (Parks and Recreation), deal in further detail with preserving and planning the open lands of the Township. Each of these chapters must be read as part of a greater whole, and as part of the effort to realize the Vision stated above. Each helps realize the five Goals of this Master Plan. Each gives methods of accomplishing the recommendations and, although, they are different, they all serve the same fundamental purpose of preserving the very quality of life that Washington Township values.

There are two important linkages that are necessary to realize the Goals of the Master Plan:

- Open farm lands that are preserved, and remain in production, must be contiguous in order to remain viable. Planning for other developments must recognize this absolute need, to assure that farming is preserved in the future. A diagram of a prototype plan for farmland contiguity is included in Chapter III.

- The conservation areas, the recreation and park areas, and the open spaces that are preserved by cluster developments, should be linked by a community-wide trail system. This trail system is the specific means for integrating the open land with all of the development areas of the Township. In creating such a complete network, the Township has the great opportunity to establish connections that will link together all of the schools, the major recreation facilities, the new Town Center, historic Windsor, and many of the existing residential developments. The intent is that it will become possible to walk or ride a bicycle throughout the heart of the Township without using any roadways. Central to the trail network is the United Jersey Railroad right-of-way, which can connect the preserved lands along the Assunpink Creek and Miry Run, and which can connect to several open spaces preserved with existing cluster subdivisions. The Trails and Greenways Map in Ch VII, Circulation, shows the possibilities of making walking and biking connections to all of the schools, and all of the public recreation fields. It also shows that it will be possible to walk and bike to shop and work in a number of centers - truly making one community out of many.

## ***G. OTHER RELEVANT LAND USE FACTS***

### **1. LAND USE ALLOCATION SUMMARY:**

The allocation of land uses as envisioned by this Land Use Plan is shown in the tables on page II-40, concerning changes to Land Use Distribution in the 2000 Plan. It should be noted that the development potential represented does not account for the extensive areas of wetlands, stream corridors and other environmental features which will limit development potential. Only a site-by-site analysis can determine the precise development potential of the Township.

### **2. A SUMMARY OF CHANGES TO THE 1990 PLAN:**

Since much of the existing zoning code is recommended to remain intact, it is suggested that the following six amendments to the 1990 Master Plan are key to the implementation of this Plan's Goals. These amendments, while small in number, represent a significant change for the Township's future:

- Change the name of the Rural Residential (RR) district to Rural Agricultural (RA), to more accurately reflect the intentions of the Township to preserve farming in the community. Note that this is a change of emphasis, but it is not one concerning the extent of permitted development.
- Add TDR (Transfer of Development Rights) as part of an Overlay District for the RA areas, designating the sending areas in the farms and other open spaces, and the locations of new compact and walkable villages as receiving areas. Recommendations for their possible locations are indicated on the

Sending/Receiving Area Map in the RA district section of this Plan (see page II-11). As part of the TDR regulations, design and planning criteria should be created which assure that the plan and visual characteristics of new developments fulfill the Goals of this Plan. Regulations and other public actions to discourage the use of 2-acre developments should be established, which would act to save as much of the rural farmland as possible. These regulations and criteria should also include standards for the functional use of the preserved land for farming operations, public access and recreation, and/or natural area conservation.

- Revise the existing residential cluster ordinance characteristics to accommodate the Goals of creating a sense of community throughout the entire Township, of respecting the Township's historic character, and of making the preserved open spaces useful to the wider community. Make one set of characteristics (rather than two, as now exists), to apply to both the RA and the Low and Medium Density Residential Areas. Coordinate these criteria with the requirements of the TDR planning.



## III. FARMLAND PLAN

### A. INTRODUCTION



he preservation of working farms and farmland is a principal objective of this Master Plan. Not only does the existence of farming preserve the true rural character that is so important to the Township, it also is more supportive of the historic local economy than any other use of the land. This chapter identifies how farm preservation reinforces all of the goals of the Master Plan, indicates the general land areas that are to be the focus of preservation, and describes the various effective means for accomplishing the preservation.

### B. GOALS AND OBJECTIVES

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan Elements. They are described in detail in Chapter II of this Master Plan. Each of the Goals is supported in various ways by the recommendations of the Farmland Preservation Plan:

#### 1. HERITAGE:

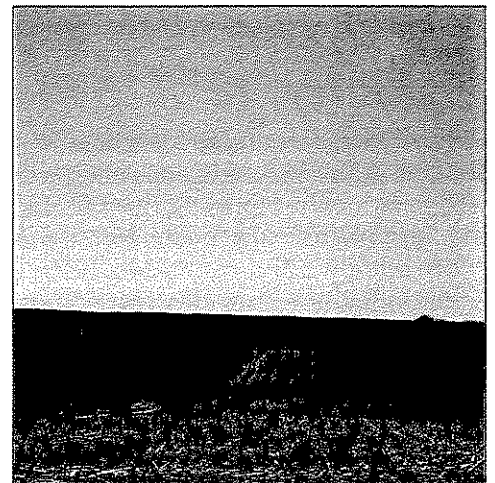
*Protect the rural character, the rural quality of life, and the cultural heritage of the Township.*

The Goal of preserving the rural character of the Township is, perhaps, the most fundamental reason for this Master Plan. It is necessary to provide an environment where farming can continue as a viable economic activity, and to plan the patterns of future developments and utilities to support this.

#### 2. COMMERCE:

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

There are important connections between the preservation of farmland and the encouragement of appropriate patterns for commercial development. Farming is an industrial enterprise that contributes significantly to the Township's economy, and yet requires far less in public services than most other activities. It has been the experience of other farming communities in New Jersey that, for every \$1.00 a farm pays in local taxes it only requires approximately 78¢ in services. In addition to this contribution to the Township's taxes, the thoughtful preservation of farmland can at the same time give direction to where other commerce can and should take place. If office and retail developments occur in compact nodes that are coordinated with the location of farming activities, all commercial activities (offices, retail, farming) can flourish while farmland and open spaces are preserved.



Agribusiness in the Township requires large open land areas, which also contribute to the visual character of the entire community.

### **3. LINKAGES AND EDGES:**

*Connect centers, neighborhoods, and other destinations. Improve the clarity of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers, and buffers to distinguish agricultural lands from developing areas, to create an enduring landscape, which minimizes land use conflicts.*

This Goal, which accompanies the preservation of the community's heritage and rural character, is realized by connecting many parts of the community through a network of green walkways and bikeways. Although such a network will not take place on working farm fields, the very presence of preserved farms assures that some non-farm lands on the farm will also be protected. These areas could be the locations of paths and bike systems.

### **4. INFRASTRUCTURE AND SUSTAINABILITY;**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities, and public open spaces.*

A residual affect of farmland preservation is that it will reduce the amount of land that would otherwise be sites for buildings, and for the infrastructure needed to support those buildings (i.e. roads, sewers, etc.). It will also help to reduce automobile use in the Township, thus protecting the rural roads and facilitating traffic circulation.

### **5. COMMUNITY:**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

In many ways farming gives a stability and continuity to communities. Their very presence seems reassuring, and promotes a sense of a community. By preserving large open tracts of land, farming can also encourage a pattern of development that is both compact and connected. Such a pattern will in turn permit mobility without the use of a car.

## **C. INVENTORY OF FARMLAND**

For the purposes of this Plan, there are two categories of farms. The Township presently has farms which are preserved in the State system, and farms which are actively farmed, but not preserved. Both types require identification. In addition, plans must be prepared that will ultimately assist in maintaining the



viability of their farming operations and will thus help ensure their preservation.

## **D. RECOMMENDATIONS FOR ACTION**

There are two general actions regarding the preservation of farmland and agribusiness that must be taken to realize the recommendations of this Plan:

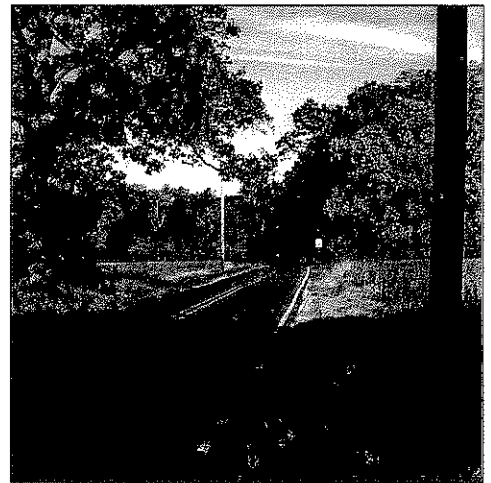
- Identify those farming areas that are of greatest value to the community, both as businesses and as beautiful view sheds. This identification will assist the Township and the landowners to establish guidelines for preservation.
- Use all tools available to achieve the goal of preservation.

In order to follow these two basic recommendations, there are several implementation tools to consider. They all must be used by the Township and by key landowners, depending on the specific situations of each property being preserved for farming:

### **1. STATE FARMLAND PRESERVATION PROGRAM**

The state, through the Agricultural Retention and Development Act (NJSA 4:1c-11 et seq, P.L. 1983 c.32), provides for these farmland preservation programs:

- Fee Simple Acquisition, wherein the state and the county use this funding source to purchase farms outright. Once these purchases are made, the farm can then be resold for agricultural purposes at a price that reflects the value of farmland, with covenants that remove the development rights.
- Purchase of Development Easements (or "Rights") are used to purchase the right to develop from the farm owner, leaving the right to farm intact. In this case, the farmer continues to own the land and can continue to farm or to sell the land (at farm value prices) to another farmer. No further development can take place.
- Easement Donation Program, wherein the owner/farmer donates the development rights as easements to the State Agricultural Development Committee or the County Agricultural Development Board. This step preserves the use of the land for farming, eliminates the development opportunity, and gives the owner significant federal (income and estate) tax benefits.
- Eight Year Farmland Preservation Program, wherein landowners place development restrictions on the lands for a period of eight years. In return for this action, they receive certain benefits such as cost-sharing grants for conservation (see below), protection from nuisance law suits, protection from eminent domain actions, etc. At the end of the eight years, the land returns to its original state, without development restrictions.



Farm lands, forests, and wetlands are the significant areas of open spaces in the Township. Preservation of all these land use types is essential to meet the Goals of this Plan. The roads that serve them should also be preserved, both for access (especially to the farms) and for their contribution to the Township's character.

- Soil and Water Conservation Cost-Sharing Program, wherein an owner who is enrolled in the eight year program is eligible for a 50% cost-sharing grant for approved soil and water conservation projects on the farm property.
- Farm Link Program, which assists farmers who have preserved their farm by one of the state programs to be in touch with other farmers, for the purpose of sale or purchase of additional (protected, and therefore affordable) farm land. In essence, this is a registry of farms and owners in the state program, for the uses of expanding or retiring their farming businesses.
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Note that these programs have recently been enhanced by the 1999 vote that authorized the issuance of bonds, permitting the state to spend \$1 billion on farm and open space preservation (an act which demonstrates great commitment on the part of the citizens of New Jersey for meeting this goal!)

The success of the state's overall farmland preservation program can be reflected in the Township's Zoning regulations, by creating a new use category (for instance, "RA-1"). This category could apply to those properties that have sold or permanently donated their development rights. The criteria of new zoning regulations should be carefully designed to accommodate all aspects of this new land use.

## **2. FEE SIMPLE ACQUISITION, BY THE TOWNSHIP**

In some very specific situations, Townships have purchased farmland in fee (i.e., the purchase of land as well as the development rights) to prevent development. In those situations, the farm can then be resold at farm use prices (versus the price determined by potential development), or can be leased for farming use. In effect, this is another technique for acquiring the development rights, since the public entity can retire those rights prior to lease or resale. Washington Township has already undertaken this method in some situations. For instance, at Block 20, Lot 14 (a.k.a. "Hunter's Ridge"), which is located on the east side of Route 130 in the northeast quadrant of the Township, 100 acres have been purchased here for conservation purposes.

## **3. DEVELOPMENT RIGHTS, DEVELOPMENT EASEMENTS: ACQUISITION BY THE TOWNSHIP**

Since part of the goal of preserving farmland is the maintenance of farming as a viable business in the community, and

# LAND PRESERVATION PLAN

Washington Township, Mercer County, New Jersey



## LEGEND

- PROPOSED PRIORITY OPEN SPACE ACQUISITION / PRESERVATION LANDS.
- EXISTING PRIVATELY HELD PRESERVED LANDS
- EXISTING PUBLICLY HELD PRESERVED LANDS (MUNICIPAL / COUNTY / STATE)
- EXISTING PRESERVED FARM LANDS
- TRAILS
- EXISTING DWELLING
- ROUTE 130 CROSSING

PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES, ROBINSVILLE, N.J.

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Although this technique appears to have the disadvantage of being costly to the Township, in effect, the policy of public purchase of development rights is often shown to be a significant cost saving. If development takes place, which is permitted by the zoning code, the additional population increase will require more schools (by far the biggest long and short term cost), more police and fire protection, more roads and road maintenance, etc. It is far less expensive for the community to purchase development rights than to fund these services and amenities.

#### **4. TRANSFER OF DEVELOPMENT RIGHTS**

The transfer of development rights from one property to another has been statutorily authorized by NJSA C.40:55 D-113-129 (otherwise known as Article 15 of the Municipal Land Use Law). The properties need not be contiguous. As stated in Chapter III, Land Use Plan, it is the intention of the Township to promote compact residential and commercial developments. The method for doing this requires the transfer of the development rights from the farmland to the designated "receiving areas". This transfer has the same effect on the farm land as the purchase of development rights; the farm remains in operation, the farmer receives full payment for the value of development rights, and the farmer's land now is valued at farm-related prices. The enactment of this policy requires carefully written Township legislation in order to determine that the markets for the sale and purchase of the rights be economical for both parties. It also often requires leadership from the Township to ensure that the potential buyer and potential seller can be united.

#### **5. PLANNED CLUSTER DEVELOPMENTS**

Recent experience in Washington Township has revealed that the current pattern of using the cluster option in residential development has not succeeded in the preservation of farmland. New criteria are therefore proposed in the Land Use Plan, for inclusion in the appropriate zoning ordinances that govern cluster developments. These new ordinance criteria must

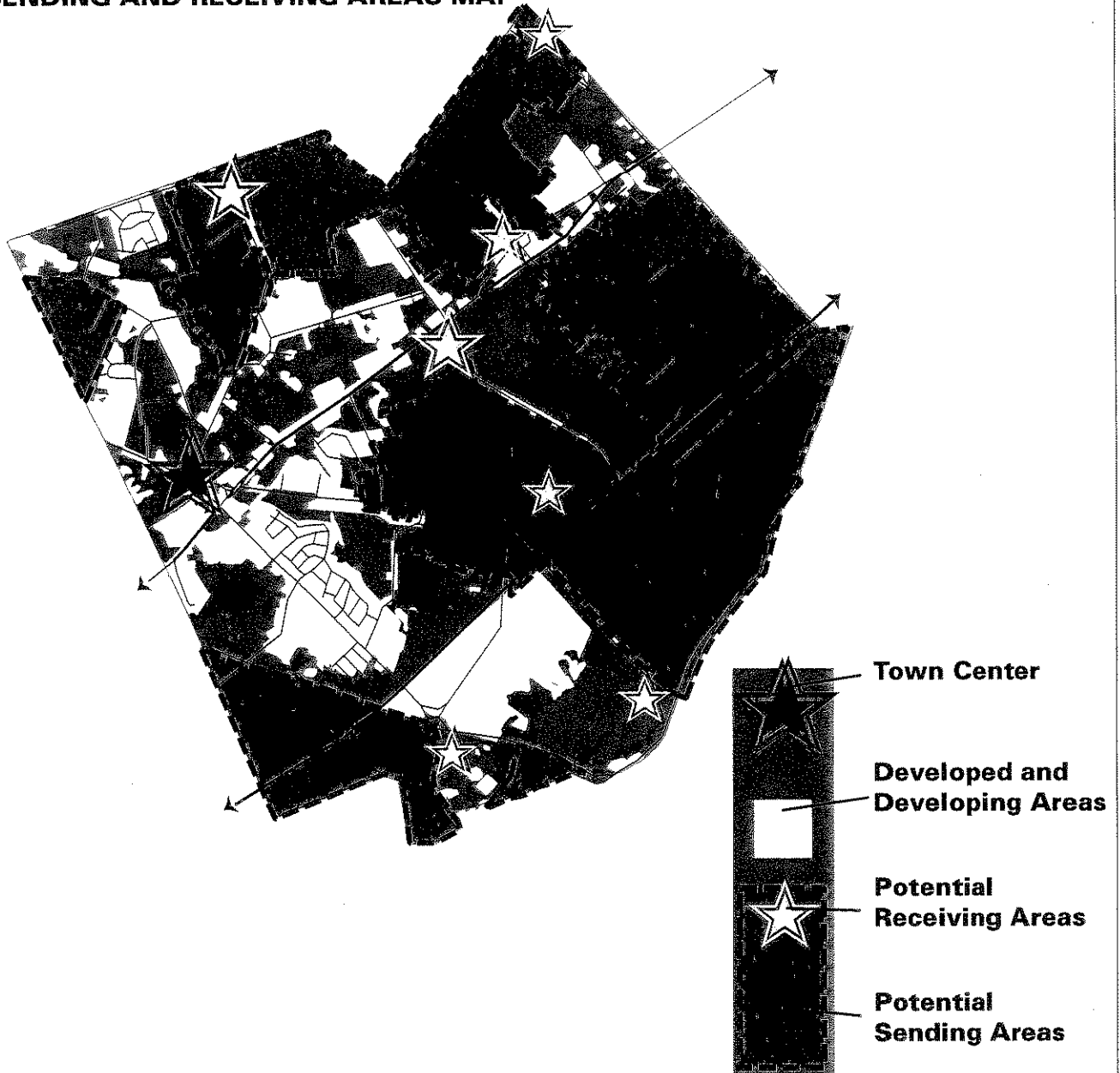
require cluster plans to create preserved open spaces that are, indeed, useful for the community at large. In appropriate locations, this could include arranging and siting the open land so that it is an extension of neighboring farmland.

## 6. RIGHT TO FARM ORDINANCE

The Township already has a strong right-to-farm ordinance, which helps protect the farmer from nuisance lawsuits gener-

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## **7. DISCOURAGE LARGE LOT DEVELOPMENT**

In the past it was assumed that large lot zoning (e.g., one or two acres) was a satisfactory method for preserving the rural feeling and farming operations. In contrast to the other methods described above, the experience throughout the state and the nation in recent decades is that *large lot zoning has exactly the opposite effect*. Farms are developed as housing at an increasing rate under this zoning; very large areas therefore become devoted to roads, driveways, and lawns. The conflicts between farming and residential life make farm operations more difficult, and, in the end, the ambiance of the area becomes more suburban rather than rural. Because the current Washington Township Zoning Code permits this pattern of development, the other methods for farm preservation that are listed above become even more important.

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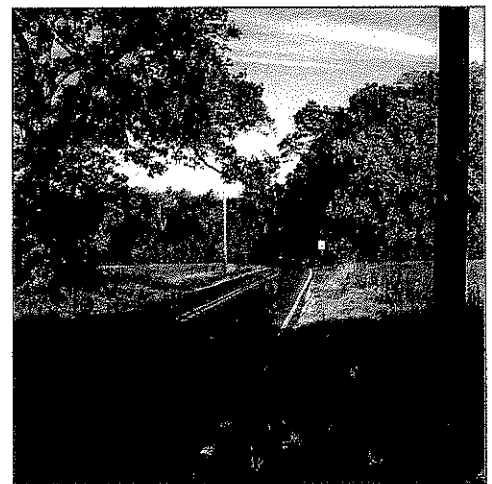
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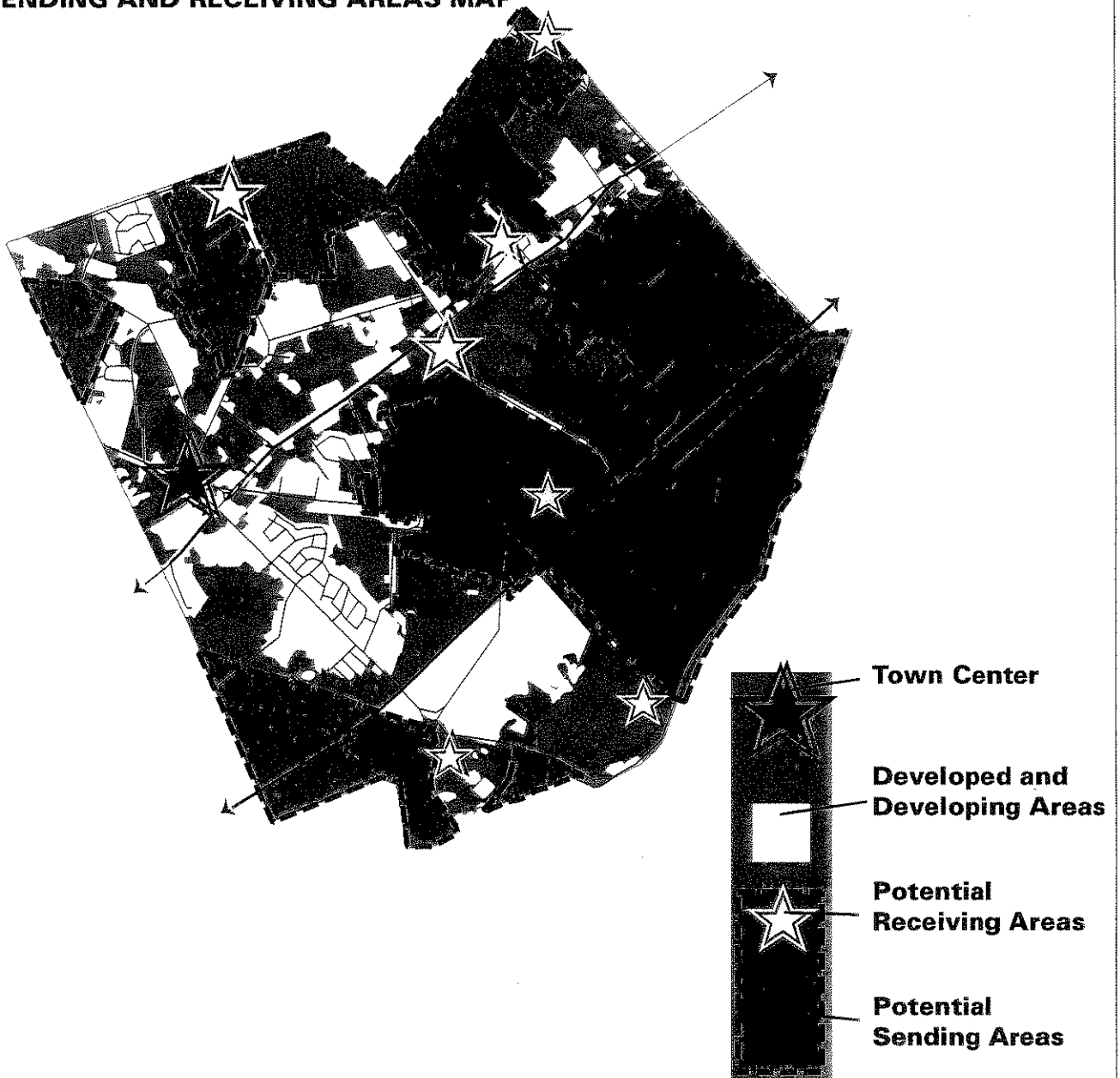
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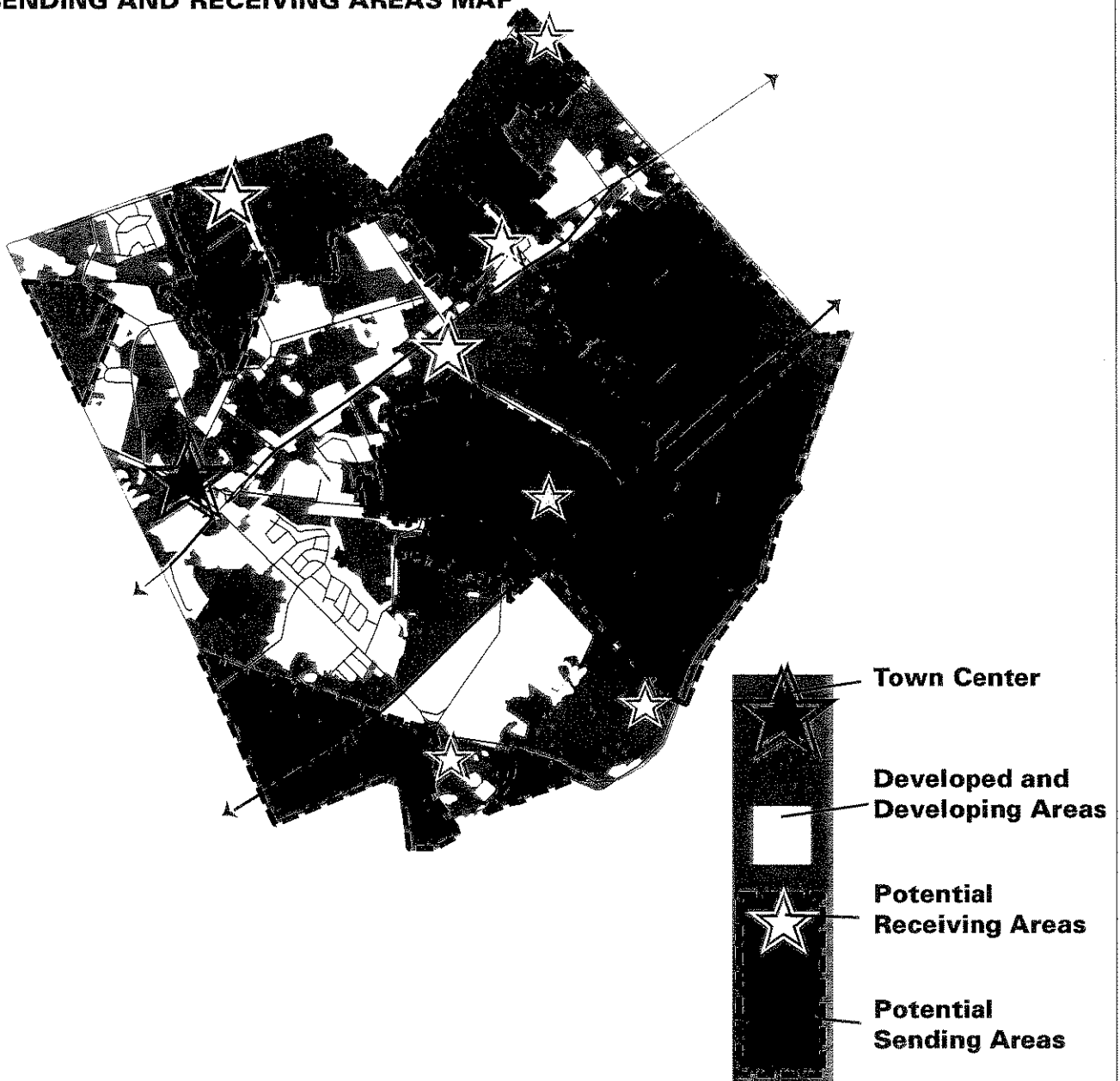
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## IV. OPEN SPACE PLAN

### A. INTRODUCTION

**T**he overall Goals of the Master Plan, and the specific recommendations of the Land Use Plan, indicate that the preservation of open spaces (that are neither farmland nor public recreation), is an integral part of realizing the vision for Washington Township's future. It is also clear that these preserved open spaces must be planned as part of a larger network of green, open land that links all of the Township to one community. In the past, these open areas have either been residual spaces that are left over from new development, or natural areas that have been conserved for their environmental characteristics. Such open spaces have not been considered for their usefulness to the Township or included in a broader plan. In the future, such open spaces should be planned to accommodate the wider community, and should therefore be accessible and/or visible to all of the Township's residents.

### B. GOALS AND OBJECTIVES

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan elements. They are described in detail in Chapter II of this Master Plan. Each of the goals is supported in various ways by the recommendations of the Open Space Plan:

#### 1. HERITAGE :

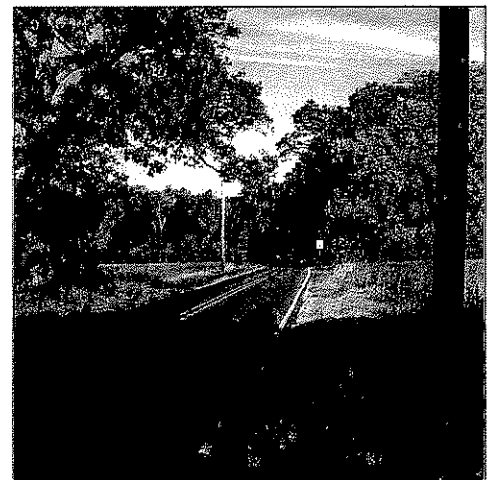
*Protect the rural character, the rural way of life, and the cultural heritage of the Township.*

The goal of preserving the rural character of the Township is, perhaps, the most fundamental reason for this Master Plan. It is essential to preserve the natural open space, streamcorridors, wetlands, and forests. It is also essential to plan the pattern of future development so that traffic does not adversely affect the open character of the rural roads.

#### 2. COMMERCE:

*Encourage office and retail uses to locate in a pattern of centers in the Township.*

Although the goal for directing commerce may initially appear unrelated to the preservation of open spaces, there are indeed important connections between the two objectives. The preservation of larger open spaces gives direction to where developments of all kinds can take place. Greenways will also provide linkages between residential, shopping, and employment areas (see Goal 3, Linkages and Edges).



The farm fields and the forests are both part of the open space lands that should be preserved in the Township

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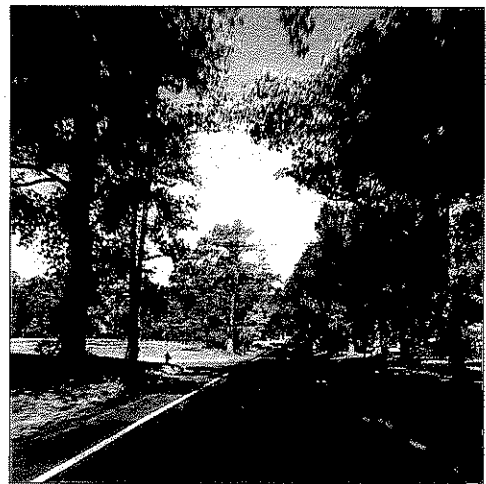
*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

This Goal, which accompanies the Goal of preserving the community's heritage and rural character, is realized by connecting many parts of the community through a network of green walkways and bikeways. This network will consist of every available type of open space in the community: stream corridors, the railroad right-of-way, the areas preserved with residential cluster developments, the large conservation areas, and the open areas for recreation and schools. Thus, the linkages can readily connect the centers with each other, the neighborhoods and workplaces with shopping, and the residential areas with schools and recreation.

In addition to the connections within the Township, the concerns of the adjacent communities must also be recognized; the preservation of open spaces and greenways that are extensions of key county trailways between communities, are part of this Plan.

### 4. INFRASTRUCTURE AND SUSTAINABILITY

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*



The open lands - including working farm lands - require edges to connect them to the developed areas of the township. Roads, as seen here, can be effective both as linkages and buffers to residential areas.

### 5. COMMUNITY

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

Connecting the various residential, institutional, recreational, and commercial areas, by means which do not always require the use of an automobile, will help promote a sense of a community within the whole Township. It will permit people to

move between the areas of the Township; it will link previously isolated neighborhoods; it will make the (future) Town Center the focus of the Township. The creation of trail and sidewalk connections is an essential part of this Goal.

### ***C. INVENTORY OF OPEN SPACES***

The open spaces that must be studied for preservation and use are included in the following six category types. Each type of space, for its open and rural character, is important to the overall function of the community and to the promotion of a fully integrated plan:

- Public recreation areas (which are described in Chapter VI, Park and Recreational Facilities Plan).
- Publicly preserved natural habitats, stream corridors, and wetlands (which are defined in Chapter V, Conservation).
- Wetlands and other unbuildable areas that are privately owned, but which are limited in their use and developability by various environmental regulations.
- Private property that has been set aside as part of clustered residential developments.
- Private property whose use is as open areas, and which are therefore limited in their development options (i.e., the airport and golf courses).
- Certain edges along rural roads which are especially beautiful, and which could be transformed by inappropriate adjacent developments or by roadway "improvements".

### ***D. RECOMMENDATIONS FOR ACTION***

There are two sets of actions: those that are general policies that affect the wider Township, and those that are specifically related to key areas.

#### **1. GENERAL RECOMMENDATIONS:**

- Fee simple acquisition by the public (state, county, or Township) is recommended where full control of the property is desired. This often applies to property to be used as parks and recreational facilities (see Chapter VI, Park and Recreation Facilities Plan). In addition to the purchase of property with public funds, it is also possible that nonprofit entities, such as a conservation land trust, can be effective in making fee simple acquisitions. In this case, it is possible for the trust to acquire and hold title in perpetuity, or to hold the title until the public entity has the funding for the acquisition.
- Conservation easements are generally recommended for preserving passive open space, protecting visual access to scenic views, and providing limited public access onto the

property. Such easements are recorded agreements by which the landowner retains ownership of the property but conveys, for the public good, certain rights of control over the property. Typically, the rights are granted to a governmental entity or a conservation land trust. The easements are strongly binding, run with the land from owner to owner, and can only be broken by the agreement of all affected parties (the owner, the Township, and/or the land trust). They can be secured by purchase or donation, or through Township/developer negotiations during the planning review process. Easement donations may also qualify for deductions for income tax purposes. If public access onto the property is to be allowed, then the easement terms must specifically provide for it and must define the type and extent of access, the maintenance responsibilities, and the responsibility involving liabilities. The monitoring and enforcement of the terms of the easement therefore become very important and must be established at the early stages of the planning process.

- Cluster developments and the Transfer of Development Rights can be carefully planned to be very effective tools in creating open spaces for the public good. As stated in Chapter II, Land Use, and Chapter III, Farmland Preservation, the Township's existing cluster development ordinances have not been effective in preserving useful and visible open spaces; they have also been ineffective in creating viable habitat protection. These ordinances must therefore be revised, to not only ensure that the new developments are attractive and functional (as stated in the Land Use Plan), but that the open spaces they create serve the entire Township.
- As is stated in the Land Use Plan (page II-43), changes to the zoning regulations should be considered which distinguish between the various open space types: Natural Preservation, Active Recreation, and Public Institutional open spaces.

## **2. RECOMMENDATIONS FOR SPECIFIC AREAS:**

- Obtain public control and/or access over key stream corridors, along which to create pedestrian and biking trails (see Chapter V, Conservation Plan, for the environmental criteria for the preservation of stream corridors and their habitats). Construct the trails as the control is obtained, with each segment setting the stage for connections to the other segments. This network is very complex in its form and in its need to cross Route 130, but it will be the major link between neighborhoods, schools, the library, the municipal complex, recreational facilities, and commercial centers. This use of the stream corridors is the heart of the greenway network.
- Obtain public control and/or access over the railroad right-of-way, for the purpose of creating a "rails to trails" path that will not only directly link Windsor (and the Windsor School) with the Town Center, but will connect to the stream corridor greenway system in at least two locations, and will help to

# LAND PRESERVATION PLAN

Washington Township, Mercer County, New Jersey



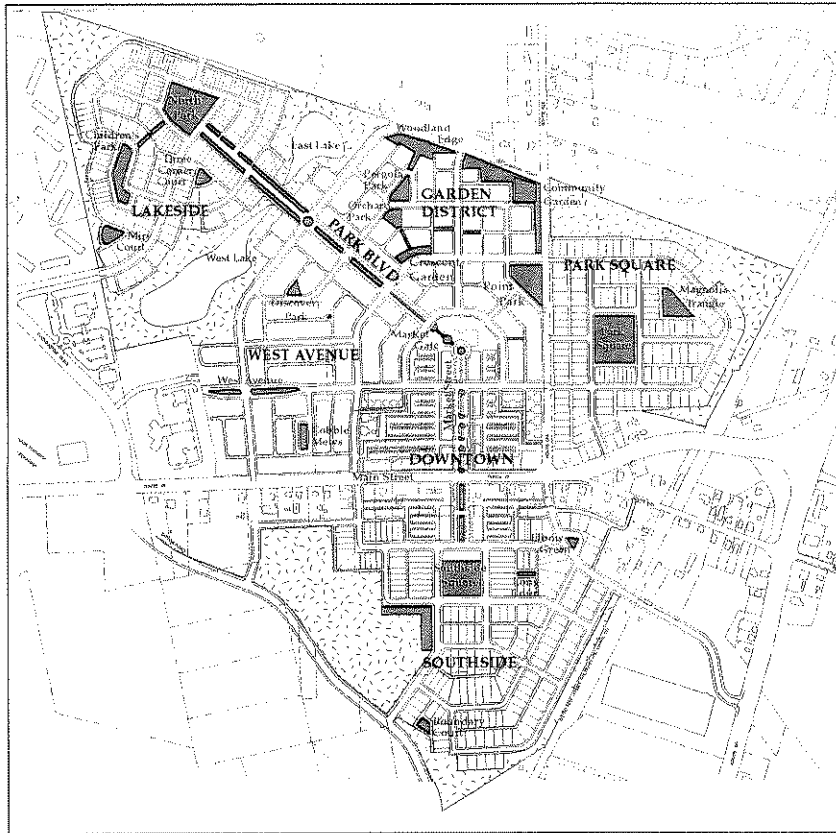
## LEGEND

- PROPOSED PRIORITY OPEN SPACE ACQUISITION / PRESERVATION LANDS
- EXISTING PRIVATELY HELD PRESERVED LANDS
- EXISTING PUBLICLY HELD PRESERVED LANDS (MUNICIPAL / COUNTY / STATE)
- EXISTING PRESERVED FARM LANDS
- TRAILS
- EXISTING DWELLING
- ROUTE 130 CROSSING

PREPARED BY: VAN CLEEF ENGINEERING ASSOCIATES, ROBINSVILLE, N.J.

link the cluster-created open spaces into the wider trail network. In addition, as stated in the Land Use Plan, adjust the zoning criteria to ensure that development that requires rail service does not take place along the old railway. This north-south trail will become the only north/south connection for pedestrians and bikers. The Township should make every effort to insure that rail service does not prevent the trail's creation.

- Use the stream corridors and the railroad right-of-way to link the land preserved by cluster developments with the overall walking/biking network. Construct trails in those areas that are part of the community linkage system.
- Identify those privately owned wetlands and steep slope areas that cannot be built upon, to determine whether they can be usefully integrated into the overall greenway network. Determine if the owners will permit access easements or will make tax-deductible gifts of those lands. When approvals are obtained, construct trails that will connect to the community-wide system.
- The open space vistas of the Miry Run Golf Course should remain, approximately in their current form. The Club is a privately owned commercial recreation facility which includes a golf course, tennis courts, and a swimming pool. As a developed open area it is valuable in preserving some of the open scenic character of the community. The development potential of the Club is (fortunately for the open space goals of the Township), limited by the hazard safety zone of the adjacent airport.
- Several of the Township's roadways are particularly beautiful, and therefore worthy of preservation efforts. Examples of some of those roads are portions of the Robbinsville-Edinburg Road, portions of Windsor Road, the west end of Hutchinson Rd., and Perrineville Road. Their preservation requires maintaining the adjacent farmlands, the creation of planning and design standards for future developments so that the road character remains, and the establishment of roadway design criteria which prevents their excessive widening. (See Chapter VII, Circulation).
- Legislation has been presented before the State Assembly regarding development impact fees, but is not yet on the agenda for a vote. This legislation is designed to enable developers to offer the municipality a fee-in-lieu of constructing required private recreational facilities for new residential projects. Note that in-lieu -of-fees are now used to fund construction of public roadways, stormwater facilities and sewer facilities associated with new construction. Plans to utilize this new legislation would provide the economic mechanism to introduce these civic purposes into the design of new residential developments. This should be utilized to establish a system of interconnected small parks integral to the design of new compact communities.



A series of interconnected small parks, created as Town Center development occurs, are to designed to be the focus of daily community life, were residents can sit, stroll, relax and play.

- An open space plan specific to the Town Center (the "Town Center Open Space Design Guidelines") has been incorporated in the Master Plan, by reference in the Appendix and is on file in the Township offices. The open spaces that are described are a series of interconnected small parks that will be created as Town Center development occurs, and are designed to be the focus of daily community life. They will be places for passive recreation where Township residents can read or converse and small children can play; active organized sports however, are generally discouraged.

## **E. MANAGEMENT OF OPEN SPACES**

The management of open space lands is related to the ownership of the land, and to its proposed use. For example, although freshwater wetlands are among the most environmentally sensitive lands, their preservation as open space will not ordinarily require public acquisition. Wetlands preservation is effectively secured through state regulation and enforcement. Accordingly, the land is privately owned and maintained as open space and is subject to state monitoring and enforcement. Floodplains may continue to be privately owned, but can be preserved as open space through Township zoning and development regulations.

Open space in which the public acquires less than the total fee interest (such as a conservation easement), will require that a public entity monitor compliance with the terms of the easement. The public entity may have additional management responsibility if public access is to be provided.

Open space land which is owned in fee by the public, such as a park, will require direct management and oversight by a public entity, consistent with the use and purpose of the open space. Active recreation sites will obviously require the most intensive management and maintenance. (See Chapter VI, Park and Recreation Facilities Plan.)

In summary, the management techniques that are used for preserved open spaces in the Township are organized into two broad categories. The first is management by public (state, County, or Township) regulation. Note that it is usually desirable to have these areas preserved by conservation easements, which offer more public control and access. The second is the direct management of lands which have been acquired fully in fee title, or when an easement has been acquired. In this case, the public entity responsible for the acquisition will have both the ability and the responsibility to manage the property or to monitor the easement.



## V. CONSERVATION PLAN

### A. INTRODUCTION

**W**ashington Township contains a significant amount of natural open spaces. In addition to the large areas of farmland, these open spaces generally consist of areas with steep slopes, stream corridors, flood hazard areas, freshwater wetlands, and surface waters. Lands of this type should be conserved and regulated, to limit disturbance which will create adverse impacts to the wider community. The recommended actions for conserving these natural features, are described here.

### B. GOALS AND OBJECTIVES

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan Elements. They are described in detail in Chapter I of this Master Plan. Certain of these goals are specifically supported by the recommendations of the Conservation Plan:

#### 1. HERITAGE

*Protect the rural character, the rural way of life, and the cultural heritage of the Township.*

The Goal of preserving the rural and open character of the community is tied closely with the intentions of the Conservation Plan, which are to assure that the native habitats are maintained where possible throughout the community. It also relates to the objective of directing growth in a way that discourages sprawl.

#### 2. COMMERCE

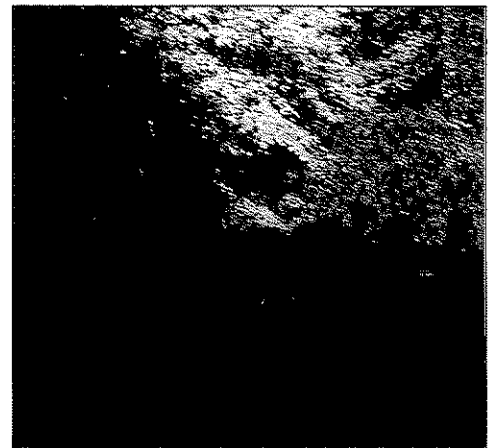
*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

The Goal of promoting commerce in a pattern of centers is consistent with the intention to preserve conservation areas. The specific Objectives relate directly to commercial development and, although not specifically focused on the details of conservation, definitely support the Township's intention to preserve as much of its natural habitat as possible.

#### 3. LINKAGES AND EDGES

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways and trails and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

The linkages that are called for in this Goal in large part take advantage of the naturally preserved areas - especially the



Beautiful forests, creeks, and wetlands weave their ways through the Township, creating a network of natural habitats that can also be part of the Township trail system.

stream corridors. An important part of this Goal therefore is the need to encourage patterns of development, and to create connections between the various development areas that will promote walking and biking.

#### **4. INFRASTRUCTURE AND SUSTAINABILITY:**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

A sustainable pattern of land uses is reinforced by the conservation of natural habitat areas. Among the objectives that support this Goal is the need to encourage development that promotes resource conservation.

#### **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

The Goal of a single community that is made of connected neighborhoods is fundamentally linked to the recommendations of the Conservation Plan, since many of the connections will be made using the preserved natural habitat areas and corridors for trails and bikeways.

### **C. RECOMMENDATIONS**

#### **1. STEEP SLOPES:**

The measurement of slope consists of the elevation change with respect to a given distance, (such as 10' over 100', which is a 10% slope). Land in Washington Township is generally flat, but sloping ground occurs in a few areas. If a slope is greater than 10%, the erosion hazard increases substantially. Where steep slopes are stripped of vegetation, adjacent lands and water bodies may be inundated with sediment during rainstorms. This also harms wildlife habitats and degrades water quality. Soil erosion is exacerbated, and soils then become thin and have low natural fertility. Slopes greater than 10% also can pose problems in designing building sites, roads, and parking areas.

Therefore, slopes greater than 10% should be left in their natural condition, or at least maintained in plant and tree cover as permanent open space.

#### **2. FLOOD HAZARD AREAS:**

The flood hazard areas within Washington Township have been identified and mapped by the Federal Emergency Management

Agency (FEMA) as part of the National Flood Insurance Program. Flood hazard areas are the subject of flood plain regulations that control construction consistent with the National Flood Insurance Program.

Municipal design standards should require that uses which are especially vulnerable to damage by flooding be located outside of the flood hazard area, and that such areas be set aside as permanent open space.

### **3. STREAM CORRIDORS:**

A stream corridor is an area consisting of both a stream channel and the area of vegetation that extends along each side of the channel. The protection of these corridors is an objective of the State Planning Act NJSA 52:184-196 et seq.

Soils and vegetation located along the stream corridors perform important natural functions that maintain the ecological and hydrological balance of the surface water systems. These functions include:

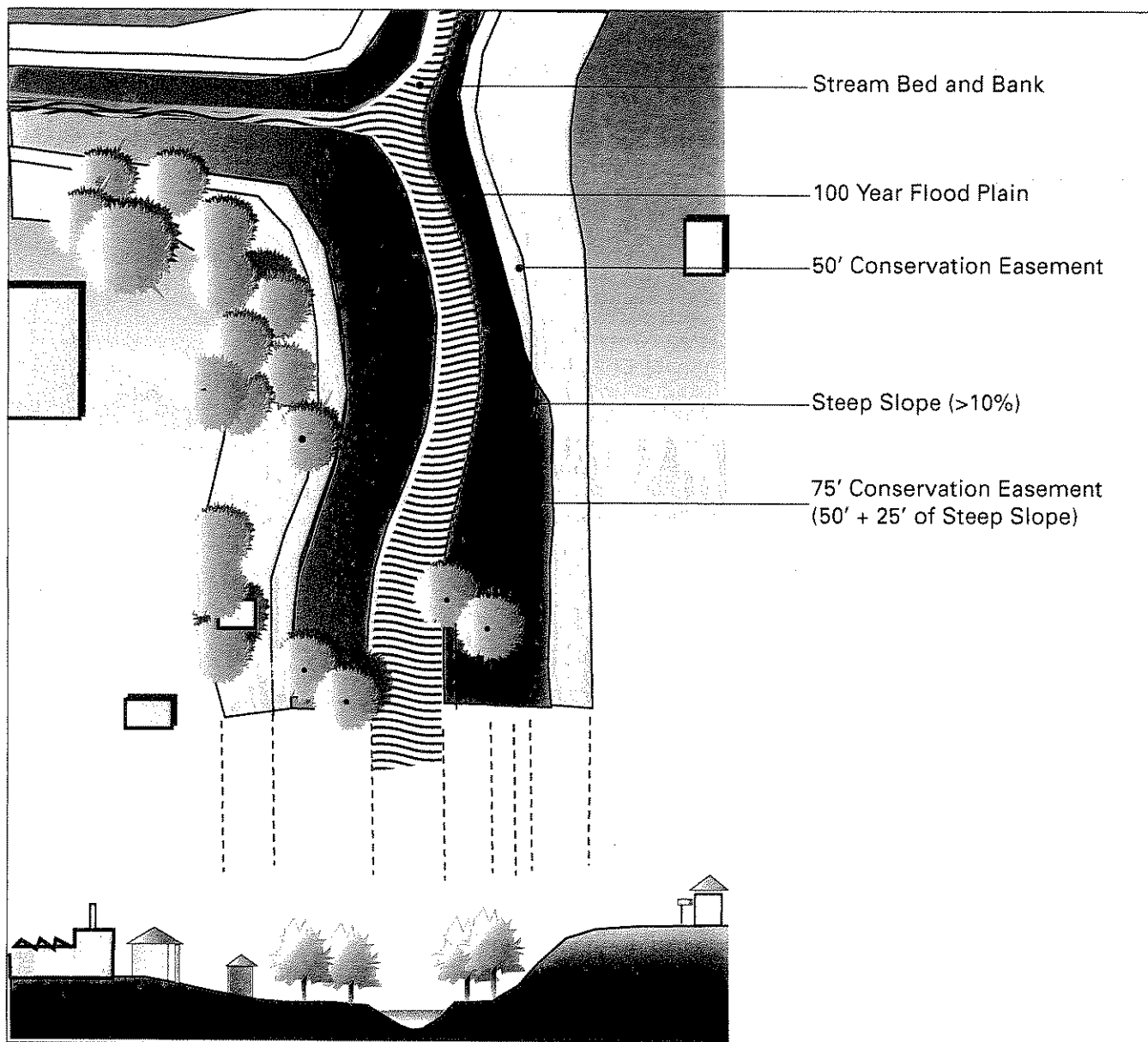
- Runoff and flood control
- Streambank and streambed erosion control
- Wildlife habitat protection
- Groundwater recharge

Stream corridors are among the most valuable natural resources in Washington Township which, if not managed properly, can result in flooding and the loss of important environmental, aesthetic, and recreational resources. Stream corridor management places primary emphasis on water quality protection and enhancement and on the protection of natural resources located along the stream corridor. Floodplain management also places emphasis on the protection of the man-made environment from flood hazards. With proper management, a stream corridor can serve as a buffer to filter sediment and pollution produced by development, as well as farming. It can also provide a margin of safety for adjacent neighborhoods from flood and erosion hazards.

Streams are divided into two categories: perennial and intermittent. Perennial streams flow year-round while intermittent streams flow only during storms and certain seasons. Both are important to the protection of the ecological and hydrological balance of the stream system.

In order to protect stream corridors, buffers should be established along each bank. The recommended minimum is 65' on each bank (or a total of 130'), with the following additional factors to be considered:

- Flood hazard area: Areas should be sufficiently wide to include the 100 year flood plain.



- Steep slope: Consider extending the buffer beyond the top of the slope, where stream banks have slopes greater than 10%,
- Sediment control: Where disturbance is occurring near the stream, a buffer of up to 150' on the side of the disturbance should be considered.
- Nutrient removal: Where nutrients are proposed to be applied to the land, a buffer of up to 150', on each side of the stream should be considered.
- Habitat (aquatic): Where aquatic habitats are identified, setbacks of wooded vegetation of up to 80' should be considered on each side.

#### **SITE PLAN AND SITE SECTION OF TYPICAL STREAM AND STREAMBANK AREA**

This plan diagram shows the relationships between the water way, the stream bank, the forest buffer, and various types of development.

- Habitat (terrestrial): Wildlife corridors and wintering areas should have a setback of wooded vegetation of 100' to 300' on each side.

(Note: the source for these criteria is the 1990 Washington Township Master Plan, by Townplan Associates)

#### **4. FRESHWATER WETLANDS**

Freshwater wetlands are vital links in the ecological system. Wetlands are typically delineated on the basis of the following three parameters:

- Hydrology: Soil is inundated either permanently or periodically, at mean water depths less than or equal to two feet, or soil is saturated to the surface at some time during the growing season of the prevalent vegetation.
- Vegetation: Prevalent vegetation consists of plant species adapted to anaerobic soil conditions.
- Soil: Soils present are classified as hydric, or possess at least two characteristics that are associated with anaerobic soil conditions.

Note that, in establishing an area as a wetland, only two of the above three parameters must be met.

Freshwater wetlands within Washington Township are derived from the US Department of Agriculture survey of Mercer County, and the National Wildlife Wetland Inventory maps prepared by the US Fish and Wildlife Service. These areas, which would be controlled by State wetlands regulations, are identified on the Wetlands Location Map

Due to the fact that the Township's remaining undeveloped lands will yield a relatively low amount of development, based on the zoning, the need for future roads and streets is minimized. Except for wetlands fill approved relative to the Town Center Plan, future plans for roads and streets should anticipate no additional disturbances to the Township's wetland areas, as defined by the NJDEP.

## **D. NATURAL FEATURES AND RESOURCES**

Natural features and resources which exist within Washington Township are presented in order to identify and evaluate potential constraints to the Township's future growth and development. Those features and resources most likely to influence development activities, including physiography, topographic conditions, geologic features, soils, wetlands, and floodplains, have been described and mapped within the sections that follow. Several of these features are subject to federal and state regulations which, in turn, have direct influence on growth and development opportunities within the Township.

## **1. PHYSIOGRAPHY**

The State of New Jersey is divided into five physiographic provinces: Ridge and Valley, Highlands, Piedmont, Inner Coastal Plain, and Outer coastal Plain. Washington Township is situated within the Inner Coastal Plain at the base of the Piedmont province which lies in a northeast-southwest orientation from Raritan Bay to the Delaware River. This designation has been given to the geographic area whose primary geologic formations were established during the Cretaceous or third geologic period within the Mesozoic (Middle) Era, approximately 70 to 124 million years ago.

The formations established during the Cretaceous period consist of unconsolidated sands, clays and greensand marls, the result of sediment deposition in an existing nearshore marine environment. The uplifting resulting from the Appalachian orogeny to the north and east directed sediment-laden rivers toward the paleo-shoreline where the transported sediments, derived from the adjacent highlands, inter-bedded with sediment from the existing marine environment. Where fluvial competence decreased, deposition occurred and greatly increased with subsequent marine regression. The present sediment rests on a bedrock surface which ranges from 0 - 500 feet below the ground surface in Mercer County.

## **2. GEOLOGY**

The geologic formations dominating the Inner Coastal Plain consist of sands, silts and clays which include varying amounts of gravel, marl, and glauconite. Washington Township is underlain by the Raritan and Englishtown formations. A thin veneer of Pleistocene gravels are found at the surface, covering the Raritan formation. The Merchantville and Woodbury Clays, formations of Cretaceous origin, cover the balance of the Township.

**Merchantville Clay Formation:** The Merchantville Clay is a black glauconitic micaceous clay, ranging from 50-60 feet in thickness. It lies over the Magothy formation in the central part of the Township, paralleling Route 130, in a band running southwest to northeast through about 30-35 percent of the Township's land area.

**Woodbury Clay Formation:** The Woodbury Clay formation is approximately 50 feet thick and is exposed generally east of Route 130 toward the New Jersey Turnpike, where it overlays the Merchantville Clay. Further east, it is overlain by the Englishtown formation. The Woodbury Clay is a black non-glauconitic clay.

**Englishtown Sand Formation:** These are white-yellow quartz sands, which are at the surface in the southern and eastern portions of the Township, which may be overlain by the Pleistocene formation in some locations. The Englishtown Sand Formation, which has a thickness of approximately 120 feet and

lies over the Woodbury and Merchantville Clays, is an important aquifer to central New Jersey, supplying water to private and municipal wells.

Magothy and Raritan Formations: These two formations, which are identical lithologically and hydrologically, are the primary water-bearing sediments in Mercer County. The only distinction between the two is a fine white sand which identifies the Magothy. These thick formations, which extend into Monmouth, Ocean and Middlesex Counties, constitute the primary aquifer for the region and must be protected as a vital water source.

See table below, indicating areas of the various geologic formations.

**TABLE: GEOLOGIC FORMATIONS - WASHINGTON TOWNSHIP**

<u>Formation</u>	<u>Area (acres)</u>	<u>Percent</u>
Englishtown Sands (Ket)	3,242	24.4
Magothy & Raritan (Kmr)	1,478	11.1
Merchantville Clay (Kmv)	3,735	28.1
Woodbury Clay (Kwb)	<u>4,829</u>	<u>36.4</u>
Total	13,294	100.0

(Source: Townplan Associates, 1990)

### **3. TOPOGRAPHY AND SURFACE WATERS**

Topographic conditions within Washington Township vary across several distinct areas. Within the southern and central portions of the Township are found areas with generally the highest elevations, ranging from 120 to 140+ feet above mean sea level (msl). This small band of hills gives way to broad, relatively level areas with elevations of approximately 100-200 feet above msl. Gently sloping terrain, with elevations ranging from 70-100 feet above msl, are found along the Township's two principal drainageways; the Assunpink Creek and the Miry Run.

Primary surface waters in Washington Township consist of the Assunpink Creek, which flows through the north-central portion of the Township; the Miry Run, which flows through the central and westerly portions of the Township; Bear Brook in the northern portion of the Township; and Indian Creek in the southeastern portion of the Township. Bear Brook and Indian Creek are the primary drainage ways in the Township. The Assunpink Creek and the Miry Run ultimately flow to the Delaware River while Bear Brook flows to the Millstone River. Indian Creek flows into Doctor's Creek, and ultimately into the Delaware River. Major tributaries to the streams within Washington Township include Bridegroom Run, Munn's Run and Edges Brook.

The 100 and 500-year floodplains are delineated by the Federal Emergency Management Agency (FEMA) and the U.S. Department of Housing and Urban Development (HUD) Floodplain Insurance Rate Maps (FIRM) for purposes of measuring flood hazard. The floodplain is comprised of three areas: the stream channel, which is the typical stream channel and contains normal flows; the floodway, which is the area on each side of the stream channel and contains flood flows; and the flood fringe, which can be filled under limited circumstances.

**TABLE: FLOODPLAINS - WASHINGTON TOWNSHIP**

<u>Area (acres)</u>	<u>Floodplains</u>
727.7	100-year
<u>890.9</u>	500-year
1,618.6	

(Source: Townplan Associates, 1990)

Permits are required for alterations to stream channels or floodplains within the 100-year flood boundary, under the Flood Hazard Control Act (NJSA 58:16A-50 et seq.). This program is administered by the N.J. Department of Environmental Protection, Division of Water Resources, Bureau of Floodplain Management. The U.S. Army Corps of Engineers, New York District, regulates the dredging or filling of navigable waters, their floodplains and tributaries under the Clean Water Act (33 U.S.C 1344). To protect water quality, public agencies and private corporations which discharge wastewaters into surface waters, are required to obtain permits in accordance with the Federal Water Pollution Control Act (PL 92-500) under the National Pollutant Discharge Elimination System process. Permits are also required under the New Jersey Water Pollution Control Act (NJSA 58:10A-1 et seq.) for discharges into surface or groundwaters. This program is also administered by the N.J. Department of Environmental Protection, Division of Water Resources.

#### **4. AQUIFER RECHARGE POTENTIAL**

The location of aquifer recharges are within Washington Township and the rate of permeability of the soils overlaying the aquifer recharge formations can have an impact upon development potential with areas of rapid recharge posing the most serious limitations. The table on page V-9 estimates the extent of aquifer recharge areas with rapid, moderate and slight recharge potential.

Areas with rapid recharge are concentrated in the portion of the Township located east of the New Jersey Turnpike, where the Englishtown Sand Formation overlays the Woodbury and Merchantville clays. Other areas with rapid recharge characteristics are also located in the northwest portion of the Township. If development takes place in these areas, it should incorporate measures to allow groundwater recharge to occur, and should



address the inherent conflict between recharge and wastewater absorption.

**TABLE: AQUIFER RECHARGE POTENTIAL - WASHINGTON TOWNSHIP**

<u>Recharge Category</u>	<u>Area (acres)</u>	<u>Percent</u>
Rapid	2,218	16.7
Moderate	977	7.3
Slight	<u>10,099</u>	<u>76.0</u>
Total	13,294	100.0

(Source: Townplan Associates, 1990)

## **5. SOILS**

The U.S. Department of Agriculture, Soil Conservation Service has delineated soil types on a County-wide basis. On the basis of this survey (Soil Survey of Mercer County, New Jersey, 1990) some 35 soil types have been identified within Washington Township.

The table on page V-12 lists the soil types and shows the area (in acres) within Washington Township which feature each soil type.

Othello, Mattapex and Bertie Loam, Matapeake, Sassafra and Dragston and Woodstown soils, which cover more than 80 percent of Washington Township, are the dominant soil types. More than 65 percent of the areas containing these soil types are considered prime farmland.

The characteristics and limitations of each principal soil type found within the Township as described by the U.S. Department of Agriculture, Soil Conservation Service, are provided below:

- Alluvial Land: Alluvial land is poorly drained and frequently flooded and contains wet (Ad) and very wet (Ae) varieties. These lands lie beside stream beds including the Miry Run, Assunpink Creek, Beaver Brook, and Indian Run. The land is saturated with water for most of the year, but water does not stand on the surface. Such areas are best used as pasture, woodland, or wildlife habitat. Surface layers range in texture from silt loam to sandy loams, and color from dark brown to black. The subsurface material can vary from sandy loam to gravelly sand. It has low permeability, low erodibility, and a seasonal water table very close to the surface. Given these characteristics, it is inappropriate for most development activities.
- Cut and fill: Cut and fill land is a composite of soil materials that have been disturbed and mixed as a result of filling or excavation activities. Two subtypes are found, gravelly mate-

rial (Cg) and stratified substratum (Cv). The most significant examples are located near the intersection of the N.J. Turnpike and Robbinsville-Allentown Road, and along Sharon Road. Because the soil layers have been removed or disturbed, on-site sampling is required to assess the degree of constraints which these soils present to development.

- Downer Fine Sandy Loam: Downer fine sandy loam (DF) is a deep and well drained soil, with moderate permeability and fair depth to seasonal high water, with a moderate erosion hazard if slope increases. This soil type raises little constraints to development. It is also considered prime farmland.
- Dragston and Woodstown: Dragston and Woodstown sandy loams (DwB) are nearly level, and are very similar interpenetrating soil types, with moderate to moderately rapid permeability, moderate depth to seasonal high water table, and slight erosion potential. This soil type, which is considered prime farmland and covers over 8 percent of the Township's area, presents some limitations to development.
- Elkton: Elkton silt loam (Ek) is a deep, poorly drained, nearly level soil type, located in small patches in low areas, with dark gray surface and subsurface layers of silt loam (6 inches), silty clay, and clay. Permeability is slow, with water table frequently at or near the surface, and there is high erosion potential. As a result, this soil presents limitations to development, especially for septic system installation and basement construction.
- Evesboro: Evesboro loamy sand (EvB) is a deep, loose, excessively drained nearly level soil, with rapid permeability, subject to wind erosion. It presents few limitations to development.
- Fallsington: Fallsington sandy loam (Fd) is a nearly level, deep, poorly drained soil, with a dark-gray surface layer (8 inches) and brown-gray subsurface. The water table is near the surface in the winter and permeability is moderate to rapid. Constraints to development are severe.
- Fresh Water Marsh: Fresh Water Marsh (Fm) is nearly level marshland where the water table is at the surface most of the year. It is located along water bodies and consists of a layer of largely decomposed organic material over mineral loamy soil. It is best suited for wildlife habitats.
- Fort Mott: Fort Mott are deep, well drained, gently sloping loamy sands, with a 0-5 percent slope subtype (FrB) and a 5-10 percent slope subtype (FrC). Surface layers are dark brown (8 inches), and subsurface yellow brown (15 inches). Permeability is moderate to rapid, and wind erosion potential is moderate. This soil presents few limitations to development.
- Galestown: Galestown loamy sand (GaB) consist of deep, loose, excessively drained, gently sloping soils, with yellow-brown surface layer (17 inches) and yellow-red subsurface (15 inches). Permeability is moderately rapid to rapid, water table is low,

and wind erosion is possible. It presents few constraints to development.

- Klej: Klej sandy loam (Km) is deep, friable, moderately well drained nearly level soil, with dark brown surface layer (10 inches) and sloping brown subsurface (23 inches), high water table in winter (16 to 24 inches) but not in summer (4 ft.+). It has moderately rapid permeability, and some risk of wind erosion. It offers moderate limitations for development.
- Lenoir-Keyport: Lenoir-Keyport silt loams (Lk) is a deep, nearly level, somewhat poorly drained soil, with dark gray-brown surface layer (7 inches ) and gray-brown silty clay subsurface (34 inches). Permeability is slow, depth to seasonal high water is moderately high, and control of erosion is needed on sloping areas. It presents some constraints to development and is considered prime farmland.
- Matapeake: Matapeake consist of deep, well drained loams in three subtypes: 0-2 percent slopes (MoA), 2-5 percent slope (MoB), and 5-10 percent slope (MoC2). The hazard of erosion increases with the slope becoming serious over 5 percent. Depth to seasonal water table is moderate. It is considered prime farmland, covers about 7.5 percent of the Township area, and offers few constraints to development.
- Mattapex and Bertie: Mattapex and Bertie loams (Mq) are moderate to poorly drained soils, with a moderately high seasonal water table and low erosion potential. This soil type is also considered prime farmland, and covers approximately 16 percent of Washington Township. It presents moderate limitations for development.
- Othello: Othello silt loam is a deep poorly drained silty mantle underlain by sand and gravel, with a dark gray-brown surface layer of silt loam (11 inches) and gray-brown silty clay loam subsurface (13 inches). The water table rises to less than 1 foot from the surface in winter. Runoff is slow on this nearly level soil. Permeability and erodibility are moderate. This soil type covers almost 20 percent of the Township and presents serious constraints to development.
- Plummer: Plummer sandy loam (Pu) and its very wet subtype (Pv) are deep, loose sandy, poorly drained, nearly level soils, with a gray surface layer (12 inches) and a gray-brown subsurface (35 inches) or loamy sand. The water table is very near the surface in winter and permeability is moderately rapid. This soil raises problems for development.
- Portsmouth: Portsmouth silt loam (Pw) is a nearly level, deep, very poorly drained silty mantle underlain by sand and gravel. Runoff is slow, with water sitting on the surface during the winter. Permeability is moderate to moderately rapid. The surface layer is dark gray silt loam (9 inches), with light gray silt loam (4 inches) under. It presents severe constraints on development.

# **PRINCIPAL SOIL TYPES - WASHINGTON TOWNSHIP**

Mapping Symbol	Soil Type	Percent Slope	Areas (Acres)	Percent of Total Area
Ad	Alluvial land, wet	—	181.9	1.4
Ae	Alluvial land, very wet	—	224.6	1.7
Cg	Cut and fill land, gravelly material	0-5	77.2	0.6
Cu	Cut and fill land, stratified substratum	0-10	107.0	0.8
Df	Downer fine sandy loam	0-5	19.1	0.1
DwB	Dragston and Woodstown sandy loam	0-4	1,120.2	8.4
Ek	Elkton silt loam	—	255.4	1.9
EvB	Evesboro loamy sand	0-5	53.6	0.4
Fd	Fallsington sandy loam	—	240.1	1.8
Fm	Fresh Water Marsh	—	100.4	0.8
FrB	Fort Mott loamy sand	0-5	86.5	0.7
FrC	Fort Mott loamy sand	5-10	15.6	0.1
GaB	Galestown loamy sand	0-5	24.4	0.2
Km	Klej soils, sandy loam subsoil variants	—	78.9	0.6
Lk	Lenoir-Keyport silt loams	—	69.5	0.5
MoA	Matapeake loam	0-2	272.0	2.0
MoB	Matapeake loam	2-5	714.3	5.4
MoC2	Matapeake loam	5-10	14.7	0.1
Mq	Mattapex and Bertie loams	—	2,127.2	16.0
Ot	Othello silt loam	—	2,601.2	19.6
Pg	Pits	—	1.0	—
Pu	Plummer sandy loam	—	38.0	0.3
Pv	Plummer sandy loam, very wet, surface variant	—	0.3	—
Pw	Portsmouth silt loam, thin sloping	—	64.2	1.2
SdD	Sandy and silty land, strongly sloping	—	1.4	—
SdE	Sandy and silty land, steep	—	6.6	—
SrA	Sassafras sandy loam	0-2	135.9	1.0
SrB	Sassafras sandy loam	2-5	2,014.5	15.2
SrC	Sassafras sandy loam undulating gently	—	1,383.6	10.4
SrC2	Sassafras sandy loam, eroded	5-10	437.4	3.3
SsB	Sassafras gravelly sandy loam eroded	2-5	65.4	0.5
S+C3	Sassafras sandy clay loam severely eroded	5-10	99.9	0.8
TnB	Tinton loamy sand	2-5	1.4	—
WfB	Woodstown-Fallsington sandy loams	—	529.3	4.0
W	Water	—	24.7	0.2

Source: Soil Survey of Mercer County, U.S. Department of Agriculture, Soil Conservation Service, 1972  
/ Townplan Associates, 1990

- **Sassafras:** Sassafras are deep, well drained soils on uplands, gently sloping, with 6 subtypes: sandy loam, 0-2 percent slope (SuA); sandy loam, 2-5 percent slopes (SuB); sandy loam 5-10 percent slope (SuC); eroded (SrC2); gravelly sandy loam 2-5 percent (SsB); and sandy clay loam, 5-6 percent slopes, severely eroded (StC3). Together, they cover over 30 percent of the Township, with most designated as prime farmland. Permeability is moderate to moderately rapid. Other than slope, these soils present little constraint to development.
- **Woodstown-Fallsington:** Woodstown-Fallsington sandy loam (WfB) are poor to moderately drained soils, with a high water table which severely restricts development. These soils are considered prime farmland.

The New Jersey Department of Agriculture regulates the disturbance of soil exceeding 5,000 square feet of surface area for a variety of purposes. There are 17 soil conservation districts in New Jersey which administer the Soil Erosion and Sediment Control Act (NJSA 4:24-1 et seq.) through the review and certification of site plans. Development applications within Washington Township are reviewed by the Mercer County Soil Conservation District, located in Washington Township.

Soil characteristics which have an impact upon the location and extent of development within Washington Township include erodibility, permeability, depth to seasonal high water table and depth to bedrock. The following is a description of each characteristic based upon analyses provided by the Soil Conservation service.

### **Erodibility**

Erosion is the wearing away of the land surface through the actions of natural (water, wind, ice) and man-induced forces. The erosion hazard potential is a function of the intensity of such forces, as well as slope, soil type and characteristics, and of the extent to which natural vegetation has been removed from the terrain. The product of erosion is siltation, or the displacement of soil into water courses. Its effects can be seen in hillside gullies and decreased depth of ponds and streams. Erodibility is particularly critical on steep slopes in proximity to streams, lakes, reservoirs, and to other collectors of surface water runoff.

Erosion potential is measured by an erodibility (k) factor, which indicates sheet erosion that could be expected to occur from bare soil. K-factor ratings range from 0.17 (lowest erosion potential) to 0.49 (highest erosion potential), with some soils of nearly level slope not rated. The K-factor is an abstract rating, used only to attribute comparative erosion potential.

Soils that present a high erosion potential within Washington Township include the Elton (Ek) and Lenoir-Keyport (LK) types. These deep, poorly drained soils, are in scattered locations and constitute approximately 327 acres of the Township.

The table below depicts the amount of land (in acres) with high, medium and low erosion potential found within the Township. Most of these areas are not within floodplain zones, are located in areas of slight slope (0-8 percent) and are at present covered with vegetation, therefore, they do not constitute a unique environmental constraint. These areas continue to be environmentally sensitive. Should development occur on or near these areas, special precautions should be taken to avoid excessive removal of the vegetative cover together with measures to control runoff.

**TABLE: EROSION POTENTIAL: WASHINGTON TOWNSHIP**

<u>Erosion Potential</u>	<u>Area (Acres)</u>	<u>Percent</u>
High	327	2.5
Medium	8,669	65.5
Low	4,225	31.9

(Source: Townplan Associates, 1990)

### **Permeability**

Permeability is the ability of surface water to move through the soil to reach underlying soil and geologic strata. Permeability varies with the quality of soil horizons or layers and is measured in inches/hour for each layer.

The table below depicts the amount of land area (in acres) with low, moderate, to rapid and rapid permeability found within Washington Township. Approximately 33 percent of the Township is covered by poorly drained soils any more than 50 percent by moderately drained soils.

**TABLE: PERMEABILITY - WASHINGTON TOWNSHIP**

<u>Permeability</u>	<u>Area (acres)</u>	<u>Percent</u>
Low	4,310	32.4
Moderate	7,255	54.6
Moderate-Rapid	106	0.8
Rapid	1,292	9.7

(Source: Townplan Associates, 1990)

### **Depth to Seasonal High Water Table**

The depth to seasonal high water table is a measurement of the distance (in feet) from the ground surface to the underlying water table. The impact of a high water table is most severe during the normally wet months from February to April. In some areas of the Township, an upper or "perched" water table may be separated from a lower table by an impervious clay layer which prevents normal drainage.

The table below depicts the amount of land area which exhibits shallow, moderate and deep depth to seasonal high water table within Washington Township.

**TABLE: DEPTH TO SEASONAL HIGH WATER TABLE - WASHINGTON TOWNSHIP**

<u>Depth</u>	<u>Area (acres)</u>	<u>Percent</u>
Deep	3,833.5	28.8
Moderate	4,926.2	37.0
Shallow	4,173.4	31.4

(Source: Townplan Associates, 1990)

Deep seasonally high water (5+ feet) presents the fewest restrictions to development. Adequate foundations can be built for all uses and septic fields are not affected. Areas exhibiting a deep water table are scattered throughout the Township along major and minor ridges (e.g., along Robbinsville-Allentown Road, Perrineville Road, etc.) and cover approximately 29 percent of the Township.

Moderate depth to seasonal high water (1-5 feet) presents potential problems for development, because of increased building costs and danger of groundwater pollution from septic disposal systems. Good design and construction practices can, however, overcome most limitations. Areas of moderate depth to seasonally high water cover approximately 37 percent of the Township.

Shallow depth to seasonal high water (0-1 foot) presents more serious development limitations resulting in significantly higher building costs, and construction and maintenance costs for roads and utilities. Shallow depth to seasonal high water table has a direct impact upon the location of utilities, such as sewer and water facilities, and poses severe limitations to septic systems due to groundwater contamination hazards. A high water table is of particular concern in the development of single family dwellings, since it affects the ability to provide below-grade basements and septic systems.

As a result of these high water table limitations, basements in single family dwellings should only be permitted where their construction can be accomplished without the importation of any soil. Raised basements either present blank walls to the neighborhood, or require significant re-contouring of the land, which is inconsistent with the intention of this Plan to preserve the natural environment. In addition, any design for a raised basement makes the house much taller than neighboring homes, and is therefore not compatible in scale, size and character with the residential areas of the Township.

Similarly, mounded septic system designs should be prohibited in any new construction, unless absolutely necessary and

worked into a setting that is compatible with the native landscape. The creation of raised contours is also inconsistent with the conservation intentions of this Plan, and the visual appearance of a large mound in a residential yard is visually incompatible with the neighborhood and the natural environment.

Both the raised basement design and the mounded septic system are also inconsistent with the Goals and Objectives of this Plan. For example, they do not "Protect the rural character of the Township," they do not "Preserve the natural open spaces...[and] wetlands," they create new developments that are not "of a scale that is compatible with the Township's historic and rural characteristic", and they do not "encourage development that promotes resource preservation."

In Washington Township, the Othello, Portsmouth, Fallsington and Elkton soils are the principal soil types in high water table areas, with a depth to seasonal high water of only 0 to 1 foot. Approximately 30 percent of the Township is covered by these soils, which is a significant limitation on certain types of developments, especially those residential areas requiring basements and septic systems.

## **6. SLOPE**

Slope measures the relative elevation change over a given linear distance and is expressed as a percentage. For example, a slope of 5 percent has the ground surface rising 5 feet over a 100 foot distance. Steep slopes and excessively flat areas pose severe limitations for development.

Areas with slopes of 0 - 1 percent drain poorly, though special grading can overcome this limitation. Slopes of 1 - 8 percent present no restrictions for development. Slopes of 8 - 15 percent increase construction costs, increase the possibility of erosion, cause difficulties for septic systems, and can create greater flooding. Careful design and construction techniques are required in these areas. In fact, all slopes in excess of 10 percent pose more serious development problems. Much of Washington Township is covered by slopes of less than 8 percent.

## **7. DEPTH TO BEDROCK**

Depth to bedrock measures the distance from the ground surface to solid rock or bedrock. Depth to bedrock affects permeability and determines the amount of topsoil available.

Areas of deep bedrock (below 6 feet from the surface) present few constraints to development. Permeability is sufficient to allow for septic disposal systems, and basements can be easily constructed. Topsoil depth is also adequate for plantings and landscaping. Areas of moderately deep bedrock (4 to 6 feet from surface) could present problems. Permeability could restrict the use of septic systems, while basements and underground utilities are more expensive to construct. Areas of



shallow bedrock (1 to 4 feet from surface) are generally unsuitable for septic systems, and poor drainage could lead to heavy runoff. The depth to bedrock throughout Washington Township is, for the most part, in excess of 5 feet and is normally at least 15 feet.

## **8. WETLANDS**

Freshwater wetlands became a more significant planning issue throughout the United States when the U.S. Supreme Court, in 1985, ruled that the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers were required to regulate wetlands in accordance with Section 404 of the Clean Water Act of 1977. Permits were required for dredging or the placement of fill in both coastal and freshwater wetlands.

In 1987, the New Jersey State legislature enacted the Freshwater Wetlands Protection Act (PL 1987, Chapter 156) which became effective on July 1, 1988. This Act is designated to further protect freshwater wetlands within the State and to take jurisdiction of these areas out of the federal systems. Activities which are regulated under the Act include the removal, excavation, disturbance or dredging of soil, sand, gravel or aggregate material of any kind; the drainage or disturbance of the water level or water table; the dumping, discharging or filling with any materials; driving of pilings; placing of obstructions; or destruction of plant life which would alter the characteristics of the freshwater transition areas (buffers) of up to 150 feet in width where required adjacent to freshwater wetlands by the N.J. Department of Environmental Protection (NJDEP) to minimize the adverse impacts of development. The width of the transition areas varies, with a minimum of 50 to a maximum of 150 feet depending upon the resource value of the wetlands.

Freshwater wetlands are defined by NJDEP as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. A three parameter approach was developed by the U.S. Environmental Protection Agency and adopted by NJDEP to delineate wetlands. The three parameters are soil, vegetation, and hydrology. Wetland soils, or hydric soils, are defined as those that are saturated, flooded or ponded long enough during the growing season to develop anaerobic (without air) conditions. These soils typically support hydrophytic vegetation, which is adapted to wet soil habitats. Wetland hydrology includes the presence of surface water, floodplains, shallow depth to groundwater, or surface ponding.

To be considered a freshwater wetland, an area must have appropriate vegetation, appropriate surface or near surface hydrology, and retain soils that are hydric. If the surface hydrology is present only during a very brief period of the

growing season, the presence of a hydric soil with the appropriate vegetation is usually considered enough evidence for regulatory agencies to claim jurisdiction over an area as wetlands. In addition, active farmland, if abandoned, would revert to a wetland that is still under the jurisdiction of the regulatory agencies. There is no minimum size requirement for wetland classification under existing regulatory guidelines.

**TABLE: HYDRIC SOILS - WASHINGTON TOWNSHIP**

<u>Group</u>	<u>Soil</u>	<u>Symbol</u>	<u>(Acres)</u>
I	Alluvial	Ad, Ae	406.5
I	Elkton	Elk	255.4
I	Portsmouth	Pw	164.2
II	Fallsington	Fd	204.1
II	Othello	Ot	2,601.2
II	Plummer	Pu	38.0
II	Plummer, very wet	Pv	0.3
III	Fresh Water Marsh	Fm	100.4
III	Klej	Km	78.9
III	Lenoir - Keyport	Lk	69.5
SCS	Hydric		
	Dragston-Woodstown	Dw	1,120.2
SCS	Hydric Mattapex-Bertie	Mq	2,127.2
SCS	Hydric		
	Woodstown-Fallsington	Wf	<u>529.3</u>
Total			7,731.2

Source: U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Mercer County, 1972; Townplan Associates, 1990

The primary source for identifying potential freshwater wetland areas in New Jersey has been the U.S. Department of Agriculture, Soil Conservation Service soils mapping. This mapping delineates soils by individual series and utilizes aerial photography as a base map. Wetland areas are derived from the hydric soil mapping units as illustrated in the Soil Survey of Mercer County and the National Wetland Inventory Maps prepared by the U.S. Fish and Wildlife Service.

The National Wetlands Inventory classifies hydric soils into groups based on the degree of association with wetlands which the soil series exhibits. By definition, Group I soils nearly always display consistent hydric conditions. Group II soils display consistent hydric conditions in most places, but addi-

tional verification is needed. Group III soils are defined as those which display hydric conditions in a few places, but additional verification is needed. Three additional soil groups have been identified by the Soil Conservation Service as hydric with conditions similar to those of the Group III hydric soils. The Soil Conservation Service has also mapped thirteen hydric soils series in Washington Township. The acreage for each hydric soil is provided in the table on this page. Of the 13,294 acres of land within Washington Township, approximately 7,731 acres, representing 58 percent of the Township, are classified as hydric soils.

The extent, location and configuration of wetlands and wetlands transition areas has significant planning implications. The nature, extent and pattern of development as well as existing and proposed public facilities are affected by wetlands. Expansion of existing and development of new roadways, development of parks, extensions of sewer and water mains, and other necessary public facilities which historically were permitted to encroach into wetlands and wetlands transition areas will also be restricted and will only be approved if no alternative exists.

A list of the hydric soil types, and their areas are indicated in the table on page V-18.

## **9. VEGETATION**

Wooded areas in Washington Township consist primarily of lowland deciduous forest types. These woodlands are typically associated with floodplain areas and areas of seasonal high water table, which have made them unsuitable for crop production. Thus, farmers have not cleared these lands, or if once farmed, have preferred to cultivate the drier, upland areas of the Township. The nature and extent of woodlands within the Township are related to soil types and the geologic formations from which the soils are derived.

Forest wetlands within Washington Township are characterized by a dominance of woody vegetation taller than 20 feet which are typically adapted to inundation or saturated soil conditions. The typical forested wetland association in the Township is dominated by Red Maple. Other associated trees include Sweetgum, Silver Maple, Pin Oak, Willow Oak, White Oak, Green Ash, White Ash, Boxelder, Red Mulberry, Yellow Birch, Paper Birch and River Birch.

Understory wetlands vegetation and groundcovers within the Township typically include Spicebush, Arrowwood Viburnum, Swamp Azalea, Sweet Pepperbush, Poison Ivy and Honeysuckle. Typical wetlands herbs include Skunk Cabbage, Sensitive Fern, Cinnamon Fern, Ostrich Fern and Sedges.

Natural upland vegetation within Washington Township includes mature deciduous associations and edge of field scrub and shrub species. Typically, trees in these upland areas include American Beech, Balsam Poplar, Red Oak, White Oak, Sassafras,

Pignut Hickory, Shagbank Hickory, Mockernut, Hickory and Yellow Poplar. Typical understory vegetation in upland areas within the Township includes Goldenrod, Greenbriar, Wild Rose, Wild Grape, Queen Anne's Lace and Indian Hemp.

## **10. WILDLIFE**

The variety of wildlife species which inhabit or visit an area is directly related to the physical characteristics of the region. The most significant characteristics include the availability and diversity of food, water, cover and predators, with different species being attracted to different environmental conditions. Wildlife species which typically inhabit wetlands and upland areas within Washington Township are listed on the table on pages V-22 and 23.

## **11. SUMMARY OF THE IMPACTS ON DEVELOPABILITY**

The basic purposes of identifying the natural features of the Township are to give support for the conservation of its natural environment, and to guide any development that takes place. The attached Development Suitability Map indicates the nature of the impacts of these assessments, when looked at as a single, overall condition.

**DEVELOPMENT SUITABILITY**

**LEGEND:**

- MOST UNSUITABLE**
  - 0-1' High Water
  - Flood Hazard 100 year Roads
  - N.J. Turnpike
  - Built-up Areas
- SUITABLE WITH GUIDELINES**
  - 1-5' High Water
  - Moderate Permeability, Over Recharge
  - Prime Farm Land
  - Cut & Fill
- UNSUITABLE**
  - Aquifer Recharge, Rapid Woods
  - R.O.W.
  - Public Owned Land
  - Flood Hazard 500 year
- SUITABLE**

*Prepared by Nelessen Associates, 1994*

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## **WILDLIFE COMMON TO WASHINGTON TOWNSHIP AND MERCER COUNTY**

### **Birds**

American Bittern	White-Throated Sparrow
Swamp Sparrow	White-eyed Vireo
Song Sparrow	Ruby Crowned Kinglet
Rufous-Sided Towhee	Ovenbird
Mallard Duck	Cedar Waxwing
Green Heron	Rufous-Sided Towhee
White-eyed Vireo	Yellowthroat
Black Duck	Red-eyed Vireo
Broad-winged Hawk	American Redstart
Wood Duck	Black and White Warbler
Turkey Vulture	House Sparrow
Marsh Hawk	Worm-Eating Warbler
Red-tailed Hawk	Eastern Meadowlark
Sparrow Hawk	Parula Warbler
Ruffed Grouse	Red-winged Blackbird
Bobwhite	Yellow Warbler
Ring-necked pheasant	Baltimore Oriole
Magnolia Warbler	Common Grackle
Killdeer	Cape May Warbler
American Woodcock	Brown-headed Crowbird
Herring Gull	Black-throated Blue Warbler
Rock Dove	Scarlet Tanager
Mourning Dove	Myrtle Warbler
Yellow Billed Coooco	Cardinal
Screech Owl	Blackburnian Warbler
Great Horned Owl	Chestnut-sided Warbler
Long Eared Owl	Eastern Wood Peewee
Whippoorwill	Rose-breasted Grosbeak
Common Nighthawk	Blackpol
Chimney Swift	Prairie Warbler
Ruby-throated Hummingbird	Palm Warbler
Belted Kingfisher	Fine Warbler
Yellow-shafted Flicker	Tree Swallow
Hairy Woodpecker	Barn Owl
Downy Woodpecker	Indigo Bunting
Eastern Kingbird	Purple Finch
Great Crested Flycatcher	
Eastern Phoebe	
East Flycatcher	
Bank Swallow	
Rough-wing Swallow	
Northern Spring Barn Swallow	
Purple Martin	
Blue Jay	
Common Crow	
Blackcapped Chickadee	
White Breasted Nuthatch	
Tufted Titmouse	

**Rodents**

Muskrat  
Masked Shrew  
Short-tailed Shrew  
Gray Squirrel  
Chipmunk  
Woodchuck  
White Footed Mouse

**Turtles**

Eastern Mud Turtle  
Eastern Painted Turtle  
Eastern Box Turtle  
Common Snapper

**Salamanders**

Jefferson Salamander  
Silvery Salamander  
Marbled Salamander  
Spotted Salamander  
Eastern Redbacked Salamander  
Northern Red Salamander  
Red Spotted Newt  
Northern Dusky Salamander  
Northern Two-Lined Salamander

**Small Mammals**

Opossum  
Gray Fox  
White-Tailed Deer  
Raccoon  
Striped Skunk  
Red Fox

**Snakes**

Northern Water Snake  
Northern Brown Snake  
Eastern Garter Snake  
Eastern Ribbon Snake  
Northern Ringneck Snake  
Northern Black Racer  
Eastern King Snake  
Eastern Milk Snake  
Corn Snake

**Frogs and Toads**

Fowler's Toad  
Northern Cricket Frog  
Northern Gray Tree Frog  
Northern Leopard Frog  
Green Frog  
Green Frog  
Peeper  
Southern Leopard Frog  
Pickerel Frog  
Wood Frog  
American Toad  
Eastern Spadefoot

Source: Townplan Associates, 1990

NOTE: The primary source for this entire Conservation Plan is the 1990 Washington Township Master Plan, as prepared by Townplan Associates.)





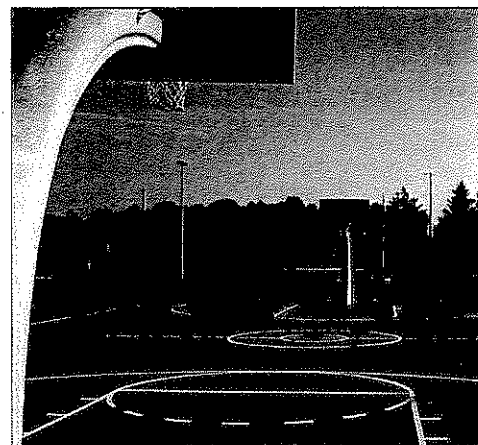
## VI. PARK AND RECREATIONAL FACILITIES PLAN

### A. INTRODUCTION

**R**ecreation encompasses a wide variety of activities, including music and art appreciation, nature study, sight-seeing, hunting and fishing, as well as viewing or participating in games and sports. It includes visits to historic buildings and sites which attract sightseers and tourists, as well as visits to public or private cultural institutions such as museums and dramatic, musical or artistic facilities. Facilities for education and participation in the arts do not currently exist in Washington Township, although they are customarily found in other first-class communities. Since the Township believes that the arts are an integral part of recreation planning, it is important that the needs for the arts, and the opportunities to fulfill those needs, are evaluated. However, because of the current strong focus on sports and games, this Master Plan focuses only on the facilities for those activities that are now in place, or that are required to accommodate them. The range of programs and facilities that now exists, or have been planned for, includes:

- Four public parks, including three Washington Township parks, and one Mercer County Park.
- Public programs for various types of sports.
- Over 1,000 acres of public open space, preserved for habitat and water quality protection, as well as for passive recreational uses.
- A set of recreational trails that link many areas of the Township.
- Approximately twenty smaller public parks and gardens, which are planned for Town Center.
- Privately owned and maintained recreational facilities, including the golf course, active recreation associated with Foxmoor, and passive recreation within conservation easements of subdivisions.
- Three public schools, which have their own recreational facilities (both indoors and out), for their educational and recreational uses.
- An inactive freight rail line, which could be used as a part of the community trail system.

Outdoor recreation, both active and passive, has become an increasingly important determinant of the community's quality of life. The purpose of the Park and Recreational Facilities Plan is to evaluate the existing public recreational facilities, to relate the needs for those facilities to the consequences of land use decisions, and therefore to determine their future needs. This Plan also describes the preferred locations of future recreational sites and trails, in accordance with the recommendations of the



Although soccer and Little League baseball are the most prominent recreation uses in the Township, many other facilities are provided, ranging from the basketball courts seen here to the Township-wide trail system.

other elements of the Master Plan (especially the Land Use Plan).

## **B. GOALS AND OBJECTIVES**

Washington Township has defined five broad Goals that are the foundation and framework for each of the Master Plan elements. Each of the planning Goals is supported by a number of action-oriented Objectives. The relationships of those Goals and Objectives to the Township's parks and public recreational facilities are as follows:

### **1. HERITAGE**

*Protect the rural character and cultural heritage of the Township.*

Open spaces of all kinds, including those for recreation and public parks, contribute to the rural (and open) quality of the Township.

### **2. COMMERCE**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

Recreational facilities can and will serve people who work in the Township, just as they will serve the residents. The development of village and highway center commercial uses will make the working areas integral with the life of the community, and will therefore give them more convenient access to the parks and recreation facilities that are offered:

### **3. LINKAGES & EDGES**

*Connect centers, neighborhoods, and other destinations. Improve the clarity of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers, and buffers to distinguish agricultural lands from developing areas, to create an enduring landscape, which minimizes land use conflicts.*

Connections between the areas of the Township will be used to make functional linkages, as well to offer recreational opportunities. Publicly accessible parks located in various residential neighborhoods will encourage movement between neighborhoods. A pattern of development which makes linkages easy will also promote walking and biking to schools, the library, shops, employment.

### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities, and public open spaces.*

Sustainability relates to many issues; in this case it includes the

promotion of means of transportation other than the automobile, and therefore supports the overall health of the Township residents. It is part of the "green" movement that seeks a healthy way of life which is integral with the natural systems of a community. The trail and park system that is part of recreation planning also serves to connect the various parts of the Township; not only will it help reduce reliance on the automobile, it will help the residents better appreciate their rural landscape as they move through it on foot or on bicycle.

## **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

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agement, within the Assunpink Creek drainage basin.

The Assunpink Wildlife Management Area offers a variety of passive recreational opportunities, largely in the form of hiking, fishing and nature study. There are no plans by the State to develop recreational facilities within the Assunpink Wildlife Management Area, and its recreational purpose is therefore limited to passive uses only.

The State is planning and creating a major trail system, called the "Capital to Coast" project, which ties six other systems together. This project will link those systems to the Battle of Trenton area, Princeton Battlefield Park, Washington Crossing State Park, Monmouth Battlefield, and the Morristown National Historic Park - all monuments of the American Revolution. This remarkable trail system will pass through the Assunpink Wildlife Area, so Washington Township will be connected by trails to a large and historic region.

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At the present time the overall park is in good condition, especially given the improvements that have been made in recent years

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Located along the Hamilton and West Windsor borders with Washington Township is approximately 172 acres of land, known as Dam Site 21, and owned by Mercer County as part of its Mercer County Votek School and Mercer County Community College holdings. This area, located off Hutchinson Road and bisected by the Miry Run, provides flood control protection in addition to habitat for wildlife. The area within Washington Township remains in a natural state and is unlikely to be developed with active recreational facilities. The Mercer County Open

Space and Recreation Plan proposes that "the Mercer County Park be extended along the Assunpink Creek, bordering on Lawrence and Hamilton Townships. This park expansion will connect to the proposed Assunpink Creek Greenway into and through Trenton, serving as both a stream valley protector and a connector with other proposed recreational facilities."

In the same area, adjacent to Washington Township, are public lands that are part of the County's program for flood management, which includes Dam Site 21 on Miry Run. This preserved area therefore creates an open space link from the Township to the region. Continued acquisition along Miry Run continues to be a priority for the County.

In addition, Mercer County has the Bear Brook stream corridor identified as an acquisition area for their Open Space Plan. The acquisition efforts are being actively pursued at this time. This corridor is intended to link East Windsor, Washington, and West Windsor Townships.

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The Municipal Park has an area of about 17 acres, and is located at the intersections of Robbinsville-Allentown Road, Sharon Road, and Route 130 in the southern portion of the Township. The site is the location of the Municipal Building, Public Library, Police Department building, and Senior Center. The Park includes two outdoor basketball courts, and two volleyball courts. The use of these facilities is somewhat limited because available parking spaces are often taken for municipal purposes and special events in the nearby buildings.

The improved portion of the site (i.e., park areas and buildings) represents only a small percentage of the total available area. A substantial area remains available for future development of recreational facilities and other public uses.

Any structures requiring additional height or outdoor lights may be limited by regulations associated with the Airport Hazard Zone.

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In 1998 the Township completed construction of ten soccer fields in this new Park, which is located at the intersection of Sharon Road and Gordon Road. A one-mile fitness path for warm up and conditioning and a tot lot for smaller children are also located here. This park hosted the annual Community Festival for the first time in 1999.

#### **6. PUBLIC SCHOOLS**

- Sharon School:

Most students attending the primary grades (grades 1 - 4) in public school within Washington Township do so at the Sharon

School. The school is situated on a 20.2 acre site located along Sharon Road near its intersection with the New Jersey Turnpike. The Turnpike forms the southern boundary of the school property with Sharon Road the northern boundary. In addition to the large single story school building, the complex includes a single full court basketball court, a children's playground, and a large parking area. The school's athletic fields are buffered from the New Jersey Turnpike by woodlands which exist along the southern and eastern portions of the site. All of these recreational facilities are reserved for school uses only. The publicly-available Washington Township Community Park is located nearby, across Gordon Road.

At the present time the school's playground and outdoor basketball court appear to be in good condition. The athletic fields, however, are not properly located with respect to solar orientation. The softball/baseball fields, in particular, are oriented in southeast and southwest directions which makes their use difficult and occasionally dangerous. In addition, the two ball fields overlap, which limits simultaneous use of the fields. While these fields do not offer many amenities such as bleachers, team benches, backstops, lighting and irrigation systems, they nonetheless represent an excellent opportunity for wider public use, both for informal use by residents and organized use for Township programs.

The existing indoor gymnasium floor limits its use for recreational basketball and other programs, and therefore cannot be viewed as an asset for public recreation at this time. On the other hand, a full-sized basketball court in a new gymnasium for the school will be completed in January 2001.

- Windsor School:

Public recreational program activities are also provided at the Windsor School. Located within the historic village of Windsor, the school site consists of 2.5 acres of land in addition to the school building.

The site includes two small baseball fields (45 foot infield dimensions), a paved half court basketball court, and a small children's playground comprising of swing sets and sliding boards. One of the fields is presently in poor condition, which limits its viability for organized play. The school facilities also function as a small neighborhood park for village residents, and is the location of instructional baseball programs offered to kindergarten and first grade students.

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The new Middle School ( grades 5 - 8), which opened in 1997, occupies a 33 acre site located along Pond Road. The site now includes a baseball field with an outfield radius of approximately 330 feet. In addition, several other athletic fields and recreational facilities are planned, including a softball field (with a radius of approximately 225 feet), two

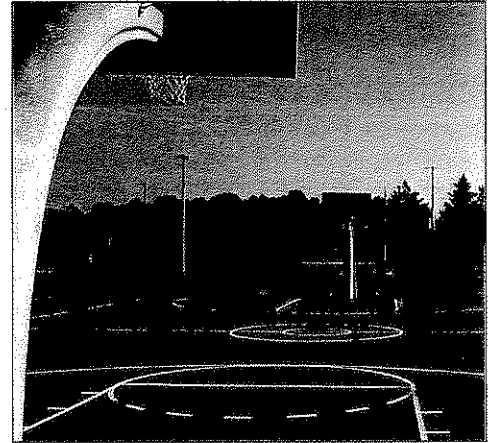
# VI. PARK AND RECREATIONAL FACILITIES PLAN

## A. INTRODUCTION

**R**ecreation encompasses a wide variety of activities, including music and art appreciation, nature study, sight-seeing, hunting and fishing, as well as viewing or participating in games and sports. It includes visits to historic buildings and sites which attract sightseers and tourists, as well as visits to public or private cultural institutions such as museums and dramatic, musical or artistic facilities. Facilities for education and participation in the arts do not currently exist in Washington Township, although they are customarily found in other first-class communities. Since the Township believes that the arts are an integral part of recreation planning, it is important that the needs for the arts, and the opportunities to fulfill those needs, are evaluated. However, because of the current strong focus on sports and games, this Master Plan focuses only on the facilities for those activities that are now in place, or that are required to accommodate them. The range of programs and facilities that now exists, or have been planned for, includes:

- Four public parks, including three Washington Township parks, and one Mercer County Park.
- Public programs for various types of sports.
- Over 1,000 acres of public open space, preserved for habitat and water quality protection, as well as for passive recreational uses.
- A set of recreational trails that link many areas of the Township.
- Approximately twenty smaller public parks and gardens, which are planned for Town Center.
- Privately owned and maintained recreational facilities, including the golf course, active recreation associated with Foxmoor, and passive recreation within conservation easements of subdivisions.
- Three public schools, which have their own recreational facilities (both indoors and out), for their educational and recreational uses.
- An inactive freight rail line, which could be a used as a part of the community trail system.

Outdoor recreation, both active and passive, has become an increasingly important determinant of the community's quality of life. The purpose of the Park and Recreational Facilities Plan is to evaluate the existing public recreational facilities, to relate the needs for those facilities to the consequences of land use decisions, and therefore to determine their future needs. This Plan also describes the preferred locations of future recreational sites and trails, in accordance with the recommendations of the



Although soccer and Little League baseball are the most prominent recreation uses in the Township, many other facilities are provided, ranging from the basketball courts seen here to the Township-wide trail system.

other elements of the Master Plan (especially the Land Use Plan).

## **B. GOALS AND OBJECTIVES**

Washington Township has defined five broad Goals that are the foundation and framework for each of the Master Plan elements. Each of the planning Goals is supported by a number of action-oriented Objectives. The relationships of those Goals and Objectives to the Township's parks and public recreational facilities are as follows:

### **1. HERITAGE**

*Protect the rural character and cultural heritage of the Township.*

Open spaces of all kinds, including those for recreation and public parks, contribute to the rural (and open) quality of the Township.

### **2. COMMERCE**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

Recreational facilities can and will serve people who work in the Township, just as they will serve the residents. The development of village and highway center commercial uses will make the working areas integral with the life of the community, and will therefore give them more convenient access to the parks and recreation facilities that are offered:

### **3. LINKAGES & EDGES**

*Connect centers, neighborhoods, and other destinations. Improve the clarity of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers, and buffers to distinguish agricultural lands from developing areas, to create an enduring landscape, which minimizes land use conflicts.*

Connections between the areas of the Township will be used to make functional linkages, as well to offer recreational opportunities. Publicly accessible parks located in various residential neighborhoods will encourage movement between neighborhoods. A pattern of development which makes linkages easy will also promote walking and biking to schools, the library, shops, employment.

### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities, and public open spaces.*

Sustainability relates to many issues; in this case it includes the



promotion of means of transportation other than the automobile, and therefore supports the overall health of the Township residents. It is part of the "green" movement that seeks a healthy way of life which is integral with the natural systems of a community. The trail and park system that is part of recreation planning also serves to connect the various parts of the Township; not only will it help reduce reliance on the automobile, it will help the residents better appreciate their rural landscape as they move through it on foot or on bicycle.

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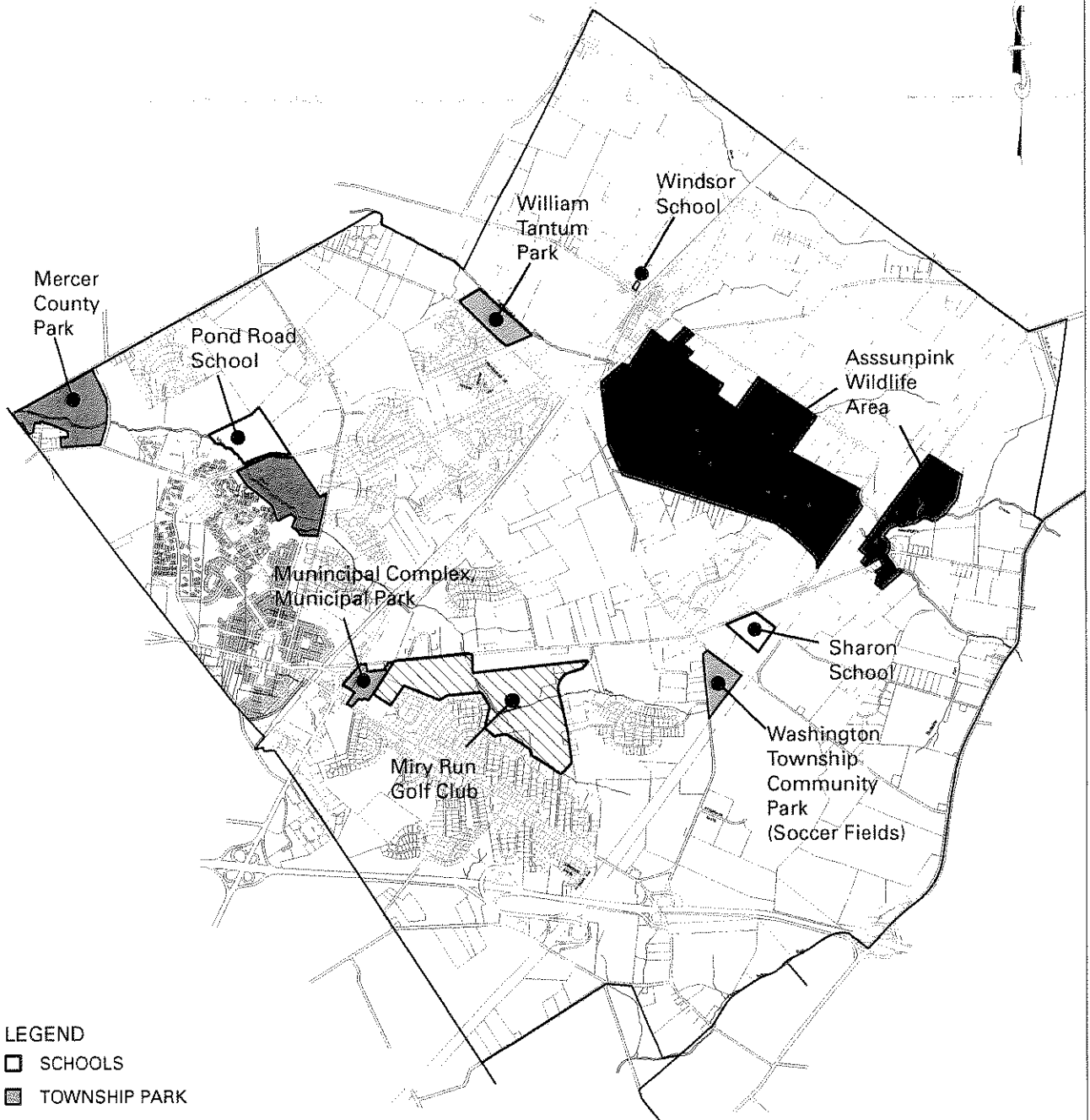
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## PARK AND RECREATION FACILITIES



### LEGEND

- SCHOOLS
- ▨ TOWNSHIP PARK
- STATE OPEN SPACE
- ▤ COUNTY OPEN SPACE
- PRIVATE OPEN SPACE

combination field hockey and soccer fields (each with dimensions of approximately 360 by 225 feet) and two full-court basketball courts. When completed, these facilities are designed to meet the needs of the Middle School student population, and to eliminate the need to have these students transported to other facilities in the Township. When completed they could, like the fields of the Sharon School, also be utilized for Township recreational programs.

## **7. OTHER RECREATIONAL FACILITIES**

Washington Township is also the location of privately owned and maintained recreational facilities. These include the Miry Run Golf Course, and tennis courts, neighborhood playgrounds, and areas of common open space provided as part of several larger residential developments. Recreational facilities are an important part of the civic "infrastructure" of a community. Semi-private facilities, internal to residential subdivisions and owned and maintained by a homeowners' association, however well designed, do not contribute to this vital purpose. Foxmoor, for example, provides play areas, tennis courts, a soccer field and two pools. These facilities are generally not available to the public at large and, therefore, have not been added to the inventory of public recreation facilities.

## ***D. RECREATION FACILITY NEEDS***

Assessing the current and future recreational needs of Washington Township requires an understanding of how well the availability (supply) of such facilities meets existing and projected needs (demand). Section E, Facilities Recommendations (page VI-14), describes the supply, the physical characteristics, and the conditions of existing facilities. This section describes the demands for the future participation in various activities, and for the use of the Township's parks.

The Land Use, Farmland Preservation, and Open Space Plans have defined an approach to managing growth and public investment that will also shape future decisions about public recreational facilities. For example, public "neighborhood parks" and "mini parks" should be central to the planning and design of the future residential clusters and centers described in the Land Use Plan. Additionally, the system of stream corridors and trails will link new and existing neighborhoods with active recreation sites, parks, schools and other destinations within and beyond the Township.

## **1. AREA RECOMMENDATIONS AND STANDARDS**

The Mercer County Open Space and Recreation Plan refers to two commonly used standards to determine open space needs.

- The National Recreation and Park Association (NRPA) Recommended Classification System for Local and Regional Recreational Open Space" is based on population.

- The New Jersey Statewide Comprehensive Outdoor Recreation Plan (SCORP) uses a balanced land use guideline based on the overall amount of developed and developable land.

The National Recreation and Park Association Recommended Classification describes a hierarchy of facilities including mini-parks, neighborhood parks/playgrounds, and community parks. The Table on Page VI-10 lists the NRPA park classifications.

- Mini-parks are usually one acre or less in size and are oriented toward a particular population group such as young children or senior citizens, serving "concentrated or limited populations" and/or "isolated development areas" Typically, guidelines for such parks call for approximately 0.25 - 0.50 acres per 1,000 population.
- Neighborhood Parks/Playgrounds are areas devoted to more intense active facilities such as playing fields and playgrounds. Each is typically 15 or more acres in size and provides recreational and social focus for surrounding residential development. In Washington Township the Municipal Park fulfills this purpose, rounding out the array of recreational opportunities already available to the nearby subdivisions.
- Community parks are the largest of the three types (typically 25 or more acres in size). Community Parks are larger in size and serve a broader purpose than neighborhood parks. Their focus is on meeting the recreation needs of large sections of the community. They provide for more intensive group activities. In Washington Township, Tantum Park and the newly completed Washington Township Community Park serve this purpose. The NRPA guideline for community parks is 5.0-8.0 acres per 1,000 population.

The National Recreation and Park Association recommends "close to home space" consisting of these three park types totaling 6.25 to 10.5 acres/1000 population. The Township's estimated 1999 population was about 9,000 and the population in 2008 could be as much as 13,600 (depending on the extent of RA area that is preserved). Under these calculations, the application of this standard would result in a total recommend minimum area for municipal parks of 56.25 (in 1999) to 85 (in 2008) acres. Based on this analysis the Township's three parks (totaling 84 acres) meet this minimum standard now.

Note that application of the NRPA Standards indicates that there is a deficit in the "Mini Parks" category. Since mini-parks, as defined by this standard, serve "concentrated or limited populations" and/or "isolated development areas" this shortfall is typical in more rural Townships. In these situations, newer subdivisions are required to provide recreational facilities for the private use of the residents of the development only. Note also that a system of small parks planned for Town Center are not yet included. This series of twenty or so interconnected public parks will correspond to "Mini-Parks" in the NRPA classification system.

**TABLE: NRPA PARKS STANDARDS, & TOWNSHIP PARKS**

Facility/ NRPA Standard	WTCP 31 acres	Tantum Park 36 acres	Municipal Park 17 acres	Total 84 acres	Notes
Neighborhood Parks: 1 acre Per 1,000	—	—	—	0	Twenty "miniparks" are planned for Town Center.
Mini Parks: 1 ac Per 1,000	—	—	*	1	Municipal Park fulfills the role of a Neighborhood Park in the Township, since it is located close to the areas of largest population concentration.
Community Park: 5 ac Per 1,000	*	*	—	2	WTCP serves as the Township's Primary Community Park. Tantum Park also functions as a Community Park espe- cially during Little League use.
(* : Use is located here, but no number of parks is given)					

In order to gauge current and future demands in terms of these standards, most recreation plans in the past began with a comparative assessment of public facilities compared to a set of "national standards". This approach includes generic ratios such as "two tennis courts per 2,000 residents" that was usually sourced to the NRPA "Suggested Facility Development Standards". Washington Township's 1990 Master Plan relied on these national benchmarks as a point of reference. However, in recent years, (since 1995) the NRPA has renounced this "one size fits all" approach saying that "each community must shape basic facility standards and park classifications or definitions to fit individual circumstances". NRPA now recommends that population guidelines be population specific (in this case, it means specific to the residents of Washington Township) rather than based on a nationwide model. The most recent edition of NRPA's "Park, Recreation, Open Space and Greenway Guidelines" encourages communities to commit themselves to a park and recreation delivery philosophy (where supply meets demand) with community needs (demand) determined by the



**TABLE: SUMMARY OF EXISTING TOWNSHIP PARKS**

<u>Facility</u>	<u>WTCP</u> <u>31 acres</u>	<u>Tantum Park</u> <u>36 acres</u>	<u>Municipal Park</u> <u>17 acres</u>	<u>Total</u> <u>84 acres</u>	<u>Notes/</u> <u>Recommendations</u>
Soccer	10	1 (practice area)	0	11	Soccer has enjoyed phenomenal growth in participation. Continued tracking of activity is required to assess need for more fields.
Little League	0	3	0	3	Additional fields are planned to accommodate anticipated growth in population.
Basketball	0	2	2	4	Current facilities are adequate.
Tennis	0	2	0	2	Current facilities are adequate. Popularity of tennis is declining.
Volleyball	0	0	2	2	Additional court space is planned to accommodate anticipated growth in population and participation.
Playground/ Tot Lot	1	1	0	2	Four play areas with various kinds of play equipment are planned for Town Center.

results of a carefully designed survey or some other method that establishes the current utilization of existing recreational facilities, as well as the future demand.

A Township-wide survey could not be done given the resources available for the preparation of this Master Plan. However, Washington Township is a small enough community that interviews with the Planning Board and Recreation Division staff, and the accumulation of information from various league representatives, can provide a reasonable indication of both current and future needs. The areas and estimates of needs given here are approximate, based on interviews with local officials. If more substantive data is required, considering the changing trends in recreation, then anecdotal evidence is not sufficient. Public meetings, community surveys, and other analyses are required for greater accuracy. Those needs and demands are described below in E. Facility Recommendations (page V I-14).

## **2. ACTIVE RECREATION AND ORGANIZED SPORTS**

During the course of preparing this Master Plan update, interviews and surveys conducted with the Planning Board indicated strongly that residents placed highest priority on facilities for youth competitive organized sports, especially baseball and soccer. Recent expansion of Little League facilities at Tantum Park, the construction of a batting cage, and the completion of ten soccer fields at Washington Township Community Park reflect this Township commitment.

According to the Township's Recreation Director, approximately 910 children participated within the Township's outdoor soccer program in 2000. This number represents a growth in participation of about 20% since 1998. This program is open to children Pre-K through 10th grade, with the majority of the participants in grades 1-3.

The Township also sponsors a baseball program for children in grades K-5 (ages 5-12). This program consists of an Instructional League (for grades K-1), a Minor League (for grades 2-3), and a Little League (for grades 4-5). For the 2000 season about 590 children participated in this program, a number which is about 42% greater than in 1998.

The Washington Township Basketball Association has seen a growth rate similar to baseball and soccer: about 500 children participated in 2000, an increase of about 28% from 1998.

As can be seen from these numbers, participation in league play for all three sports has experienced a steady increase due to housing growth in the Township. Planning and development of recreational and sports facilities should be reviewed and coordinated in conjunction with Township growth patterns.

In addition, the Township Recreation Department organizes an extensive range of programs that relate to sports, entertainment, and culture. Examples of these programs include cultural bus trips, adult volley ball, and (for youths through teens) school dances and parties, sports camps series, summer recreational camps and various youth athletic leagues. For some of these programs an indoor instruction space, perhaps at a school, would be useful.

## **3. NEW PUBLIC PARKS**

A system of small parks are an integral part of the plan for Town Center. They will be constructed as each area of planned Town Center development occurs. Corresponding to "mini-parks" in the NRPA classification system, this series of twenty or so interconnected public spaces are designed to be the focus of daily community life, where residents and visitors shop, stroll, relax, and play.

In the other residential areas of the Township, legislation being considered by the State Assembly would permit developers to

offer the municipality a fee (also known as and "impact fee") in lieu of constructing required private recreational facilities for new residential projects. In-lieu-of fees are now used to fund construction of public roadways, stormwater and sewer facilities associated with new construction, but are not used for recreation facilities. The use of these fees for recreational facilities would permit the Township to construct a system of publicly-available open spaces related to the residential developments. Indeed, some developers have already volunteered "in lieu" contributions to the Township at the time of development approvals, as an alternative to them constructing on-site recreational facilities. This kind of action could therefore correct the current situation, where "enclave" subdivisions are built with no public uses, and where parks and recreational facilities associated with each subdivision are essentially private. As recommended in the Land Use Plan, public parks and other civic uses should be part of each new residential project.

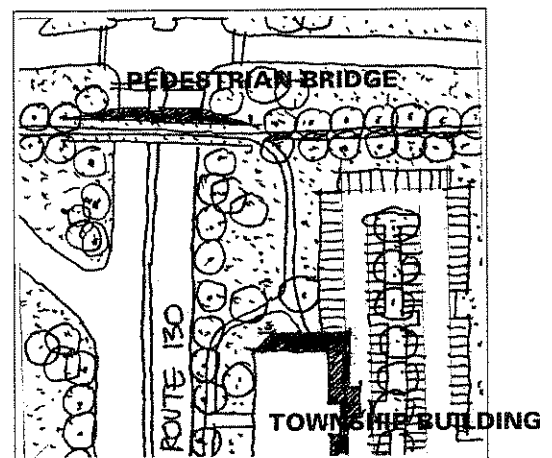
The Township has recently entered into a joint venture with Mercer County, by which 80 acres of land located on Pond Road and along Miry Run has been acquired. Thirty acres of that land will be available for active recreational use.

#### 4. GREENWAYS AND TRAILS

Access to rural and scenic natural areas can be ensured by the incremental creation of a Township-wide system of foot paths and biking trails connecting important destinations. This system is described in more detail in the Open Space Plan and the Circulation Plan.

The basic structure of the system is formed primarily by two stream corridors, Miry Run and the Assunpink, and the right-of-way of the former United Jersey Railroad (a third stream corridor, of secondary importance to the Township but a priority to the County, is Bear Brook). The railroad right-of-way bisects and connects the two stream corridors, and roughly parallels Route 130 in the Township. Such a system can include bikeways and hiking trails, and can eventually be linked throughout most of the Township. It can therefore be used by people of all ages, and can connect the various residential areas to destinations such as schools, neighbors, Town Center, and the public recreation facilities. The Town Center green belt will be connected to this Township-wide trail system. This green belt is therefore not only an important part of the Center's quality of life by creating a perception of open space access, but also actually provides that access.

A major detail of this system is the need to create viable pedestrian ways across Route 130, especially at the two stream corridors and at the connection between the Municipal Complex and Town Center. The Township is considering the construction of a "gateway" bridge over Rte. 130 near the Township Municipal Building, that will extend the green Municipal Park over and into the streets of Town Center. This bridge will therefore be the most important single link in the entire pedes-



The Pedestrian Bridge over Route 130 near the Township Building is an essential link in the overall Township greenway and trail system, and will be designed to be a planted extension of that system.

trian system, since it will create a handsome and safe connection for walking and biking between the two halves of the Township. Without it, the two sides of Rte. 130 will remain separated; with it, the Township becomes one community, where children - and people of all ages - can go to the shops, to the Library, to work, and to other neighborhoods without the need of a car.

At the stream corridors, both short-term and long-term solutions are required to enable the recommended trails along those corridors to cross Rte. 130. The long-term solutions for these essential linkages require the rebuilding of key portions of the roadway to create safe, attractive, and walkable underpasses along the creek banks.

## **E. FACILITY RECOMMENDATIONS**

To assess the future active recreational facility needs of the Township, discussions were held with the various public officials and the Planning Board. In addition, the group participation rates for various Township-sponsored athletic programs were also provided by the Recreation Department (see above, 2. Active Recreation and Organized Sports (page VI-12) for summaries of the participation). Based on these discussions and the resulting evaluations, the fundamental philosophy of the community regarding organized recreation was agreed upon:

"Active team competition activities should be self-sustaining and organized by interested associations. The Township will help in providing facilities and in coordinating the use of those facilities."

Accordingly, the following actions regarding recreation facilities were identified:

- **Tantum Park**

Since these fields are often occupied by organized youth league play, improvements are needed in areas west of Route 130 for multi-purpose recreation and "pick-up" games.

- **Washington Township Community Park**

This site's role as both a community park and a sports complex (primarily for soccer) will continue to require creativity and compromise. Two proposed (multipurpose) practice fields and a soccer kick wall will draw some of the wear from the ten existing soccer fields; these practice fields could also be a "community lawn," which could host large outdoor public events. A portion of the existing parking lot could do double duty if also designed to accommodate roller hockey. A picnic grove and a baseball practice field are possible improvements that would invite activity beyond the singular emphasis on soccer. A concession stand/field house would also help serve all of these needs

- **Municipal Park:**

Recent acquisition of property adjacent to the Park provides opportunities to expand the recreational offerings of the park (including multipurpose fields) and to address possible future parking demand.

- **Sharon School, Pond Road School, Windsor School:**

The Township should continue in its efforts to develop an arrangement to share recreational facilities with the non-student community, on an as-available basis. The facilities of the schools should also be available for use for the arts.

- **Planning new parks related to new developments:**

Plan small public parks within each new residential project. In general, these will be devoted to passive recreation rather than sports. The plan should include maintenance arrangements.

- **Township Greenways:**

A new trail along the railroad right-of-way will provide an important north/south running/biking trail parallel to Route 130. It will link Town Center, Windsor, and several residential subdivisions to the Assunpink and Miry Run greenways, which are also proposed in the county Open Space and Recreation Plan. This proposal is discussed in detail in the Circulation and Open Space Plans; note that it importantly includes the recommended pedestrian bridge across Route 130.

- **Other Recreation Facilities:**

A 30 acre Pond Road Park could be created, with active recreation fields. This land could be planned to meet future needs of organized play, as well as informal pick-up games. It would be located in proximity to the Township's most densely populated residential areas.

Opportunities for adaptive reuse of existing buildings, or the construction of new facilities, should be considered to provide space for education and participation in the arts. Opportunities for these facilities exist within the RA Zone and along Route 130, and will soon exist within Town Center.

A summer day camp facility would serve children when schools are out. A community garden would be used by Township residents who don't have access to large enough properties. Interest has also been expressed in the creation of a community arboretum. Two options can be considered if this were to move ahead: a separate stand-alone facility, such as is seen in other communities; or, the unique opportunity to make part of the network of the open spaces within Town Center into an arboretum that is integral with the life of the community.

## ***F. PLAN IMPLEMENTATION STRATEGIES***

Once the community's recreational needs have been assessed, and recommendations offered to meet these needs, the final

step in the planning and design process is to identify strategies which facilitate successful implementation. The plan must obviously be flexible to permit modification as physical conditions and community priorities change, but there are various strategies available to municipal governments which can be applied to park and open space land acquisition and development.

The specific sources of funds, and/ or land acquisition and development strategies, which should be considered for the implementation of the recommendations in this Plan, are:

### **1. N. J. DEPARTMENT OF ENVIRONMENTAL PROTECTION GREEN ACRES PROGRAM**

Since its inception in 1961, the bond issues associated with this State-sponsored program have provided the principal source of revenues for land acquisition and park development in New Jersey. In 1999 the State Legislature established the Garden State Preservation Trust Fund, securing funding for the state-wide effort to preserve open space. The program presently provides for 20 year loans at an annual payback interest of two percent. Green Acres also has nonprofit acquisition Grants with a fifty-fifty match.

### **2. OPEN SPACE TRUST FUND TAXES**

A tax was approved by Mercer County voters in 1989 and provides for the collection of up to one cent per one hundred dollars of assessed value. The tax fund money is to be used exclusively for land acquisition. Lands purchased should have County-wide significance, funds should also be available to municipalities for regionally significant projects.

The Township has also passed, by referendum, a one cent tax for open space acquisition.

### **3. MUNICIPAL BONDS AND CAPITAL IMPROVEMENT PROGRAMS**

Both of these methods of utilizing municipal funds are currently employed by the Township. Efforts should be made to increase annual expenditures to enable the park development program to expand and accelerate.

### **4. PRIVATE INITIATIVE AND DEVELOPMENT**

Land may also be acquired and developed for open space and recreational purposes by donation from developers. Land set aside to benefit the neighborhood, and the community in general, may be retained in private ownership by a homeowner's association or dedicated to and accepted by the municipality. This action could be made a condition of site plan approval, and enable the developer to meet the recreational needs of a new residential developments. Private donations, the

transfer of development rights, and obtaining conservation or recreation easements, are additional means of acquiring open space for possible active recreational development. Efforts should be made to pursue private donations of land, and to work harmoniously with private developers to enable the construction of recreational facilities and parks at little expense to the Township. As mentioned earlier, current legislation before the State Legislature is designed to enable developers to offer the municipality a fee in lieu of constructing required private recreational facilities within new residential projects.

## **G. SUMMARY**

The review of existing public open space and recreational facilities has revealed several findings:

- The majority of open space and conservation lands in the Township are held by the State of New Jersey (within the Assunpink Wildlife Management Area) and by Mercer County. In both cases active recreational opportunities are severely limited. In addition, State and County ownership of these lands effectively removes control over this large land area from the Township.
- The extent of lands dedicated for conservation purposes (and under public or quasi-public ownership or control) has grown in recent years and is expected to continue to increase in area. Such areas support the Township's objectives for land conservation/environmental protection, open space preservation, and for maintaining the community's rural character.
- Linear access easements (and strategic fee-simple acquisition of property) can be utilized to help complete the system of linked walking/biking trails that is recommended in the Open Space and Circulation Plans.
- The general public cannot readily access the recreation fields and courts at the Pond Road, Windsor, and Sharon Schools. The use of recreational facilities at the Sharon School and Windsor School is restricted by these factors: the limited number of facilities available, the lack of amenities needed for organized play, and the absence of a formal agreement between the Township and the Board of Education regarding improvement, maintenance, and uses of school recreational facilities. The facilities at these three schools could therefore comprise a large portion of the total inventory of facilities available within the Township for active recreational purposes. As such, meeting existing and long term recreational needs will depend increasingly upon access to these facilities by Township residents and organizations. The use, maintenance and improvement of these facilities will, therefore, be an important factor in maintaining an active recreation program.
- At the present time active recreational facilities under public

ownership are located in Tantum Park, the Municipal Complex Park and the Washington Township Community Park. Changes at Tantum Park, and the construction of the Washington Township Community Park, have substantially improved recreational opportunities and the number, type, and condition of available facilities. Continued monitoring of the needs for the emerging population is recommended, to evaluate the adequacy of existing facilities, and to determine needs for expansion.



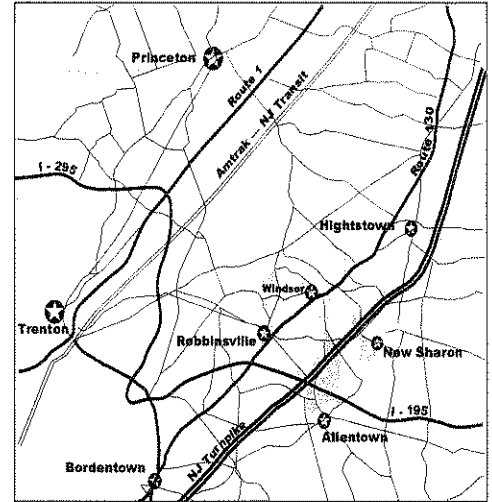
## VII. CIRCULATION PLAN

### A. INTRODUCTION

**W**ashington Township is located at a major crossroads in the highway system of New Jersey, the intersection of Interstate I-195 and the New Jersey Turnpike. It is also traversed from north to south by State Highway Route 130, and east to west by State Route 33. It is, however, a community that achieves much of its character from the narrow, two-lane rural roads that serve it. This contrast of road types is representative of the many conflicts that must be addressed in developing an appropriate circulation plan. Such a plan must serve the current and future residents of Washington Township, as well as visitors to the Township, including those who are only driving through for a few minutes.

Transportation is obviously a critical element in the economic, social and cultural structure of life in all communities. However, it also serves a critical role in determining what we think of our communities, since the view of our community that we see while passing through it is the view we will hold of it.

The Circulation Plan must address how the legitimate needs of through traffic can be efficiently served while still protecting the quality of life in Washington Township. It must address how residents and businesses, both existing and new, can gain access to their properties and to the system of roads and highways and other transportation facilities in the state. At the same time the Plan has to recognize the impact that inappropriate traffic can have on the community, and the impact that inappropriate access can have on the safe operation of a highway or street. The Circulation Plan must establish a program that can assure that all residents, including those persons who can not or do not drive, can be assured of a reasonable degree of mobility. Finally the Plan must serve as a guide for how future investments in transportation, public and private, should be made in the Township.



**LOCATION MAP**

### B. GOALS AND OBJECTIVES

Washington Township has defined five broad Goals that are the foundation and framework for each of the Master Plan Elements. Each of the planning Goals is supported by a number of action-oriented Objectives. In turn, each Plan Element must refer to the goals and objectives and document how the Plan's recommendations will support the Master Plan Goals.

#### 1. HERITAGE

*Protect the rural character, the rural way of life, and the cultural heritage of the Township.*

The transportation system to a large extent provides the forum by which people are able to appreciate the rural character and cultural heritage of Washington Township. Inappropriate or

insensitive roadway or other improvements can obliterate the features that help to establish that heritage, whether we are speaking about hedgerows and tree lines, viewsheds, historic buildings in the context of an historic street or a balanced center of development. On the other hand, if no improvements are provided to accommodate the growing demands placed on the transportation system by a growing population and employment base, the same destruction to the community's heritage can result.

Thus the circulation element must define a transportation system that will:

- Provide access to farmland for the movement of agricultural goods, allow farmland to be perceived and enjoyed by the larger public, support the ability of farmers to farm, but not encourage the premature conversion of farmland to developed land.
- Allow the traveling public to enjoy the view of stream corridors, open spaces, wetlands and forests and, where appropriate, gain access to these resources where public access is permitted, but not in the process destroy the resources.
- To accomplish both of the above, protect to the maximum extent possible, the character of country roads by minimizing or avoiding roadway and infrastructure expansions, while still assuring the public a safe and convenient transportation system.
- Provide access to historic sites, buildings, districts and communities, allow the general public to know these resources exist, but not threaten the integrity of these resources either physically or aesthetically by the impact of construction or the continued presence of inappropriate traffic.
- Encourage new development to respect street designs and a pedestrian orientation that is compatible and consistent with the existing historic villages of the Township, and with the new Town Center.

## **2. COMMERCE**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

Commercial development requires easy accessibility. In most instances that means vehicle accessibility, although access by walking should always be encouraged. Customers need to be able to reach businesses. Truckers need to be able to find manufacturing or warehousing sites. Visitors to commercial sites need to leave feeling that the experience of reaching the site was not so onerous that future trips will be avoided. The circulation system has to be sufficiently obvious that drivers do not find themselves lost or fearful of becoming lost.

To promote commerce in Washington Township, the circulation element must define a transportation system that will:

- Assure that commercial areas are easily accessible to the system of streets and highways.
- Provide means of access that are not ambiguous, unclear or uncertain; walking routes should be direct, and driving routes should offer easy access to parking.
- Provide reasonably direct travel paths for commercial vehicles without destroying the heritage and the quality of life of the Township's communities or rural areas.
- Establish strong linkages between Township commercial facilities and Township residential communities without impacting the quality of life in those communities.

### **3. LINKAGES AND EDGES**

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

Transportation systems obviously exist for the purpose of establishing linkages. However, major transportation facilities also create edges – either intended or unintended. The circulation plan needs to:

- Define how linkages can be created to enhance the Township's heritage.
- Define how unintended edges or barriers can be reduced or eliminated.
- Describe how transportation facilities that create edges should be managed to best serve their edge function.

Specifically, the Plan needs to describe how to:

- Create linkages to communities adjacent to the Township.
- Encourage development patterns and the construction of pedestrian and biking facilities that will encourage walking and cycling as reasonable and useful transportation modes in the Township.
- Link neighborhoods together so that the Township can become a community and not just a collection of developments.
- Encourage commercial developments that can be linked to residential neighborhoods without impacting the quality of residential life through undesired traffic.

#### **4. INFRASTRUCTURE & SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

The transportation system is one of the most costly elements of infrastructure required to support the Township, the surrounding Townships, the county and the state. Proper management of the transportation system, and the patterns of land use that generate demand for transportation services, can assure that the utility of existing facilities are protected and that the expansion of roads and highways can be minimized. Conversely, poor management of transportation and land use systems will create a need for expanded facilities that in turn will impact the heritage and character of the Township and its adjoining communities.

To help promote a sustainable transportation system, the circulation element should:

- Identify critical transportation resources before they are needed; program the provision of those resources so that they are not provided prematurely.
- Identify relationships between symbiotic land uses so that they can be situated so that fewer transportation resources are required.
- Protect the functional integrity of the Township's roadways. Locate developments so that they do not needlessly consume capacity or reduce roadway efficiency.
- Encourage linkages so that trips do not have to follow circuitous routes.
- Locate intense developments so that they can utilize existing facilities effectively rather than generate demand for new facilities.
- Be coordinated with our neighboring communities, to help minimize adverse impacts on them that could be caused by developments and improvements in Washington Township.

#### **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

The transportation system, which is made up of the collection of roads, transit facilities, trails and paths in the Township, serves to connect people with their daily destinations of a workaday life. Through an effective hierarchy of facilities, the

transportation system can help integrate the Township into a single community. Roads and land uses can be designed so they only serve the needs of individual developments, or they can be designed to serve the wider Township by enhancing the linkages that help future residents, workers and customers to realize that they are in a larger community.

To accomplish this goal, the Circulation Plan should:

- Identify circulation systems that can link the Township together by various travel modes including walking and bicycling.
- Identify development review procedures that assure that new developments will evolve with linkages to surrounding developments.
- Manage roads, both in rural areas and in neighborhoods, so that drivers of vehicles will respect the community in which the roads are located. Where needed, traffic calming measures should be employed to slow traffic when experience indicates that drivers are not respecting the quality of life of surrounding neighborhoods. On the other hand, developments should not close themselves off to avoid potential negative impacts.
- Preserve narrow rural roads in order to minimize travel speeds while maintaining convenient linkages between communities.
- Avoid creating places that must rely entirely upon the automobile for movement and connection.
- Identify means for safely accommodating walking and biking on the edges of key roadways that link the various neighborhoods and commercial areas of the Township.
- Encourage circulation patterns that will make the Town Center become the focus of Township life.

## ***C. EXISTING CIRCULATION SYSTEMS***

This section describes the existing circulation system in Washington Township, and provides information regarding the types of facilities that exist, how they are operated and who operates them.

### **1. ROADWAY FUNCTIONAL CLASSIFICATION**

Roadways within Washington Township can be classified based upon their intended function, so that the roadways either primarily serve through movements or that they provide local access to local properties. The following classifications reflect the System for the Functional Classification of Highways established by the Federal Highway Administration (FHWA). This system groups roads into three broad classifications (arterial, collector and local) and establishes numerous subclassifications within each major classification. The system also distinguishes

between roadways located in rural areas and those located in urbanized areas (including suburban areas).

Arterial highways primarily serve through trips and typically serve longer distance trips. Although arterials constitute a small portion of the total roadway system, they serve the greatest amount of traffic. In New Jersey, arterial highways represent less than 17% of the roadway mileage but serve over 73% of all vehicle miles of travel.

Collector streets and roads connect local streets and roads with arterials and serve both a land access function and a movement function. For many shorter trips, drivers may never need to use an arterial roadway to complete their trips. Collector roadways represent just under 13% of the roadway mileage in New Jersey and account for just over 10% of the total traffic.

Local roads and streets provide access to adjacent land uses and thus are intended to serve local trips. Local streets and roads are intended only to link land uses to higher order roadways, while through motor vehicle traffic is often deliberately discouraged. Local streets or roads should carry traffic that either has an origin or a destination on the street or road itself, or on a street in the same neighborhood. Over 70% of all roadways in New Jersey serve a local function, but these streets serve less than 20% of the total vehicular traffic.

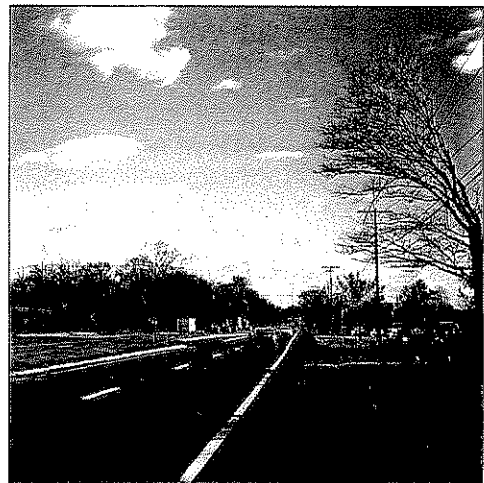
The appearance of all these road types is an important factor in determining their designs. Part of these designs should be the planning and character of the developments along them. Unless there is a substantial landscaped buffer of at least 150', it is very important that the houses of residential developments face the arterial roadways, and not turn their backs to the public way. "Reverse frontages" like these contradict the Goals and many of the Objectives of this plan.

### **Arterial Highways:**

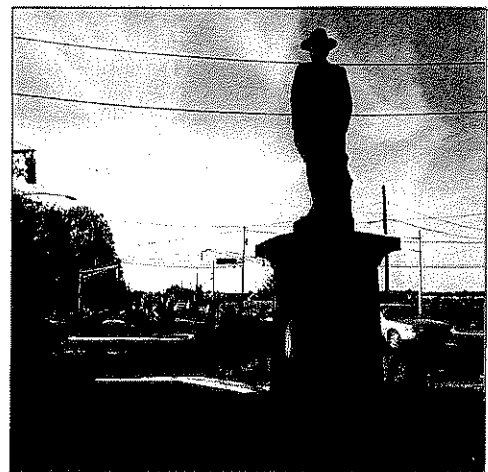
- Major arterials:

Major arterial highways serve corridors with high concentrations of vehicles moving between major centers of activity. In New Jersey, principal (or, major) arterial highways today frequently have average traffic volumes in excess of 25,000 vehicles per day. These volumes usually require multi-lane road construction. Major arterial highways, however, do not have to have high traffic volumes. Critical to the definition of a roadway as major arterial is the role it plays in connecting distant places together or in serving major travel demand corridors.

Major arterials frequently serve transportation corridors that were of importance since colonial times. By recognizing the inherent strategic function of a principal arterial highway it should be possible to protect that function as traffic volumes on a highway grow.

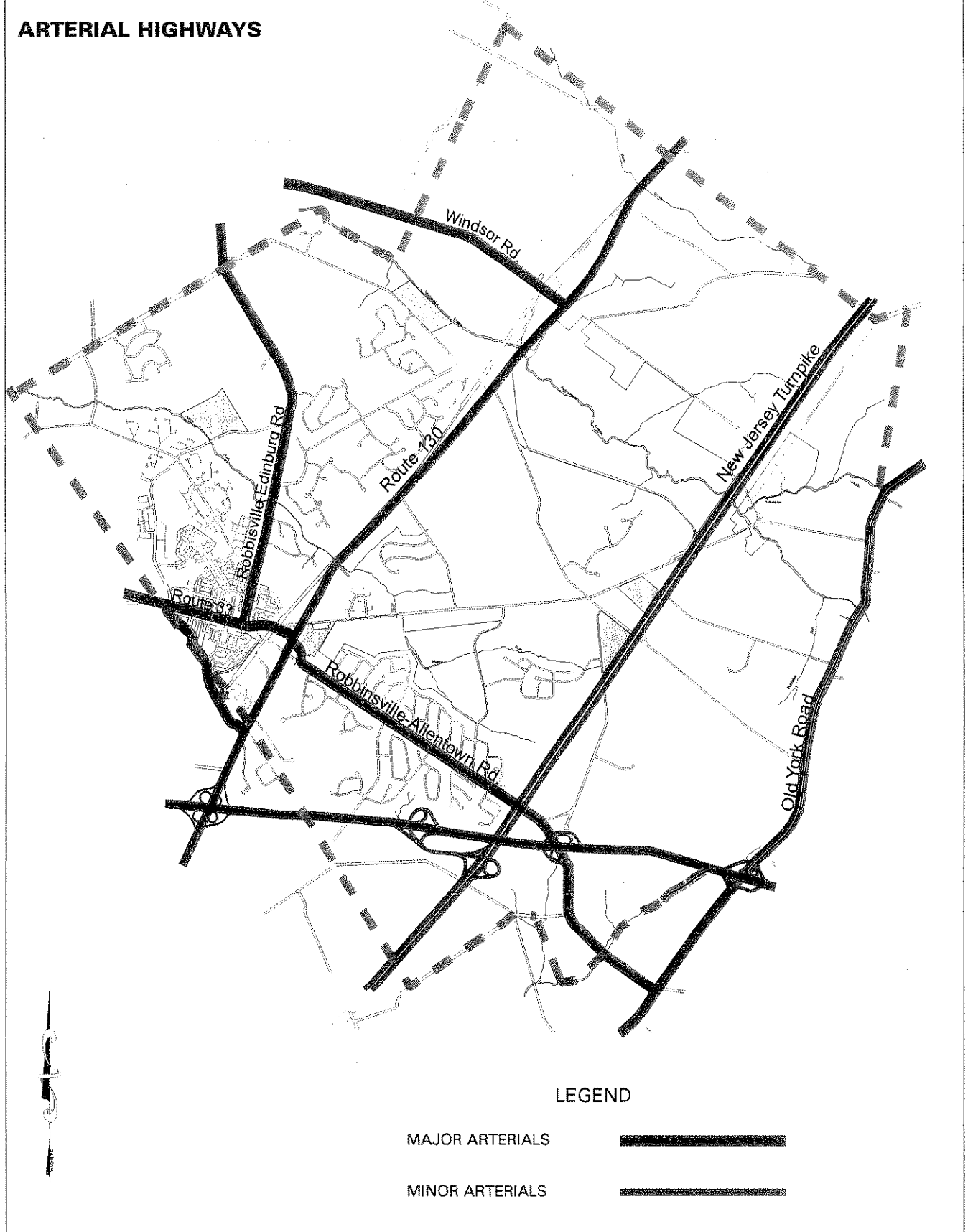


Route 130 is the focus of several important changes recommended in this Plan and, as a Major Arterial highway has great impact on the quality of life in the Township



Route 33, which will be the "Main Street" of Town Center, is one of the most important Minor Arterial roadways in the Township.

## ARTERIAL HIGHWAYS



Major arterial highways in Washington Township consist of the New Jersey Turnpike, Interstate Route 195 and US Route 130.

- **Minor arterials:**

Minor arterial streets and roads augment the principal arterial highway system. Like principal arterial highways, minor arterials serve to connect important centers of activity. However, the size of centers being connected may be somewhat smaller. Minor arterials traditionally have linked towns, village centers, and neighborhood centers, and usually form the major shopping streets in these centers.

In centers, pedestrian traffic attracted by commercial activity is usually focused along minor arterial streets. As a result, it is important to manage these streets to encourage this pedestrian activity. At the same time, commercial land uses along an arterial street in a center can help to buffer surrounding residential neighborhoods from the intense traffic on the roadway.

Minor arterials usually provide only one moving lane in each direction, although roadway widening is often required at intersections to accommodate turning movements. Traffic volumes should be kept lower than 20,000 vehicles per day. Most minor arterials in New Jersey have traffic volumes between 7,500 and 15,000 vehicles per day. When traffic volumes exceed that on a minor arterial highway, it is often an indication that the network of minor arterials and collectors is not expanding with new development.

Minor arterial streets and highways in Washington Township consist of Route 33, Windsor Road (CR 641), Old York Road (CR 539) and Robbinsville-Allentown and Robbinsville-Edinburg Roads (CR 526). The proposed extension of Washington Boulevard from Route 33 to Route 130 would also serve a minor arterial function.

### **Collector Streets and Roads:**

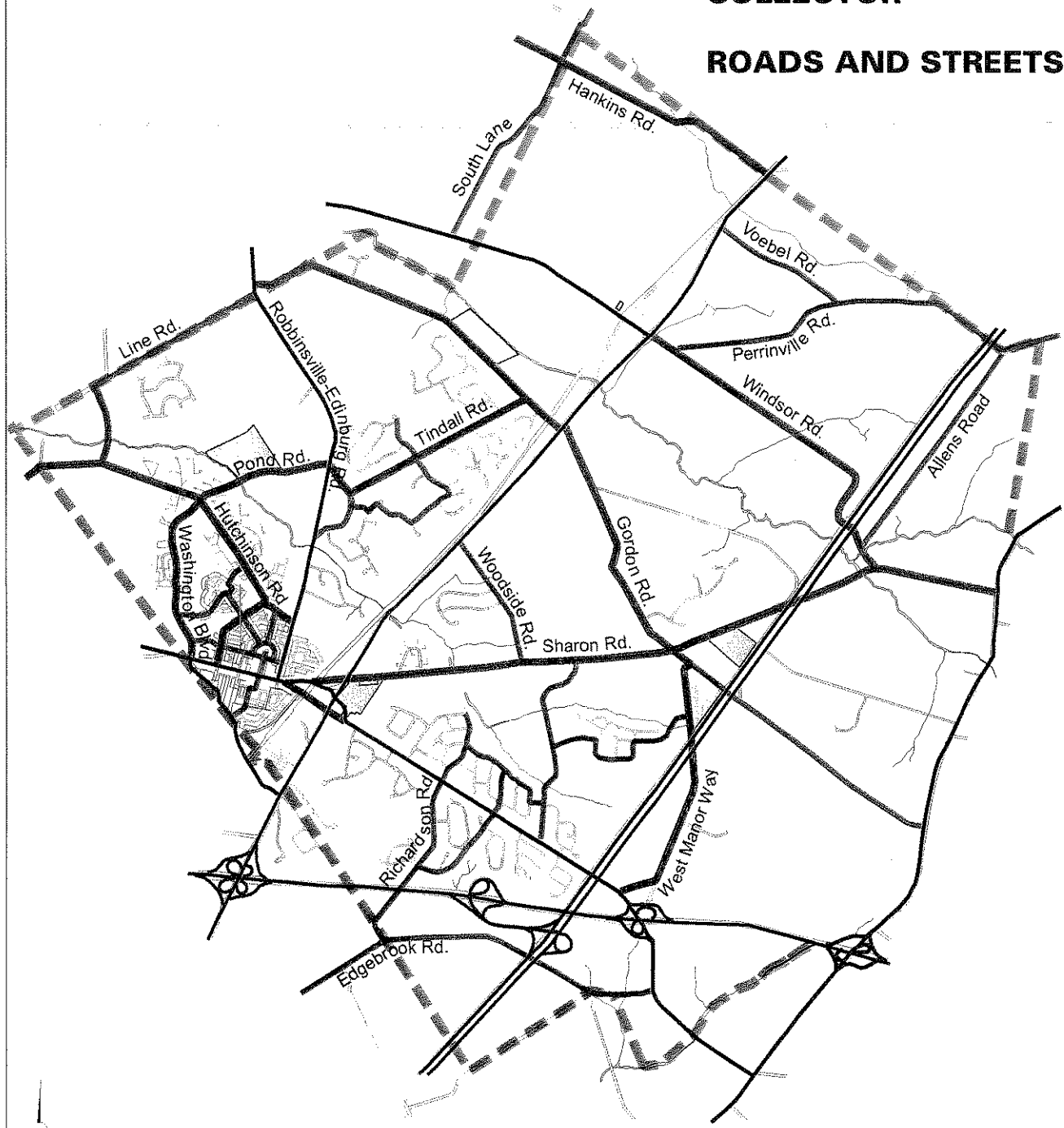
- **Major collector streets and roads:**

Major collector roads and streets serve important traffic generators such as neighborhood shopping districts, employment centers, schools and parks. They also serve to connect neighborhoods to the surrounding arterial street system and augment the arterial road network to permit drivers to follow more direct travel paths. A good major collector road network helps to enhance the efficiency of arterial highways and streets by effectively distributing traffic and allowing shorter trips to stay off of the arterial roadways.

Traffic volumes on major collector roads and streets will usually fall between 5,000 and 10,000 vehicles per day, but could be considerably less in rural areas. Because trip distances are frequently shorter, it is not necessary to manage these roads to support high speed travel. On the other hand, through traffic will use these roads as links. It is often necessary to include



# COLLECTOR ROADS AND STREETS



**ARTERIALS** 

**MAJOR COLLECTORS** 

**MINOR COLLECTORS** 



physical controls over speed on these roads to assure that drivers respect surrounding residential or commercial properties.

Because major collectors connect important community destinations but have less traffic than arterials, they frequently are a favored location for bicycle travel and recreational walking trips. As new development identifies new community centers, additional major collector roads should be constructed to help disperse the resulting traffic flows and assure that the Township will continue to grow as an interconnected community.

Hutchinson Road, Washington Boulevard, Meadowbrook Road, Pond Road, Sharon Road, Gordon Road, West Manor Way, and Tindall Road are among the major collector roads in the Township. In the Town Center, avenues and boulevards linking neighborhoods together but not oriented to accommodate traffic passing through the center would also serve as major collector roads.

- **Minor collector streets and roads:**

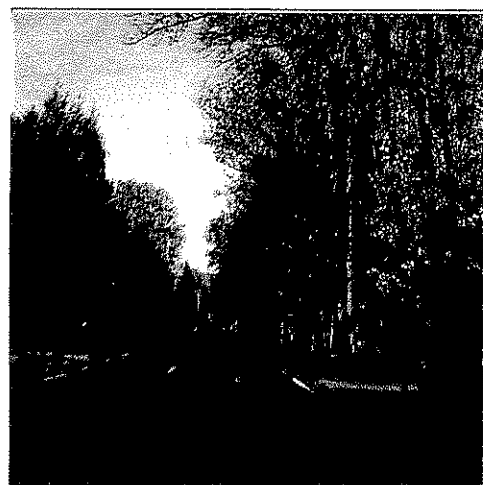
Minor collector roads and streets augment the higher classified roadways and help bring all developed areas within reasonable distance of a collector road. They provide access to smaller communities in rural areas and to and through neighborhoods in urban areas. Like major collector roads, minor collectors help drivers travel in reasonably direct paths to their destinations.

Minor collector roads usually will have residential properties fronting on them. As a result, the Circulation Plan should seek to contain traffic growth on these roads to less than 3,000 vehicles per day. An important method of accomplishing this is to ensure that sufficient redundancy is created in the street system so that no one road is overloaded. Where inadequate attention has been placed on creating new collector streets in developments, however, or where minor arterials have not been constructed to adequately serve new centers of activity, traffic volumes on the available minor collector streets and roads will exceed this threshold. Failure to incorporate a reasonable number of minor collector streets into new developments also reduces the sense of community in the Township, since the absence of collector roads tends to isolate developments from adjoining developments.

In Washington Township, Ivanhoe Drive, Line Road and Spring Garden Road are among the minor collector roads.

### **Local Streets and Roads:**

These streets and roads primarily serve access to property. They include development streets, rural lanes and byways, and in towns and villages alleys and local streets. Traffic on these streets should be managed to assure that traffic volumes do not exceed 1,500 vehicles per day. Short block lengths and narrow



This tree-shaded, quiet, road is a clear example of the Local Roads that exist in the rural areas of the Township.

street widths usually assure that vehicles will travel at low speeds. Where this is not the case, physical impediments to high speed should be provided.

Because of the low speed and low volume of traffic on these roads, local streets and roads are usually constructed and managed to operate with just one travel lane. When vehicles traveling in opposite directions must pass, drivers are required to adjust their speed and position to allow one vehicle to move past the other. Since only a single lane of traffic is required, these streets can and should be substantially narrower than higher ordered streets and roads.

## **2. DCA RESIDENTIAL SITE STANDARDS**

The New Jersey Residential Site Improvement Standards (RSIS) establish a standardized functional hierarchy for residential streets in New Jersey, and provide dimensional standards for each street type identified. This hierarchy provides additional subclassification for local and collector streets, as follows: major collector, minor collector, residential neighborhood street, and residential access street. The DCA standards only apply to improvement standards for streets in residential developments. Streets in mixed use developments, or those that serve a mixture of land uses, may have alternative improvement standards in order to serve a broader mix of vehicular traffic. However, the standards provide a useful guide for developing appropriate standards for all similarly situated roadways.

The Township may use alternative improvement standards if it so wishes. However, any alternative standards for residential development must be reviewed and approved by the New Jersey Site Improvement Advisory Board. The RSIS standards are limited to residential streets and, according to the state regulations, are not to be considered related to the FHWA's Functional Classification of Highways. As a result, those streets and roads in the Township that serve collector or higher functions in accordance with the FHWA system, and which assist in accommodating through traffic movement and non-residential traffic, should be designed to accommodate this additional non-residential traffic.

## **3. TOWN CENTER CLASSIFICATION OF STREETS**

The Town Center Zoning Ordinance establishes a separate classification system for streets within the Town Center zones. This system is largely based upon the federal system and is also, in principle, consistent with the classification system established by RSIS.

The Town Center classification of streets divides roadways into a total of nine classifications based on street design and function. Residential streets and alleys are local streets, avenues are either collector streets or minor arterials, and a special class is established for Route 130, the only principal arterial that passes

through the Town Center. The Township has initiated an access management planning process to review roadway improvement requirements in the Town Center area. Roadway improvement standards proposed in the Town Center plan for roads under county or state jurisdiction will be analyzed as part of the access management planning process. When the plan is completed, it will establish design standards for those roads that are not under Township jurisdiction.

#### **4. RURAL VS. TOWN**

Rural streets and roads have very different operational requirements compared to town streets and roads. Land use densities are much lower, travel distances are longer and travel speeds are higher. In general, cartway widths on rural roads can be narrower because rural roads:

- Do not serve the same density of travel.
- Do not have as many turning movements.
- Have much more widely spaced intersections, including driveway intersections.
- Have few pedestrians walking along them (although this Plan recommends trails that border rural roads).
- Only rarely experience demand for on-street parking.

However, rural roads also require a more forgiving roadway environment. Fixed obstacles close to roadways become more hazardous. Animals are more likely to pose an unexpected hazard. Differences in travel speed can be greater, since travel speeds are generally higher.

Other differences between rural and town roads are related to auxiliary roadway features that are required in urbanized areas. Because more land is developed, curbing and subsurface drainage systems are frequently required on town streets and suburban roads. Some utilities, such as sanitary sewers, natural gas and cable television, are only provided in more developed areas. Other utilities, such as telephone and electric, must accommodate higher concentrations of demand and therefore have greater redundancy and capacity. On-street parking and pedestrian travel must also be accommodated on town streets and roads.

As a result of these differences, the design vocabularies for town streets and rural roads are very different. As a result, typical cross-sections must also differ.

#### **5. ROADWAY JURISDICTIONAL CLASSIFICATION**

In New Jersey, the responsibility for constructing, operating and maintaining roadways has been divided between state, county and municipal governments. Although there is not a direct relationship between roadway function and roadway jurisdiction, in general the New Jersey Department of Transpor-

## **Washington Township:**

- All other roads in the Township are either under Township jurisdiction or are private streets.

## **6. TRAFFIC CONTROL DEVICES**

Traffic control devices – signs, pavement markings and traffic signals – are regulated by the New Jersey Department of Transportation and must conform to the Manual of Uniform Traffic Control Devices (MUTCD). NJDOT controls how traffic control devices are installed in Washington Township even on Township roads. Most traffic control devices must be reviewed by the state, although some signage and roadway markings may be installed without NJDOT approval provided that they conform with the MUTCD standards and warrants.

Currently the only traffic signals in the Township are operated by the State of New Jersey. Traffic signals are located on Route 33 at Washington Boulevard and Edinburg Road, and on Route 130 at Robbinsville-Allentown Road, Route 33/Sharon Road, Windsor Road and Hankins Road. In May 1994 NJDOT completed a study documenting where additional signals could be placed along Route 130 between Bordentown and New Brunswick if and when traffic conditions would warrant them. These locations are described on pages VII-23 and 24. The Town Center Access Management Plan (which is included in the Appendix of this Master Plan by reference, and is on file in the Township offices) will define additional locations where traffic signals should be installed within the Town Center.

## **7. PUBLIC TRANSPORTATION**

The only regularly scheduled public transportation that serves Washington Township is the NJ Transit 606 bus route that terminates in the Foxmoor development. Service is provided approximately every two hours with more frequent service during rush hours. Most buses continue to Project Freedom on Hutchinson Road, although some buses terminate at the shopping center in Foxmoor. The bus route runs through Hamilton Square and Mercerville to Trenton and the Trenton train station. From Trenton the route continues to Lawrenceville and Princeton.

Express bus service to New York City is available at a number of nearby locations including a park and ride lot on Route 33 in East Windsor. Express and long distance bus service is available in Bordentown near the New Jersey Turnpike.

NJ TRANSIT commuter rail service to New York City and northern New Jersey is available in Trenton, Hamilton and Princeton Junction. SEPTA commuter rail service to Philadelphia is available in Trenton, as is AMTRAK Northeast Corridor rail service.

tation (NJDOT) has jurisdiction over principal arterial highways and many minor arterial highways. NJDOT shares this responsibility with toll road authorities created by the state legislature such as the New Jersey Turnpike Authority.

Counties generally have jurisdiction over minor arterial and major collector streets and roads and local governments have jurisdiction over a mixture of major collectors, minor collectors and local streets and roads. In addition, counties have jurisdiction over all bridges and major culverts not maintained by the state.

In Washington Township, the following jurisdictional responsibility for roads has evolved:

**NJ Turnpike Authority:**

- New Jersey Turnpike, including turnpike ramps and toll plazas

**NJDOT:**

- I-195, US Route 130, NJ 33

**Mercer County:**

- Rte 526 (Robbinsville-Edinburg Rd, Robbinsville-Allentown Rd)
- Rte 539 (Old York Road)
- Rte 641 (Windsor Road) between Route 535 and Route 130
- Rte 642 (Main Street in Windsor)
- Combs Road
- The Mercer County Transportation Plan includes the following proposal to transfer the jurisdiction of these roads from Township to county:
  - a. Sharon Road
  - b. Windsor Road between Route 130 and Sharon Road
- The County Master Plan calls for the construction of two new roads – an extension of Kuser Road to Robbinsville, and a connector between Washington Boulevard and the County College. Both of these roads pass through wetlands and will probably be difficult to construct. The County Planning Department has determined that it is unlikely that either road could be constructed.
- The proposed collector road linking Washington Boulevard with Old Trenton Road, known as the Line Road extension, would have to cross substantial sections of wetlands between Washington Boulevard and Hutchinson Road. As a result, the Mercer County Planning Department has determined that it is unlikely that the road could be constructed. It is anticipated that the County Planning Board will delete these roads from the Transportation Plan.

## **8. BICYCLE AND PEDESTRIAN CIRCULATION**

Bicycling and walking are transportation modes that are important for short trips within the Township, and they are travel modes that the Township would like to encourage. These travel modes are especially important for children and others who are not able to drive. In addition, walking and bicycling are valued forms of recreation, along with jogging and other forms of human powered movement.

An important concept behind the Town Center development plan is the creation of a pedestrian friendly community with streets that will be comfortable to walk on, and with residential land uses located sufficiently close to shopping districts and cultural facilities that residents will frequently choose to walk rather than drive.

In addition to Township residents, bicycle riders from surrounding areas frequently make use of the Township's minor arterials and collector roads for recreational bicycle trips.

### **Walking and Bicycling on Streets:**

Most walking and bicycling activity occurs on streets. As a result, all roads should be able to safely accommodate the level of bicycling and walking that can be anticipated to occur. This section discusses improvements required to support pedestrian and bicycling activities on Township roads.

### **Accommodating Pedestrians:**

Within Foxmoor and in residential subdivisions, sidewalks have generally been provided to support walking trips between homes or for recreational purposes. However, many of the more important arterial and collector roads in the Township are not provided with sidewalks. Furthermore, the Township, eager to maintain its rural character, has sought not to provide sidewalks on these roads.

In most situations, low volume or low speed roads can comfortably accommodate limited shared use by pedestrians without any major roadway improvements. Pedestrians feel comfortable walking on rural Township roads, and drivers and pedestrians alike would rather have the rural character of the roads maintained rather than have sidewalks constructed. With increased traffic volumes or speeds, however, pedestrians require a safe place away from the traffic on which to walk. Since pedestrians are always potentially users of a roadway, it becomes important to assure that pedestrians will have a reasonably safe place to walk on any roadway. Away from developed areas, this is best accomplished by providing a paved shoulder or a suitable parallel path.

In and around developed areas, it is especially important to establish a variety of walking options to permit residents to complete walking trips, recreational jogging, and bicycling. Because these pedestrian options can reduce the need for

automobile use and will create linkages throughout the Township, they are essential elements in realizing many of the goals of this Plan: the preservation of rural character, the linking of centers, the creation of a sense of a unified community, and the establishment of a sustainable infrastructure.

In some cases this may require the provision of paths along collector or arterial roads. In other cases however a better technique will be to provide adequate connections between adjoining developments, or across roadways, so that a separate pedestrian circulation system can be created using local streets. This type of pedestrian system can then be augmented with trails and greenways.

Where paths are provided, they should be constructed so that they comply with the Americans with Disabilities Act (ADA) and can accommodate wheeled vehicles including wheel chairs, shopping carts and luggage carts

### **Accommodating Bicyclists:**

Bicyclists, especially recreational bicyclists, enjoy the Township's rural roads and seek them out. Maintaining relatively narrow roadway widths is part of the charm of these roads. Overhanging branches in wooded areas along the Assunpink Creek and in wetland areas, and the view of farm fields and vistas in open areas add to this charm. When the roads have low traffic volumes, shared use is an acceptable and preferable option that adds to this charm.

With increased traffic on roads with higher speeds, bicyclists and motorists require additional space. Paved shoulders, only as wide as is absolutely needed for the specific conditions, can usually be provided without seriously impacting the character of a roadway. Roadway standards, presented later in this section, will provide bicyclists and pedestrians with compatible Township roads that conform with NJDOT standards. These standards can provide drivers of motor vehicles with roads that are sufficiently wide to safely accommodate traffic volumes, without making the roads so wide that they will encourage excessive travel speeds.

### **Trails and Greenways:**

Trails can substantially augment the circulation system for walkers, bicyclists and other alternative forms of transportation. A wide variety of trails can be constructed. Trails that are appropriately paved can be used by most wheeled vehicles, including bicycles, wheel chairs and roller blades. Stone, sand or graded dirt trails may be acceptable for pedestrian use but will not usually be adequate for wheel chairs, bicycles or other wheeled vehicles, and require additional maintenance.

### **Linkage paths:**

Like roadways, trails can serve a variety of functions based on anticipated trip purposes. Short trails that connect adjoining



residential streets, connect a shopping area with a development, or provide added methods of moving into and out of a development, are called linkage paths. These types of paths will usually serve only local trips and will be lightly traveled.

### **Multi-use trails:**

Trails longer than 400 feet and constructed with an ADA compliant surface that will encourage use by bicyclists and roller bladers as well as pedestrians are called multi-use trails. These trails will require users to be on them for a longer period, and they will attract more recreational trips from the wider community compared to linkage trips. As a result, the probability of people meeting each other on the trail becomes greater. In addition, these types of trails are more likely to be used by people traveling in groups of two, three or more. People generally prefer to walk or bicycle abreast when possible in order to maintain a conversation. More width is needed for all of these purposes. Bicyclists or roller bladers using these types of trails will travel at higher speeds and therefore will require additional width to safely pass walkers or vehicles traveling in the opposite direction.

### **Greenways:**

Greenways are contiguous corridors of open space that can be provided along a variety of corridors, although most greenways are provided along stream corridors. Greenways do not have to incorporate a trail system. Wildlife and water quality greenways can be provided along a stream corridor to protect its ecological integrity. In these situations a trail may itself be perceived as an intrusion. However, most greenways include a trail system in addition to adjoining natural areas.

Where sanitary sewers have been constructed to follow a stream corridor, such as along the Miry Run, the sanitary sewer easement is an especially appropriate location for a trail. This disturbed area generally has to be kept clear of vegetation anyway. In addition, maintenance vehicles need to access sewer structures along the easement. A multi-use trail can provide improved access to the sewer line, reducing the need to drive vehicles off of paved roads in environmentally sensitive areas.

### **Rails to Trails:**

The United Jersey Railroad (also known as the Camden and Amboy Railroad) passes through Washington Township and helped to define the Township's early development. The Township's two historic villages, Windsor and Robbinsville, were built around stations on the railroad. The rail line north of Bear Brook has been officially abandoned, the tracks have been removed and much if not all of the right-of-way has been sold. South of Bear Brook the line does not serve any rail traffic, but it has not yet been officially abandoned. Were the line abandoned, its roadbed would make an excellent base for a multi-

use trail that could link the two historic villages. A trail system along the railroad right-of-way would create a bicycle and pedestrian system parallel to Route 130. Working with neighboring Townships and Mercer County, the trail could be extended to stretch from Hightstown to Bordentown, making it an important regional recreational resource.

### **Walking Trails and Nature Paths:**

Within Greenways and recreation areas it is appropriate to provide some calmer trails that can only be used by people on foot. This is particularly true in wetland areas or environmentally sensitive areas. These types of trails will normally be destinations and will not be serving a circulation function.

### **Township Bicycle and Pedestrian Circulation System:**

Section D-5 (page VII-29) describes how different types of trails, when combined with accommodations along Township streets and roads can create an alternative circulation system for Township bicyclists and pedestrians, including children going to school or to recreation areas.

## **9. TRAFFIC CALMING**

Motor vehicle traffic on roadways, especially fast moving vehicles, can substantially impact the safety of roadways for bicyclists and walkers and can impact the quality of life in adjacent communities.

Conventional subdivision design has sought to address this issue by creating single use subdivisions that have limited means of ingress and egress. These types of developments may have little through vehicle travel on local streets. However, they tend to isolate the development from the surrounding community and substantially lengthen trip distances. Residents who live in such developments must rely excessively on their cars to travel, increasing traffic on surrounding roadways and further reducing the sense of community in the Township.

An alternative method of maintaining quality of life in residential communities is to provide streets that incorporate physical features that can "calm" traffic. Traffic calming measures include a variety of traffic engineering and roadway design features that seek to slow motor vehicle speeds. Many of the features used for traffic calming can accomplish additional transportation or landscaping functions, including enhancing pedestrian movement. Examples of traffic calming devices include speed humps, raised pedestrian crosswalks, narrowed roadways, tightly bending streets (chicanes), traffic circles, choke points, refuge islands and rough roadway surfaces.

Traffic calming measures are especially important on collector roads that provide needed connections between developments. By assuring that traffic is calmed on these roadways, residents

in adjoining developments will be less concerned about potential negative impacts associated with through traffic. By providing more collector roadways on which traffic has been calmed, the Township can reduce the degree of isolation that recent subdivisions have generated, thereby fostering a stronger sense of community in Washington Township.

Although traffic calming measures are primarily applied on local and collector roadways, they can also be used on arterial roads, where needed, to assure that traffic is operating at an appropriate travel speed. However, traffic calming tools employed on arterial streets and highways must not encourage traffic to divert to lower classified streets. They also must be carefully installed and provided with appropriate warning devices to assure that unsafe conditions will not result.

Traffic calming devices can also be used to frustrate or prohibit through traffic flows. Devices that can prohibit traffic flows include traffic diverters or cul-de-sacs (street plugs). These types of solutions are only appropriate in situations where congestion or traffic signals encourage through drivers to cut through local neighborhood streets. There are no situations in Washington Township where that type of device is currently needed. Rather than retroactively seeking to install such devices, it is preferable to maintain an adequate network of streets and highways and lay out new residential streets so that they will not be impacted by cut-through traffic.

## **D. IMPROVEMENT OPTIONS**

### **1. STREETS AND HIGHWAYS**

#### **Town Center Arterials and Collectors:**

To support the circulation requirements of the Town Center, and to help divert some traffic away from the Town Center, a variety of new arterial and collector streets are proposed. In addition, major revisions are proposed for the design and operating characteristics of Routes 33 and 130 so that these arterial roadways can function in a fashion appropriate for a developed Town Center. These improvements are further defined through the Access Management Plan, which is now being prepared and which is included in its current form, by reference, in the Appendix of this Master Plan. The process for the preparation of the Access Management Plan involved Washington and Hamilton Townships, Mercer County, and the New Jersey Departments of Transportation, Environmental Protection and Community Affairs.

Recommended transportation improvements for the Town Center include the following:

- Washington Boulevard Extension:

The existing Washington Boulevard would be extended to the

southeast along the Township's boundary with Hamilton. The Washington Boulevard Extension would intersect with Route 130 at the existing South Gold Drive traffic signal.

This roadway, which was proposed in at least the past two Master Plans, would allow vehicle trips on Nottingham Way, Route 33 and Washington Boulevard that are seeking to reach Route 130 to travel in a more direct path and also avoid traffic on Route 33. Some drivers would also use the extension of Washington Boulevard to travel around the Town Center to reach Route 130 northbound.

The road would function as a minor arterial roadway and is being planned so that no lots would front directly on it. Washington Boulevard will be skirting an area of wetlands and will also border a series of detention basins. It is proposed to include within its design an 10' - 12' wide asphalt pathway to serve pedestrians. Bicyclists would be able to use 5' wide shoulders on the Boulevard. A series of horizontal curves will help to control vehicle speeds to a rate of approximately 35 miles per hour.

- **Realignment of Robbinsville-Allentown Road (Route 526):**

Robbinsville-Allentown Road will be realigned to pass through or around the Township's municipal complex, helping to link the complex with the Town Center. The road would have a cross-section with a 12' travel lane in each direction, and on-street parking in the Municipal Complex proper. At the intersection with Route 130 the lane striping would be adjusted to provide a separate left turn lane.

- **Realignment of Sharon Road:**

Sharon Road will be realigned to intersect with Robbinsville-Allentown Road within or east of the municipal complex. The section of Sharon Road between the Miry Run Golf Course and Route 130 will have a right-in/right-out intersection on Route 130 without a traffic signal.

This relocation would serve two purposes. The realignment of Robbinsville-Allentown Road will require the installation of a new traffic signal north of the municipal building, and that signal would be too close to the existing signal at Sharon Road. Therefore, the Sharon Road signal will have to be eliminated. Providing the roadway relocation will provide an alternative method of accessing Route 130.

The relocation of Sharon Road will also allow traffic to flow between Sharon Road and Allentown Road without passing onto Route 130. This will improve access to the municipal complex for residents of neighborhoods along Sharon Road, and it will improve access to the Sharon Road School for residents of neighborhoods located along Robbinsville-Allentown Road

- Extension of Robbinsville-Edinburg Road (Route 526):

Robbinsville-Edinburg Road will be extended from its existing intersection with Route 33 south to Route 130. The purpose of this roadway would be to better link the southerly side of the Town Center with the northerly side. The road would also enhance development opportunities for the portion of the Town Center located east of the railroad right-of-way, including the area surrounding the Robbinsville Hardware Store.

The extension of Robbinsville-Edinburg Road would permit traffic on Route 526 seeking to reach Route 130 to avoid the traffic signals near the Municipal Building. It would also provide an alternative route for Town Center traffic and traffic from Hutchinson Road. A new signal is proposed for the intersection of this road with Route 130.

- Improvements to Route 33 – Main Street:

Route 33 would be improved to make it a more inviting shopping street. The existing pavement would be reapportioned to provide a parking lane, bicycle lane and a single wide travel lane in each direction. At street intersections the wide travel lanes would be narrowed to introduce off-setting left turn lanes.

The 80' right-of-way for Route 33 will provide room for wide sidewalks on each side of the street. At intersections, the parking lane should be eliminated through the provision of curb bulb-outs.

### **Improvements to Route 130:**

The high volume of traffic on Route 130 will not make it a friendly road for pedestrians. However, the highway will continue to pass through the Town Center, dividing the Municipal Complex from the remainder of Robbinsville. Aesthetic improvements are proposed for the corridor to create a streetscape that can inform drivers that they are passing through the Township's Town Center. Enhanced lighting, formal plantings within the median island and similar improvements can send a message to drivers that they are passing through an interesting place and should slow down. Slower speeds can also be encouraged by more tightly spaced traffic signals that would require implementation of a slower speed of progression.

To help link the two sides of Route 130, it is proposed to construct a pedestrian bridge from the Municipal Complex across the highway between existing Route 33 and Route 526. This bridge, which would be a major Township pedestrian connection, and which would specifically create a linkage from Town Center to the Library, Municipal Building, and public recreation facilities, is discussed in more detail on page VII-31. Note that approximately 50% of the residents live on each side of Route 130. This bridge will serve them all.

Route 130 currently has three traffic lights between South Gold

Drive and Sharon Road. The Access Management Plan proposes a total of four signals to serve the Town Center in this area, as follows:

- The existing Sharon Road traffic signal would be moved slightly south to serve the proposed extension of Robbinsville-Allentown Road.
- The existing Route 526 signal would remain in place.
- An additional traffic signal would be installed to serve the intersection at the Robbinsville-Edinburg Road extension.
- The existing signal at South Gold Drive would be modified to also serve the Washington Boulevard extension.

### **Special Concerns of Route 526:**

As a County road, Route 526 should be classified as a minor arterial roadway, with a maximum right-of-way width of 66' to 80'. In addition, the design of the roadway edge - curbs, sidewalks, etc. - should be done in a way that preserves the Township's rural character. Further, substantial planting or re-planting (especially of larger shade trees) should take place along the road, particularly in areas where development has, or will, occur (see pages VII-25 and 28 for a more detailed discussion of Route 526 in relationship to key intersections).

### **Other Town Center Collector Roads:**

The Town Center Street Regulating Plan provides for additional Avenues to distribute pedestrian and vehicular trips within the Center. A Boulevard will link the commercial center of the Town Center with the "Northwest Hamlet" area and the Foxmoor development.

### **Other Arterials and Collectors:**

The presence of wetlands and existing development severely limits the ability of the Township or county to provide additional arterial and collector roadways within the Township. However, if the Township fails to provide additional methods of connecting developments to the street network, and thereby expand the street network, existing roadways could become overused, and developments in the Township will be isolated from each other, creating a Township divided into small development based communities.

Any area that has the potential to yield more than approximately 30 housing units should be required to incorporate a minor collector road providing linkages to two different roads of higher classification. Development areas that would yield more than approximately 300 units should be required to incorporate a collector road to serve both the new housing units and to help spread out Township traffic.

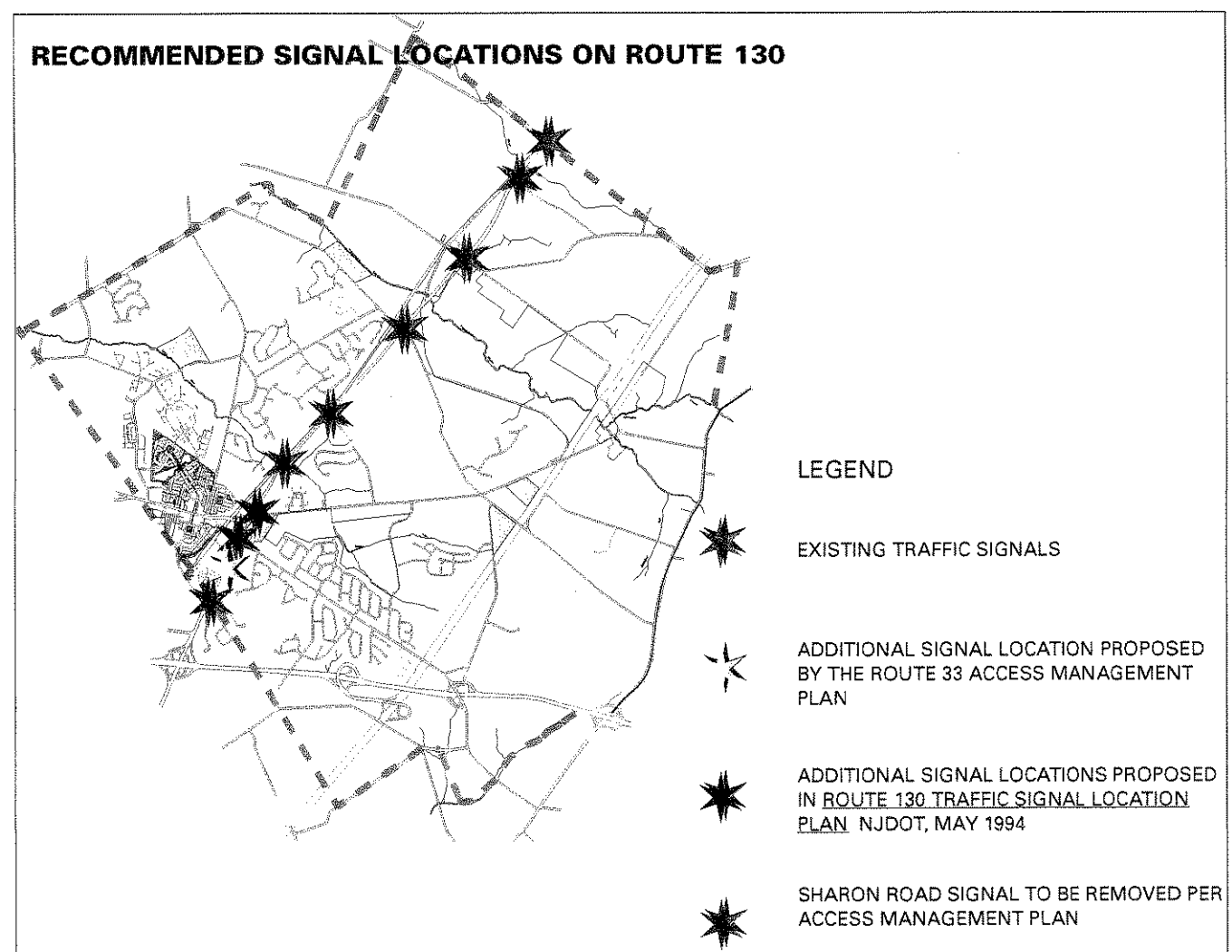
Similarly, in areas of non-commercial development, activities that would generate more than approximately 300 daily vehicle

trips should be required to assist in the construction of additional collector roads to serve development within the Township.

Construction of new collector roads is only recommended in association with additional development. Roads constructed should not be designed to open additional areas for development unless that development would be consistent with the Land Use Plan. Applicants seeking development that would create the need for new collector roads should work with the Township's planning staff to identify appropriate alignments and connection points for new roadways.

## 2. INTERSECTION IMPROVEMENTS

The Township has numerous intersections at which improvements could help to enhance vehicle safety or mobility. These can be grouped into two broad groups – intersections along Route 130 and other intersections in the Township having physical limitations or where safety could be enhanced.



### **Route 130 Intersections:**

The high speed and high volume of traffic on Route 130 makes crossing or entering onto the highway a risky maneuver. At the same time, the installation of traffic signals can also impose risks. In fact, the two intersections in the Township having the highest accident rates are the signalized intersections of Route 130 with Robbinsville-Allentown Road and with Windsor Road.

Currently, traffic signals in the Township are located at Hankins Road, Windsor Road, Sharon Road, Route 33 and Route 526. In addition, the traffic signal at South Gold Drive in Hamilton Township is located just south of the Township boundary and will in the future provide service to the Washington Boulevard Extension.

### **Where signals could be installed in the future on Route 130:**

As indicated previously, NJDOT conducted a study in 1994 to identify additional intersections along Route 130 where traffic signals could be installed and still permit a progressive flow of traffic. General signal separation distance is half a mile, or about 2,600 feet. Locations identified in Washington Township included the following:

- Voelbel Road
- Meadowbrook/Gordon Roads (which is now in the process of approval and design)
- Woodside Road
- A location near Miry Run

As a result of the increase in accidents experienced when traffic signals are installed, however, and the increase in delays that motorists experience, NJDOT and the federal government discourage the installation of traffic signals unless an engineering study is conducted that can document that the signal is warranted.

### **Alternative methods of enhancing safety at intersections along Route 130 include the following:**

- Median widening can be used to create a wider refuge area between the opposing lanes of traffic. In addition, eastbound and westbound traffic movements can be separated slightly to minimize conflicts between turning movements. These actions can allow drivers to make safer and more efficient use of available gaps in the traffic stream.
- Elongated traffic circles can be installed requiring Route 130 traffic to slow to a speed of 40 to 45 miles per hour and limiting all turning movements either to right turns or U-turns.



**Locations where signals can not be installed:**

At locations where traffic signals can not be installed in the future, turning movements should be limited. The most difficult movements at an intersection consist of left turns from the minor street and crossing movements. Limiting intersections to T-intersections helps to reduce conflict points and eliminates crossing maneuvers. The next movement that should be removed is the left turn from the minor street. Left turns from Route 130 can usually be safely made, especially when gaps in the traffic flow are created by upstream traffic signals.

The best method of controlling movements at locations where signals cannot be installed is to encourage land development patterns that do not result in a demand for turning movements. In particular, additional private development with driveways should be discouraged along Route 130. Instead, development should be encouraged to design and locate their driveways and parallel streets in a way that direct traffic to intersections with at least partial traffic control. Development of an Access Management Plan by the Township will identify a system of planned streets and intersections that can be used to provide reasonable access to property without creating additional access points on the highway.

**Pond Road and Route 526:**

Sight distance at the intersection is constrained because of the acute angles of the approach roads. Increased traffic at the intersection associated with the Pond Road School, Foxmoor and residential development in the Tindall Road corridor have made the limitations of the intersection more of a constraint. The speed of traffic on Route 526 aggravates the safety problems at the intersection.

The Township and county will want to work together to identify improvement options. Improvements could include a traffic signal, a "round about" or a more perpendicular intersection approach. Improvements should also assure pedestrians the ability to safely cross Route 526.

**Meadowbrook Road and Route 526:**

As with the Pond Road intersection, the intersection of Meadowbrook Road and Route 526 is constrained by limited sight distance and the speed of vehicles traveling on Route 526. Adequate capacity is not a major problem at the intersection.

**Gordon Road Intersections:**

Gordon Road should be designed in a way to prevent extensive through traffic, especially truck movement to and from the PCD District on Old York Road. Three intersections should be studied: at Old York Road, Sharon Road, and Bresnahan Road. The preservation of the rural quality north on Old York Road, the speed of traffic on Sharon Road, the access to the Sharon

School and the Township Community Park, the acute angle of the Gordon /Sharon Road intersection, and the possibility of development of a TDR village near Bresnahan Road, all suggest the need for thoughtful intersection designs. Possibilities for their improvements are described on pages VII-28 and 29.

### **Other Township Intersections:**

Several intersections should be studied further:

- Spring Garden Road and Robbinsville-Allentown Road (Route 526):

Sight distance constraints at this intersection have created a safety problem. The Township has made minor improvements to increase the available sight distance. Widening of Robbinsville-Allentown Road to provide a shoulder in the westbound direction would further improve sight distance at the intersection.

- Ivanhoe Drive and Robbinsville-Allentown Road (Route 526):

Because of the speed of traffic on Allentown Road drivers seeking to enter Route 526 or cross the highway sometimes must wait and may feel some trepidation making their move. Currently adequate gaps are available in the traffic flow to provide drivers with safe opportunities to cross the roadway.

The intersection should continue to be monitored to determine if and when intersection improvements will be required. The intersection could be signalized, or alternative improvements could be provided to assure that safe travel movements would occur. The intersection would be especially suitable for treatment with a "round-about."

- Washington Boulevard and Hutchinson Road:

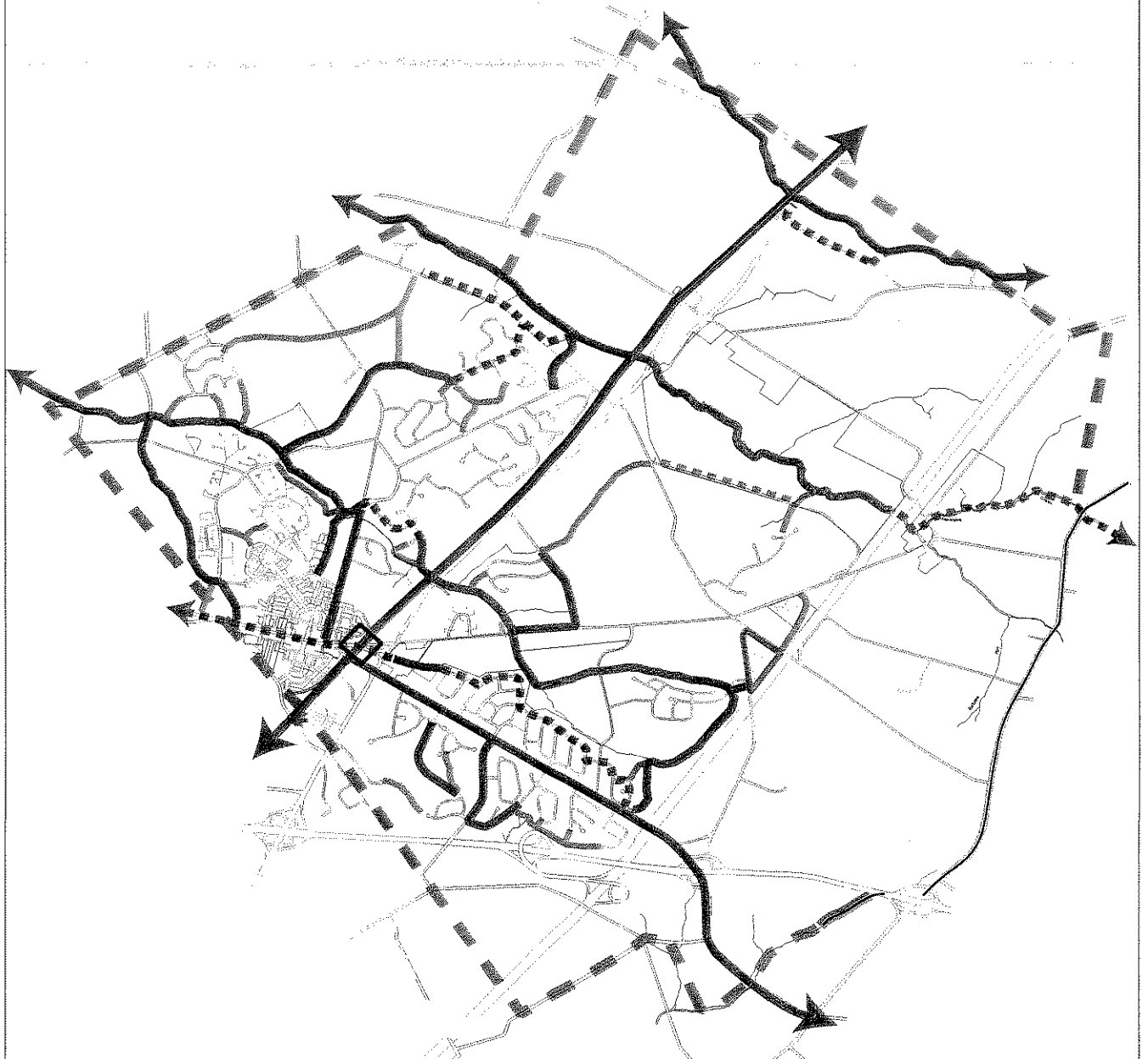
This four-way intersection is currently controlled by four-way stop signs. It is also subject to significant pedestrian crossings, including crossings by students walking to the Pond Road School. The intersection does not warrant a traffic signal, and is unlikely to warrant one in the future. However, the intersection could be redesigned to improve its operation and to better protect pedestrians.

Options for improving this intersection include:

1) Continue operation as a four-way stop control intersection. Either provide curb bulb-outs to reduce the approach widths on each road to 28', thereby reducing the intersection size, or provide a median refuge island 8' wide on each approach to assist pedestrian crossings.

2) Provide a small diameter traffic circle at the intersection plus raised pedestrian crosswalks with median refuge islands on each approach to the intersection.

## TRAILS AND GREENWAYS



### LEGEND

COMMUNITY AND REGIONAL TRAILS



LINKAGE AND SPUR TRAILS



PEDESTRIAN BRIDGE



### **3. TRAFFIC CALMING, GENERAL:**

Many of the Township's major and minor collector roads were able to follow relatively straight and flat alignments. As a result, few constraints exist to fast motor vehicle speeds on these roadways. Where these roads pass through residential areas, or are adjacent to recreational facilities, inappropriate motor vehicle speeds can conflict with the surrounding communities and can threaten the safety of pedestrians walking along or across the road. One function of traffic calming can be to physically slow speeds on these roads to a pace consistent with the cultural environment.

Roads on which traffic calming measures would be appropriate include Tindall and Beechwood Roads, Meadowbrook Road from Tantum Park to Route 130, Windsor Road in Windsor and Woodside Road.

On Washington Boulevard in Foxmoor, traffic circles at intersections would help to assure a moderate speed of traffic on Washington Boulevard and would improve the safety of turning movements into and out of housing areas. Curb neckdowns at pedestrian crossings would also be helpful.

Throughout the Township, pedestrian crossings can be made safer by providing median refuge islands. The following pedestrian crossing locations would benefit by refuge islands:

- Meadowbrook Road at Tantum Park
- West Manor Way at the Washington Community Park
- Pond Road south of Miry Run
- Hutchinson Road east and west of Washington Boulevard.

Pedestrian crossings can be further enhanced by providing raised pedestrian crossings in association with the median refuge islands.

The extremely straight alignment of Sharon Road encourages vehicles to travel at speeds substantially faster than the posted speed limit. Providing a series of traffic rotaries at intersections and strategically placed roadway narrowings could help to control speeds to 35 or 40 MPH.

### **4. TRAFFIC CALMING, AT THE PCD DEVELOPMENTS:**

In order to preserve the peaceful and quiet character of the areas north and west of the PCD Zoning district, aggressive traffic calming measures must be taken to discourage truck movement along Gordon and Old York Roads in those areas. Such measures could include roundabouts, chicanes, or new "T" intersections. For example, if the intersection of Gordon and Old York Roads were designed with a large round or square green area at the center, all traffic movement would be required to make two or three turns in order to pass through in



The Assunpink and Miry Run stream corridors are essential parts of the Township wide trail system

any direction. The intersection of Gordon Road and Sharon Road could include a traffic circle or a traffic signal. If the intersection of Gordon and Bresnahan Roads were redesigned as a "T" it could require 90° turning movements for the Gordon Road traffic. (See page VII-25 for a discussion of this issue in the context of other intersection improvements)

Two intersections on Route 526 should also be protected by the same types of aggressive traffic calming actions. The Circle Drive intersection should be configured to encourage truck traffic to move directly to I-195, and not to move through Allentown. The West Manor Drive intersection should also encourage direct truck movement to the interstate highway, and thus prevent trucks from moving into and through the adjacent residential neighborhoods.

All of these traffic calming conditions that lead to the PCD developments could also be designed as landscaped gateways into and within the Township. They could help reinforce the boundaries, and the differences, between the new truck-related development and the existing open rural farm and residential areas.

## **5. GREENWAYS AND TRAIL SYSTEMS**

This Master Plan recommends that Washington Township establish a coordinated system of trails and other facilities to assure Township residents that they will have a variety of facilities on which to walk or bicycle to all Township attractions. Just as streets and highways can be divided into different types of facilities based on highway function, the system of trail facilities proposed for the Township is divided into facilities that serve the entire community and more locally based facilities. See the Trails and Greenways map on page VII-27 for the general locations of the types of trails.

### **Community and Regional Greenway Trails:**

A network of major trail facilities is proposed that would link the major activity centers of the Township. Because these trails will serve longer trips and should prove very popular for recreational uses, they should be constructed to support more intense use.

National experience indicates that a 10' wide trail will provide sufficient capacity for most multi-use trails except where exceptionally large numbers of trips must be served, such as at college campuses or in regional parks. Trails 10' wide can also be used by Township maintenance and police vehicles. A minimum two foot wide graded area should be provided on either side of the trail as a minimum; a three foot width is preferred.

Lightly traveled trails can be reduced in width to 8' for short sections in constrained areas such as when passing through wetlands. However, this narrowing should be avoided to the

maximum extent possible for trails that are longer than 1,000 feet.

Where possible, a wide easement should be provided on either side of the trail, both to buffer adjoining properties and to provide users with a sense of being within a park. A wide easement will also allow some widening of the trail if more intense trail usage develops. This would most likely occur close to major attractions, such as the Pond Road School, or close to areas developed at densities greater than three units to the acre such as Foxmoor or the Town Center.

### **Miry Run Greenway:**

The sewer line that has been constructed along the Miry Run has defined the sewered area of the Township where more intense housing has been developed. As a result, a trail along the sewer easement, or in close proximity to it, would serve to link a large portion of the more developed portions of the Township. Since the Pond Road School is also located adjacent to the Miry Run, a trail system along the creek would also create a method for school students to travel to and from school without having to follow roads.

The existing culvert passing under Route 130 currently is too small to permit passage of trail users. However, that culvert is relatively old and will likely require replacement at some time. The Township should coordinate with NJDOT to assure that the scope of any culvert replacement project includes providing sufficient horizontal and vertical clearance to create a comfortable underpass for trail users.

East of Route 130 the Miry Run flows behind the Sharon Mews and Sharon Arms developments. A continuous right-of-way is available to allow a trail to connect to Sharon Road through these developments if trail access rights can be secured. After crossing Sharon Road, Miry Run flows under a runway at the Trenton-Robbinsville Airport and then passes through the Miry Run Golf Course. Providing a major community trail along this section will therefore require the cooperation of the operators of each facility. It appears possible to provide a trail that would skirt the western edge of the runway clear zone and then cross the golf course in order to link with the Hillside/Hilltop neighborhood.

A trail extension is also proposed along the right-of-way of Sharon Road.

### **United Jersey Railroad Rails to Trails Project:**

The former United Jersey Railroad (which was identified as the Camden-Amboy Railroad on the National Historic Registry) is currently inactive, and it is anticipated that the line may be abandoned in the future. The rail line links the Washington Township villages of Robbinsville and Windsor, and parallels one of the two roadways that serve most Township residents.

The rail line also is located close to a substantial number of new residential developments and can serve to link these developments with each other and to tie them with the traditional (shopping, recreation, and institutional) centers in the Township.

The preferable method for developing a trail along the railroad right-of-way would be to acquire the line and its right-of-way from its current owner. This could be accomplished working with the NJDOT, which has sought to purchase other rail lines that were being abandoned.

However, the process of railroad abandonment, at least for the line through Washington Township, appears to be lengthy. It may be desirable for the Township to work with the railroad company to establish a "Trail and Rails" project within the existing rail right-of-way. A "Trail and Rails" project involves creating a trail parallel to the railroad with sufficient separation to limit potential nuisances. Because trains must operate at low speeds on this line, the potential conflicts between railroad use and trail use would be minimal.

Establishing a trail at this time along the rail line would help to establish the Township's interest in securing the rail line property in the future should the line be abandoned.

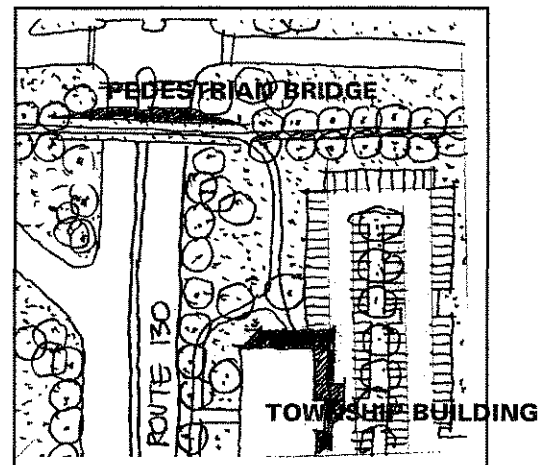
### **Town Center Pedestrian Bridge:**

As part of the Town Center plan, a pedestrian bridge across Route 130 to link the Town Center with the Municipal Complex and developments east of Route 130. From the Municipal Complex an existing trail connects to the Hillside/Hilltop neighborhood. West of Route 130 the trail would connect with the Town Center's Main Street, Route 33.

This linkage is the essential connection between the residential neighborhoods of Town Center and the facilities of the Municipal Complex and to the commercial areas on the east side of Route 130. It also will connect the neighborhoods east of Route 130 with the shopping and businesses in Town Center, and with the north-south trail on the railroad right-of-way. It is the most important link in the entire Township trail system, since it will create walking and biking links to the schools, recreation areas, and open spaces, and between the various neighborhoods. It will permit children to get to school, will permit walkers to shop, and will reduce the need for automobile use in much of the Township.

### **Assunpink Creek Greenway:**

The Assunpink Creek floodplain and stream corridor has been a focus for public land acquisitions for some time. A substantial portion of the creek and its abutting wetlands east of Route 130 have been acquired by the New Jersey Department of Environmental Protections as a Wildlife Management Area. Holdings associated with this property extend into Monmouth County.



The new pedestrian bridge will cross Route 130 near the Township Building, and will link green spaces on both sides of the roadway.

West of Route 130 Mercer County has sought to acquire properties along the creek, as has the Township.

This Greenway could in the future provide an important regional recreational trail since it connects the Wildlife Management Area with the Mercer County Park in West Windsor. A trail from Windsor to the County Park might be desirable for Township residents. However, because of the relatively long distance between the county park and most developments in Washington Township, the use of this Greenway will be primarily for recreational purposes. Such a regional trail could be augmented by the development of footpaths through the management area.

Mercer County, the Delaware Valley Regional Planning Commission and the NJ Department of Environmental Protection are all interested in the concept of developing a continuous recreational greenway corridor along the Assunpink Creek.

A regional recreational trail along the Assunpink Creek would provide a trail connection between Tantum Park and the Rails to Trails project and could provide the residents of Windsor with pedestrian and bicycle access to the park's facilities. The trail would also be part of a link in a trail network connecting Windsor with the Pond Road School.

### **Pond Run Greenway:**

Pond Run starts in an area of wetlands located between Tindall Road and Route 130. From there it flows between housing developments along Tindall Road, across Robbinsville-Edinburg Road north of Saran Woods and past the Pond Run School before joining the Miry Run near Foxmoor.

The Pond Run stream valley and associated wetlands have already begun to define a significant greenbelt in Washington Township. A trail constructed near the north edge of wetlands along this greenbelt could tie the new housing developments along the Tindall Road corridor with the Town Center and Foxmoor and would provide a route for school children to use to reach the Pond Run School. An improved pedestrian crossing would be required at Route 526.

The principal constraint to providing such a trail would be the substantial headwater wetlands that are situated between Meadowbrook Road and Robbinsville-Edinburg Road. Finding an effective method of making this connection in an environmentally acceptable method will require substantial additional study.

### **Bear Brook Greenway:**

Bear Brook runs along the Township's northern border with East Windsor. Mercer County has expressed interest in developing a greenway along that creek. The concept of a greenway along the creek is consistent with and would support the Washington Township trail system and Land Use Element. A trail along the



creek could connect with the Rails to Trails project and would provide recreational linkages to areas in East Windsor.

### **Linkage, Connection, and Neighborhood Trails:**

The major trails serving the Township, described above, will link major attractions within the Township and permit residents to travel between major activity centers by alternative travel modes. They will also create important recreational opportunities for Township residents.

However, because walking and jogging are relatively slow travel modes, and because most walking and bicycling trips are relatively short, most walking and bicycling activity will occur close to people's homes. In addition, access to major community trails requires that these trails be linked to surrounding communities by connecting trails.

As a result, an important element of the Township's pedestrian and bicycling system should be the creation of multiple small trails designed to link adjoining land uses and to provide connections to major Township attractions. Of special importance are linkage trails that can help to tie adjoining developments together or that can link residential developments to abutting non-residential developments. These types of trails will help Washington Township accomplish its goal of transforming itself from a collection of subdivisions to a single community with neighborhoods, villages and a Town Center.

Most linkage paths will be relatively short and will be used primarily by local residents. Paths shorter than 200' can be constructed with a width of 5', although trails that have a width of 10' more easily facilitate passing maneuvers. The constructed width of trails longer than 200' should generally be 10', although an 8' width for trails that are longer than 400', or which pass through environmentally sensitive areas, can generally be sufficient. Linkage paths should be constructed of asphalt or other ADA compliant material.

Short linkage paths can usually be provided within a narrow easement since the level of activity will usually be low. Conventional practice is to provide a 20' wide right-of-way for this purpose. However, except in very urban settings, such as the Town Center, such a narrow right-of-way will often feel constrained to the user and will provide only limited buffering for adjoining property owners. As a result, the desirable right-of-way for linkage paths is 33'.

### **New Developments:**

For new development, linkage paths should be required in the following situations that would otherwise limit pedestrian and bicycle mobility:

- In the middle of blocks having a length greater than 600 feet on either side.

- In the middle of loop streets
- At the end of cul-de-sacs
- Where residential development would otherwise not be linked to abutting commercial developments
- Where streets have been aligned to discourage through traffic, thereby also substantially lengthening pedestrian and bicycle trips.
- Where a community or regional trail abuts or is located in close proximity to a residential development.

### Existing Developments:

Many existing developments in the Township have conditions similar to the above. Although linkage paths may not currently be desired by residents within these developments, as the desirability of having pedestrian linkages becomes more apparent to residents through the expansion of the Township's trail system, it may become appropriate to retrofit linkage trails within existing developments.

Examples of linkages that would be desirable include:

- Windswept development to new development areas and the Pond Road School
- Foxmoor development to St. Gregory the Great Church and School

These are only examples. Over time the Township should expect that citizens from different neighborhoods will want to

**TABLE : RURAL ROAD CLASSIFICATIONS AND PEDESTRIAN PROVISIONS**

<u>Rural Road Classification</u>	<u>Provisions for Pedestrians</u>
Local roads	Pedestrians will walk on road. Low speeds and volumes of motor vehicles make walking on the road reasonably safe. Provide a grassed area 2' wide on either side onto which a pedestrian can step, if needed.
Minor collector roads	Same as above. Roadway width should be somewhat greater because of greater probability of two vehicles being present and because of higher operating speeds.
Major collector roads	Shoulders or parallel paths should be provided. Pedestrians will usually walk within the shoulder area or on the adjoining grassed area.
Minor arterials	Shoulders or parallel paths should be provided. Pedestrians will usually walk within the shoulder area and the adjoining grassed berm. Shoulders should be wider than on collector roads.

create additional linkages as confidence is gained in the impacts of these trails, and as the benefits become more apparent to residents.

### **Spur Trails:**

There are a limited number of critical connections that are needed to link existing developments to critical community resources including the Town Center, Township schools and recreation areas as well as to the major Township trail system. These linkages would be longer than typical linkage paths and, since they would tend to collect trips from a larger area, would likely have higher volumes of walkers and pedestrians using them. However, these trails would be more local in their service area compared to regional trails and would not attract large numbers of regional trips.

These trails should be constructed with an 8' wide asphalt path initially, with at least 4' of grassed shoulder on either side. An easement of at least 33' should be sought for these trails, but where possible they should be located in a wider area of protected open space.

Spur trails identified in this master plan include the following:

- Windswept development to Miry Run Greenway.
- Foxmoor developments to Miry Run Greenway.
- North Gold Drive to Laurel Drive.
- Wycklow Drive to Bresnahan Road.
- Shady Lane to Patriot Drive.
- Assunpink Creek to NW development area, Bear Brook.
- Trails and Paths on Rural Roads:

Rural roads generally have only limited pedestrian activity, because few land uses are present and trip distances tend to be longer. As a result, urban street features such as sidewalks and curbs would be out of place on the Township's rural roadways. To maintain the heritage of a rural community, alternative methods should be found for accommodating walkers. Appropriate methods are as follows:

On rural roads where pedestrians can be anticipated to walk because of surrounding trip attractions such as parks, schools or churches, consideration can be given to providing a separate path within the roadway right-of-way or in an adjoining right-of-way or easement. Paths that will be used for only pedestrians should consist of an asphalt or gravel path with a width of 6' designed to conform with ADA accessibility criteria. Paths along rural roads will be especially appropriate along sections of roads that link intersecting residential streets. Maximum separation should be sought between the roadway and the path. Ideally street trees, if planted, should be located between the pedestrian path and the road.

If the pedestrian activity that is anticipated is related primarily to recreational activities such as hiking, hunting, fishing, etc., a gravel or dirt path may be appropriate.

### **Sidewalks on Town, Village and Neighborhood Streets:**

Developed areas generate higher volumes of pedestrian traffic and should generally have sidewalks. This is especially important on collector and arterial roads where higher volumes of motor vehicles operate. Sidewalks should be provided on both sides of higher order streets in areas having a net residential density greater than two units per acre and within one-fourth of a mile of schools and commercial districts. On local residential streets having a density of less than two units per acre, consideration can be given to providing a rural street cross-section without curbs and sidewalks.

In areas where walkers will be present on a regular basis, for example close to schools and shopping areas or in higher density residential areas, sidewalks should be a minimum of 5' wide. This width allows two adults to walk next to each other without being crowded, and also allows two persons walking in opposite directions to pass without requiring one of the persons to step partially off of the walkway. Wider sidewalks are required in areas that will attract many pedestrians such as the Town Center. Sidewalks in most residential areas where use will be very intermittent can be built at a width of 4'.

All sidewalks must provide adequate opportunities for persons using wheel chairs or pushing strollers or other carts to pass one another. Generally driveways, walkways or other paved crossings will provide adequate passing opportunities. Sections of sidewalk that are not interrupted with driveways must provide a section widened to five feet at least once every 200' so that persons in wheel chairs or pushing carts can pass each other or pass walkers. Where persons in wheel chairs can be anticipated on a regular basis, such as near health clinics, senior housing projects or housing designed for the disabled, five foot wide sidewalks should be constructed.

In order to maintain a rural character in hamlets or clustered developments, sidewalks should not be constructed except on major collector streets and arterials. On these more heavily traveled roads, consideration should be given to providing a pedestrian path instead of a sidewalk.

## **6. PUBLIC TRANSPORTATION ENHANCEMENTS**

Current public transportation services are limited in Washington Township. However, with continued residential growth it should be possible to support additional services.

### **New Services:**

Given the pedestrian character of the Town Center and the

concentration of residences there, it should be possible to support more frequent bus service to Trenton. In addition it may become possible to attract commuter bus service to New York City and possibly Philadelphia, scheduled airport bus services and a suburban service to the Hamilton Train Station and the Route 1 employment corridor.

The development of these transit services would have to be considered by the Township in conjunction with NJ Transit Corporation and Mercer County.

### **Park/Ride Lots:**

The possibility of attracting additional bus services would be enhanced if the town were to develop, or encourage to be developed, parking lots for use as park/ride facilities. Locations where park/ride facilities could be located and should prove useful in supporting commuter bus operations would include sites close to I-195 on Route 130 and Robbinsville-Allentown Road.

Park/Ride Lots are also helpful in allowing people to informally carpool. Often this type of use is best accomplished using available parking spaces provided for other purposes. Consideration in the past has been given to providing a park/ride lot at or near the municipal building. Township park sites, as well as churches and stores, are other locations that can be used for this purpose. Development of these types of facilities must be carefully assessed based on a balance of the benefits to the Township versus those to the region.

## **E. DESIGN STANDARDS**

The typical cross-sections recommended by the Master Plan are generally similar to cross-sections established for residential streets by the Residential Site Improvements Standards (RSIS). However, the Township requires more right-of-way for collector and subcollector streets than is required under RSIS. The Township has also established reduced right-of-way and roadway standards for rural lanes.

Roadway design elements are proposed that can assure adequate safety and mobility for all travel modes while not providing more pavement than is essential for those purposes.

### **1. COMPARISON WITH RESIDENTIAL SITE IMPROVEMENT STANDARDS**

The typical cross-sections recommended by this Master Plan differ in some respects from the cross-sections established for residential streets by the Residential Site Improvement Standards (RSIS). In part the differences with the RSIS standards reflect differing concepts regarding how development occurs and the function of collector streets.

The RSIS criteria assume that Collector and Subcollector streets constructed as part of new residential developments, and the developments they serve, will be isolated from the surrounding street network and community. In contrast, the Washington Township Master Plan seeks to integrate new developments into the community so that subdivisions will not be isolated. As a result, residential collector streets should be designed to serve a mix of development and community traffic.

Because a mix of traffic will occur on these streets, the Master Plan standards provide for slightly increased additional cartway width to provide room for narrow shoulders that can accommodate bicycle traffic and, in rural areas, pedestrian traffic. Recognizing that property owners and pedestrians on streets with sidewalks will want greater separation from the higher traffic volumes on collector streets, the Master Plan standards also provide for an increased border area for the planting of street trees. The wider border area in rural areas is also needed to assure that adequate land is available for the provision of drainage ditches and other roadside features.

The recommended Township standards for Collector streets and roads therefore require that a wider right-of-way be provided than required by RSIS for strictly residential collector streets.

The Township recommended cross-sections can be applied for non-residential streets and roads. In addition, developers can agree to apply the Township standards for residential developments. For Collector streets that are not restricted to serving only development traffic, the Township standards should also be applied.

The Township standard for a rural lane, a 13' wide cartway located within a 33' wide right-of-way, is consistent with existing hamlet and rural lanes in the Township that serve only a limited number of residences and no through traffic. This type of roadway is desirable in rural areas where villages may be developed or in other special situations. The cross-section should only be used if there will be no through traffic on the lane.

## **2. TOWN CENTER STREET REGULATING PLAN**

The Town Center Ordinance establishes separate roadway design standards for all streets within the Town Center District. These standards are generally similar to the cross-sections recommended by this Master Plan. The only difference in the standards is created by the need to accommodate on-street parking on both sides of minor collector streets. These streets as a result require a wider cartway and right-of-way than is normally needed for minor collector streets. These less densely developed portions of the Township. Residential streets within the Town Center will have a cartway of 26' rather than 28'. This cartway will provide a slightly wider buffer between the street

and the right-of-way line for sidewalks and street trees. As a result of the compact development pattern of the Town Center, a narrower street width is appropriate.

### **3. COMPARISON OF STANDARDS FOR DEVELOPMENT STREETS**

The table compares the standards for streets established by RSIS and the Town Center Street Regulating Plan with the roadway standards recommended by this Master Plan.

### **4. RECOMMENDED ROADWAY AND TRAIL CROSS-SECTIONS**

The recommended typical cross-sections are listed and illustrated on the following pages. The cross-sections include roadways for villages and clusters, as well as for rural situations. All streets and roads must of course take into account existing conditions, including the specific nature of the developed area, and the need to protect environmental features, especially wetlands and drainage channels, and cultural and heritage elements.

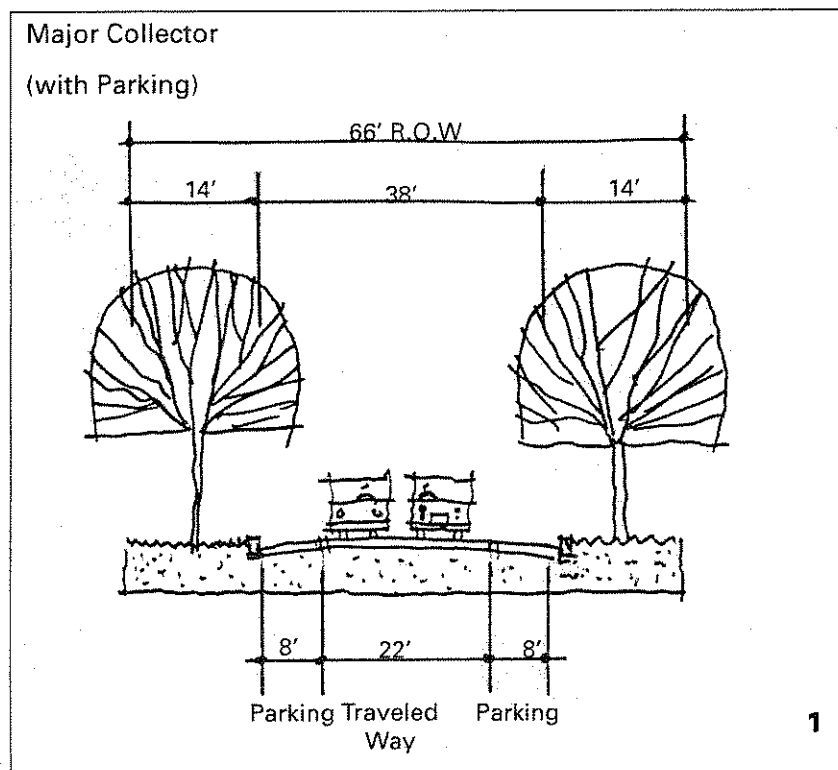
**TABLE: ROADWAY CROSS-SECTION DIMENSIONS**

	Roadway Pavement			Border Area			Total Right-of-Way		
	RSIS	Master Plan	Town Center	RSIS	Master Plan	Town Center	RSIS	Master Plan	Town Center
Arterials									
Major Collectors:									
with parking		38'	38'		14'	14'		66'	66'
without parking	24'	30'	30'	13'	18'	18'	50'	66'	66'
Minor Collectors:									
with parking		30'	36'		15'	15'		60'	66'
without parking	20'	26'		15'	17'		50'	60'	
Local Streets	28'	28'		11'	11'		50'	50'	
RA streets	20'	20'		10'	15'		40'	50'	
RA lanes	18'	13'		11'	10'		40'	33'	
TRAILS									
Multi-use trail		10'			11.5'			33'	
Linkage trail		6'			7'			20'	

Note: Lane widths on township roads, if striped, shall be 10'.

Parking on major and minor collector roads will generally be prohibited except in the Town Center, Foxmoor, and Windsor. Where parking is prohibited or not anticipated, collector roads will generally have shoulders, but no curbing.

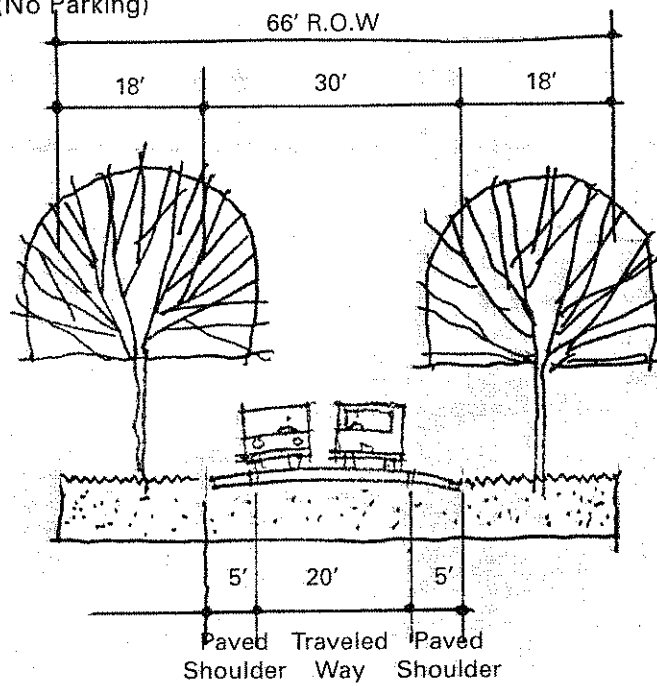
## TYPICAL ROADWAY CROSS-SECTIONS





### Major Collector

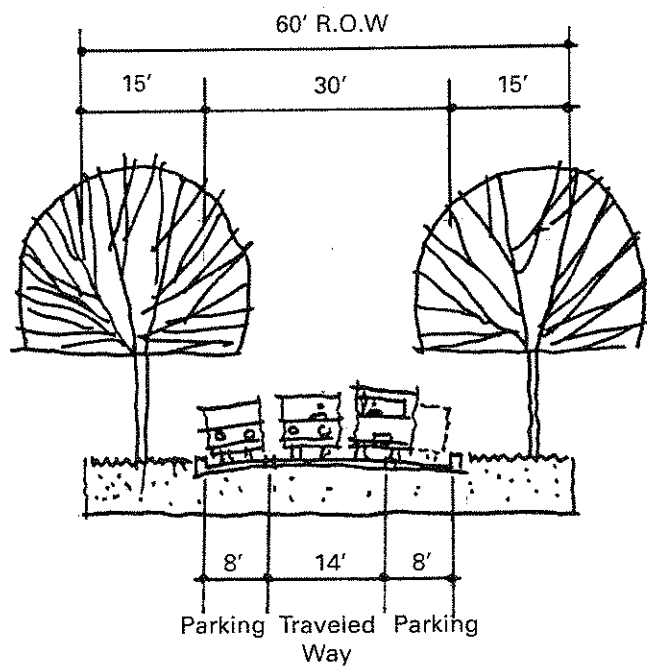
(No Parking)



2

### Minor Collector

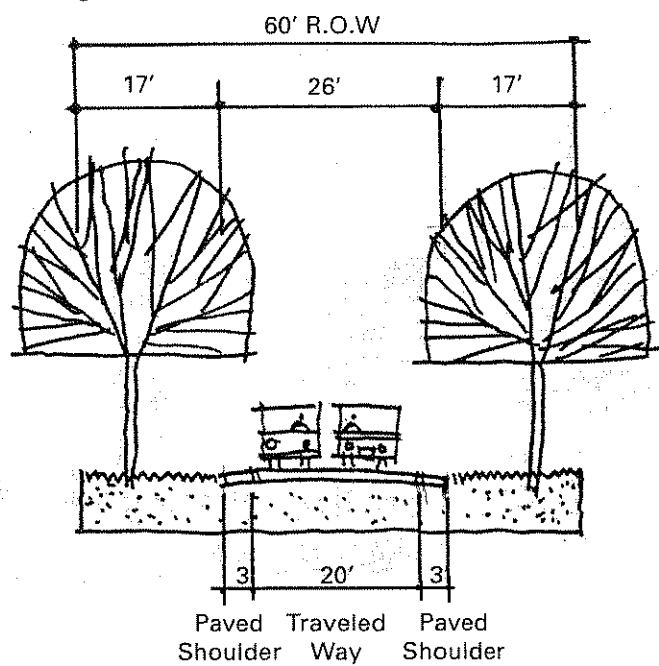
(with Parking)



3

# Minor Collector

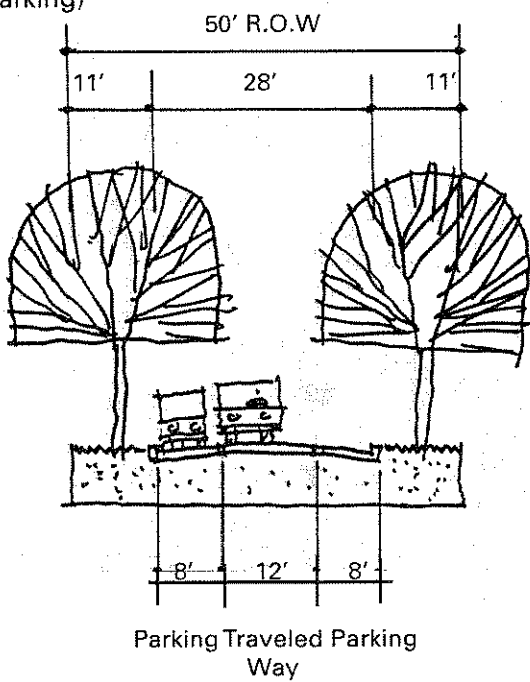
(No Parking)



4

# Local Street

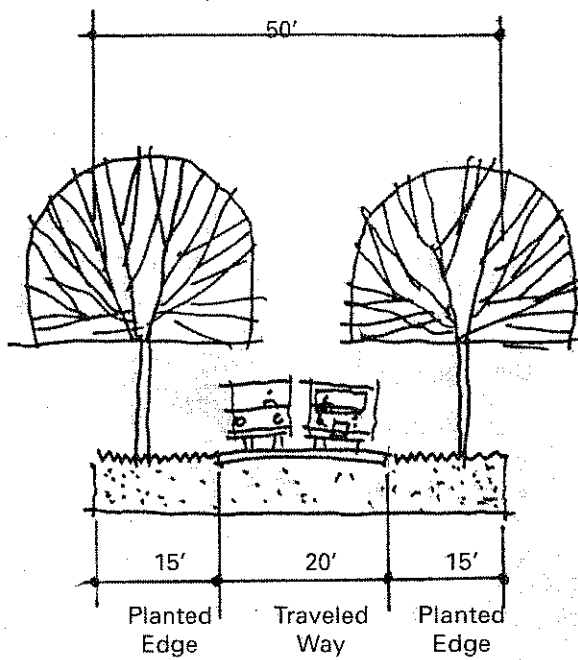
(with Parking)



5

### RA District Street

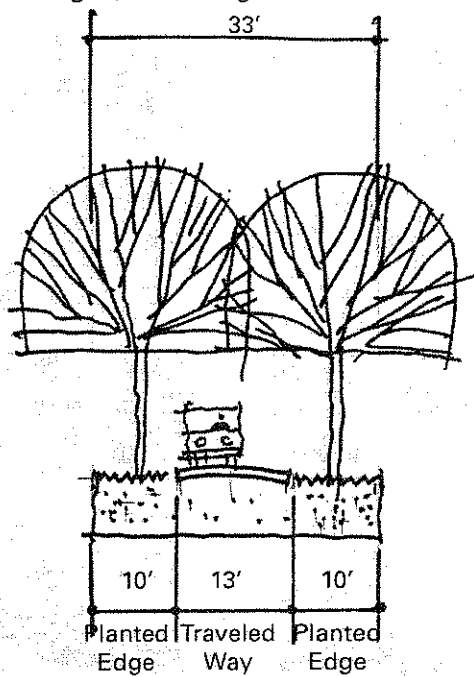
(for use in developed areas as well as open spaces)



6

### RA District Lane

(for use in villages; no through traffic)



7



## VIII. HISTORIC PRESERVATION PLAN

### A. INTRODUCTION



Through the years, the character of Washington Township developed as a function of its location and rich cultural history, both of which were heavily influenced by agriculture and transportation. The dominant physical characteristics of Washington Township include flat to gently rolling farm fields dotted with 18th, 19th and early 20th century farm houses and outbuildings, and a series of small 18th and 19th century villages such as Robbinsville, Windsor, New Sharon and New Canton. In recent years, however, the development of this Township has in part given way to a shared physical landscape that now includes housing subdivisions, commercial nodes and community parks as well as the traditional agrarian landscape. Despite this growth, the rural character remains a strong influence on the quality of life of the Township. It has, therefore, been determined that this rich cultural history of the Township and the environment in which it is situated, memorialized in the form of historic architecture such as farmhouses, barns and village houses and spaces composed of open vistas, transportation corridors and hedge rows, continues to influence the Township's growth and is therefore worthy of preservation.

### B. HISTORICAL BACKGROUND

New Jersey's history of European settlement dates to the early 1600's. It was the Dutch who first claimed the land area known as New Jersey and it was the Swedes who first settled in and about the area known as Big Timber Creek, opposite what is today Philadelphia along the Delaware river. The history of European settlement in the area of what is today Washington Township, however, began not with the Dutch or the Swedes, but rather with the English. It was the English who won New Netherlands from the Dutch in 1664 and following that victory, King Charles II gave New Jersey to his brother, the Duke of York (James II). In turn the Duke of York granted East Jersey to Sir George Carteret and West Jersey to Lord John Berkeley. "Province Line", which today forms Washington's western boundary with Hamilton Township, was thus established in 1687 as the boundary between east and west Jersey. <sup>1</sup>

The process by which the boundaries define present day Washington Township occurred over many decades. A synopsis of those events is outlined below:

- 1710:

Middlesex County is created by legislature with part of its eastern border with Monmouth between the Indian Run and the Assumpink Creeks consisting of Old York Road. The legislature assigns the area that would ultimately become.

Washington Township to Piscataway Township.

- 1723-24:

Piscataway is reduced in area with the formation of New Brunswick Township which includes all of Piscataway's land south of the Raritan River.
- 1731:

New Brunswick is reduced in size with the creation of New Windsor. New Windsor is officially incorporated in 1741 as Windsor Township. It includes the lands that would become Washington Township.
- 1778:

Revolutionary troops moved through this area, and had encampments here.
- 1797:

Windsor Township is divided into East Windsor and West Windsor.
- 1831:

The first rail line in New Jersey is constructed passing through the towns of Newtown (Robbinsville) and Centreville (Windsor); each town had a train station. Both towns were at that time found within East Windsor Township. The first coaches were pulled by horses, two for each coach, pulled in tandem. The rail line most recently was known as the Camden and Amboy Line.
- 1832:

Windsor Hotel built; Barclay Perrine was first Postmaster.
- 1840:

Windsor Methodist Church dedicated.
- 1844:

Robbinsville Railroad House built by William Tindall.
- 1846:

Windsor Post Office established.
- 1859:

Residents of the southern half of East Windsor, spurred on by the growth brought on by the railroad, secure an act in the New Jersey legislature to incorporate as Washington Township.
- 1996:

The Washington Township corporate boundary is altered to include the entirety of the Mercer Mobile Home Park. Prior to this change, a fraction of the park was located in Hamilton

Township. This marked the first change to the boundary since 1859. Additionally, it explains to future generations the apparent bump in the otherwise straight Province Line.

According to Robert C. Craig in his work entitled "Windsor Township and the Early Years of Central New Jersey 1680-1797", the early English settlement which is now Washington Township was controlled by the East Jersey Board of Proprietors. As early as 1690 they established two large land grants south of the Assunpink Creek which accounted for approximately one half of current day Washington Township. The first grant was given to Robert Burnet, a Scottish Quaker. He settled his 4,000 acre tract in 1700. Its boundaries included Province Line on the west, extended across Old York Road, including parts of Upper Freehold and all of present day Allentown.

The second tract was granted to Augustine Gordon. Also, a Scottish Quaker, Gordon was granted approximately 2750 acres with boundaries that included Province Line, Line Road, the Assunpink Creek and what is today Gordon Road.

By the first quarter of the eighteenth century, much of the region had been purchased from the Native Americans (the Lenapes) and resold into farms ranging in size from 500-1000 acres. Some of the family names associated with the early settlement in Washington include: Hamill, Conover, Schenck, Knowenhoven, Ely, Tindall, Hight, Cubberly, Ford, Rulong, Chambers, DeBow, Hepburn, Robbins, Longstreet, Silvers, Allen, Imaly, Montgomery, Newell, Buzby, Everett, Combs, Hutchinson, Yard, Steward, Perrine, and Gordon.

Many of these families could be associated with two distinct waves of immigration- one associated with Monmouth County and one associated with Nottingham Township in Burlington County. The Monmouth County immigrants included the first group which included such family names as Applegate, Binn, Chamber, DeBow, Hepburn, Lane, Longstreet, Robbins and Silvers. These families tended to settle in the eastern portion of Washington along Old York Road and to a large extent were Presbyterians. After its founding in 1720, much of this group were members of the Allentown Presbyterian Church.

A second group included the Arey, Cubberly, Ford, Hammell, Rulong and Tindall families who emigrated from Nottingham Township, Burlington County. This group tended to settle in the western portion of the Township and for the most part were Quakers who attended the Chesterfield Monthly Meeting of Friends.

## ***C. GOALS AND OBJECTIVES***

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan ele-

ments. The goals of the Historic Preservation Plan are consistent with the goals and objectives of the entire Master Plan, as follows:

## **1. HERITAGE**

*Protect the rural character, the rural way of life, and the cultural heritage of the Township.*

Washington Township emerged as a farming community in the early 18th century, and with it came the beginnings of towns and hamlets needed to serve as locales for commerce and religious congregation. In 1706 Nathan Allen (son-in-law to Robert Burnet) settled along the Doctor's Creek. The house which he built still remains and is located in Washington Township; he also built a saw mill in this location. The grist mill that he built helped the area become a focal point for farmers and consequently encouraged the growth of what would become the village of Allentown. In 1720 the Presbyterian Church was established and in 1725 a road was built between Allentown and Trenton following the present route of Robbinsville-Allentown Road; at that time, it was called Trenton Road. Troops march along this road during the Revolutionary War.

The establishment of farms created the need for services, and Sharon (once called Cattail and now called New Sharon) was one of the earliest commercial centers. A house known locally as "The Inn of the Crooked Billet", as well as several other houses which are still standing in the hamlet, may have been constructed prior to the American Revolution. As the years progressed, New Sharon became a thriving village which contained a tanning yard, shoe manufacturer, wheelwright, and blacksmith. In addition, there was a cider and whiskey distillery operated by John Fisher and a hat manufacturing firm operated by John and William Story. Members of the Story family, along with Pages and Coopers, were buried in the Methodist Church cemetery. Although their graves are still visible, the church established in 1812 is no longer standing. Some of the church members probably lived in Cabbagetown, now New Canton, which was a cluster of homes just down the road from New Sharon. Most of these structures were built in the 1700's, and are still in use.

Windsor was established as Centreville in 1818, but the area had been known as Magrilla long before the creation of the village. In 1816, the New Jersey Legislature authorized the construction of a turnpike to carry stagecoaches from Philadelphia to New York, and when the highway was laid out in 1818, a hotel which became a stagecoach stop was built in Windsor. In 1830 a charter granted to the Camden and Amboy Railroad and Transportation Company to link the Raritan Bay and the Delaware River by rail resulted in more growth for Windsor. In 1832 the line extended from Bordentown through Windsor to Hightstown, making Windsor one of the first New Jersey



villages to receive rail service. Area farmers had supplied the crushed rock used for the roadbed and were compensated with one dollar per perch (27 cubic feet). The train was first pulled over the roadbed by horses, but the horses were eventually replaced by the famous "John Bull" engine when commercial service came in 1833.

The construction of the railroad was responsible for continued commercial activity in Windsor. The hotel was enlarged in 1832 and sometime after the creation of Mercer County in 1838, Windsor boasted three general stores, a post office, a passenger station, a freight house, a basket factory, several mills, a school, a harness shop, and a blacksmith. The Methodist Church, built in 1840, was enlarged in 1863 to accommodate the growing population. As the years passed, some residents gathered at the "Lazy Bench" located near the train station and the hotel, to exchange local gossip.

In 1902, the Windsor Grange #40 was established, and began to play an important role in community life.

Newtown, another village on the rail line, changed its name to Robbinsville, in 1844. Like Windsor, the railroad had spurred its growth so that by 1844, or soon after, it contained the Railroad House, built by William Tindall, a wheelwright shop, and several stores and houses, in addition to the railroad's freight station.

Other significant 18th and 19th century events in Washington Township history include the following:

- 1844

Barclay Perrine starts a brick making operation in Windsor (Centreville).

- 1846

In order to get a post office, Centreville is renamed Windsor so as to eliminate confusion with the Centerville in Hunterdon County.

- 1850

Newtown is renamed Robbinsville after The Hon. Geo. R. Robbins, who later became Congressman. The name change was necessary in order to establish a post office in the Town.

- 1859

The legislature authorized the creation of Washington Township, by Ch. CXXIV of the Laws of 1859, which separated it from East Windsor Township, in Mercer County. It was then enacted that the first town meeting would be held at the public house kept by Elizabeth Miller in the village of Windsor, on the second Tuesday (the 15th) of March, 1859.

- 1875

Washington Township officially has a population of 1,294, six

schools, three good sized mill ponds, and Windsor and Robbinsville each host train stations. Additionally, Windsor is the site of a cigar factory, a nursery and a grain warehouse, and Robbinsville hosts a carriage factory, several shoe makers and a brokerage firm.

The school system was also created about this time, and was divided into six districts. The six one-room schools that were built were located in Windsor, Newtown, Union, Page's Corner, New Sharon, and Allen Station. Only the Union School building remains: it has been moved to the Municipal Complex, and there are plans now to restore it.

- 1876

William Tindall donates land for a chapel that would be "free for the use of all Protestant denominations". The chapel was originally purchased by the Presbyterian Church of Hamilton Square, which used it for many years. After the use by the Presbyterians, it stood empty for some time until it was purchased by the Baptists in the 1930's. Today it is the Robbinsville Baptist Church. The design of the chapel is in the "Carpenter's Gothic" style.

- 1997

Washington Town Center, New Jersey's first neo-traditional community, is established by both Master Plan and Zoning Ordinance.

## **2. COMMERCE**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

As the turn of the century moved into the 1920's and 30's little changed in the area. Agriculture continued to be the primary occupation within the Township. Commercial activities needed to support the agricultural industry continued to prosper. Crops of wheat and grains, however, were being replaced by tomatoes, potatoes, corn and soil beans. The population growth of the late 19th century stabilized with minimal increases as evidenced by a total population of 1,347 in 1930 as compared to 1294 in 1875. The six one-room schoolhouses continued to operate until the new Windsor School was built in 1909 and the Robbinsville School on Route 130 was opened in 1925. Today it is important to think of Washington's rich cultural history as a major resource. It is a resource that should be cultivated and used to attract smart growth and to protect land values.

## **3. LINKAGES AND EDGES**

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways and trails*

*and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

The Town began to change during the great depression with the widening of Route 130, the Bordentown and South Amboy Turnpike, and the construction of the cement road between Robbinsville and Edinburg. It was during this period that the demise of the railroad station in Windsor occurred and changed life styles of the Township residences. The automobile had arrived. Growth slowed during the war years of the 1940's. Today it is important to think of Washington's pattern of cultural resources as an opportunity to provide an organizing factor for the Township's open space system of linkages and edges.

#### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

By the 1950's the population was growing again. The national housing development boom of the post World War II era reached Washington Township with the new Hillside Terrace and Windswept development tracts. The Sharon School was built in 1957 and opened in 1958 on a 20 acre plot. It was described as a modern building with nine classrooms, an all purpose room, administration offices and a dispensary. In 1959, the Township celebrated its centennial. To celebrate the Township's birth a Centennial Committee was formed and published the Washington Township Centennial Anniversary Brochure. This brochure contains an excellent historic record of events and a list of organizations that existed in the Township during the first 100 years. The Township prospered in the 1950's to the point that the Township School Board purchased another 20 acre tract of land on Pond Road with the anticipation of building another school. There was, however, an economic slow down in the 1960's and first half of the 1970's. The later part of the 70's and 1980's brought back the concept of growth as was evidenced by the construction boom of almost 4,000 housing units during this period. This growth in Washington Township was spurred on by the development of interchange 7A of the New Jersey Turnpike and the construction of Interstate 195. These major improvements provided the Township with direct east/west and north/south access to the entire state. By 1990 the population reached 5,815.

During the 1990s' the population continued to grow. Construction of the new Pond Road Middle School was begun in 1993. It opened its doors to students in September of 1996. With the first significant development trend since the 1950's, the population grew to approximately 8,700. Today sustainability means smart growth balanced with cultural resource protection; it also means using cultural resources in the thought process for

making infrastructure decisions about greenway links, open space protection and roadway improvements.

## 5. COMMUNITY

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

It must be noted that we are our history. Today in 2000, Washington Township continues to face the pressure to balance development and the preservation of its character. As may be expected with such development, many of the cultural and historic resources that have sustained the Township for its first 150 years of history are vulnerable to being lost. This is no more evidenced than by the fact that the once agrarian Township has approximately 6,000 acres of its total 13,000 acres remaining as farmland. It is now time to take an inventory of the remaining cultural and historic resources. Those items considered resources by the Historic Preservation Subcommittee of the Planning Board, listed on pages VIII 10-13, are a composite of several elements that as a whole give the region its sense of community, space and rhythm (i.e. character). The list includes farmlands, rolling vistas, farm structures, village structures, hedge rows and tree allees.

## D. RECOMMENDATIONS

The purpose of this element of the Master Plan is to provide a historic background for Washington Township and to memorialize an inventory of historic/cultural artifacts as mapped by the Washington Township Historic Preservation Subcommittee of the Planning Board. It is further recommended that, wherever practical, the objects and material culture listed as the inventory should be preserved for future generations. Recommended methods of preserving these buildings, structures, and landscape are as follows:

- Encourage the adaptive reuse of existing historic houses and outbuildings for nontraditional farm uses. Examples of such uses include: restaurants, Bed and Breakfasts, small professional offices and conference space.
- Allow for new, but traditional, village developments as described in Ch. II, Land Use Plan, provided they meet the conditions that the site planning and architecture are sympathetic to the existing agrarian landscapes and building character. Some guidelines for these villages are suggested in



**Tree Stand = T**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
47	1, 24	T-1	Allens Rd. at Windsor Rd. Green Acres
	16, 2		runs along Allens Rd.
46	1		" "

**Tree Stand (cont.)**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
20, 19	13, 10.02	T-2	Woods
	12, 6, 7,		
	26, 5, 4,		
	28		
40	4	T-3	Tall Pines saved by Matrix

**Rail Lines = RR**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
14	1	RR-1	Camden to Amboy RR
47	5, 7	RR-2	Hightstown to Pemberton Rd.
	22, 8		

**Cemetery = C**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
14	75.01, 17	C-1	Windsor Methodist Church
44	25	C-2	Methodist Meeting House Cemetery

**Historic District = D**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
		D-1	Town of Windsor

**Historic District (Not on Register) = DN**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
		DN-1	New Sharon
		DN-2	New Canton

<sup>1</sup>Sources:

Craig, Robert C., Windsor Township and the Early Years of Central New Jersey 1680-1797, 1987.

Washington Township Master Plan – 1990, Townplan Associates.

Note: A large map that indicates the locations of all of these historic resources is available at the Township Offices.

### Hedge Rows (cont.)

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
19	6	H-18	Hedge Row along property line
37	3, 5, & 7	H-19	Between lots
40	4 & 5	H-20	Between lots
43	31.01	H-21	
	5		
	31.02		
	30		
47	4, 23.02	H-22	
	9.01		
	9.02		
21	29	H-23	Between 29 & 42.01 N.W. border

### WPA Allee = A

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
7, 6, 3.01		A-1	Robbinsville-Edinburg Rd.
8, 8.06			Tree Line along Rt. 526
8.03			

### Vistas = V

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
3	11	V-1	Both Sides of Hutchinson Rd. & Combs Rd. at Miry Run
3	11	V-2	
5	2	V-3	
5	1	V-4	
10	56 & 56.01	V-5	
14	22 & 22.01	V-6	
14	25	V-7	

### VISTAS = V

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
15	7	V-8	Across from airport
10	39	V-9	
27	24.15	V-10	
27	15	V-11	
22	4	V-12	
22	4	V-13	
13	12.02	V-14	
37	4 & 5	V-15	
38	9	V-16	
38	6.01	V-17	
39	3	V-18	Both sides of Rt. 526
40	7	V-19	
38.01	15	V-19	
41	14	V-20	
41	12	V-21	
41	19.01	V-22	
26	14, 16,	V-23	
	17.02, 18		
	19, 20, 21		
	22, 17.01		

**Structures = S (con't'd)**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
13	13.01	S-52	House (Main St., Windsor)
20	16	S-53	House (Elmer Tindall) (old farm)
20	14	S-54	House
17	3	S-55	House (Farmhouse)
17	9	S-56	House (Unique Farm house)
17	13	S-57	House (Tree Farm)
17	14	S-58	House (Evernham)
17	14.04	S-59	House
18	2	S-60	House (old slaughter house)
37	1	S-61	House
37	2	S-62	House
37	4	S-63	House (Potts Rd.)
39	4.02	S-64	House 18 <sup>th</sup> Century
38.01	2	S-65	House 18 <sup>th</sup> Century
41	21	S-66	House
40	1	S-67	18 <sup>th</sup> Century House
40	1	S-68	18 <sup>th</sup> Century House (Burned)
41	20	S-69	House (Burned)
47	12	S-70	House
47	14	S-71	House
47	9.02	S-72	House & barn complex
46	4.01	S-73	House & barn
47	4	S-74	House complex
8	41?	S-75	Old small house
8	42?	S-76	Old Small House
17	2	S-77	Odenheimer house
19	11.01	S-78	Hazel Hermans house (old chicken farm)
21	18	S-79	House foundation Bresnahan
25	49	S-80	Home moved from Allentown
36	1	S-81	Papps
43	11	S-82	445 Gordon Rd.
3.01	29	S-83	Small house or migrant home
5	75	S-84	House & corn crib - farm
3.01	32	S-85	Mack Dinette - formerly Silk Factory
41.01	33	S-86	Wittenborn house, barn, smaller house, etc.

**HEDGE ROWS = H**

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
3	11	H-1	
3	11	H-2	Combs Road near Miry Run
4	29	H-3	West of Windswept Development
5	19 & 21	H-4	Near Buckley Lane
5	1 & 2	H-5	
9	1-55	H-6	
	4-5.01		
	5-6-		
	6.01-25.1		
	7.38		
9	1 & 2	H-7	
9	9 & 10	H-8	
10	56.01 & 55	H-9	
15	7	H-10	Along Bear Brook
30	39	H-11	Bordering Bl. 30, Lt. 17
30	17	H-12	Bordering Bl. 30, Lt. 16
21	27	H-13	Bordering Bl. 21, Lt. 40
21	1	H-14	Hedge Row middle of lot
21	1, 15-22, 28, 39	H-15	Between lots along Assunpink Creek State Open Space (Hedge Row)
21	9 & 10	H-16	Between lots
21	10	H-17	Along creek



## E. INVENTORY

### STRUCTURES= S

<u>BLOCK</u>	<u>LOT</u>	<u>MAP LOCATION</u>	<u>COMMENTS</u>
1	31	S-A	Salt Box
1	34	S-B	Old House
1	35	S-C	Old House
1	36	S-D	Old Inn
1	41	S-E	Old Farming Complex
2	11	S-F	Old Church
2	12	S-G	Old House
2	13	S-H	Old House
2	14	S-I	Old House
2	15	S-J	Old House
3	11	S-1	Migrant housing
2	27	S-2	House
5	29	S-3	Farm House
5.01	5	S-4	House
6	12	S-5	House Suplee
6	16	S-6	Farm House *
5	19	S-7	House *
9	1	S-8	House
9		S-9	Barn *
9	3	S-10	House
10	7	S-11	House *
10	8.03 & 8.02	S-12	Farm House
9	7	S-13	House
9	10	S-14	Foundation
10	62	S-15	House
10	55	S-16	Collection of structures/house
14	45	S-17	
30.03	30	S-18	Farmhouse & Barn (58 Richardson Rd.)
30.03	16	S-19	Old Murphy homestead
30.03	49	S-20	Foundation for schoolhouse and residence
28	2	S-21	Municipal Bldg./Previously dated
28	3	S-22	Old schoolhouse
29.04	38	S-23	19 <sup>th</sup> Century house
29	30.01	S-24	" "
29.03	30.02	S-25	" "
28.05	6	S-26	" "
32	4	S-27	was farmhouse (Tindall)
34	22	S-28	18 <sup>th</sup> Century house
30	9	S-29	18 <sup>th</sup> Century house *
28	15	S-30	19 <sup>th</sup> Century house
27	5	S-31	Foundation of old farmhouse
27	15	S-32	Farmhouse Knapps (twin Brookfarm)
27	17	S-33	18 <sup>th</sup> Century house
8	46	S-34	Old diner/Phil's Diner
26	20	S-35	House 18 <sup>th</sup> /19 <sup>th</sup> Century
26	18	S-36	18 <sup>th</sup> Century House
22	8	S-37	Foundation old schoolhouse (Review) *
22	10.01	S-38	House
22	7	S-39	Farmhouse & barn
26	10	S-40	Foundation old farmhouse (Gordon)
26	6	S-41	Previous airport
26	27	S-42	Foundation Gordon Farmhouse
22	3.01	S-43	Two houses - same lot
22	3.01	S-44	" "
21	6	S-45	Holmann Farmhouse (Green Acres)
21	7	S-46	Nini House
19	18	S-47	House
19	16	S-48	18 <sup>th</sup> Century House (Robbins)
19	2	S-49	House
19	6	S-50	House & out buildings (Levenduski)
13	10	S-51	House Pernetta

the Land Use Plan.

- Provide the opportunity to save priority structures and open space elements through creative cluster developments and transfer of development rights for the establishment of the new traditional villages.
- As part of the intention to preserve the Township's historic open space and farmland settings, encourage locally based agriculture as viable businesses. Methods include: 1) Reduce conflicts between suburban development and farming by protection of hedge rows, promotion of residential buffers, and maintenance of rural farm roads, 2) Encourage assemblage of large tracts of land for farming operations, 3) Provide for businesses that support agriculture, and 4) Encourage a system of markets that promote the sale of locally produced farm products. These recommendations are also discussed in Ch. III, Farmland Plan.
- Take steps to preserve historic structures in Town Center, where possible.
- Maximize available local and State monies to protect key structures and open space elements through strategic acquisitions.
- Provide for a historic preservation review process for parcels proximate to, or part of, a development application.
- Provide historic markers for artifacts lost to development and acts of nature.
- Develop ordinances intended to preserve historically significant landmarks.
- Think of historic and cultural resources as an economic asset, and plan for infrastructure improvements accordingly.

# IX. UTILITIES PLAN

## A. INTRODUCTION

**P**

Planning for improvements to, and expansions of, water and sewer systems falls under the purview of the Township Committee, Planning Board, Municipal Utilities Authority (MUA), and the Consumers' New Jersey Water Company. Stormwater management and solid waste disposal are the responsibility of municipal and county officials as well as the private sector. The following discussion describes and evaluates existing water supply, wastewater collection and treatment systems, stormwater facilities, and solid waste management facilities which currently serve the Township. Described also are the principal components of these systems, the services provided, and recommendations for continued provision of these services. They are all made in accordance with the Goals and Objectives of this Master Plan, and with the specific recommendations of the Land Use Plan.

## B. GOALS AND OBJECTIVES

The provision of utility services must be made in support of the recommendations of this Master Plan. They must therefore support all of the Goals that are set forth for the community:

### 1. HERITAGE

*Protect the rural character and cultural heritage of the Township.*

If residential and commercial developments are to take place in a pattern that protects the rural character and cultural heritage of the Township, they should be built in compact communities. The utilities therefore, most especially waste water collection and water supply, should be planned to efficiently serve that development form, based upon the overall limitations on available capacity.

### 2. COMMERCE

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

This plan recommends that commercial developments take place in compact nodes. Utility services must be planned to support that Goal, and allocation of capacity must be strategically analyzed.

### 3. LINKAGES AND EDGES

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways and trails and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring*

*landscape which minimizes land use conflicts.*

The connection of centers, neighborhoods, and other destinations (e.g. schools, library, recreation areas, etc.) should recognize the importance of creating edges that distinguish agricultural lands from development areas. This approach dictates the need to develop in compact villages and nodes. Utility services must support the interdependence of these intentions.

#### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

All of the Goals relate to each other, and to the need for a wise plan for the provision of utility services. The Goal to ensure that investment in infrastructure supports a sustainable pattern of land uses relates directly to the efficient and supportive planning of these services.

#### **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

The Goal to encourage a sense of one community, as the Township currently consists of separate neighborhoods, is to be accomplished by the thoughtful planning of new communities and commercial areas, recreation and open spaces, and of road patterns and trails. Planning for the utility infrastructure must reinforce all of these actions. Consistent with the efforts to encourage a sense of community is the desire to discourage any semblance of isolated or "gated" neighborhoods and the cul-de-sac roads that are part of them.

### **C. WASTEWATER COLLECTION AND TREATMENT**

#### **1. BACKGROUND**

The Washington Township Municipal Utilities Authority (WTMUA) was created by Township Ordinance in 1971, pursuant to the provisions of the Municipal and County Utilities Authority Law of the State of New Jersey (N.J.S.A. 40:14B-1, et seq). The wastewater collection system that serves the Township is owned and operated by the WTMUA.

An agreement with Hamilton Township, for the provision of facilities for conveyance and treatment of wastewater from Washington Township, was executed on April 28, 1976. In accordance with the terms of that agreement, Washington Township is guaranteed a reserved capacity of 2.5 million gallons per day (mgd). The construction of the Washington

Township collection system commenced in 1977 and was funded through a grant of federal money provided under the Economic Development Act. Funding for construction of the Miry Run Interceptor and Metering Station was obtained through the United States Environmental Protection Agency. Operation of the system commenced in 1981.

The Sewer Service Area, as originally developed, was designed in conjunction with the aforesaid funding opportunities. It was largely a function of a need to address Township-wide on-site disposal system failures and thus, was more the result of actual engineering needs rather than land use planning factors.

A series of litigations were instituted against the Township in the late 1980's, as a result of the Township's failure to amend its Sewer Service Area. These litigations ultimately led to the formal amendment of the Area in 1991.

The current average daily flow for the Township is 0.9 mgd. The total committed capacity, which consists of existing flow and the capacity required to serve projects that have received Treatment Works Approval permits (but are not yet discharging), is 1.4 mgd.

The existing wastewater collection system is comprised of 7 pumping stations, 5.3 miles of large diameter interceptor gravity sewers, 5.8 miles of pressurized force mains, and 46.6 miles of small diameter gravity sewers.

Responsibility for wastewater management planning was transferred from the WTMUA to the Township in 1991, under the provisions of the New Jersey Administrative Code (NJAC), 7:15-5.9 and 5.13.

The current sewer service area was established under a Wastewater Management Plan amendment, dated March 22, 1991 and prepared by the Township. The New Jersey Department of Environmental Protection formally adopted this amendment on June 10, 1992. Several amendments have subsequently been adopted, which are summarized as follows:

- May 1994 - The Washington Greene development was added to the service area.
- May 1994 - Approval for servicing Lot 56 of Block 14 through the East Windsor Township MUA system was granted.
- February 1997 - Lots 2 and 3 of Block 21, which had been inadvertently omitted from the 1994 service area mapping, were reinstated.
- June 1997 - The Rubin Tract (a.k.a. Brookshire Estates) and several adjacent properties, Lots 39, 36, and 25 in Block 25.06 were added to the service area.
- December 1997 - The Sharon School was added to the service area.

The WTMUA prepared a Wastewater Facilities Plan (dated October 1994), which provided an analysis of the collection

system's capacity to convey projected wastewater flows from the service area. This study presented the following conclusions and recommendations:

- The total projected wastewater flow under a "build out" scenario of the service area is 2.748 mgd. assuming the site known as Block 20, Lot 14 on Perrineville Rd. (a.k.a "Hunter's Ridge") is converted to open space. Therefore, the potential build-out is slightly in excess of the 2 mgd. reserve capacity for the Township.
- All pumping stations would require upgrades in order to handle future flows. The capacities of two segments of the primary trunk sewers will increase under future peak flow conditions. These segments are the Assunpink Interceptor and the upstream end of the Miry Run Interceptor.

The Land Use Plan makes the recommendation that most subsequent residential development take place in Town Center and compact villages, which require sewers, and Clusters, which do not. There are six sites suggested for the locations of the villages; four of them are not within the Sewer Service Area (Robbinsville-Edinburgh Rd., Gordon Rd., the Village of Windsor, and Hankins Rd.). The two sites which are within the Area (Robbinsville-Allentown Rd. and Old York Rd.) do not yet have the sewer extended to those locations.

The Land Use Plan also recommends that the commercial developments along Route 130 take place in two development patterns: compact walkable nodes at key intersections (called Local Commercial, Historic Commercial, and Town Center Commercial), and more open and landscaped developments (called Boulevard Commercial) between the nodes. Although the locations recommended for the nodes lie within the Sewer Service Area, the actual sewer has not yet been extended to either of those locations.

The calculations for residential growth (see Land Use Plan, Development Projections, for details regarding that growth) not only include assumptions based on the Town Center and TDR's efforts to preserve farmland and open space, but also consider the implementation of the State Agricultural Protection Program as well as direct municipal purchases of development rights. Based on these calculations, the projected population growth is substantially less than the current population capacities featured in the two acre lot zoning regulations (e.g., about 600 d.u. proposed in this Plan, vs. about 1,100 d.u. currently possible with existing zoning).

A preliminary analysis of impacts of the proposed village sites on the wastewater collection system indicates the following:

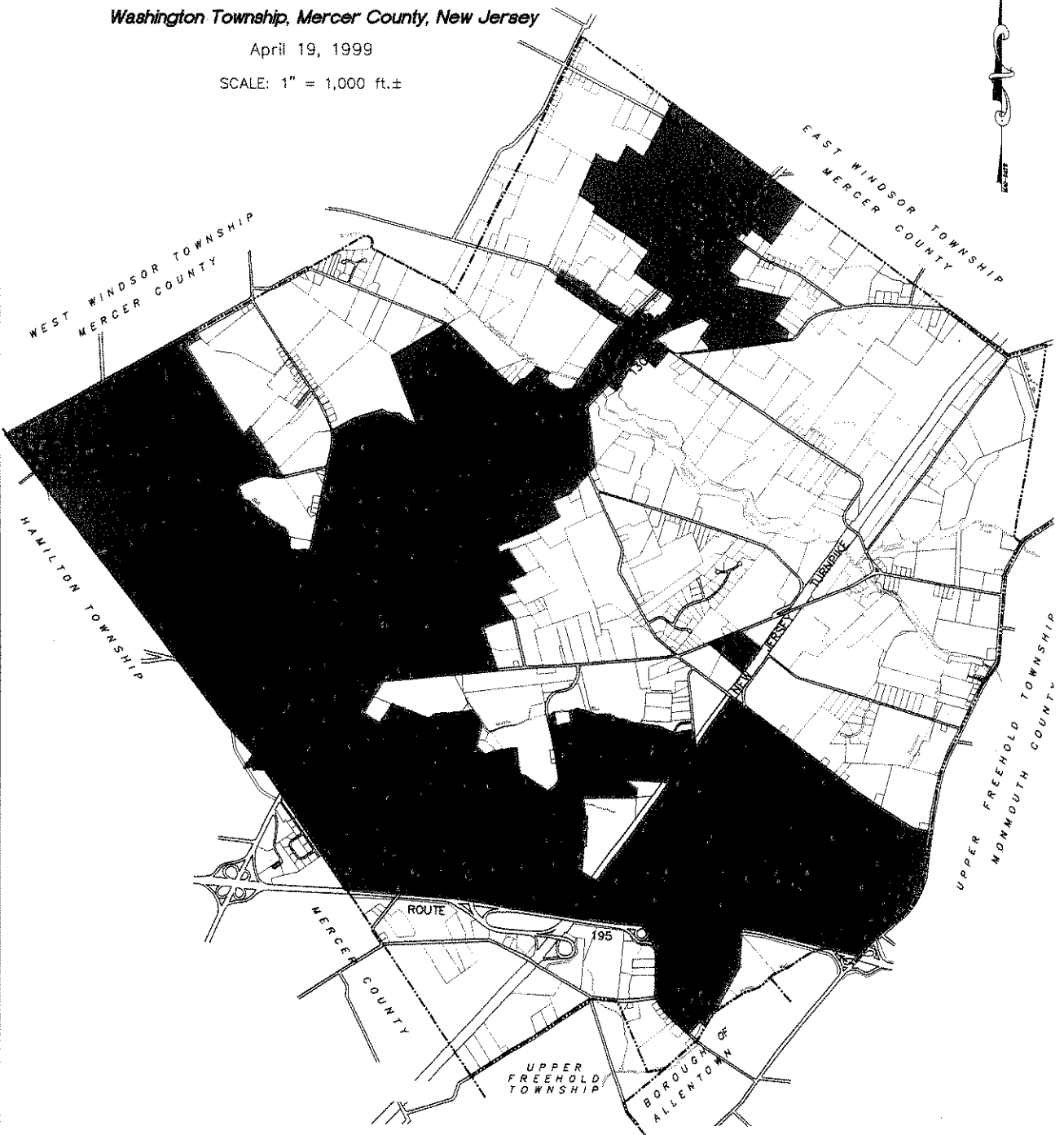
- The estimated additional wastewater flow generated by the village is roughly balanced by a reduction in estimated flows from the Route 130 corridor. The reduction in the projected Route 130 flows is the result of a detailed evaluation of the actual development potential of that area.

# SEWER SERVICE AREA

*Washington Township, Mercer County, New Jersey*

April 19, 1999

SCALE: 1" = 1,000 ft.±



- The villages do not significantly alter the conclusions presented in the Wastewater Facilities Plan, with regard to required system improvements (other than the possible addition of pump stations) to provide sufficient capacity to convey future flows.
- Based upon the Township's experience of actual and projected development in the PCD Zone, a reduction in projected flows will likely suggest the transfer of some anticipated flow to other areas of the Township.
- The Township, by the retirement of Block 20, Lot 14, (a.k.a. "Hunter's Ridge") on the east side of Route 130, residential development, has already netted previously anticipated capacity. The Hunter's Ridge sewer rights were purchased by the Washington Township Municipal Utilities Authority. This 15,600 gpd capacity is, therefore, under the control of the Authority and may be withheld or sold at the Authority's discretion.

## **2. RECOMMENDATIONS: SEWER SYSTEM FACILITIES**

Note that the analyses indicate the likeliness of the current mgd capacity to be sufficient for the build out, as recommended by the Land Use Plan. Therefore no expansion of capacity is anticipated at this time, but the following steps must be taken:

- The proposed locations of new villages will likely necessitate the construction of pumping stations to serve all but the Windsor and Gordon Road sites, and will require amendments to the 208 Waste Water Management Plan.
- Provision of service to the Gordon Road site (for both the proposed TDR village and the proposed mixed use commercial node at the Gordon Road intersection) will require jacking/boring of a gravity sewer main under Route 130.
- All work required to provide sewer service facilities for the villages should be planned on a case-by-case basis. The planning and approval process should therefore take place at the time of the development planning. It is necessary, however, that if there is any further expansion of sewer service (for other developments, for instance), such an effort should either provide for the future development of those villages or at least make that provision efficient and economical when the village development actually takes place.
- In the implementation of these recommendations, off-tract improvement fees for sewer system improvements should be assessed to the village and commercial node developers. Such improvements must be carefully planned and designed to accommodate that specific development, and to prohibit development in areas not designated for sewer service.



### **3. RECOMMENDATIONS: SEWER SERVICE AREA BOUNDARY**

In order to serve the recommended four residential villages which lie outside the Sewer Service Area, the boundary should be extended to each village at the time of its development. Clearly, early planning is required to get these changes approved by the Township, County, and DEP. Therefore, the first stages of planning and negotiation with any village developer must include the initial processes that are necessary to ensure that approval is received in time for the development to take place.

The purchase of Block 20, Lot 14 (Hunter's Ridge, along Perrineville Rd.) by the Township for open space preservation purposes, suggests a change in the Sewer Service Area plan. Therefore, an amendment to the Waste Water Management Plan should be prepared and should reflect the removal of this parcel from the Sewer Service Area.

### **4. BACKGROUND AND RECOMMENDATIONS: SEPTIC SYSTEMS**

Management of on-site wastewater disposal systems (septic systems) is accomplished at the design stage, by the Washington Township Board of Health. The regular duties and administration of the Township Health Code is also performed by Washington Township.

The Washington Township Land Use and Development Ordinance provides for individual on-site septic systems to be designed in accordance with the most restrictive requirements of the State Health Department (N.J.A.C. 7:9A).

Since the law only imposes minimum design standards, municipalities have the option of adopting more stringent on site disposal system design requirements. Neighboring West Windsor Township, for one, has adopted an ordinance with design criteria which exceeds the state mandated minimums. Another consequence is that the design of such systems typically requires the importation of significant amounts of fill material. This importation of fill significantly alters the natural topography of the land. The trucks delivering the fill also create related transportation problems, which impact road conditions and the overall quality of life in the Township.

There are no mandatory maintenance requirements for individual septic systems.

The soil conditions in the Township often include clay and water, so many septic systems are of the raised mound type. One consequence of this condition is that very few developments are being built using septic systems; most are built using sewers. Two significant conclusions that can be reached as a result of these factors are:

- Sewer service is needed to sell homes at this time.

- The TDR villages, which will have sewer service, could be far more attractive in the market place than houses on larger lands which generally have raised mound septic systems.

The following recommendations are based on current conditions:

- Enact a more stringent ordinance in Washington Township regulating the design of on-site systems (West Windsor's ordinance may be such a model).
- Explore the implications and design techniques for community septic systems, in relation to certain types of cluster development.
- Pursue the recommendation that residential developments take place primarily in compact villages, with sewer service.

## ***D. SOLID WASTE MANAGEMENT***

### **1. BACKGROUND**

Matters relating to solid waste management are referred to the Mercer County Solid Waste Management Plan. Hence, the Township's Master Plan is not required to address this issue. The County's Solid Waste Management Plan focuses its waste disposal planning efforts around the operation of a resource recovery/incineration facility that is supplemented by an aggressive waste recycling effort. Washington Township should continue to actively participate in this process. Glass, cans, and paper are recycled in the Township under a separate contract with the County. Leaf composting is generally done by individual landowners, since there is no public leaf composting in the Township. The Township does pick up leaves, and usually has farmers take them for composting.

### **2. RECOMMENDATIONS**

In addition to the efforts of State and County agencies to address solid waste management issues, Washington Township should undertake these actions:

- Support compliance with all applicable solid waste collection, handling, and disposal requirements of the State and the County.
- Encourage the recovery of recyclable materials from solid waste by promoting recycling.

## ***E. WATER SUPPLY***

### **1. BACKGROUND**

A portion of Washington Township's 20.7 square mile area still relies upon private on-site wells to meet domestic, agricultural, and industrial water supply needs. The balance of the Township

is served with potable water supplied through the facilities of the Consumers' New Jersey Water Company.

Applications for new wells are still being made, at the rate of about twelve per year, with half of them being replacement wells. The shallow well (formerly the most common, since it was the least expensive) is defined as one that is hand dug. Such wells are no longer permitted, but some that pre-dated the current regulations still remain. Many of these wells are drying up. The minimum drilled well depth is 50', but most are 70' - 200' deep.

Water supplied by the Water Company comes to the Township through a number of mains, and includes some pump stations. Mains exist, for instance, along the full length of Route 130, along part of Route 526, and along Line Road, Robbinsville-Edinburg Road, and Sharon Road. The line on Route 526 extends to Allentown.

In general, the Water Company extends its service where it is needed. It is important to note, however, that they are prevented by regulation from extending their service into anticipated growth and development areas. They can only provide mains to those areas that are being developed at the time of the main extension. Thus, the provision of service is limited in its ability to respond to the size, needs, and nature of ongoing planning and development.

In this Master Plan, the recommendations of the Land Use Plan for the building of compact TDR villages and for the development of commercial nodes along Route 130, will require planning of various extensions of the water system for those development areas. Additionally, the Town Center planning process has included planning for the water system; a preliminary layout has been completed in cooperation with the Township and the developer.

## **2. RECOMMENDATIONS**

The most significant recommendation for providing water service via the Water Company, is that its administrators be included in the early discussions of planning for each development that requires extension of the system.

The issues that can be addressed by early planning include, for instance, determining if a main required for one development should be larger or smaller, depending on the projected use of other land in the vicinity. In a normal situation, a developer will only want to pay for the (minimum) service needed for that development, which could add considerable expense to another development that would have to bring in its own main from a great distance. Wise and early planning will in the long run provide a more efficient and less costly system (to both install and to maintain). A system for the allocation of costs for school improvements could be established by ordinance, if necessary.

This recommendation for water service supports the recom-

recommendations of this Master Plan, since this Plan deals with a possible full build-out of the Township, and with a specific pattern for that build-out. This will enable the Water Company, the Township, and the developers to better predict the water service needs, and therefore, to plan ahead for an intelligent and efficient overall system.

Another recommendation regarding wells is the necessity to establish requirements for their testing. The testing, which is to be performed by the owners will be certified by the Township's Board of Health. The risk of contamination by septic systems in Washington Township, due to the various soil conditions makes this necessary.

## ***F. STORMWATER MANAGEMENT***

### **1. BACKGROUND AND RECOMMENDATIONS**

The provision and maintenance of stormwater management facilities within the Township should continue to receive high priority. The addition of compact developments (Town Center, the TDR villages, and the commercial nodes on Route 130) will require careful thought concerning stormwater systems, but should not add any more capacity needs (the Town Center stormwater system has preliminarily been planned).

Other recommendations remain the same since the completion of the 1990 Plan:

- Continue to ensure that stormwater management requirements are properly addressed in all future development proposals.
- To the degree feasible, rely upon new development proposals (e.g., the villages) to install off-site drainage system improvements and stormwater conveyance facilities.
- Evaluate opportunities to preserve drainageways for stormwater management purposes, while meeting open space and environmental protection objectives.
- Evaluate the feasibility of establishing stormwater management facilities to serve several developments within discrete drainage sub-basins, rather than strictly within individual developments.

# X. COMMUNITY FACILITIES PLAN

## A. INTRODUCTION

**T**he Community Facilities Plan element of the Master Plan addresses the governmental services and related public facilities necessary to meet the safety, health, educational, and general welfare for present and future Township residents. The following is an analysis of public schools, governmental facilities, library, and police, first aid rescue squad facilities within Washington Township. In addition, recommendations are made for improvements in certain areas.

## B. GOALS AND OBJECTIVES

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan elements. They are described in detail in Chapter II of this Master Plan:

### 1. HERITAGE

*Protect the rural character and cultural heritage of the Township.*

The Township's public schools, governmental facilities, Police and Fire Stations, and Library house the community's civic institutions. These facilities are designed to fulfill both their functional and symbolic roles. Therefore future buildings and expansions should be designed and sited to support the rural character and cultural heritage of Washington Township. Building groupings, especially government facilities, should be part of a larger, compact, mixed use development set within the landscape of fields and forest.

### 2. COMMERCE

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

The efficiency of locating commercial and mixed-use developments in groupings that are compact ("nodes") is reflected in many ways. One clear example regarding community facilities is that the provision of police and fire services should be more easily provided when buildings and uses are closer and more easily reached. Another example is the reduced requirement for the maintenance of the roadways, since compact developments can permit walking and reduce driving. The consequences of compact developments are therefore far reaching, beyond the basic goals of preserving the rural nature of the Township and of creating a sense of community.

### **3. LINKAGES AND EDGES**

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

The Municipal Complex, site of The Township's governmental facilities and Police Station, the Senior Center, Municipal Park, and the Library, occupies a very visible and accessible location along Route 130, and about 800 feet from the heart of the planned Town Center. It should become an important hub in the Township's network of roadways, trails and gateways.

Windsor School, Pond Road School and Sharon School are important destinations, which should also be linked by bicycle and walking trails to the various neighborhoods.

### **4. INFRASTRUCTURE AND SUSTAINABILITY**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

The Township continues to plan Community Facilities so that investment in infrastructure supports a sustainable pattern of land uses, and which builds on past public investment in roads, schools, utilities and public open space.

### **5. COMMUNITY**

*Encourage a sense of "one community" throughout the Township, where all the separate areas and neighborhoods feel connected to the Township, and where the designs of individual homes, businesses, and shops promote their connections to each other and to their adjacent neighborhoods.*

The Township's public schools, governmental facilities, Police and Fire Stations, and its Library should communicate a sense of a single community. Community facilities are the focus of civic life where residents from all the separate areas and neighborhoods feel connected to the Township.

## **C. MUNICIPAL FACILITIES AND SERVICES**

### **1. ADMINISTRATION AND GOVERNMENT**

The Washington Township municipal administration is currently housed within the Washington Township Municipal Building, located on Route 130 in Robbinsville. The building was renovated in 1997 and contains 10,100 square feet on two levels. The Municipal Building includes offices of the Township Administrator, the Municipal Clerk, the Finance Department, the

Tax Assessor and Tax Collector, the Recreation Division, the Construction Code Official and Inspectors, the Health Officer, the Social Services Division, the Planning and Zoning Division, and the Municipal Court.

Recent increases in population, new construction, and concurrent resulting increases in the demand for government services, have led to several interim measures to accommodate the additional staff, and space requirements within the Washington Township Municipal Building. Most recently the Township has acquired ten acres directly adjacent to the existing complex. Included in the acquisition is a +/- 1,800 square foot residence, which is proposed to be renovated for use as additional administrative office space.

The Township implements certain municipal services including legal, architectural, and planning as consultants, and engineering by contract. Animal Control and Health Services are provided by inter-local service agreement with West Windsor Township, by inter-local service agreement. These measures have enabled the municipality to continue to provide these services and then meet its diverse responsibilities.

The various administrative Departments and Divisions of the Township have these employees and facilities (and needs, where suggested), as of September, 2000:

- The Department of Administration has 2.5 employees. There is one Municipal Clerk.
- The Department of Finance has 3 employees. In addition, within that Department the Divisions of Tax Assessment (1.5) and Revenue Administration (1.5) have 3 employees. The present space deficit of 800 sf will be exacerbated as equipment needs are met and archival/storage requirements increase. Ultimately, off-site storage for records and correspondence will be necessary.
- The Division of Inspection has 7 inspectors and one clerk.
- The Division of Planning and Zoning currently has 3.5 employees (including one full time clerk and one half time clerk).
- The Division of Recreation has 1.5 employees.
- The Division of Public Works has 11 employees (10 full time, and two part time).
- There are 5 Dispatchers for "911," who serve the Police, Fire, and Emergency Services.
- The Municipal Court has 3.5 employees (including one part time judge). There is also one part time Public Defender, and four part time Community Services employees.

The site does not currently provide adequate parking on court days and meeting nights. An additional 25 to 40 spaces are required. As staffing needs grow the Township should anticipate several more employees by 2006.

The need for an addition to the Municipal Building, or the relocation of one or more departments, is currently being evaluated by the Township.

## **2. POLICE SERVICES**

The Washington Township Police Department consists of 23 uniformed police officers including the Police Chief and three Lieutenants. The Police Department also includes one Special Police Officer, one civilian secretary, and a crossing guard.

Since 1990 the Department has occupied the present 6,600 square foot facility. The Department maintains thirteen patrol cars (including three unmarked cars), one motorcycle, and one bicycle. Twenty-four-hour patrol services are provided throughout the Township.

In addition to routine police services, the Department provides several educational crime prevention programs, which include lectures in local schools on subjects such as narcotics abuse and pedestrian and bicycle safety; participation in the "D.A.R.E." program takes place with fifth grade students. The Department provides lectures and demonstrations on safety and self-protection to various community groups. The Department also works with the Neighborhood Crime Watch Program, which reports suspicious persons or activities within the Township along with operating a voluntary fingerprint program for children.

There are a variety of measures to determine a community's police needs. For example, one measure is based upon a generally accepted standard of 2.0 officers per 1,000 population. Washington Township's Police Department currently meets this minimum standard.

Recent discussions have been held with the Township administration, regarding the expansion of the Police building to accommodate the Municipal Court, which is currently located within the Municipal Building. This move could offer an opportunity for an expansion of the Police Department, if the need arises for additional space for those other municipal government functions, and if a growing Department needs more space for its operations.

## **3. FIRE PROTECTION**

The Washington Township Fire Department (which consists of the Washington Township Fire District and the Washington Township Volunteer Fire Company) is located on NJ Route 130 in Robbinsville. The Fire District operates as an independent taxable district and purchases the equipment. The Volunteer Fire Company owns the property and the building, which is a 30,500 square foot four-bay facility, and which they lease to the Fire District. A 1999 renovation converted the former fire hall into an additional bay, a training area and offices. This facility houses an 3,000 gallon tanker truck with a 1000 gallon pump; two 1,000 gallon pumper trucks, a 1500 gallon pumper (ac-



quired in 1996), and a utility truck.

The Fire Department now includes 12 paid fire fighters, with three on duty at all times. There are now 8 - 10 active volunteers, which is a significant decrease from recent years. This apparently is a national trend, where potential volunteers now work out of town, or have two jobs, and are not available for duty.

The fire officials are responsible for fire inspections of buildings within Washington Township and for the Township fire prevention program. As of June 2, 1999 the Fire Department, by the training of the fire fighters, provides some Emergency Medical Services (EMS); the Township does not, however, have its own first aid squad to provide complete emergency services. The volunteer squads from Allentown and Hightstown provide these services (see 5. Emergency Services, below).

During the period 1996 to September 2000, the Fire Department responded to a total of 1176 fire emergency calls, as follows:

1996 .....	330	
1997 .....	261	
1998 .....	289	
1999.....	438	(Most of the considerable increase over previous years was caused by the addition of EMS calls as a new service.)
2000.....	500	(Approximate number through September 2000; this number includes about 200 EMS calls.)

The Washington Township Fire Department is part of a second alarm mutual aid network which includes the following fire companies within municipalities contiguous to Washington Township:

- Nottingham and Groveville ( Hamilton Township)
- Allentown Fire Company
- East Windsor Fire Companies 1 and 2
- West Windsor Fire Company
- Hightstown Fire Company

It should be noted that the recent improvements to the current facility utilized the space of the former fire hall. Since the fire hall was a big room that was often used for various types of public functions, the renovation that created additional facilities for the Fire Department also eliminated an important community gathering place.

#### **4. PUBLIC WORKS**

The Washington Township Department of Public Works (DPW) operates from a facility located on Main Street in the Village of

Windsor. DPW facilities include the Municipal Garage, storage yard for Road Department and WTMUA maintenance equipment.

DPW staff provides maintenance for Township-owned buildings, local streets, Township Parks and storm sewers.

Though the .93 acre site has accommodated the necessary office, yard and shop activities for some time, planned expansion of services related to the increased residential development and population in the Township will require additional equipment and staff. Expansion opportunities at the present site are limited because of the presence of wetlands in and around the site. Relocation of the DPW to a site adjacent to the Township Municipal Complex is currently under consideration. This would support the Township's objective to preserve the rural character of the historic village of Windsor and should provide the Department of Public Works a site with adequate size and convenient roadway access.

## **5. EMERGENCY SERVICES**

Washington Township presently does not operate a rescue squad. The Township utilizes the volunteer rescue squad services of the Boroughs of Hightstown and Allentown. The Allentown Rescue Squad currently handles about 80-85 percent of first aid calls within Washington Township.

Both the Allentown and Hightstown First Aid Squads have indicated that the squads continue to experience financial difficulties and challenges in recruiting volunteer staff. Both squads receive financing in part through funds from Washington Township and other municipalities served by the squads. However, both are also heavily dependent upon local fundraising activities.

Projected population growth in the Township, the fact that the Allentown and Hightstown First Aid Squads report continued financial difficulties, and problems in recruiting volunteer staff warrant consideration of the following proposals:

- Encourage participation for Township residents in the operation of the rescue squads.
- Assess future emergency services needs in the Township, and consider various alternatives that could include inter-local agreements.

## **6. PUBLIC LIBRARY**

The Washington Township Branch Library of the Mercer County Library System is located on Robbinsville-Allentown Road adjacent to the Municipal Complex. The Mercer County Library system is composed of nine branch libraries serving the communities of East Windsor, Ewing, Hightstown, Hopewell Township, Lawrence, Twin Rivers, Washington, and West Windsor,

The Washington Township Branch Library is open (as of Janu-

ary 2001) Monday-Thursday 9:30 am to 9:00 PM, Friday 9:30 am to 5:30 PM, and Saturday 10:00 to 1:00 PM. The library is currently staffed by a full time branch manager, a reference librarian, and a youth services librarian, three full-time assistants, two part-time assistants, a library page, and a student shelver.

As examples of the library's ongoing services, it currently provides a summer reading program, storytimes designed for pre-school children ages 3 1/2 to 5, toddler storytimes for children ages 2 to 3, monthly arts and craft programs for children 6 to 12, an adult basic literacy program, basic Internet training for adults, and an adult basic literacy program.

## **7. SENIOR CENTER**

In 1991 the Township completed the Senior Center, located adjacent to the Library within the Municipal Complex, to meet the needs of senior citizens as well as the entire community. The 4,000 square foot building houses various social and cultural activities designated for senior citizens, such as a nutritional program, health counseling, and other programs.

There is a Facilities Needs Assessment currently being performed by an architectural consulting firm to determine if expansion is required.

## **8. MUNICIPAL UTILITY AUTHORITY**

The Washington Township Municipal Utility Authority (MUA) employs two full time employees and a part time staff. The Township MUA maintains one truck and one plow. The Authority presently rents spaces, but is considering relocation to a site adjacent to the Municipal Complex. This site is being reviewed for the possible location of the Public Works Department.

## **9. SCHOOL FACILITIES**

Long Range Facilities Plan:

(Note: the 2000-2001 enrollments were determined in October 2000)

Analysis of public school enrollments between the years 1994-1995 and 1999-2000 indicates the enrollment in grades K-8 experienced an increase of 526 students, or 90%, over this period. Enrollment in grades K-4 increased by 265 students while those in grades 5-8 increased by 261. The K-8 enrollment in Washington Township for the school year 1999-2000 was 1,112 students; in 200-2001 it was 1,215.

The students in grades 9-12 attend Lawrence High School. The total enrollment of Washington Township students in those grades, in 2000-2001, was 289. The total enrollment of all Washington Township public school students in that school year was therefore 1,504.

In the Long Range Facilities Plan, the standard district-wide enrollment projection was developed through the application of the cohort survival method. This method relies on historical enrollment data to compute the rate at which the number of students survives from one grade to the next. The projection was done under three conditions using ten, five, and three years of district enrollment data.

#### Public School Facilities Analysis:

(This information was developed in school year 1999-2000.)

The Sharon School, built in 1958 and expanded in 1961, 1965, and 1991, contains 47,640 square feet and is located on a 20.2 acre tract. The Sharon School contains 29 classrooms, 1 all-purpose room, 1 media center, and 1 speech room. An addition is under construction that will add 12 classrooms, a media center, computer lab, and gymnasium. This addition will be completed by January, 2001.

The Windsor School is a three story 3,129 square foot building on a 2.3 acre lot located within the village of Windsor. The building, constructed in 1909, was renovated in 1968 to contain the Board of Education offices and vocational education classrooms. In 1997, the Board of Education relocated its offices to Pond Road Middle School. Windsor School was then renovated to accommodate three Kindergarten classrooms and a lunchroom.

The Pond Road Middle School was completed in 1997. The school presently contains 26 classrooms, 2 computer labs, 1 technology lab, 1 art room, 1 music room, a media center, a gymnasium, and a cafeteria. In 1999, alterations were made to the administration area of the building that resulted in the addition of 5 classrooms and 2 small group areas.

#### Considerations for the Future:

Washington Township's 9th, 10th, 11th, and 12th graders attend Lawrence Township High School by inter-municipal agreement. The current agreement expires in 2005. The Board of Education is in the process of evaluating all of the alternatives for high school placement beyond the year 2005. If a high school is necessary, the location should be in the areas of greatest population, near good roadway access, and near the recommended trail system.

The Washington Township Board of Education is responsible for planning all public school related facilities. The Educational Facilities Master Plan prepared for the Board in 1995 is to be revised by the fall of 2000 to provide for a current projection of district needs over the coming five years.

# XI. HOUSING PLAN / FAIR SHARE PLAN

## A. INTRODUCTION

**N**

ew Jersey Courts have determined that the State Constitution dictates that all municipalities in the State plan and zone with the intent, in part, to provide a realistic opportunity for individuals within a geographic region who are classified as being of low and moderate income to have affordable housing opportunities. In furtherance of that goal, the legislature has created The Council on Affordable Housing (hereafter referred to as COAH), an agency responsible for identifying needs, and overseeing the implementation of that Constitutional mandate.

Washington Township has been a voluntary participant in the affordable housing process since COAH's inception in the early 1980's and has previously submitted and obtained Substantive Certification for its housing plans from COAH in 1988, and again in 1997.

Pursuant to the most recent Substantive Certification, the Township's obligation of 305 low and moderate housing has largely been met through the creation of new housing stock, the rehabilitation of existing housing, the provision of group home opportunities, and the transfer of housing through the Regional Contribution Agreement. Approximately 28 units still need to be obtained through the RCA, and 10 rehabilitation units remain outstanding.

The Substantive Certification determinants of COAH were principally based upon Master Plan Amendment #4, Housing Element and Fair Share Plan, prepared February 21, 1995 by Town Plan Associates. The empirical data contained in that volume, (except where inconsistent with similar data contained elsewhere in this document) remains the basis for the Township's continuing certification and approach toward future planning of its affordable housing needs or obligations, as may be determined. The Township has essentially used the base data that was relied upon at the time of obtaining its most recent COAH Certification in 1997.

## B. GOALS AND OBJECTIVES

Washington Township has defined five broad goals that are the foundation and framework for each of the Master Plan Elements. Each of the planning Goals is supported by a number of action-oriented Objectives. To the extent practical, the Housing Plan attempts to refer to those Goals and Objectives, and to document how the recommendations listed here will support them.

### 1. HERITAGE

*Protect the rural character, the rural way of life, and the cultural heritage of the Township.*

The Township's existing housing stock traces back to when the area consisted of an agrarian-based community. A number of farmsteads still exist in the Township, although many have fallen victim to prolonged neglect and the development of their companion agricultural lands. More concentrated examples of housing from the agricultural era of Washington Township can be found in the historic villages of Windsor and Robbinsville, which functioned as the necessary economic centers for the community.

COAH employs a formula, based upon multiple components, in assessing needs and determining compliance for the purpose of issuance of a determination of Substantive Certification. The formula includes rental and rehabilitation components, as well as credits for pre-approved and provided housing through new construction or regional contributions actually made.

One of the key elements of the COAH program is the promotion of rehabilitation of existing housing stock. The Township has previously participated in programs and efforts to improve houses which qualify for rehabilitation assistance. To date, the rehabilitation efforts have been largely directed to the two village areas, along with properties in and near Route 130, since those areas represent the oldest concentrations of housing in the Township.

Although the criteria for rehabilitation assistance and COAH qualification as eligible housing units does not in any way reflect the age or significance of a structure, efforts consistent with the goal of providing affordable housing are intended to continue to encourage the use of rehabilitation programs. Wherever possible, external funding sources should be utilized to maintain and extend the viable life of structures which reflect housing types from the past, and to promote the coordination of rehabilitation projects with other programs intended to preserve or enhance historic preservation. Additionally, a revolving fund program is intended to support incentives to property owners through funding opportunities which encourage aesthetic as well as functional improvements to properties which qualify for rehabilitation credit.

## **2. COMMERCE:**

*Encourage office and retail uses to locate in a pattern of compact nodes in the Township.*

The primary correlation between the provision of affordable housing and commercial development is that, to the extent that construction of additional affordable housing is contemplated at some future time, it should be planned in a manner so as to be reasonably convenient to commercial and work-related opportunities consistent with the underlying principles articulated in the original Mount Laurel opinion of the New Jersey Supreme Court. The holding in that decision was intended to attempt to relocate housing opportunities for low and moderate

income residents of the state, closer to the relocated job markets.

### **3. LINKAGES & EDGES:**

*Connect centers, neighborhoods and other destinations. Improve the quality and legibility of the Township's network of roadways, trails, and gateways. Create appropriate edges, barriers and buffers to distinguish agricultural lands from developing areas, creating an enduring landscape which minimizes land use conflicts.*

As more fully articulated in the Circulation Park and Recreation Facilities and Community Facilities Plans, emphasis is placed throughout this Master Plan on the need to provide pedestrian and bicycle accessibility to services, facilities, retail and commercial centers, public recreation, and open spaces. Consistent with the historical treatment of affordable housing units, however, the future construction of any such housing should be integrated into its surrounding environment. This housing should be located in a manner to take fullest advantage of those amenities which benefit the environs within which such housing is located. The Township's goal has been to assimilate the affordable housing units into market rate developments.

### **4. INFRASTRUCTURE AND SUSTAINABILITY":**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

The Township has provided a significant amount of mixed (i.e., affordable and market) housing since the establishment of COAH and, while recognizing that there is a possibility that in the future there may be a need or desire to provide additional affordable housing opportunities, the provision of funds for housing revitalization in designated urban centers has proven to be a program of benefit to both the Township and its receiving center, Trenton. The notion of future contributions as needed helps to promote the sustainability of the program in the Township by allowing an appropriate balance of affordable and market rate housing opportunities to continue to coexist. Experience has taught that, in planning the integration of affordable and market rate housing, it is imperative that an appropriate economic balance is reached.

### **5. COMMUNITY:**

*Ensure that investment in infrastructure supports a sustainable pattern of land uses which builds on past public investment in roads, schools, utilities and public open space.*

As one of the unifying goals of this Master Plan, steps to create the senses of one community in all aspects of Township life is

an important component of the Housing Plan. The Township has made great efforts to insure that its existing affordable housing stock is fully integrated into the areas in which has been planned and built. Location of units, architectural devices, and the desire to prevent the units from being constructed in any way which would easily distinguish them from their surroundings have been incorporated into subdivision plans which include affordable housing units. The sole exception has been Project Freedom, a unique housing opportunity for severely handicapped adults which requires its own distinctive setting and living environment, although it is not isolated from the Township community at large.

### **C. NEW CONSTRUCTION COMPONENT**

Pursuant to the Township's COAH-approved Housing Plan, Washington Township has planned for and, in large part, developed a total of 289 units of low and moderate income housing. Of those units 184 have already been constructed as affordable housing and received Certificates of Occupancy.

The construction of affordable housing has taken place in the Foxmoor development. The timing of construction of those units has occurred over a period of 15 years, with the last units of new housing presently being under construction.

Included within that element is the Project Freedom complex consisting of a total of 35 units. Those units are income restricted as well as being restricted to qualified families which include a severely physically handicapped member. The units are located within two areas, one being the principal Project Freedom development of 30 apartments. The remaining five housing units are contained in a refurbished and redesigned residential building which abuts the principal Project Freedom site. The Township received a "bonus" for these rental units.

At the present time, the Township has not specifically planned for additional income restricted housing construction, believing that the 231 units, already approved and largely built, satisfy the Township's need for integrated housing within its boundaries.

In order to achieve its original new construction obligation, the Township granted density bonuses to the developers of the sites consistent with guidelines established by COAH. As a result of these density bonuses, the Township absorbed additional market units which are reflected in areas of the Foxmoor project, within which the affordable units are located.

Although not directly planned at this time, the Township is considering the additional construction of affordable units within the confines of the Town Center, which may occur within the range of housing types and densities are provided. While the Master Plan does not specifically require rental housing as a component of any zone district, the opportunity for apart-



ments or similar housing types is available within the Town Center. Should any of those types of development occur and should the developer propose to include income restricted housing within its project, the Township is eligible to receive an equivalent of 1.5 credits for each additional income-restricted unit actually built.

Additionally, if required, affordable units could conceivably be located within Village planning areas, in conjunction with the Transfer of Development Right options as established in the Land Use Plan, provided the total saturation does not exceed the viable limits of development in those areas.

Consistent with the above, the Township has allowed for Senior Citizen Housing which is not limited to a single zoning district. Within such a housing option, affordable housing units could be considered, provided once again that the total development does not exceed acceptable levels of development and thus does not adversely impact other elements of the plan.

## ***D. HOUSING REHABILITATION***

COAH places significant emphasis on the rehabilitation of existing housing stock and to that end the Township has endeavored to meet its rehabilitation component of its 1995 Housing Element, which presently provides for 10 rehabilitation units. Credit was also received for 7 previously rehabilitated units.

The primary method of housing rehabilitation has been through the provision of low cost "loans" to homeowners who meet the income eligibility requirements and own properties which qualify for the assistance based upon their habitability pursuant to program standards.

The Township has participated in the Mercer County Housing Assistance Program through a small cities grant in funding the financing of these rehabilitations. A new fully funded Township program is in the process of being established. Loans are essentially provided to participating property owners; these loans are due upon the transfer of ownership of the properties, at which time the principal and accrued interest are recouped and returned to the fund pool. Specific terms of such a program have yet to be codified, which will include repayment provisions based upon terms of ownership of the properties eligible.

Although Township officials regularly conduct inventories of properties which appear to qualify based upon their exterior appearance, the rehabilitation program requires voluntary cooperation by the property owner. This element has limited the Township's efforts to enroll properties in the program. Additionally, in the past, the eligible owners were limited to sections of the Township which were specified in the grant program. The rehabilitation assistance no longer is limited to

geographic sections of the Township and is not, however, limited solely to exterior property maintenance. Funds are available to interested parties for other building code-related improvements such as heating, plumbing, and similar internal improvements which effect the continued habitability of those properties.

Housing rehabilitation is a goal of the Master Plan particularly in conjunction with the Historic Preservation Plan, as a means of preserving the heritage of the Township. Target areas will continue to be the Villages of Windsor and Robbinsville as well as outlying dwellings which were historically used in conjunction with the Township's agrarian enterprise.

The Township has attempted, and will continue to attempt, to attract new participants in its rehabilitation efforts through a marketing plan geared to the target areas, by providing information of the availability of funds for these purposes.

## **E. GROUP HOMES**

Several group residential homes have already been established within the Township, pursuant to State regulations establishing guidelines for the licensing of such operations. Future group home proposals for the Township should participate in any companion programs sponsored and licensed by the State, which involve income restrictions that will qualify for housing credits pursuant to COAH guidelines. The planning and location of such facilities largely falls outside the jurisdiction of the Township although interested sponsors will be encouraged to consider locations which are consistent with the overall goals, objectives, and intent of the Master Plan.

## **F. REGIONAL CONTRIBUTION AGREEMENTS**

A significant element in the Township's approved housing plan is a Regional Contribution Agreement (RCA) with the City of Trenton. Such agreements had previously been approved by COAH as a means of satisfying required housing obligations of municipalities determined to be required to provide housing opportunities by the "transfer" of those obligations to pre-approved cities determined to be in need of housing rehabilitation assistance. The Washington Township agreement provided for the transfer of 28 units of housing obligation to the City of Trenton at a total cost of \$560,000.00. Of the 28 units, 25 were deemed to be designated to satisfy the Township's rental obligation pursuant to its Certification.

The RCA provided for a payment of \$20,000.00 per unit by the Township to the City of Trenton based upon a formula approved by COAH. The RCA requirements have been fully met by the Township by the payment of the required fees to Trenton. Both parties have considered the program a success in accomplishing their respective goals.

As a result of its experience with the existing RCA and its goals as articulated in this Master Plan, particularly regarding open space preservation, the Township would consider that future housing needs might be best addressed through the use of a similar agreement.

## **G. AFFORDABILITY ASSISTANCE PROGRAM**

The Township has, in conjunction with its new construction and affordable unit resale programs, provided in its spending plan for an affordability assistance program which, in essence, would make funds available on a low interest loan basis from a revolving fund. Eligible participants in the affordable housing program may seek to draw against this fund to assist in obtaining sufficient down payment supplements so as to make their principal mortgage payments more affordable. Guidelines as promulgated by the Township for the program would be developed and made available through the Housing Office, and made known to prospective purchasers of units who may qualify through the Township's marketing plan.

## **H. AFFORDABLE HOUSING TRUST FUND**

Consistent with approved COAH guidelines, the Township has created an Affordable Housing Fund, which was established by ordinance and which provides money for a number of enumerated affordable housing-related purposes. This fund is financed through contributions by developers of all commercial and residential properties within the Township which do not contain an integrated affordable housing component. The level of contribution is determined by a formula established by ordinance.

Essentially the formula provides that residential developers shall contribute one-half of one percent (0.5%) of the equalized assessed value of the development to the fund. In the case of nonresidential development, over one percent (1.0%) of the equalized assessed value for the development. Additional fees can be collected for special projects as agreed to by the developer and the Township.

Due to the growth of the Township since the adoption of the ordinance, the fund has helped finance the RCA, the affordability assistance program, the rehabilitation program, and the administration of the housing program itself.

As a result of the growth within the commercially zoned areas of the Township, the fund is expected to continue to grow in the foreseeable short term future. The Township has every intention of continuing the contribution requirement and as a result, based upon the planned development set forth in the within document, it is reasonable to assume that contributions to the

fund will continue in the long range future of the Township as well.

Consistent with the Township's desire to direct future affordable housing requirements to an RCA solution, it is anticipated that adequate funding will be available for that purpose as future needs arise. The fund, as established, provides for designated portions of the total available for use for the purposes set forth therein. As a result, the participation in future RCAs should not negatively impact the financial viability of the other programs which are supported by the fund.

## **XII. PLANNING RELATIONSHIPS**

### **A. INTRODUCTION**

**W**

ashington Township is bordered by four Townships (West Windsor, East Windsor, Upper Freehold, and Hamilton), and the borough of Allentown. Upper Freehold, on the east is both the largest and least populated. Hamilton, on the south, is experiencing considerable new growth, of which the development of "big box" retail could have the most significant impact on the character and development of Washington Township. West Windsor plans to preserve the farmlands that adjoin Washington Township at the west. East Windsor is permitting residential developments near the northern border of Washington Township, but Bear Brook and its wetlands stand as a buffer between the two Townships. As a result, the major force of the recommendations of this Master Plan, regarding the characteristics of its neighbors, focus on the growth and development taking place at the south, generally along the Route 130 corridor.

The State Development and Redevelopment Plan includes designations of three land development types in the Township, each of which is consistent with this Plan.

Details of the conditions in these various municipalities and governments are described here.

### **B. FIVE NEIGHBORING COMMUNITIES**

#### **1. WEST WINDSOR TOWNSHIP**

West Windsor has evolved in the last decade as a well-to-do suburban residential community that serves - among other areas - the Princeton region. A September 1999 article in the New York Times is an evidence of the evolving character of this growing community. It reports that the Township has strongly opposed drive-through fast food restaurants, since they are not perceived as appropriate to the quality of the wider community. The article reports that some in the Township think that West Windsor has taken over from Princeton as the best place to live in this area.

The focus of its growth has generally been about five miles west of Washington Township, in the central portions of the Township. In addition, West Windsor is connected to the Princeton region. A very high proportion of its development has been in the form of single family homes on relatively large lots, generally without sewer. One consequence of this pattern of residential development is that it has had some impact on Washington Township's roadway system.

A secondary consequence of this development pattern on Washington Township is that a large percentage of West Windsor's remaining open space and farmland is on or near its Washington Township border. Most of the West Windsor's

proposed areas for acquisition and preservation are along Line Road, and between Windsor and Hankins Roads, which are the western borders of Washington Township. In this area only two small subdivisions now exist in West Windsor, the zoning limits development to a maximum of one house per 3.3 acres, and every undeveloped parcel has been identified for public open space or farmland acquisition. There is no sewer service in the area.

This pattern is consistent with that proposed in this Master Plan for Washington Township, which suggests only two additional areas for TDR Residential Village receiving area along the same border, in addition to the existing Windswept subdivision. The balance of the lands (primarily farms) within Washington Township are therefore recommended for preservation.

## **2. EAST WINDSOR TOWNSHIP**

Although Hankins Road is a significant portion of the border with Washington Township, the nearby location of Bear Brook and its wetland watershed is a significant boundary between the patterns of development between the two Townships. The properties in East Windsor that adjoin Washington Township are zoned in a variety of residential types: single family detached on one acre lots, without sewers; single family detached on 30,000 sf lots, if sewer; single family detached on 20,000 sf lots, if sewer and if in clusters; town houses on 10,000 sf lots if sewer. In addition, some areas are zoned "RA" (Rural Agricultural), which permit farming, houses on five acre lots, and houses on 1.5 acre lots if clustered.

There is significant residential development taking place in East Windsor, with most new development occurring two miles north of Washington Township. In addition, some highway commercial is occurring on Route 130, but not adjacent to Washington Township.

Although there appears to be a trend towards residential large-lot development, the East Windsor developments are having less overall impact on Washington Township than those at the south, in Hamilton Township. The only noticeable impact has been the creation of some additional traffic on Washington Township's roadways.

## **3. UPPER FREEHOLD TOWNSHIP**

Upper Freehold has a total population of about 4,000, and has no "center." It is very large, at 47 square miles. The Township is still largely agricultural, with 5,000 acres of farmland now in the State Agricultural Preservation Program, which is one of the largest areas of any municipality in the state. For Washington Township, an important result of these conditions is that the development in Upper Freehold is very spread out, and is divided into two distinct areas. The eastern half is oriented towards Monmouth County and Freehold, while the western half is oriented towards Mercer County and Washington Town-

ship. According to Upper Freehold Township officials, this situation indicates that a large portion of the residents in this area of Upper Freehold (they estimate as many as 2,000 people) now tend to focus on Washington Township as the center of their community, and therefore to use its roads and facilities.

In the areas just east of Washington Township, along Old York Road, Upper Freehold recently changed the zoning from single family residential on one acre lots to two acre lots. This zoning designation now is used in most of the Township. However, several proposed subdivisions for one acre lots were "grandfathered", and are now taking place. One is being developed now along Old York Road, in the vicinity of Gordon Road. This development will have 96 homes.

In addition, a retirement community of 350 - 400 residences, plus an adjoining single family detached development of 85 homes, will be built shortly, near the Allentown border. About one half mile from Allentown. Another 100 house subdivision is also being built; this development will be only about 10 minutes from Robbinsville.

Upper Freehold, at this time, seems to be sufficiently separated from the major regional employment centers, to its east and west, that it is not the subject of as much growth pressure as, for instance, Hamilton and West Windsor Townships. Therefore, although some development is taking place adjacent to Washington Township, it is less likely to have as much of an impact as the Hamilton developments will on the patterns of traffic and development in Washington Township. The most significant impact appears to be the increased possibility of traffic on the Allentown-Robbinsville Road.

#### **4. BOROUGH OF ALLENTOWN**

Allentown is a compact historic community that is essentially fully developed. The only current development activities are variance applications for changes and additions to existing buildings. This condition exists in both the residential and downtown commercial neighborhoods.

Along the border with Washington Township there are three single family detached residential zoning areas: R40 (40' x 100' lots), R60 (60' x 100' lots), and R80 (80' x 100' lots). There are also some existing apartments in this area. Note that these lot sizes, and this mix of residential categories, is similar in many ways to that being developed in Town Center.

The result of these conditions is that Allentown will have less impact on Washington Township than Washington Township will have on Allentown. Any new developments along Allentown-Robbinsville Road will generate traffic that could have a negative impact on Allentown, if the destination of the traffic is in that direction. In addition, the existing entrance into Allentown along that road now appears quite open and rural, and

includes one historic group of farm buildings on the north side of the road, and a second old farmhouse on the south side. This is a condition that is appropriate to the historic character of Allentown as a compact community set into the rural landscape. Any development in Washington Township west of Allentown should therefore preserve the appearance of that rural entrance, and should be designed with a scale and character that is in keeping with that in Allentown. (See Ch II, Land Use Plan pages II-16 and 17, concerning possible development in this area of Washington Township.)

## **5. HAMILTON TOWNSHIP**

Hamilton Township has grown rapidly in the last decade, with that growth including large commercial areas as well as residential developments. There are six zoning districts that adjoin Washington Township, with no changes in those regulations anticipated:

- RD (Research and Development, which includes some light assembly manufacturing))
- REO-5 (Research, Engineering, and Office)
- R7 (Single Family Detached Residential on 7,000 sf lots)
- R10 (Single Family Detached Residential on 10,000 sf lots)
- R-15 (Single Family Detached Residential 15,000 sf).
- In addition, there is a Conservation area at the western corner of the Hamilton Township border, which is adjacent to a similar Conservation area in Washington Township.

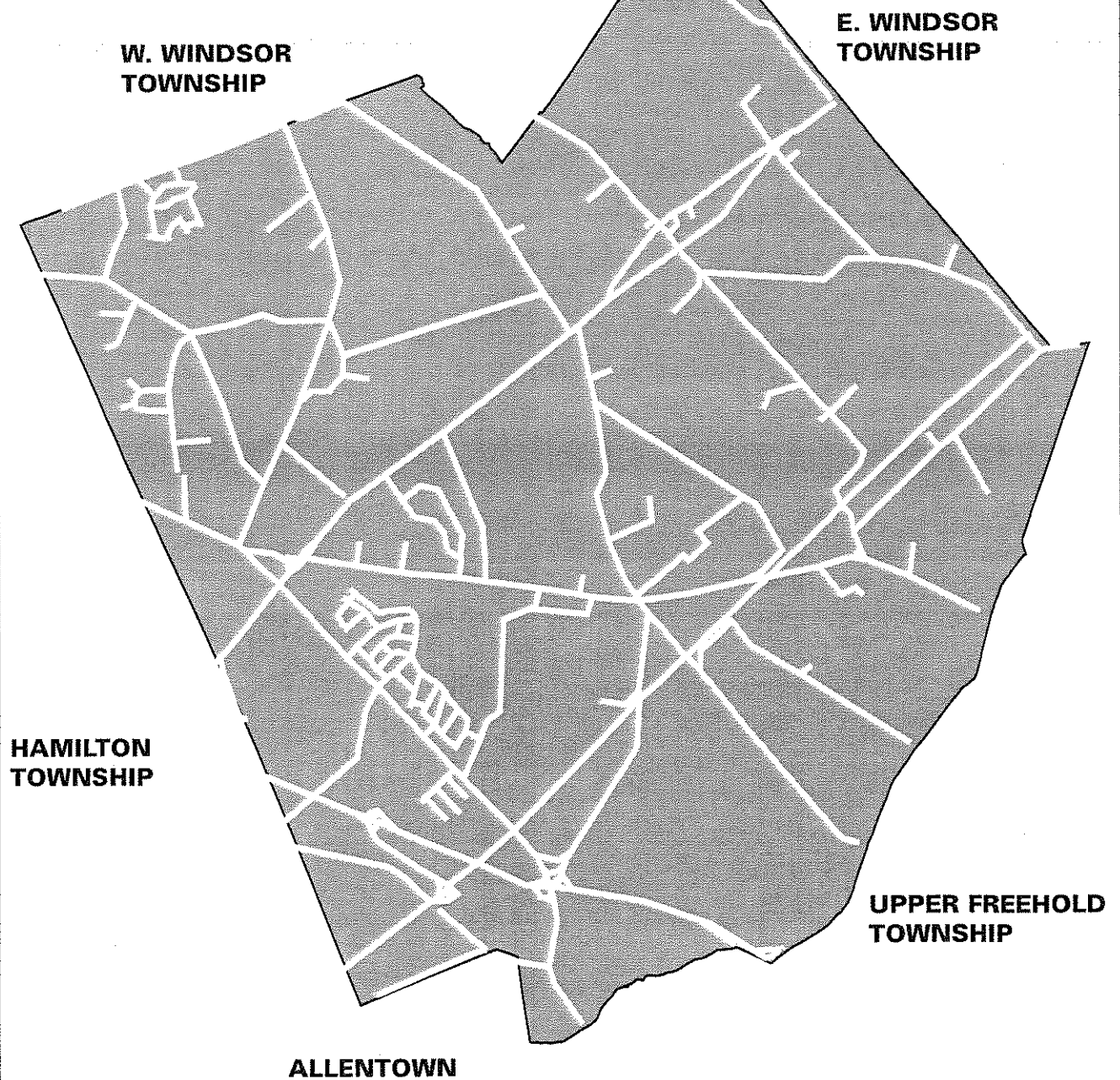
The RD, REO-5, and R7 districts adjoin the area in Washington Township where Town Center is being developed. Between the Town Center and Hamilton Township in this area is a planned southerly bypass and some wetlands areas - both of which are partially located in Hamilton. These two conditions form an appropriate buffer between the commercial areas of Hamilton and the residential neighborhoods of Town Center.

In an area that is further south along Route 130, Hamilton Township has approved a General Development Plan that includes 977,526 sf of "big-box" retail buildings, and a 56.9 acre site for office development. Specific retail tenants have not been determined, but a general mix has been discussed (e.g. super stores, large food markets, multiplex movie theaters, highway-related restaurants and fast food establishments, etc.).

This ongoing development presents some significant planning concerns for Washington Township along Route 130. These concerns are raised due to collateral conditions such as pressure for additional residential development, and the need to provide traffic relief along Route 130. Since Washington Township intends to preserve its farming and its historic rural character, and intends to create a community of place, all of the consequences of this type of large scale, spread out, yet in-



**MAP INDICATING THE LOCATIONS OF  
WASHINGTON TOWNSHIP'S NEIGHBORING  
COMMUNITIES**



tense, development must be discouraged from moving further north. (See Ch II, Land Use Plan pages II-27 to 32, for descriptions of recommended developments for Route 130 in the Township.)

This is an important issue. It is the most important consequence of all the developments taking place in any of the adjoining municipalities. All of the recommendations in the Washington Township Land Use Plan, in effect, address the issue. The pattern of commercial development on Route 130 in Washington Township is to be a combination of compact walkable, mixed-use, nodes and more open and landscaped developments, and the appearance of open lands between them that should maintain the rural appearance of the road.

The pattern of residential developments in Washington Township is to be in compact villages and clusters, which will also help to save much of the working farmland. It is essential that these steps be taken to prevent the spread of the sprawl type of development that is taking place so significantly in Hamilton Township.

## **C. STATE PLAN**

The State Development and Redevelopment Plan (SDRP) has mapped "Planning Areas" throughout the state, as guides to the patterns of future growth. That plan indicates that Washington Township includes three of those Planning Areas: PA2, PA4, and PA4B:

- PA2, called the "Suburban Planning Area," has lower intensity developments and tends to rely on automobile transportation. The recommendations in the SDRP include having additional development take place in compact centers, and in preserving open space and environmentally sensitive areas.
- PA4, called the "Rural Planning Area," calls for the protection of agriculture and related activities, and of other open spaces. It therefore recommends that new development take place in compact centers that are planned to support the agricultural areas around them.
- PA4B is a subarea of PA4, and is identified for the protection of especially sensitive environmental conditions.

Through the state's cross-acceptance process, the recommendations in this Land Use Plan are uniquely in compliance with these recommendations, especially since the boundaries of the various Planning Areas generally comply with the zoning and sewer service boundaries of the Township. For example:

- The already-approved Town Center is a new compact community that is being built in the PA2 Area. Open space green belts and protected environmental areas are being planned around and near the Town Center. The new development takes advan-

tage of existing automobile access and of the adjacent existing older community of Robbinsville.

- The recommendations of this Plan for the use of TDR's to preserve farms and create compact residential/mixed use communities are to occur within the State PA4 area. As a result, farms and other open spaces will be preserved.
- The Township has acquired some lands around the Assunpink Creek to protect the wetlands and forests there, and to create a trail and recreation area. This land is within the State PA4B area.

Based on these actions by Washington Township, it is clear that the principles and details of the State's Plan are being followed, especially the intention to create a "community of place."

