

Route 3, West Chester Pike

Land Use and Access Management Strategies

Delaware County, PA







Route 3, West Chester Pike Land Use and Access Management Strategies

Delaware County, PA



Delaware Valley Regional Planning Commission

190 North Independence Mall West, 8th Floor Philadelphia, Pennsylvania 19106-1520 215.592.1800 www.dvrpc.org Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery Counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determined and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.



Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of sources including federal grants form the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.

Contents

EXECUTIVE SUMM	ARY	1
CHAPTER 1 – INTR	ODUCTION	3
CHAPTER 2 – EXIS	TING CONDITIONS	9
L	Land Use and Development Patterns	11
1	Population	34
L	Employment and Economic Resources	40
1	Housing	42
1	Natural Resources	45
(Cultural and Historic Resources	57
(Community Facilities and Infrastructure	67
(Circulation	75
CHAPTER 1 – INTRODUCTION CHAPTER 2 – EXISTING CONDITIONS Land Use and Development Patterns Population Employment and Economic Resources Housing Natural Resources Cultural and Historic Resources Community Facilities and Infrastructure Circulation CHAPTER 3 – GOALS AND OBJECTIVES CHAPTER 4 – RECOMMENDATIONS & CONCLUSION Marple Township Newtown Township Edgmont Township Edgmont Township	85	
CHAPTER 4 – RECO	MMENDATIONS & CONCLUSION	91
1	Marple Township	97
1	Vewtown Township	103
I.	Edgmont Township	109
APPENDIX A – IMP	PLEMENTATION ACTIVITIES	115
APPENDIX B – STU	DY PARTICIPANTS	117

Maps

MAP 1 – WEST CHESTER PIKE CORRIDOR STUDY AREA	13
MAP 2 – DVPRC LAND USE 2000	17
MAP 3 – PENDING & PROPOSED DEVELOPMENT	27
MAP 4 – COMPOSITE ZONING	31
MAP 5 – HYDROLOGY	47
MAP 6 – TOPOGRAPHY	51
MAP 7 — OPEN SPACE	55
MAP 8 – HISTORIC SITES AND BUILDINGS	63
MAP 9 – SEWER INFRASTRUCTURE 2002	71
MAP 10 – FUNCTIONAL CLASSIFICATION AND SELECT TRAFFIC COUNTS	79

Tables

TABLE 1 – STUDY AREA DEVELOPED LAND USE BY ACRE, 2000	16
TABLE 2 – STUDY AREA DEVELOPED LAND USE BY PERCENT, 2000	19
TABLE 3 – STUDY AREA UNDEVELOPED LAND USE BY ACRE, 2000	20
TABLE 4 – STUDY AREA UNDEVELOPED LAND USE BY PERCENT, 2000	21
TABLE 5 – PENDING AND PROPOSED DEVELOPMENTS	26
TABLE 6 – POPULATION TRENDS, 1930-2000	34
TABLE 7 – POPULATION FORECASTS TO 2030	35
TABLE 8 – DENSITY AND URBAN AND RURAL POPULATIONS	36
TABLE 9 – HOUSEHOLD CHARACTERISTICS, 2000	38
TABLE 10 – EMPLOYMENT TRENDS AND FORECASTS	40
TABLE 11 – SELECTED HOUSING UNIT CHARACTERISTICS, 2000	42
TABLE 12 – MEDIAN HOME SALE PRICES, 1998 AND 2003	44
TABLE 13 – HISTORIC SITES AND BUILDINGS, KEY TO MAP 8	62

Figures

FIGURE 1 – EXISTING CONDITIONS, ROUTE 3 AND ROUTE 320 VICINITY	98
FIGURE 2 – CONCEPTUAL CROSS SECTION	99
FIGURE 3 – SIMULATED FRONTAGE ROAD	100
FIGURE 4 – CONCEPTUAL SKETCH PLAN	101
FIGURE 5 – PENDING DEVELOPMENT OVERLAY	106
FIGURE 6 – ALTERNATIVE DEVELOPMENT PATTERN – CONSOLIDATED	107
FIGURE 7 – ROUTE 3 AND PROVIDENCE ROAD	112
FIGURE 8 – PROPOSED PROVIDENCE ROAD WIDENING	113

Executive Summary

The Delaware Valley Regional Planning Commission (DVRPC) frequently undertakes transportation corridor studies in both Pennsylvania and New Jersey, working closely with county and municipal officials and the respective state Departments of Transportation. The purpose of the Route 3, West Chester Pike, Land Use and Access Management Strategies study is to examine the link between transportation and land use in this corridor, and to provide recommendations that will help maintain the character and improve the aesthetic quality of these communities; balance the use of Route 3 between local residents and commuters; and retrofit or create new transportation solutions to provide for the needs of future development.

The section of the Route 3 corridor included in this report extends from Route 476 to the Chester County Line, and includes Marple, Newtown and Edgmont townships in Delaware County. For this study, Township officials, representatives from SEPTA, the Pennsylvania Department of Transportation (PENNDOT), DVRPC, the Delaware County Planning Department and the Delaware County TMA designated a study area that encompassed areas where growth and redevelopment are likely to occur. Included in this area is the section of Route 252 extending from Goshen Road to the Upper Providence Township line.

Continuing growth pressure in Newtown and Edgmont Townships will have a measurable impact on traffic and mobility in the area; particularly in Newtown Township where a glut of new residential and commercial development may create significant congestion problems in the near future, affecting commuter behavior and residents' quality of life.

Promoting land use and transportation planning linkages is a fundamental recommendation made in this report. Through the use of Access Management techniques in new developments and in redevelopment projects, safety and highway efficiency can be improved and, if done with sound land use practices, can significantly

Delaware Valley Regional Planning Commission

reduce congestion. In addition, this study recommends that corridor municipalities consider multi-municipal planning, which can make planning efforts more consistent and effective.

Introduction

The Route 3, West Chester Pike, Land Use and Access Management Strategies Study was initiated by Delaware County, with support from the Pennsylvania Department of Transportation (PENNDOT), through the DVRPC Annual Planning Work Program. During fiscal years 2005 and 2006, the goal of this project is to link transportation and land use planning in order to recommend integrated and proactive land use strategies along the highway corridor. Also, this study seeks to promote multi-municipal coordination among the three participating municipalities in the study area, Delaware County and other state and regional agencies.

Study Contents

Chapter 1 introduces the Land Use and Access Management Strategies Study, providing a review of previous studies, an overview of the planning process, and a description of the importance of linking land use and transportation through Access Management.

Chapter 2 analyzes the existing conditions in the study area. Topics of inquiry include: land use and zoning, demographic profiles, housing and employment, natural resources, cultural and historic resources, infrastructure, and circulation.

Chapter 3 identifies goals and objectives for the corridor as whole, as well as specific goals for each individual municipality involved. These goals and objectives are adapted from qualitative research and comprehensive plan language.

Chapter 4 gives recommendations for action to the individual municipalities in the study area, and also provides a comprehensive corridor plan for the area covered by this study.

Appendix A documents the planned implementation activities for Phase II. Appendix B lists the study participants.

Previous Studies

In addition, the Route 3 Land Use and Access Management Strategies Study was modeled on two similar studies: the Route 322 Land Use Strategies Study (2002) and the Route 202, Section 100 Study (2001). These studies established Steering Committees, inventoried and analyzed existing conditions in the study area, developed goals and objectives for the study area municipalities both individually and together, and provided a set of planning strategies and specific recommendations for each municipality in the study area with illustrations highlighting key access management approaches.

The Route 3 Land Use and Access Management Strategies Study is also compatible with local comprehensive plans, and DVRPC's adopted regional long-range plan *Destination 2030*. The recommendations of the study also seek to promote compliance with the Pennsylvania Municipalities Planning Code (MPC). In particular, Article III of the MPC requires that municipalities plan for land use, natural resources preservation, historic preservation, community facilities, and circulation, and also that ordinances must be consistent with the municipal comprehensive plan. Article IV further requires consistency, and also specifically states that the zoning ordinance should encourage the preservation of agricultural areas and other important resources.

As growth continues in the Route 3 corridor, access management becomes an increasingly crucial issue. Access management involves the coordination of through traffic with vehicles entering and exiting a roadway to create a safe and efficient traffic flow. Access management techniques are often based around limiting access points to major roads, to prevent turning movements from conflicting with high-speed, through traffic. Implementing proper access management controls will aid in alleviating present and future congestion and safety problems.

Planning Process

The Route 3 Land Use and Access Management Strategies Study Phase I was conducted by DVRPC throughout fiscal year 2005, with support from the Delaware County Planning Department, the Delaware County TMA, PENNDOT District 6-0, SEPTA and the three study area municipalities. As part of Phase I, municipal plans and zoning ordinances were reviewed, goals and objectives identified, existing conditions described, and recommendations prepared for the three study area municipalities.

Corridor Description

The Route 3 Corridor extends nearly seven miles from I-476 to the Chester County line in Delaware County. This road was once the trolley line connecting the residents of Center City Philadelphia to West Chester. Now a tree-lined boulevard, West Chester Pike traverses Marple, Newtown, and Edgmont townships heading west from Philadelphia. Also included in the study area is a section of Route 252 in Newtown Township, bounded by Goshen Road to the North and Upper Providence Township to the South. The location of the study area is shown on Map 1.

Route 3 is a major arterial highway in the region that serves Delaware and Chester counties. Since it intersects I-476, West Chester Pike is an

important connector road for regional travel. Route 320, a north-south road that runs parallel to Route 476, also bisects Route 3 in Marple Township. Considering the confluence of these important highways all in relative proximity to one another, it is easy to imagine that there would be traffic congestion problems.

Because of its historic role as the trolley connection to West Chester, older suburbs have grown around Route 3. Marple Township is most similar to the older townships on the east side of I-476; residential areas are denser and follow a more traditional grid pattern. Newtown Township's character resembles a modern suburb, with larger lot residential developments, some big box and strip commercial, and a number of office structures. Proposed new developments along Route 252, both north and south of Route 3, will significantly build out much of the remaining open space. Further west along Route 3 the landscape resembles a rural township on the suburban fringe. Edgmont Township is largely underdeveloped, due to the protected Ridley Creek State Park. While some commercial development exists along Route 3, most of the township's residential development is south of West Chester Pike, due east of the park.

Corridor Land Use and Transportation Linkage

Corridor planning recognizes the linkages between land use and transportation, and allows the creation of integrated, comprehensive plans that cross municipal and even county boundaries. According to the Institute for Traffic Engineers:

"...trip-making patterns, volumes, and modal distributions area largely a function of the spatial distribution and use of land. Over the long run, the spatial distribution of land use can greatly influence regional travel patterns, and in turn the level

of accessibility provided by the transportation system can influence this land use. Avoiding future congestion therefore requires careful attention to zoning and land use plans, in coordination with the strategic provision of transportation services to influence where development occurs." (Quoted from Linking Land Use and Transportation in the Delaware Valley, a DVRPC report published in 1991)

Transportation corridors are appropriate planning areas for linking land use and transportation. These corridors are geographic areas that provide important connections between regions, and are defined as networks of transportation links, services and facilities that are of regional importance when viewed collectively. Corridor planning has a strong multimodal emphasis, with transit lines and bicycle and pedestrian facilities considered important and integral components of the transportation network.

The benefits of planning at the corridor level are many. Corridor planning provides a general, long-range framework for needed transportation improvements and land use changes. This larger view allows local projects to occur as part of a larger strategy, rather than as isolated improvements, and provides a framework for establishing priority. Also, because the corridor is treated as a network of various transportation modes, corridor planning often examines alternatives to simple road improvements, such as transit options, access management, and transportation demand management programs. In general, corridor planning, in linking land use patterns with transportation networks, provides a means for local plans and regional strategies to harmonize. (Quoted from *Route 202 Section 100 Land Use Strategies Study*, a DVRPC report published in 2001).



Chapter 2

Existing Conditions

To develop a strategy for the future of Route 3 and Route 252, an accurate inventory of the existing highway and land use conditions is essential. This chapter provides a comprehensive analysis of land use, transportation, and socio-economic conditions in the study area. This data is intended to enable the counties, local governments and corridor residents to identify potential problems, to determine future needs, and to develop necessary policies and strategies to respond more effectively to future growth.

Throughout this document, two levels of analysis are used. The first is the study area boundary, which includes most of the land extending within a quarter-mile of the Route 3 and Route 252 centerlines. Whenever possible, discussion of existing conditions refers to these immediate corridors. When broader discussion of existing conditions is appropriate, conditions in the three municipalities in the study area are described.

The information included in this chapter is based on data available though various governmental sources, Delaware County and local municipal plans and ordinances, and field surveys conducted during the preparations of this study. The chapter has been divided into six sections:

• The **Land Use and Development Patterns** section describes how land is used in the corridor and analyzes the implications that current trends have on future development. It also describes land use regulations, municipal zoning codes, and analyzes the effects that

these regulations have on patterns of future development.

- The **Population, Employment and Housing** section reviews selected socio-economic characteristics of the corridors' residents, employers, and employees. Specific information on housing, as well as population and employment forecasts are also included.
- The Natural Resources section includes a summary of environmental conditions that will affect the location and intensity of future development, including steep slopes, wetlands, and open space resources.
- The Cultural and Historic Resources section documents those cultural and historic factors that are relevant to consideration of new development, as well as being pertinent to the communities' character.
- The Community Facilities and Infrastructure Systems section analyzes public services and facilities serving the corridor and examines the provisions for water and sewer services and public utilities.
- The **Circulation** section assesses existing conditions regarding traffic, circulation, public transit, and alternative transportation modes, such as bicycling and walking.

Land Use and Development Patterns

The Route 3, West Chester Pike Corridor is the historic connection between Center City Philadelphia and West Chester, Pennsylvania. Traversing three counties, Philadelphia, Delaware and Chester, the corridor is lined with multiple land uses at varying densities. While the study area encompasses only the central-western portion of the corridor in Delaware County (west of I-476, east of the Chester County line), and on Route 252 from Upper Providence Township line to Goshen Road, (see Map 1) the pattern of development mimics the development pattern of the corridor as a whole.

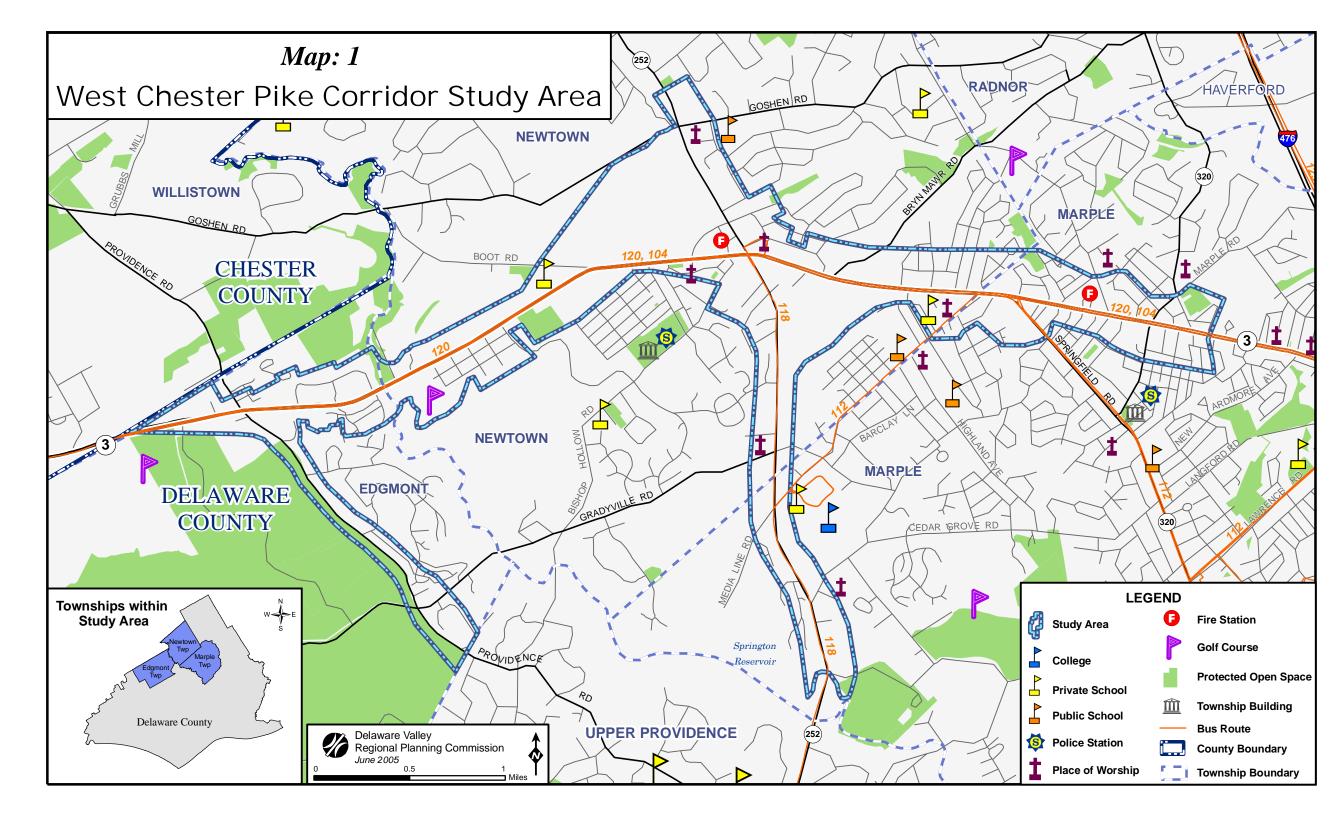
This section provides an overview of how land is used within the study corridor and in each participating municipality. The use of Route 3 as a former trolley line connecting Center City with West Chester largely determined the shape of the corridor in the past. By combining this information with current municipal zoning regulations, recent trends and other demographic data, a clear picture of the community character and possible future development patterns will emerge.

Findings in Brief

• To the east of Route 252, the study area corridor is largely built-out with commercial and institutional uses lining the boulevard and surrounded by medium density residential. To the west of Route 252, the development pattern is more spread out with larger commercial uses, lower density residential, and some remaining open space.

Delaware Valley Regional Planning Commission

- North of West Chester Pike, Route 252 is poised for a major increase in development with the potential build out of existing farms and open space. South of the Pike, Route 252 has become the new residential destination for Newtown and Marple Townships. This glut of development will certainly cause increased traffic congestion on the already beleaguered Route 252.
- Numerous development projects and proposals will be under construction or completed within the next five to ten years in the study area. These projects alone will have a measurable impact on traffic, available land, and quality of life in the study area.
- Population and employment projections predict all three municipalities gaining a significant number of residents over the next 25 years, which will add to the development pressure and affect land use patterns significantly.
- The western portion of Newtown and Edgmont townships have the most available land for new development, whereas Marple Township must rely largely on redevelopment to accommodate future growth.



Map1

In this report, land use figures are derived from estimates based on the year 2000 aerial photographs. Every piece of land is assigned to a land use category, which include the following developed land uses:

- Residential Single-Family Detached units include single family dwellings that are not attached to another dwelling unit, and are the most common dwelling unit type in the study area.
- Residential Single-Family Attached units include duplexes and townhouses.
- Residential Multifamily units include apartments and group quarters.
- Manufacturing includes the area devoted to fabrication and/or assembly of raw materials or components.
- Transportation includes areas devoted to rail and highway transportation. Highways are included only when they are double lane divided roadways. To account for local roads, 25 percent of all residential land in the municipalities was subtracted from the residential total and added to the transportation category. Parking is also included in the transportation category, regardless of its attendant land use.
- Communications and Utilities include power generation and substations, major transmission lines, radio, television, and microwave towers (when separate), water filtration and storage (except reservoirs), wastewater treatment, and landfills.
- Commercial includes retail, wholesale, personal and professional services, hotels and motels.
- **Community Services** includes hospitals and clinics, retirement centers, government buildings (except military), educational facilities, places of worship and cemeteries.
- Recreation includes parks, recreation sites (e.g. playgrounds) as interpreted, amusement parks, resorts and camps, public assembly sites, and golf courses. The portion of recreational or cultural areas that can be identified on an aerial photograph will most likely not conform to the site boundary. Such information is derived from other sources.

Undeveloped land use categories include the following:

- **Agriculture** includes land devoted to crops, pastures, orchards, tree farms, or other agricultural areas. Farmsteads and associated buildings and single or double lot splitoffs with houses are also included in this category.
- Wooded (forested) areas are determined by continuous canopy or solid tree cover, and include woodlands, natural lands, marshes and swamps. Hedgerows (windrows) are not interpreted as wooded, nor are wooded areas associated with residences. Wooded areas that emerge from formerly agricultural fields are interpreted as wooded if, in the judgment of the interpreter, the wooded category dominates.
- Vacant land is not clearly wooded, not agricultural, and not developed, or is clear or unused and not tied to other uses.
- Water areas include rivers, streams, lakes and ponds. Water areas are not divided into wetland categories since a variety of wetland definitions are being used by federal and state agencies, plus there is separate mapping in this report for wetlands.

Located in the northwestern portion of Delaware County, the study area comprises a land area of approximately 2,017 acres, or about three square miles, spread across the three municipalities. While all three townships are roughly similar in size, Newtown Township has more land in the study area than the other two municipalities and more combined frontage on Routes 3 and 252. Map 2 illustrates the pattern of land use and development in the study area.

Tables 1 and 2 show the breakdown of developed land use in the study area in the year 2000, both in absolute terms and as a percent of the total. These tables show that within the category of developed land, most was used for residential purposes. Since this study is focusing only on the Route 3 corridor, which is largely commercial in all three Townships, much of the residential land use category is underrepresented. Residential land use is much more prevalent throughout each Township as a whole.

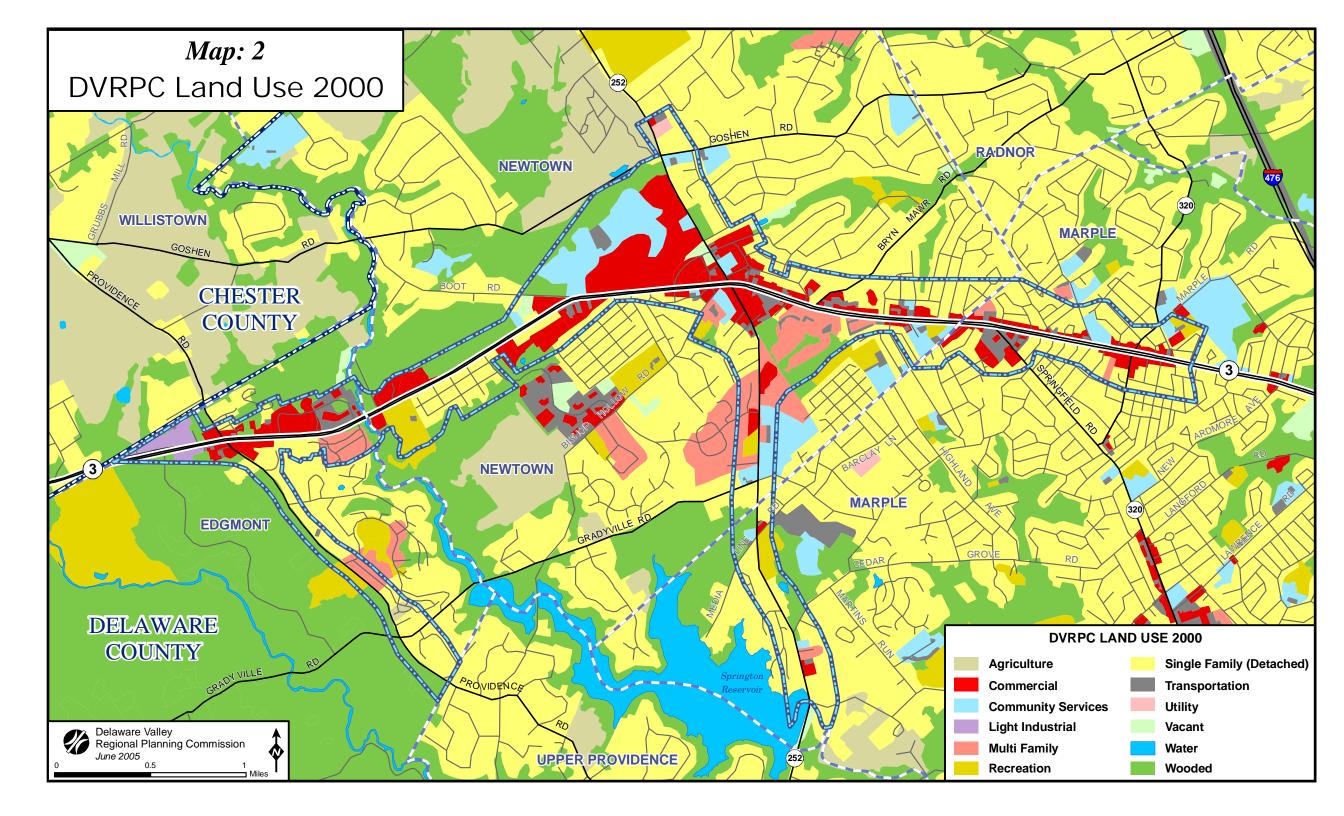
As shown in Table 1, Edgmont Township exhibits seven acres of recreational land use within the study area. This is not characteristic of the entire Township, which includes several recreation areas, namely, Ridley Creek State Park. With over 2,000 acres, it is the largest park in the area.

Table 1: Study Area Developed Land Use by Acre, 2000

Municipality	Residential	Transportation	Commercial	Community Services	Recreation	Total Developed	Total Land
Edgmont*	141	13	78	0	7	262	363
Marple	321	15	79	9	21	445	479
Newtown	422	41	309	154	42	968	1,175
Total	884	69	466	163	70	1,675	2,017

Source: Delaware Valley Regional Planning Commission, 2005

^{*}Edgmont Township also includes 23 acres of light industrial land use within the study area



Delaware Valley Regional Planning Commission

map2

Table 2: Study Area Developed Land Use by Percent, 2000

Municipality	Residential	Transportation	Commercial	Community Services	Recreation	Total Developed Land
Edgmont	39%	4%	22%	0%	2%	72%
J						
Marple	67%	3%	17%	2%	4%	93%
Newtown	36%	4%	26%	13%	4%	82%
Total	44%	3%	23%	8%	4%	83%

Source: Delaware Valley Regional Planning Commission, 2005

As seen in Table 2, Marple Township is clearly a residential community. Sixty-seven percent of the total acreage in the study area is devoted to housing, while less than twenty percent is used for all commercial uses. Despite the fact that Newtown has a greater absolute amount of residential acreage, Marple has a thirty percent greater proportion of the study area devoted to homes.

Newtown's significant portion of the study area is underplayed by the percentages. While Edgmont and Newtown have similar percentages of residential development, the absolute figures show Newtown has nearly three times the amount of residential acreage. This is important to note when making township-to-township comparisons. It is fair to say that transportation makes up a very small portion of land use in all three municipalities. Even in Newtown, with two major arterials and a significant amount of residential and commercial development, there is only three times as much land devoted to transportation as in the much smaller Edgmont.

^{*}Edgmont Township has 6% of its land within the study area dedicated to light industrial land use

Table 3: Study Area Undeveloped Land Use by Acre, 2000

Municipality	Agriculture	Wooded Vacar	nt or Water	Total Undeveloped	Total Land
Edgmont	5	94	2	101	363
Marple	0	26	9	35	479
Newtown	5	190	11	206	1,175
Total	10	310	22	342	2,017

Source: Delaware Valley Regional Planning Commission, 2005

Tables 3 and 4 show undeveloped land use in the study area in the year 2000. Of the undeveloped categories, "Wooded" comprised the greatest portion in each municipality, ranging from 5 percent in Marple to 26 percent in Edgmont. The actual amount of wooded acreage varies significantly between the three townships, with Newtown posting seven times the acreage found in Marple and about twice the acreage of Edgmont. It comes as a surprise that there is remaining agricultural land in the study area, albeit a small portion. Newtown Township's agricultural acres will most likely be developed into single-family residential within the next five to ten years. Currently, there are no plans to develop the farm within Edgmont's jurisdiction.

Municipal Land Use

The three study area municipalities—Marple, Newtown, and Edgmont—exhibit distinct development patterns that are different in each community. Depending on each township's stage of development, the character and feel of the communities differs significantly. DVRPC population and employment forecasts predict that all three townships will grow in the coming years; therefore, evaluating current land use is paramount to discerning future needs.

Table 4: Study Area Undeveloped Land Use by Percent, 2000

Municipality	Agriculture	Wooded	Vacant or Water	Total Undeveloped
Edgmont	12%	26%	0.6%	28%
Marple	0%	5%	2%	7%
Newtown	0.4%	16%	0.9%	18%
Total	0.5%	15%	1%	17%

Source: Delaware Valley Regional Planning Commission, 2005

Marple Township

Marple is the most intensely developed township in the study area, and is very similar to the older townships and boroughs located to the east of I-476 in Delaware County. Table 2 shows that 93 percent of Marple Township's land within the study area is developed. Highway commercial dots the streetscape while the surrounding areas are densely developed with older, single-family homes.

Historic photos of Marple show a thriving commercial area along the old trolley line to West Chester. While some of those structures still exist, the viability of these businesses is waning due to competition in other townships. On-street and diagonal parking that requires backing on to West Chester Pike still exists along these storefronts, creating a local town scale and character.

Areas of Marple in the southernmost portion of the study area are in the process of being developed, primarily as single-family residential homes. This follows the development trend occurring in Newtown along 252 where the few remaining wooded and open spaces are being fully developed into residential and some commercial uses.

While Marple essentially has no large tracts of developable land left in the study area (aside from what is already slated for development), there is significant potential for redevelopment. Low property taxes and easy access to I-476 make Marple an attractive location for first-time homeowners. Securing new residents would be a positive step towards any redevelopment efforts.

Newtown Township

Progressing further west along the corridor, Newtown Township exhibits more recent suburban-style development. Highway-oriented commercial fills in the gaps between multi-family housing and institutions like Dunwoody Retirement Center and multiple schools.

The commercial core of Route 3 is at the intersection of Route 252 and West Chester Pike, in the heart of Newtown Square. This intersection joins a large shopping area (including a large expanse of parking), gas stations, strip commercial and some older businesses. The most intense development in the study area occurs between the traffic signals at Bryn Mawr Avenue and Bishop Hollow Road.

Retail market analysts continually show that the areas surrounding intersections with traffic signals are the most attractive. In Newtown, these three intersections have created a synergistic core of highway-oriented commercial use. While it may be advantageous for these businesses to be concentrated in this manner, it adds to traffic congestion, creates unsafe environments for pedestrians, and can be unsightly.

North of Route 3 on Route 252 the land use continues to be primarily commercial, but not as intensely developed as the aforementioned intersection. Winding Way Road, intended to be a bypass of the

intersection of Routes 3 and 252, acts as an access road for postal vehicles and delivery trucks, on-street parking, and frontage for a few small businesses. Due north of this road is the SAP campus and the Dupont farm.

A worldwide business software provider, SAP occupies the most significant parcels in the study area. Furthermore, the Berwind Group has acquired a significant portion of the campus in order to develop a new "Town Center" development off Route 252. In the next section entitled "New Developments in the Study Area, further details on the plans for both DuPont Farms and the SAP campus will be discussed.

South of Route 3 on Route 252 lay less dense commercial uses. Auto repair, a small Market, a tractor sales and repair store, gas stations, and other small businesses that have been built over the course of the last century cover most of the landscape from Route 3 to approximately Mary Jane Lane. In between these businesses and the Springton Reservoir on Route 252 is the nexus of new residential development.

DVRPC's year 2000 land use coverage map and aerial photography show areas around the reservoir being primarily wooded and, directly surrounding the reservoir, open. Since then, hundreds of new single-family and multi-family homes have been built. Springton Pointe Woods commercial strip is a recent addition of 32,150 square feet of retail space intended to serve the residents of the Springton Pointe Woods development. To date, that development stands only half-full.

Delaware Valley Regional Planning Commission

Route 3 is dominated by strip commercial in the heart of Newtown Square, but to the west of Route 252, there are some large swaths of land that have not been developed yet. Acres of overturned earth across from the Campus Road entrance mark the commencement of Marville, a significant commercial project that includes retail, offices and other light industrial uses. Alice Grym Road, the new access route for these businesses begins at the intersection of Campus Road and extends north, arcing back around to rejoin West Chester Pike across from the Old Master's Golf Course. Adjacent commercial properties range from car dealerships to office uses.



The Shops at Springton Pointe Woods is a new retail development along the Route 252 Corridor that is meant to serve the residents of the Springton Pointe development.

Edgmont Township

The least developed of the three municipalities; Edgmont Township has the most room for growth left in the study corridor. Primarily rural, Edgmont is in the midst of rising home values and land prices as development pressure increases in Delaware County. Frontage on Route 3 is dotted with relatively new highway-oriented commercial developments. Directly west of the Newtown Business Center is a sunken commercial strip that includes restaurants, specialty shops and a

Genaurdi's grocery store as the anchor tenant. More retail development is planned for this site, though it has been put on indefinite hold due to lackluster performance.

Continuing west on Route 3 the pattern of development becomes slightly denser, with older strip commercial and light industrial uses gravitating around the Providence Road intersection with West Chester Pike. All of the development along the Route 3 corridor west of the Providence Road intersection is highway strip commercial, dating from the late 1960s and early 1970s.

Providence Road winds along hilly terrain, heading southeast. Ridley Creek State Park abuts the road to the west. Numerous new residential developments to the east feed onto this road, creating increased congestion. The entrance to Ridley Creek Park is at the intersection of Providence and Gradyville Roads. The study area terminates at the Upper Providence municipal boundary. Residential development stretches from Providence Road east, typical of recent suburban subdivision patterns.



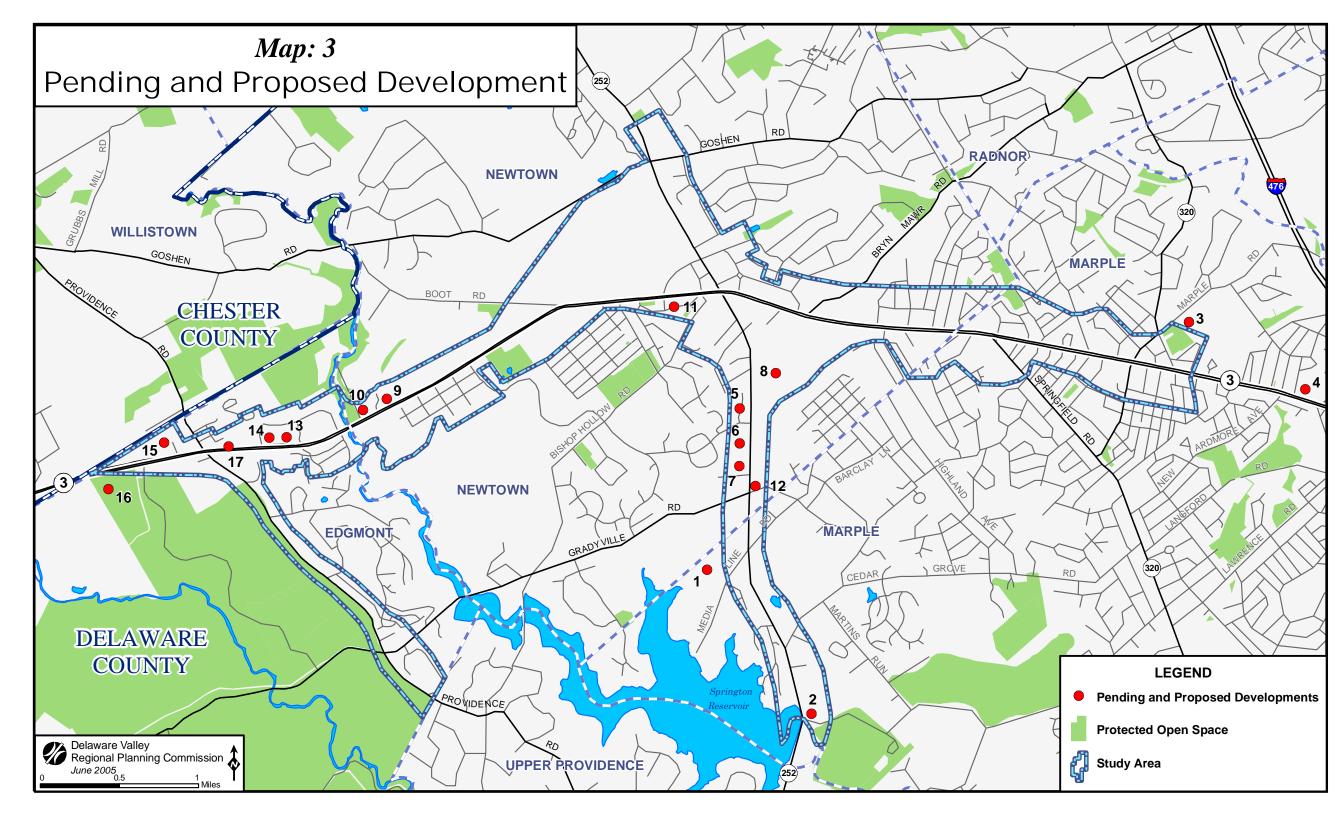
Light industrial uses along West Chester Pike in Edgmont.

Table 5: Pending and Proposed Developments*

#	Municipality	Development Name	Developer	Туре	# of Units	Status
1	Marple	Rte. 252 & Gradyville Rd	De Botton	Residential	50 SFD	Approved
2	Marple	Palmer's Mill & Rte. 252	D'Agnostino	Residential	25 Townhomes	Under Construction
3	Marple	Marple Rd	Falcone (Haverford Homes)	Residential	22 SFD	Approved
4	Marple	Mather (Gamma)	Nolan Group	Residential	9 SFD	Approved
5	Newtown	Springton Pointe Woods	Pulte Homes	Residential	152 SFA 25 SFD	Approved, under construction
6	Newtown	Springton Pointe Woods	Keystone Development Partners	Commercial	32,150 sqft. 160 parking spaces	Project complete
7	Newtown	Somerset Soccer and LAX Fields	Paper Mill Holding Co.	Recreation & Parking	Athletic fields, 50 Spaces	Project complete
8	Newtown	Somerset	Paper Mill Holding Co.	Assisted care, Residential, Office	92 Beds, 334 Apts.	Approved, Approved, Under Construction
9	Newtown	Marville @ Newtown Square	De Botton	Retail/ Commercial Parking	235,500 sqft.	Pending, not approved
10	Newtown	Lots C-A	De Botton	Commercial/Light Industrial, Day Care, Office, Parking	Total Area: 100,562 sqft., 8,000 sqft., 4,000 sqft., 329 spaces	Constructed Approval pending, Partially built
11	Newtown	Kelly Office Building	Kelly Group Holdings	2 story office, parking	14,250 sqft. 57 spaces	Approved
12	Newtown	Somerset Office Building	Paper Mill Holding Co.	Office	41,400 sqft. Office	Under Construction
13	Edgmont	Edgmont Country Fair – B	De Botton	Commercial "Big Box"	35,000 sqft.	Under Construction
14	Edgmont	Edgmont Country Fair – B-1	De Botton	Commercial "Big Box"	Unknown	Pending
15	Edgmont	Peak Beam	International Diversified Investments	Light Industrial	22,000 sqft.	Under Construction
16	Edgmont	Edgmont Country Club	Pam Mariani	High Density Residential	Unknown	Project development Phase
17	Edgmont	Videon Chrysler	Videon Family Partnership	Light Industrial	Unknown	Approval Process Pending

Source: Delaware Valley Regional Planning Commission, June, 2005

^{*}This table and the following map document pending and proposed developments in the study area or close enough to have an impact on the Route 3 and 252 corridors. This data was compiled from township officials, developers and Pennoni Associates; Newtown Township's engineer. "Project status" reflects the stage of development as of June 2005.



Map3

Zoning

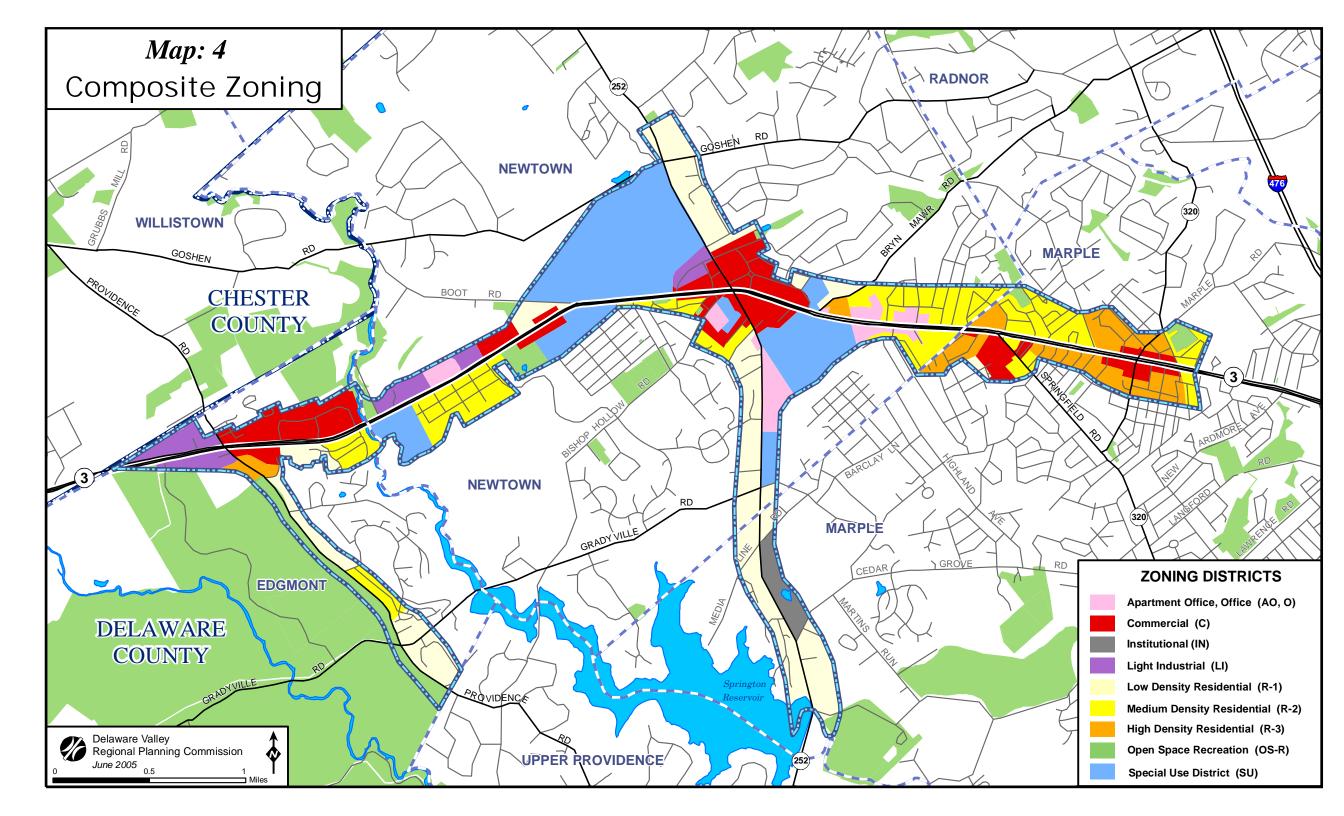
The corridor's landscape is largely shaped by its zoning ordinances and other land use controls. A municipality's zoning regulations control land use, density, lot size, building setbacks, lot access, and many other characteristics. Because zoning codes are major determinants of land use patterns, they also greatly affect community character. By shaping the extent and location of new development, land use controls influence infrastructure demands and traffic generation.

Each municipality's current zoning regulations were evaluated for this study. The 26 separate zoning districts found within the corridor study area were compiled into nine generalized classes for easy comparison. Only classifications found within the boundaries of the study area were included in the composite zoning. The listing of Composite Zoning Classifications provides a detailed description of each generalized zoning district while Map 4 shows the composite zoning for the entire study area in the corridor. Zoning within the corridor ranges from open space/recreation to low-density residential, increasing in intensity to light industrial and highway commercial. While the majority of land outside the study area in the three townships is zoned for low to medium-density residential, zoning within the study area boundaries represents a wide mix of uses. There is little continuity among the three townships' zoning codes.

The bulk of the corridor's commercially zoned properties are located along West Chester Pike, as are the office, apartment, and light industrial uses. Commercial zoning occurs mostly where West Chester Pike intersects other major roads. The largest commercial node is at the intersection of West Chester Pike and Route 252 - the area zoned for a Special Use District at the southeast corner of the intersection contains a large shopping plaza as well.

Delaware Valley Regional Planning Commission

Pockets of medium and high-density residential zoning exist along West Chester Pike primarily in older, established residential areas, especially in Marple Township. Most land that is near, but not directly adjacent to West Chester Pike is zoned for medium-density residential use. Land adjacent to its crossroads, meanwhile, is mostly zoned for low-density residential: Providence Road in Edgmont and Marple Townships, and much of Route 252 in Newtown Township, are examples.



Delaware Valley Regional Planning Commission

Map4

Composite Zoning Classifications

R-1 Low-density residential

This classification encompasses low-density suburban housing development consisting primarily of single-family detached homes. The minimum required lot size is one acre.

R-2 Medium-density residential

The medium-density classification encompasses suburban-style development that is more dense than R-L but not great enough to be considered high-density. The R-M category usually allows only single-family detached homes, although single-family attached homes such as condominiums might be considered in a planned development. Lot sizes vary from 1/3 acre to one acre.

R-3 High density or multi-family residential

The highest density residential classification is intended to allow the widest variety of housing structures. In this case it encompasses older residential neighborhoods with smaller structures on narrow lots, as well as multi-family buildings. The R-H category allows single-family detached homes as well as single-family attached structures such as condominiums and townhomes. Two-family and multi-family units, apartment buildings, and special senior housing developments also fall into this category.

A-O Apartment/Office

This district allows for only apartment homes or service office buildings, neither of which may exceed five stories in height. Newtown Township is the only municipality in the study area to have an A-O category. Newtown's code allows for a minimum of two acres for an apartment development but does not specify minimum acreage for office buildings.

O Office

The Office district is intended to permit business or professional offices, but not retail uses. Examples of permitted uses are doctors, banks, attorneys, travel agents, or governmental entities. Retail uses, such as the sale of goods to the general public, are not permitted in Office districts.

C Commercial

This classification encompasses retail uses ranging from small stores to supermarkets. Most small-scale commercial uses are permitted; more intensive uses such as large medical centers or hotels are sometimes accommodated.

SU Special Use District

Newtown Township's code provides for Special Use districts that are intended either to act as a buffer between residential areas and more intense, non-residential land uses or to accommodate exceptional historic or geographic features. In the SU district, all uses are conditional. The conditional uses include research and development, service office, residential, golf course, accessory use, and appropriate use of historic structures. Other uses may also be considered. Minimum lot area is three acres.

LI Light Industrial

The Light Industrial district is intended for industrial uses that are appropriate in a suburban setting because they are not detrimental to the neighborhood. Office and laboratory uses, distribution centers, and non-nuisance manufacturing are permitted. A buffer zone is often required between Light Industrial uses and other uses, especially residential area. Minimum lot size is usually two acres or more.

INS Institutional

The Institutional classification encompasses educational, cultural, religious and civic uses in Marple Township. Care facilities such as hospitals and nursing homes are also permitted in institutional districts. Minimum lot size is four acres.

OS-R Open Space/Recreation

The OS-R classification encompasses parkland ranging in size from Ridley Creek State Park in Edgmont Township to smaller parcels of zoned open space. Park and recreation uses are permitted.

Source: Municipal Zoning Ordinances, and DVRPC, 2005

Population

Population and demographic changes go hand in hand with shifts in land use. Population growth increases demand for road capacity, community facilities such as schools, and infrastructure such as water and sewer. An examination of decennial census data over the past seventy years provides insights into land use changes that have occurred in the study area as the Philadelphia region has suburbanized, and the base of employment and housing has spread outward into surrounding counties. As an adjacent and easily accessible neighbor to Philadelphia, Delaware County experienced early suburban growth along its main transportation routes.

The townships along West Chester Pike were among those to grow as accessibility advanced. Population increased in the 1930s and 1940s in Marple and Newtown townships, but really surged after 1950. In fact, the number of Marple Township residents more than quadrupled between 1950 and 1960; the plethora of housing stock from this era provides physical evidence of the township's post-World War II boom. The 1970s saw the beginning of a gradual decline in population for Marple, and a leveling off in Newtown, as Delaware County and many first-ring suburbs

Table 6: Population Trends 1930-2000

Municipality	1930	1940	1950	1960	1970	1980	1990	2000	Percent Change 1990-2000
Edgmont Township	874	957	1,048	1,404	1,368	1,410	2,735	3,918	43%
Marple Township	1,553	2,170	4,779	19,722	25,040	23,642	23,123	23,737	3%
Newtown Township	1,541	1,949	3,518	9,270	11,081	11,775	11,366	11,700	3%
Study Area Totals	3,968	5,076	9,345	30,396	37,489	36,827	37,224	39,355	6%
Delaware County	280,264	310,756	414,234	553,154	603,456	555,029	547,651	550,864	1%

Source: U.S. Bureau of the Census, Census of Population and Housing

began to lose residents to outer-ring suburbs. As shown in Table 6, population patterns in Marple and Newtown roughly parallel the county as a whole, while Edgmont experienced a later growth wave.

Table 7: Population Forecasts to 2030

Municipality	2000 Census	2010	2020	2030	Absolute Change 2000 - 2030	Percent Change 2000 - 2030
Edgmont Township	3,918	4,790	6,030	7,000	3,072	78%
Marple Township	23,737	23,830	23,710	23,270	-467	-2%
Newtown Township	11,700	12,000	12,170	12,080	380	3%
Corridor Totals	39,355	40,620	41,910	42,350	2,985	8%
Delaware County	551,974	550,970	546,972	547,890	-3,080	-1%

Source: Delaware Valley Regional Planning Commission, 2002. Derived from 2000 Census data.

Edgmont Township, being farthest from Philadelphia and predominantly rural, did not experience much growth until the 1980s. Edgmont is now growing rapidly relative to its population size, while Marple and Newtown remain fairly stable. This is not surprising given the greater abundance of developable land in Edgmont. An evaluation of Census figures shows that the three municipalities in the study area gained over 2,000 residents between 1990 and 2000, an increase of six percent. The county as a whole gained only one percent, while Marple and Newtown townships each had a three percent population increase and Edgmont had a 43 percent increase. Increasing development pressures in Edgmont could result in significant land use changes and increased demand for infrastructure. These new residents may also utilize the roadways and commercial areas in Newtown and Marple, and further increase traffic demand as through-traffic on West Chester Pike. Population forecasts are an important part of planning for future infrastructure, housing, and community facilities needs. Forecasts created by DVRPC indicate gradual population loss is likely to continue in Delaware County, as Table 7 shows. DVRPC forecasts a one percent population decrease in the county

as a whole and a two percent decrease in Marple Township between the years of 2000 and 2030. Newtown Township is predicted to have modest growth. As discussed in the Land Use section of this report, Marple Township is almost entirely developed and Newtown Township is approaching build out. As a result, though redevelopment is certainly feasible, large-scale population growth is unlikely. In contrast, the population of Edgmont Township is expected to grow by 78 percent in the thirty year period.

Population density, shown in Table 8, is not expected to increase significantly in Marple and Newtown townships. Density decreases in the study area with distance from the City of Philadelphia. Delaware County's overall population density in 2000 was nearly 3,000 people per square mile. The county contains nine of the fifteen most dense municipalities in the greater Philadelphia region; however, the West Chester Pike study area is not among them. Marple Township, closest to Philadelphia, was the densest of the study area municipalities at 2,259 persons per square mile. By comparison, neighboring Upper Darby Township ranks eighth most dense in the Philadelphia region at 10,490 people per square mile.

Table 8: Density and Urban and Rural Populations

	1990)	2000		Population C	hange 199	0-2000		Persons Per	Persons Per Persons F	
Municipality	Total Population	Percent Urban	Total Population	Percent Urban	I Otal	Rural	Urban	Square Miles	Square Mile, 1990	Square Mile, 2000	Square Mile, 2030*
Edgmont Township	2,735	48%	3,918	39%	1,183	972	211	9.8	280	401	714
Marple Township	23,123	100%	23,737	100%	614	0	614	10.5	2,200	2,259	2,214
Newtown Township	11,366	96%	11,700	94%	334	301	33	10.1	1,125	1,158	1,196
Study Area Totals	37,224	95%	39,355	92%	2,131	1,273	858	30	1,225	1,295	1,394
Delaware County	547,651	98%	550,864	99%	3,213	-4,580	7,803	184	2,973	2,991	2,974

Source: Pennsylvania State Data Center, County Data Book 2001 - Delaware County; based on Census STF3. *DVRPC forecast

Table 8 shows Edgmont Township's population density in 2000 at 401 people per square mile, increasing to 714 in 2030. Ridley Creek State Park comprises approximately 40 percent of Edgmont Township; this state-owned property is protected from development. Thus, housing growth in the Township is actually denser (in non-park areas) than Census figures show. Corrected density forecasts for Edgmont Township are closer to 1,000 people per square mile by 2030, up from approximately 860 in 2000. However, it must be noted that projections are based on a number of factors, which often change. For example, if the amount of developable land available changes, population may exceed projections. (household data, as shown in Table 9, is often considered a more realistic indicator of population shifts.) Also, construction of new housing frequently outpaces population, even in areas with little growth. Several large sites in all three townships are currently in the planning phase or under construction, which will result in new curb cuts, service roads, and traffic in the near future if development continues in the predominant single-family pattern.

The U.S. Census Bureau defines urban areas as those core census blocks with a population density of at least 1,000 people per square mile, as well as those surrounding census blocks with an overall density of at least 500 people per square mile. It is not uncommon for an area to be divided between urban and rural, as is the case in the western portion of the study area. Marple Township is entirely urban, as is most of Newtown Township. However, nearly half of the past decade's population growth in Newtown and Edgmont townships occurred in rural areas. Forty-eight percent of Edgmont Township's population lived in urban areas in 1990, but only 39 percent did in 2000. This indicates that population growth in Edgmont and Newtown is occurring at low densities in rural areas.

It is not uncommon for new home construction to outpace demand, even in areas with minimal growth. New construction often consumes

undeveloped land even in municipalities with stable or declining populations. Given the disparity between land consumption and residents, land use and density data are less useful than household data for providing a clear picture of population shifts. Census figures in Table 9 reveal that growth in households is outpacing growth in actual population in Delaware County, reflecting the national trend of shrinking household size. Within the study area, both Marple and Newtown townships experienced a five percent increase in the number of households but only a three percent increase in population. This indicates that the number of smaller and one-person households is increasing, as a result of new residents or splintering of existing households. Even when population remains stable, more households still require more housing, infrastructure and service needs.

Table 9: Household Characteristics, 2000

Municipality	Persons in Households	Total Households	Percent Change 1990-2000	Persons per Household	Percent Family Households	Percent Nonfamily Households	Households with Persons Aged 65+
Edgmont Township	3,570	1,447	32%	2.47	0.68	0.32	49%
Marple Township	22,767	8,623	5%	2.64	0.74	0.26	51%
Newtown Township	11,355	4,549	5%	2.50	0.70	0.30	52%
Study Area Totals	37,692	14,619	7%	2.58	0.72	0.28	51%
Delaware County	529,123	206,320	2%	2.56	0.68	0.32	37%

Source: U.S. Bureau of the Census, 2000.

The population of Edgmont Township, conversely, grew 43 percent but the number of households grew only 32 percent. It's likely that the majority of new residents in Edgmont are families with children, especially given that large single-family homes dominate new housing construction. Marple and Newtown have a higher percentage of family households, and more persons per household on average. Marple Township has the highest percentage of family households, in keeping with a long-

Route 3, West Chester Pike Land Use and Access Management Strategies

established suburban community. The types of households also affect the population's service and infrastructure needs. Table 9 shows that about half of the households in the study area contain persons of retirement age, which is significantly higher than the 37% of households with persons aged 65 and over county wide. Age-restricted housing developments for senior citizens have become more prevalent in the corridor in recent years, so the elder segment of the population should continue to grow, with implications for transportation access and service needs.

Employment and Economic Resources

Transportation and land use at the local level are significantly impacted by area employment and economic conditions. While a new retail center might provide tax revenues, shopping opportunities for local residents, and new service jobs, these benefits often come at the expense of traffic congestion, strains on water and sewer infrastructure, and loss of open space. Likewise, a new industrial center may provide valuable jobs for local workers but will also result in increased truck traffic and peak-hour congestion. A new office complex can be economically beneficial to a community, but may also increase nearby residential development pressures and infrastructure demands. It is therefore essential that transportation and land use issues be measured when economic development decisions are made. Locations for new development should be carefully considered to create a sustainable, positive growth patterns.

Employment growth and increases in commercial land uses will continue to increase in the West Chester Pike corridor even as countywide population remains stable. Employment in Delaware County as a whole grew only slightly between 1990 and 2000, with an overall increase of three percent. Census figures show that over 22,000 people were

Table 10: Employment Trends and Forecasts

Municipality	# of Employ	ed Persons	Percent Change	# of En	nployed Per	sons	Absolute	Percent
	1990 Census	2000 Census	1990 - 2000	2010	2020	2030	Change 2000 - 2030	Change 2000 - 2030
Edgmont Township	1,203	2,026	68%	2,569	3,342	4,022	1,996	99%
Marple Township	9,866	11,419	16%	13,034	14,472	15,346	3,927	34%
Newtown Township	7,195	8,588	19%	9,838	11,223	12,231	3,643	42%
Study Area Totals	18,264	22,033	21%	25,441	29,037	31,599	9,566	43%
Delaware County	230,459	238,164	3%	251,901	265,787	273,411	35,247	15%

Source: Delaware Valley Regional Planning Commission, 2005. Derived from 2000 Census data.

Route 3, West Chester Pike Land Use and Access Management Strategies

employed in Edgmont, Marple, and Newtown townships in 2000. As Table 10 shows, the three municipalities in the study area added nearly 4,000 new jobs between 1990 and 2000, an increase of 21 percent. Job growth outpaced population growth during this decade, as aggregate population change was only six percent.

The dissimilarity in growth rates between the corridor and the county as a whole are expected to continue. Current DVRPC forecasts predict that Delaware County will experience more employment opportunities between 2000 and 2030, with an increase of fifteen percent. According to DVRPC, job growth in the West Chester Pike corridor will outpace the countywide growth rate, with a forecasted 43 percent increase. As Table 10 shows, much of the absolute growth will occur in Marple and Newtown townships; however, Edgmont Township's employment is expected to increase at a faster rate given its smaller population.

Employment in the study area is predicted to outpace population growth, as the base of employment continues to spread farther from the central core. In total, the three townships in the study area comprised only nine percent of the Delaware County's total employment; DVRPC forecasts that number will reach twelve percent by 2030. Employment is increasing at a faster rate than population in the West Chester Pike corridor, but it is expected to remain primarily residential beyond the main commercial strips.

Housing

Average household size has been declining across the United States for many years. As households shrink, the number of housing units often grows at a faster rate than population. New housing construction usually consumes undeveloped land faster than the rate of population growth, and even communities with stable or declining population numbers often experience housing development. As shown in Table 11 below, all three townships within the study area have experienced significant growth in the number of housing units between 1980 and 2000. While the number of units in Marple and Newtown Townships grew steadily at rates of 12 percent and 17 percent respectively, their population figures remained stable. In Edgmont Township housing units increased 227 percent, from 464 units to 1,515 units. During the same period, population in Edgmont Township increased 178 percent (2,508 persons). The growing number of households in the area contributes to traffic on West Chester Pike as well as the numerous local roads in the study area. Increasing household units also places strain on existing infrastructure such as water, sewer, septic capacity, and community school districts. Access management techniques could help mitigate some of the negative impacts of increased traffic due to residential development.

Table 11: Selected Housing Unit Characteristics, 2000

		Total Ho	ousing Unit	ts	Occupie	d Housing	Units	Vacant	Med. Year		/alue Single
Municipality	1980	1990	2000	Percent Change 1980-2000	Total	Owner	Renter	Housing Units	Structure Built Far		am. Owner- Occupied
Edgmont Township	464	1,265	1,515	227%	1,447	1,123	324	68	1985	\$	290,900
Marple Township	7,833	8,433	8,797	12%	8,623	7,221	1,402	174	1958	\$	182,500
Newtown Township	3,999	4,433	4,690	17%	4,549	3,675	874	141	1961	\$	199,600
Study Area Totals	12,296	14,131	15,002	22%	14,619	12,019	2,600	383	(n/a)		(n/a)
Delaware County	201,472	211,024	216,978	8%	206,320	148,384	57,936	10,658	1954	\$	127,000

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing

Trends in housing can illustrate whether a municipality is providing a suitable mix of housing types, and what types of housing should be constructed in the future. Ideally, a community should support a number of different housing types at different price ranges in order to accommodate the needs of current and future residents. Affordability, quality and the condition of the housing stock in a community are all important variables. As shown in Table 11, housing units in all three municipalities are primarily owner-occupied, pointing to a fairly stable population. High rates of owner-occupancy generally point to a higher likelihood of proper home maintenance, and the older suburban neighborhood developments are well established. Most of the housing stock was built post-World War II, with the median age of Marple and Newtown Township's homes at less than 50 years, and Edgmont Township's homes at 20 years. However, many older and historic homes dating from the colonial period to World War II remain in existence throughout the study area. Both Edgmont and Marple townships address conservation of existing housing stock in their comprehensive plans.

One continuing concern across the West Chester Pike corridor is the limited availability of affordable housing. Housing affordability was once an issue that affected only low-income households. Today, many moderate-income households, including service, retail, clerical, and public sector employees, have difficulty purchasing homes in the region. Table 12 shows that 2003 median home sale prices in the study area are well above Delaware County's median of \$135,875 for the same year. At \$392,500, the highest median home price in the study area occurs in Edgmont Township. This expense reflects an 8% increase in Edgmont Township's median home price between 1998 and 2003. Newtown Township's median home price also increased 8% since 1998, to \$315,000, while Marple Township experienced a 32% increase in median home prices over the same period. A family earning the region's median

Delaware Valley Regional Planning Commission

would not be able to afford a 30-year mortgage in any of the three study area townships. Both Marple and Edgmont Township address the need to provide a range of diverse housing types and sizes in their comprehensive plans.

Table 12: Median Home Sale Prices, 1998 and 2003

Municipality	Median Sale Price, 1998	Number of Sales, 1998	Median Sale Price, 2003	Number of Sales, 2003	Percent Change in Median Sale Price
Edgmont Township	\$364,804	73	\$392,500	78	8%
Marple Township	\$191,943	259	\$253,500	324	32%
Newtown Township	\$292,966	149	\$315,000	280	8%

Source: Philadelphia Inquirer, June 13, 2004

Natural Resources

The West Chester Pike corridor's growth over the last 50 years has been spurred as much by its attractive rural character and scenic landscapes as its easy accessibility. Unfortunately, farms and woodlands have all but disappeared from much of the study area. The gentle slopes and well-drained soils that make the area suitable for agriculture also attract more intense development. The result is extensive residential development, which has eradicated much of the open space in Marple, Newtown, and eastern Edgmont townships. If current and future growth is not properly managed, sprawling development threatens to destroy the qualities that initially drew residents and businesses to the area.

Despite rapid development, the corridor still contains many natural resources and environmentally sensitive areas that are valuable resources. Because these natural resources are essential to the local environment and quality of life, land use strategies in the corridor must consider environmental constraints when determining the amount and type of development that may take place. Municipalities need to ensure that the land can sustain additional residential and commercial uses when citing appropriate locations for new development. This allows communities to develop recommendations that are sensitive to potential impacts and to ensure the greatest conservation of natural resources possible.

Edgmont Township addresses this topic in depth in its *Comprehensive Plan and Comprehensive Recreation, Park & Open Space Plan,* adopted in September of 2000. Numerous objectives, goals, and strategies related to environmental resources and open space have been developed for the Township. Marple Township also addresses conservation of open space and environmental protection in its Comprehensive Plan, which is

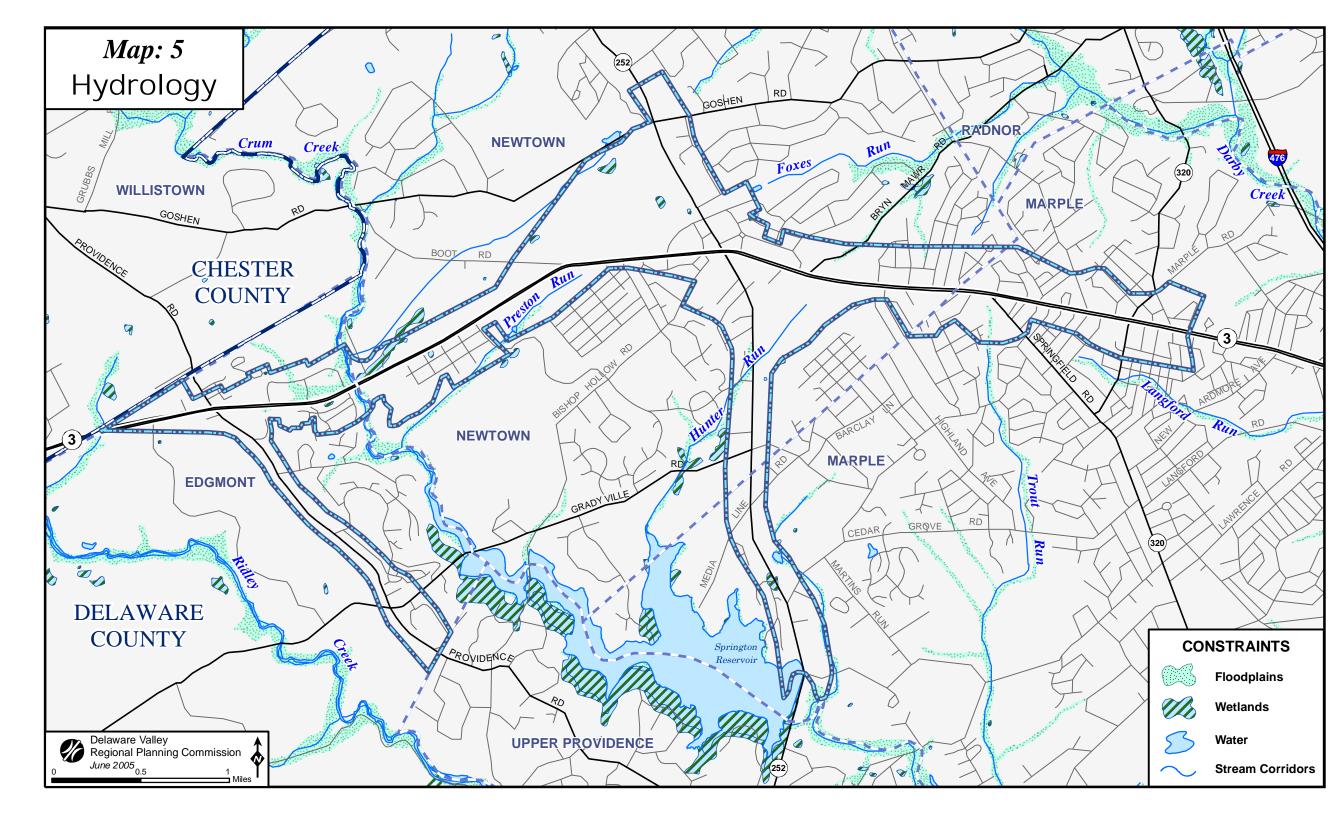
currently in the process of being updated. Newtown Township updated its comprehensive plan in 2001. This plan includes an Environmental Protection Plan, which is based on the identification and protection of environmentally sensitive areas within the Township.

Important natural features to be considered include hydrology – including watersheds, water bodies, wetlands, and floodplains – and slopes, which not only create scenic landscapes but also act as constraints to development. Soils, farmlands and woodlands, open space, and recreational lands are also addressed in this section.

Hydrology

The study area is situated almost entirely within the Crum Creek watershed, which flows into the Springton Reservoir on its way to the Delaware River. The Crum Creek watershed and its tributary network is a critical natural resource because it provides drinking water to more than 200,000 households and businesses as part of AquaPA's (formerly called the Philadelphia Suburban Water Company) public water supply system. According to the Crum Creek Watershed Partnership's (CCWP) *Protection Guide*, some of the many other benefits provided by this watershed are, habitat for plants and wildlife, an outlet for wastewater discharge, a floodway during severe storms, and a recreational and scenic resource for all ages.

The Crum Creek watershed is divided into three sections, and the West Chester Pike corridor falls largely into the suburban *Middle Watershed*. The Middle Watershed begins at West Chester Pike and extends south past the Springton Reservoir. This section of the watershed contains large sections of low-density residential development, as well as a few small woodlands along steep slopes and streams and some remnant agricultural fields.



Delaware Valley Regional Planning Commission

(Map5)

The Middle Watershed contains less protected open space than the more rural Upper Watershed north of West Chester Pike, but CCWP identifies several important conservation and restoration opportunities.

Primary issues and threats to the health of the watershed identified by CCWP include: suburban sprawl; stormwater runoff; increased demand for water supply; wastewater treatment; flood control; and the survival of a habitat for aquatic life. According to the *Protection Guide*, roads and development remove natural vegetation and wildlife habitats, reduce the groundwater recharge area, and increase runoff and flooding. Paving and creating more impervious surfaces increases runoff and pollution and exacerbates flash flooding. Leaking private septic systems and discharge of treated effluent pollute Crum Creek with bacteria and nutrients. CCWP urges municipalities to protect the watershed and curb sprawl through aggressive open space protection and conservation-oriented zoning. Within the study area, only Edgmont Township's comprehensive plan embraces the National Land Trust's *Growing Greener: Conservation by Design* recommended for watershed health.

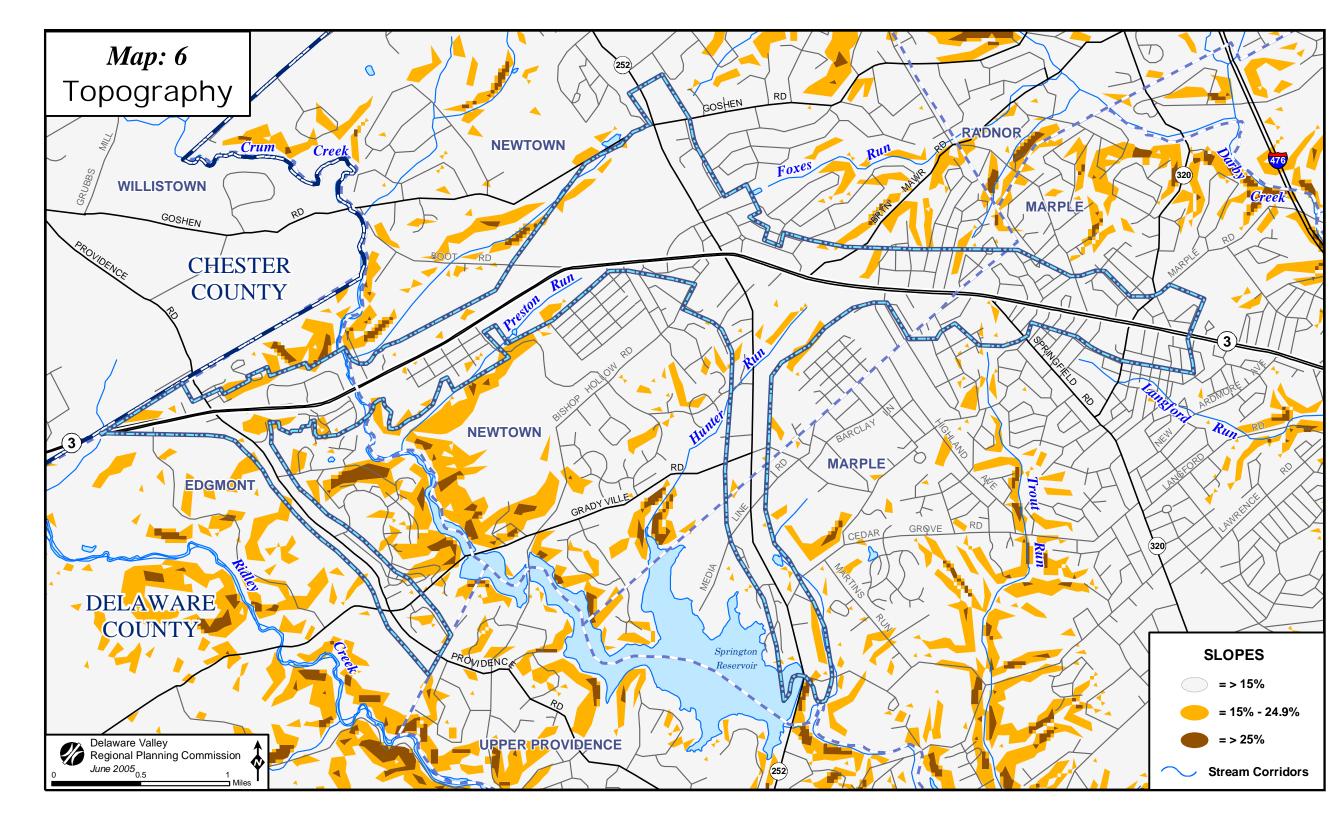
The Springton Reservoir, shown on Map 5, is the largest body of water in the study area, and in fact the largest upland water body in Delaware County. Located in the center of the Crum Creek watershed, Springton Reservoir is bordered by Marple, Newtown and Edgmont townships in the study area, and Upper Providence Township to the south. The Springton Reservoir, and a significant amount of surrounding acreage, are owned by AquaPA. AquaPA forbids recreational uses, according to the *Marple Township Comprehensive Plan*, in order to maintain water quality. However, AquaPA has sold a portion of the peninsula between Marple and Newtown townships for residential development. Given the importance of riparian forest buffers to watershed health, further residential development near the Springton Reservoir must be carefully managed.

Other important hydrological characteristics include floodplains and wetlands. Wetlands are an important hydrological resource because they offer biodiversity that cannot be replicated in other types of terrain. They are also important ground water recharge areas and regulate stream flow by collecting water during major rains and augmenting flow during low water conditions. Farm ponds, reservoirs, and upland wetlands such as swamps and marshes are also a major asset to wildlife. Most of the wetlands in the study area are adjacent to the major stream systems and the Springton Reservoir. Wetland and hydric soil areas are not suitable for development. Map 5 shows wetlands and floodplains.

Floodplains are also significant environmental resources and constraints to land development. Each stream system is associated with a floodplain, which is the low-lying area adjacent to a creek or stream that is most prone to flooding during periods of heavy rain. These areas, when left untouched, provide a natural buffer for nearby development when flooding occurs. However, much development has already occurred in floodplain areas, exacerbating threats of flood damage to residential, commercial, or industrial uses.

Topography

Map 6 shows slopes greater than 15 percent. The study area lies within the Piedmont Province of the Appalachian Highlands, which is characterized by gently rolling uplands and low hills. These rolling hills create some of the more picturesque viewsheds in the corridor. Most of these hills are at a slope of eight percent or less, which offers little impediment to land development. Slopes greater than fifteen percent present a definite constraint to development, and are generally found near stream corridors. These areas should remain undeveloped.



(map6)

Farmland, Woodlands and Preserved Open Space

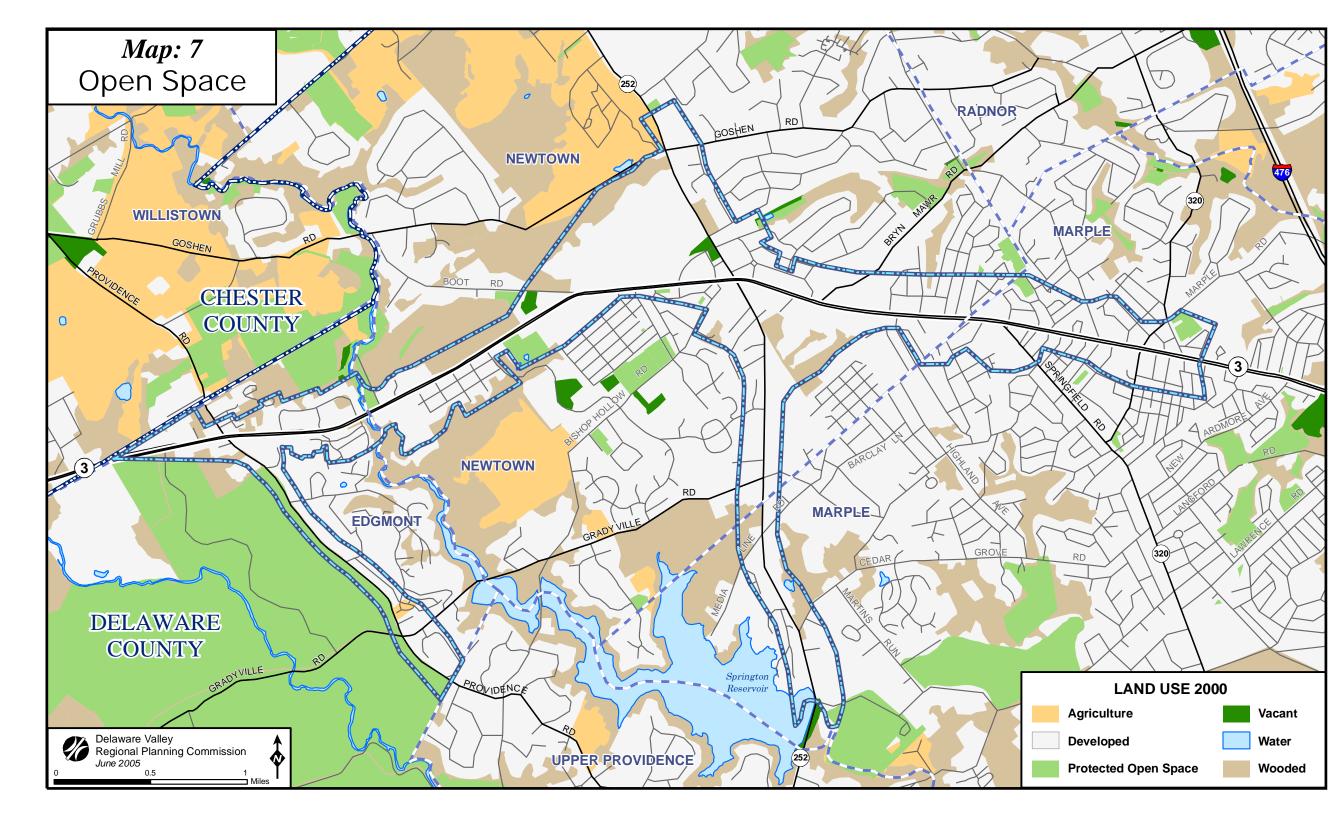
The area was densely wooded prior to Colonial settlement, and much of it was later farmed. However, today only small pockets of woodlands and agricultural lands remain; commercial and industrial uses dominate the main transportation routes, and the areas in between have filled up with low-density residential development. The characteristics that make land desirable for agriculture also make it desirable for development. Commercial and residential developers looking for accessible, well-drained sites typically target farmland, and new development is often at the expense of agriculture. Map 7 shows the distribution of open space and agricultural land in the study area.

While farmland has basically disappeared from Marple Township, it has protected some of its remaining open space, most notably along its stream corridors. As shown on Map 7, some large areas of farmland still remain in Newtown Township although they are rapidly being developed. The township has no agricultural conservation plans in place, and much of the undeveloped land remaining to the north of Springton Reservoir is also unprotected.

While Edgmont Township still has large areas of open space, only the eastern and most intensely developed part of the township lies within the study area. However, Ridley Creek State Park, which makes up a large section of Edgmont Township, is the largest area of protected open space anywhere in the corridor. Edgmont Township's comprehensive plan addresses the need for open space conservation and agricultural protection. The Township has made efforts to protect its natural landscape by placing 200 acres of farmland under state conservation easements for agricultural protection. In addition, the Township has 700 acres in the local Agricultural Security District monitored by the Delaware County Conservation District. As growth continues along the West

Delaware Valley Regional Planning Commission

Chester Pike corridor, the development pressures on unprotected farmland and woodlands will increase while the amount of available land decreases.



(Map7)

Cultural & Historic Resources

The West Chester Pike corridor has a long and rich history reflected by its transportation and settlement patterns, land uses and built environment, and overarching character. The historical origins of Marple, Newtown, and Edgmont townships help to create the area's sense of place, sense of community, and overall quality of life. The past evolution of a community often indicates how it will continue to grow and change in the future. Recognizing the important role of history in community planning efforts, including developing strategies to protect remaining cultural and historic resources, is an important part of any land use plan.

This section examines the historical development of the West Chester Pike corridor, provides a brief overview of the many historic resources identified in the area, and explains the importance of preservation efforts within the communities. Much of the information in this section was found in the Delaware County Planning Department's *Historic Resources Survey* for each township, completed in 1984 and 1994, as well as current township comprehensive plans.

Key Findings

- Numerous historic resources, including several structures of recognized national significance, can be found within the West Chester Pike corridor. Cultural and historic resources of national and local significance, including archeological resources, can still be found in the three Townships. However, the communities' heritage has been compromised by rapid development in the second half of the 20th century, a pattern that continues today.
- Local preservation and growth management regulations are necessary to protect key remaining resources and preserve the corridor's quality of life and sense of place. Cultural and historic preservation efforts within the corridor should address not only historic structures, but also the entire cultural and historic

landscape. Unchecked continuation of recent development patterns will greatly diminish or destroy the integrity of remaining cultural and historic resources.

A Brief History

Long before Europeans began to settle in Pennsylvania, the Okehocking tribe of the Lenni-Lenape, or Delaware, Indians inhabited the study area. According to the Delaware County Planning Department's *Historic Resources Survey*, the Lenape established semi-permanent villages near the area's streams. They cultivated crops such as corn, squash, and beans near their villages, beginning the long pattern of agricultural land use in the corridor, and hunted and fished nearby. The paths they created to travel back and forth between their homes and the Schuylkill River were the beginnings of present-day West Chester Pike and Baltimore Pike. Other Lenape paths later became roads for European settlers.

Evidence of the Okehocking tribe has been found throughout the corridor, namely arrowheads and fragments. A Lenape rock shelter was excavated in Marple Township in the 1940s, revealing artifacts and human remains. The artifacts and remains have been removed to a Lenape museum. Ten sites were documented and then destroyed for the construction of I-476.

In 1701, William Penn set aside the Okehocking Reservation for the Lenape as European settlement intensified. The Okehocking Reservation is thought to be the first land specifically allocated to Native American use. Northern Edgmont Township was part of this reservation. The Lenape migrated west to Ohio by the 1740s, and the land was subdivided and sold to local settlers.

Penn was also instrumental in orchestrating European settlement in Delaware County. Originally part of Chester County, Delaware County was settled by the Swedish and Dutch in 1643. The English acquired the area around the middle of the seventeenth century, and English settlers began to arrive. Penn was formally granted the land in 1682, and laid out the three original Pennsylvania counties. (Delaware County

remained part of Chester County until 1789.) Early settlers were mostly Quakers. Shortly after his land grant, Penn began planning "the first inland town west of Philadelphia." A townstead of one square mile was located at the center of this "New Town" and surrounded by farms on all sides. It was laid out around a central road known as Newtown Street Road, extending north to south through the center of the township. Lots were sited on either side of the road. Original purchasers were allotted one acre in the town for every 10 acres of farmland they purchased, resulting in 21 tracts ranging from 13 to 70 acres in size. Actual settlement was slow, with early structures consisting of farm buildings and houses. The first known, dated building in Newtown Township is the Newtown Friends Meeting House, constructed in 1711 for the population of Welsh Friends in the area.

Marple Township also experienced its first European settlers in 1683, with many coming from Cheshire, England. By 1693, fifteen men and their families owned "plantations" in the township. Land was granted between Crum Creek and Darby Creek along the Great Road of Marple Township, which is Sproul Road today.

Edgmont Township also began developing, although it was originally known as Gilead. In 1686, tax collector Joseph Baker renamed the township after his former home, Edgmond, in Shropshire, England. The township was officially incorporated in 1687; various spellings persisted until the current version became accepted around 1725. The Edgmont Great Road was laid out in 1687, and remains today as Middletown Road/PA Route 352. At the intersection of Gradyville and Middletown roads, the only village in Edgmont Township was laid out in 1759. The village was originally known as Rising Sun, after the local tavern, and later Howellville. The name was changed to Gradyville in honor of local landowner Senator John C. Grady in the 1890s.

Edgmont, Marple, and Newtown all remained essentially agrarian communities for the colonial period and into the early 20th century, with population and industrial uses increasing as transportation advances were made. Sawmills, gristmills, and tanneries were early industries. Transportation advancements such as new roads, rail lines, and the trolley line that extended along West Chester Pike at the turn of the 20th century,

stimulated some new development and an influx of residents.

The spread of the automobile after World War II, coupled with national housing policies, brought modern suburban development to the study area. However, the vernacular farmhouse persists, either on the increasingly rare farmsteads or engulfed by 20th century housing developments. Commercial buildings along West Chester Pike range from converted historical homes, to turn-of-the-20th century "Main Street" structures, to early automobile-era strip malls, to modern shopping centers and automobile dealerships. It is impossible to determine one type of predominant structure, given the long history of the study area and the variety of developments and styles.

Documentation and Historic Preservation Planning

The Delaware County Planning Department's Historic Preservation division has identified many historic sites and structures in its surveys of the three townships, most recently completed in 1994. These are noted on Map 8: Historic Sites and Buildings. Table 13 describes the numbered historic sites and buildings included on Map 8. The list shown in Table 13 may not be an exhaustive inventory of the cultural resources within the County, however, it is the best representation available based on the 1994 survey completed by Delaware County. The surveys note that many historic resources in the three townships have been demolished. While the status of each resource in Table 13 was updated for this report, it is possible that more resources have been destroyed since this update. DCPD found that a number of remaining structures possessed enough historic significance to be nominated to the National Register of Historic Places. The DCPD also determined that several historic districts could be created to further protect the communities' historic resources and sense of place, and recommended that locally controlled historic districts be implemented.

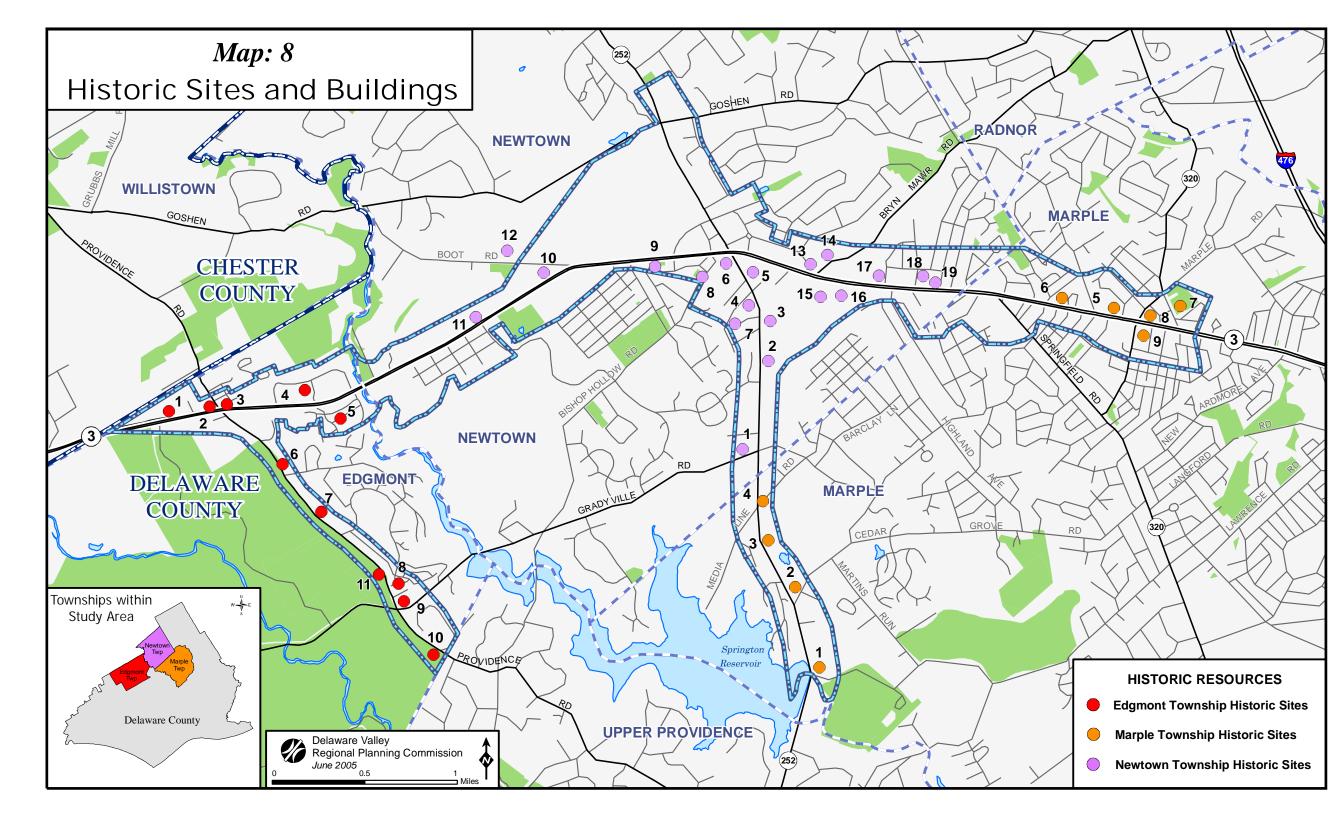
Route 3, West Chester Pike Land Use and Access Management Strategies

The gradual early development of the communities resulted in a range of structures from early Colonial to Victorian, in a variety of styles and uses. Some of their most important structures include colonial homesteads such as the Thomas Massey House in Marple Township, historic barns and outbuildings in Ridley Creek State Park in Edgmont Township, and religious properties such as the Newtown Friends Meeting House.

Table 13: Historic Sites and Buildings – Key to Map 8

	Number	Location/Name
	1	West Chester Pike DEMOLISHED
	2	West Chester Pike DEMOLISHED
	3	West Chester Pike - Olde Country Tavern
	4	4895 West Chester Pike - Castle Rock Farm
	5	Castle Rock Road - site of Castle Rock
	6	3745 N. Providence Road - Edgmont School #1
	7	3679 N. Providence Road – Farr House
	8	3561 N. Providence Road - Fifer's Folly
	9	Gradyville and Providence Roads – Henry Howard Plantation
	10	3432 & 3430 N. Providence Road - Box Tree Farm
	11	351 Gradyville Road - Upper Patchel Farm
Marple Township	Number	Location/Name
· · · · · · · · · · · · · · · · · · ·	1	Site of Jones Sawmill, Palmers Mill and Newtown Street Roads
	2	Pond House, Delaware County Community College, Newtown Street Road
	3	Stull Mansion, Delaware County Community College, Newtown Street Road DEMOLISHED
	4	832 Media Line Road – Colonial Vernacular House RAZED
	5	2625 West Chester Pike – Maris House
	6	2809 West Chester Pike – Culbertson House
	7	Parsonage, 61 Church Lane
	8	Site of Drove Tavern, NE Corner, West Chester Pike and Sproul Road DEMOLISHED
	9	Site of Buck Tavern, SW corner, West Chester Pike and Sproul Road DEMOLISHED
lewtown Township	Number	Location/Name
	1	3729 & 3731 Gradyville Road - Martino House/Carriage House
	2	S. Newtown Street Road
	3	East Side of S. Newtown Street Road
	4	100 S. Newtown Street Road - 1804 Bank House
	5	101-103 S. Newtown Street Road - Red Brick School
		8, 8.5, 10 S. Newtown Street Road - Benner House and Apartment Building
	6	8.5 and 10 S Newtown Street Road-DEMOLISHED
	7	34.5 Mary Jane Lane - Edgar House
	8	101 Bishop Hollow Road - Robinson House
	9	37 School Lane - Chestnut Grove Seminary
	10	6 Boot Road - Kirk House
	11	North Side West Chester Pike DEMOLISHED
	12	41 Boot Road - Roach/Fowler House
	13	West Chester Pike DEMOLISHED
	14	14 Bryn Mawr Avenue – Ashley Springhouse
	15	3500 West Chester Pike – Dunwoody Estate
	16	3500 West Chester Pike – Hood Octagonal School
	17	3405 West Chester Pike – Fox Chase Inn
	18	3207 West Chester Pike – Barrell Inn
	19	2301 West Chester Pike – Dr. Contestabile's House
	10	2001 Trock Official Like Dr. Controllabile of Floude

Source: Delaware County Historic Resources Surveys for Edgmont, Marple, and Newtown townships, 1994



Delaware Valley Regional Planning Commission

(Map8)

New development has been identified as a key threat to historic resources in the study area, with numerous historic estates now embedded in housing subdivisions – for example, the Bond-Weaver House, Langstoon, and Foxcroft in Marple Township. Conservation of site and setting is considered an important part of historic preservation, and as such, future efforts should take into account the cultural landscape. However, both Edgmont and Marple have expressed support for a policy that preservation and adaptive reuse of historic structures within new developments be the preferred course of action rather than demolition. Using site plan review to protect historic resources is one tool appropriate to scattered-site historic structures.

Historic preservation can also be viewed in a different context, that of downtown revitalization and redevelopment rather than continued sprawl. The economic development context is most relevant to Marple Township, which has more of an historic business district area than the other two townships and is interested in revitalization. Design review and façade renovation programs could be very beneficial in this context, and could be implemented in concert with any streetscape or transportation improvements to the area.

When new development occurs, rural and suburban historic resources are often lost. As of mid-2005, no preservation measures have been put in place by the municipalities to protect their cultural and historic resources. However, interest in future action has been expressed. All three townships have historical societies, but only Marple Township has an official, appointed Historical Commission.

Edgmont Township has listed a number of objectives and strategies for its historic resources in its 2000 Comprehensive Plan, including identifying historic sites for protection, exploring designation of the Village of Gradyville as an historic district, and providing incentives to preserve historic buildings. Edgmont is in a unique position because of its historic village, remaining farm structures, and the Ridley Creek State Park.

Marple Township is currently updating its comprehensive plan, and recently formed an official Historic Preservation Commission. The Township is also expanding its preservation program both in the context of economic development, and for the sake of preserving other important pieces of its cultural heritage and identity.

The Newtown Square Historical Preservation Society has been instrumental in identifying and documenting historic properties in Newtown Township. In addition to this ongoing work, the Township's comprehensive plan focuses on the future development and implementation of design guidelines as well as a historic resource overlay district.

Possibilities for the preservation and adaptive reuse of historic resources are further addressed in Chapter 4, *Recommendations*.

Community Facilities and Infrastructure Systems

The rate and shape of future growth is largely determined by the capacity and condition of the physical infrastructure system and community facilities. Community Facilities and Infrastructure Systems are defined as public buildings and structures that house programs and activities essential to municipal government operations. Public services include activities ranging from sewer and water service to parks and recreation facilities. The extent to which these services are available largely determines the rate and intensity of development on one hand, and the quality of life and attractiveness of the community on the other. A municipality with a dense population and healthy tax base can afford to maintain quality parks and recreation spaces, not to mention extending sewer service to new residential areas.

Key Findings

- Marple Township's residents are serviced by a municipal sewer system that serves all the Route 3 frontage and extends well into the areas of new development to the south along Route 252
- Newtown Township is covered by municipal sewer east of Route 252 on Route 3 and north along Route 252. Service becomes spotty west of Route 252, though, with most proposed new development currently lacking service. This is also true for new developments south on Route 252 in Newtown. Much of that area has proposed future service, but is currently underserved.

- Edgmont Township lacks sewer service along the Route 3 frontage. While extended service is proposed, it will require the construction of a new treatment facility to handle increasing residential demand.
- Newtown and Edgmont townships have been pursuing a joint treatment facility to handle future residential development along West Chester Pike and in the surrounding areas.
- Current on-site septic systems are prone to back-ups and failure due to drainage and soil issues in Edgmont. A dedicated sewer system would alleviate these costs for many businesses and residents along Route 3.
- Ridley Creek State Park in Edgmont, the largest park in the area, draws patrons from throughout the region and is an invaluable resource to the community.

Wastewater Facilities

Act 537, the Pennsylvania Sewage Facilities Act of 1966, as amended, requires that each municipality have an official Sewage Facilities Plan, typically referred to as the "537 Plan." The purpose of the plan is to identify future sewage disposal needs in light of anticipated development and set forth policies for meeting those needs. The current (2002) sewer service areas are shown in Map 9.

Different approaches to waste disposal are employed within the study area municipalities. The method used is a function of a variety of factors including population, density of development, site characteristics, soils and topography, and funds available. The sewage facilities in Delaware County are typically one of the following:

Public Systems – Centralized systems are used for collection and treatment of wastewater. These are typically referred to as public sewers and can be publicly or privately owned.

Package Plants – These smaller facilities usually serve only one development or commercial facility. Treatment takes place though a mechanical and chemical process with the final step dependant on stream discharge.

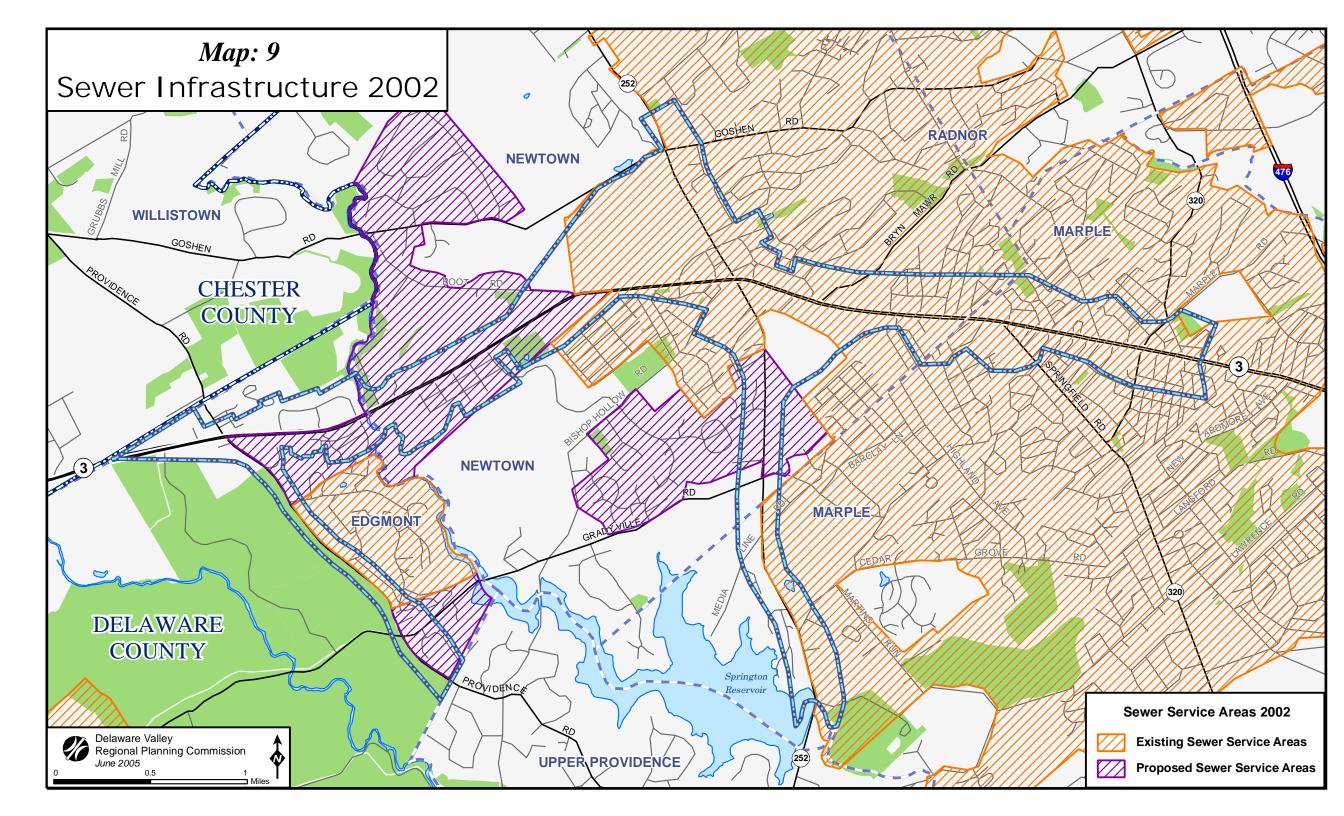
On-Lot Systems – These individual septic systems are built to accommodate one dwelling unit or business. They range in complexity from very simple to very sophisticated, depending on the soil and topographic characteristics of the site. On-Lot systems can be designed to accommodate more than one dwelling unit (such as in a mobile home park) or commercial area, and most are privately owned.

Marple Township and most of Newtown Township east of Route 252 rely on public sewer systems. West of Route 252, Newtown and Edgmont townships rely on on-lot systems as their primary treatment method. Although these systems are highly effective at treating and disposing of wastewater, municipalities will be challenged to evaluate the density and capacity they can support. Unless alternative means for disposal are undertaken, the amount of growth that can occur will be seriously limited and environmental concerns escalated.

Water Facilities

The systems supplying water to the corridor vary significantly in size and can be publicly or privately owned and operated. AquaPA, serves most of Delaware County.

In the study area municipalities, water is supplied from both surface sources and from wells. Groundwater yields are sufficient to accommodate low-density development typical in Edgmont Township. As development pressure increases, community water systems will be the predominant source.



(Map9)

Stormwater Management

Act 167, the Pennsylvania Stormwater Management Act of 1978, governs stormwater management practices. This legislation requires municipalities to adopt ordinances and other measures to regulate development in a manner consistent with watershed management provisions in an Act 167 Stormwater Management Plan. An Act 167 Plan for Crum Creek, which contributes to the Springton Reservoir, is currently underway. General objectives for best management practices include: requiring unimpeded flow of natural water courses; draining low points along streets; intercepting stormwater runoff at appropriate points; and infiltration of stormwater runoff generated from new development and redevelopment.

Parks and Recreation

The municipalities within the study area have access to both active and passive recreational uses that meet the basic needs of their residents. However, anticipated growth and new development will create a need for additional park and recreation facilities. As community open spaces dwindle in size and number, the need for more places for people to recreate grows.

The westernmost portion of the study area adjoins with the Ridley Creek State Park. A regional attractor, the park is a 2,606-acre, passive use area with over 12 miles of hiking trails, fishing areas and sculpted gardens. This park is protected from development and is viewed as a centerpiece of Edgmont Township's heritage.

Newtown Township has limited park and recreation opportunities. The growing number of residents in Newtown will have to seek open spaces outside the township if the pace of development continues.

Marple Township has matured with its residents in mind, carving out multiple municipal parks in the fairly dense pattern of development. The Malin Road "Tot Lot" is specifically designed for a younger audience, while the Ann Road Park and Old Marple Grade School parks offer something for all ages.

Circulation

Land use and transportation are inextricably linked; the demand for transportation services and facilities is affected by patterns of land use, and land use change is brought about by the impacts of the transportation system. In the context of the Route 3 transportation network, impending new development will spur calls for road capacity increases and further transportation investments. Without applying access management principles to these future investments, the effectiveness of these improvements will be limited and the expenses will outweigh the benefits.

Key Findings

- Route 3 serves the dual purpose as a regional throughway and as the commercial center of the three municipalities that it passes through. Projected future growth in population and employment in the study area, as well as the zoning of adjacent parcels, indicate that the use of the highway as a commercial corridor will increase.
- Congestion on Route 3 and Route 252 plagues both kinds of users, local and through travelers. This problem will only be exacerbated by increased development around the intersection of these two roads and along Route 252 in Newtown Township. At present, congestion affects Newtown Township more than the other two participating municipalities, but during peak hours all three have some measure of backup.
- Numerous access management strategies could be employed along Route 3 and Route 252 to increase mobility and decrease turning-related accidents.
- Land use patterns in both corridors are generally low-density, with single-family detached dwellings and strip commercial uses, creating a car-dominated

landscape. Because of these patterns, most transportation alternatives to the automobile, such as biking, walking, or multi-route bus service, are not viable.

Composition of the Roadway Network

West Chester Pike's historic significance as the trolley route linking Center City Philadelphia with West Chester is the foundation of the area's road network. The present transportation system comes from centuries of evolution and settlement patterns. Since World War II, the dominance of the automobile has asserted itself on the landscape, supplanting trains and trolleys with highways. The following roads area the major transportation corridors within the study are:

- Route 3, or West Chester Pike, follows the historic trolley tracks west from Philadelphia to West Chester, passing through Philadelphia, Delaware, and Chester Counties along the way. Interstate 476, a major regional throughway that links Chester and Interstate 95 with Northern Pennsylvania, bisects Route 3 at the eastern edge of the study area. West Chester Pike is a four-lane boulevard with a tree-lined central median through Marple and eastern Newtown townships. In central Newtown, the median disappears, but soon resurfaces in the western end of the township and continues through Edgmont Township all the way to West Chester.
- Route 252 is aligned north-south between Upper Providence Township in Delaware County and Upper Merion Township in Montgomery County. The portion of the road passing through the study area is two lanes wide south of Route 3, but enlarges to four lanes north of Route 3. The lanes are restricted to two lanes to the south because Route 252 passes over the dam of the Springton Reservoir.
- Route 320 (Sproul Road) runs parallel to I-476 north-south through Marple Township. Route 320 extends north from I-95 through Delaware County to Upper Merion Township in Montgomery County. Route 320 was once a heavily

congested road, but since the opening of I-476 has become more of a route for local traffic and congestion relief from the Blue Route.

Functional Classifications

For planning and design purposes, highways are classified by function. Map 10 shows Highway Functional Classifications and traffic counts. Although highways have two functions, to provide mobility and to provide local access, these uses are not necessarily complementary. Mobility requires high speeds for sustained travel while local access requires low speeds for frequent turns and numerous access points. The Federal Highway Administration, in conjunction with PennDOT, has instituted a nationwide classification system known as the National Highway Functional Classification. Four different categories of roads are used in this system:

Principal Arterials serve statewide and interstate travel, linking major activity centers in the urbanized area. In addition, this class of facilities serves significant intra-region travel, such as between central business districts and outlying residential areas or between major suburban centers. Along principal arterials, local access is subordinate to mobility. Principal arterials in the study area are Route 3 and Route 320.

Minor Arterials interconnect and augment the principal arterial system. These roads carry trips of moderate length, and place more emphasis on local access than the principal arterial and therefore carry less traffic. Roads of this classification accommodate intra-community travel but do not penetrate neighborhoods. Minor arterials in the study area are Bryn Mawr Road and Providence Road.

Collectors provide both local access and traffic circulation within residential neighborhoods and commercial and industrial areas. The collector system may penetrate residential neighborhoods, distributing trips from arterials to the ultimate destination. Also, these roads collect traffic from local streets and channel it onto the arterial system. Collectors carry less traffic than arterials but may carry a minor amount of through traffic. Goshen Road and Gradyville Road are examples of collector roads.

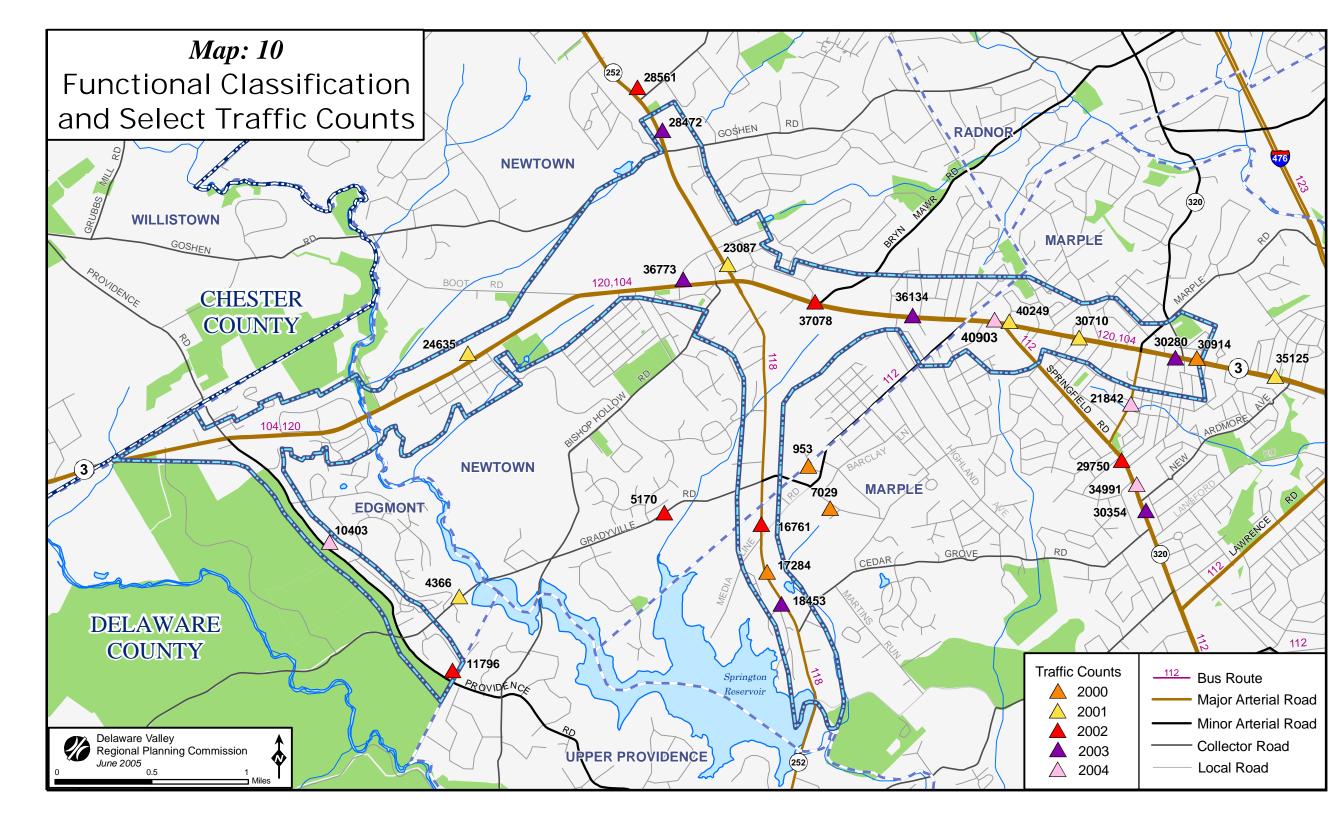
Local roads permit direct access to abutting land uses and connections to the other categories of roads. They carry very low volumes and offer the lowest level of mobility, often deliberately discouraging through traffic. There area many local roads in the study area, including Boot Road and School Lane.

Importance of Access Management

With fewer new arterial roadways being built, the need for effective system management strategies is greater than ever before. Access management is particularly attractive as it offers a variety of benefits to a broad range of stakeholders. By managing roadway access, government agencies can increase public safety, extend the life of major roadways, reduce traffic congestion, support alternative transportation modes, and even improve the appearance and quality of the built environment.

Without access management, the function and character of major roadway corridors can deteriorate rapidly. Failure to manage access is associated with the following adverse social, economic, and environmental impacts:

- An increase in vehicular crashes
- · More collisions involving pedestrians and cyclists
- Accelerated reduction in roadway efficiency
- Unsightly commercial strip development
- Degradation of scenic landscapes
- More cut-through traffic in residential areas due to overburdened arterials
- Homes and businesses adversely impacted by a continuous cycle of widening roads
- Increased commute times, fuel consumption, and vehicular emissions as numerous driveways and traffic signals intensify congestion and delays along major roads.



Map10

Not only is this costly for government agencies and the public, but it also adversely affects corridor businesses. Closely spaced and poorly designed driveways make it more difficult for customers to enter and exit businesses safely. Access to corner businesses may be blocked by queuing traffic. Customers begin to patronize businesses with safer, more convenient access and avoid businesses in areas of poor access design. Gradually the older developed areas begin to deteriorate due to access and aesthetic problems, and investment moves to newer better-managed corridors.

After access problems have been created, they are difficult to solve. Reconstructing an arterial roadway is costly and disruptive to the public and abutting homes and businesses. The shallow property depth, multiple owners, and right-of-way limitations common to older corridors generally preclude effective redesign of access and site circulation. In some cases, a new arterial or bypass must be built to replace the functionally obsolescent roadway, and the process begins again in a new location. Access management programs can help stop this cycle of functional obsolescence, thereby protecting both the public and private investment in major roadway corridors. (From the Transportation Research Board, Committee ADA70)

Traffic Volumes and Patterns

The segment of Route 3 with the highest traffic volumes is at the eastern end of the study area, at the intersection with Route 320. Counts are also high near I-476, maintaining consistent levels over the five years displayed on Map 10. However, counts taken along Route 320 are higher in 2004 than in any other year; this trend is likely to continue as population and employment centers grow in central and western Delaware County.

Traffic volume on Route 252 is almost as heavy as on Route 3, north of West Chester Pike. While there was a slight decrease between 2002 and 2003 on Route 252 and Goshen Road, new development pressure is bound to add volume to this corridor. Since traffic counts are significantly higher north of the Route 3 intersection on 252 than south, it is fair to assume that more commuters are traveling west from I-476 and

Route 320 and then taking Route 252 north. Significantly lower counts to the south and west of the Routes 3 and 252 intersections seem to back this assumption.

Alternate Modes of Transportation

Currently, there are few transportation alternatives to the automobile along Route 3. As shown in Map 10, the West Chester Pike corridor is served by SEPTA bus routes 120 and 104. These routes stop at major employment centers, like SAP and Dunwoody Retirement Center, as well as larger shopping areas and residential neighborhoods. These routes service passengers traveling between 69th Street Station and West Chester. While ridership is relatively low, there are still those who rely solely on SEPTA for transportation to and from work.

SEPTA Route 118 traverses Newtown Township on Route 252.

The Delaware County Planning Department requested that DVRPC undertake a feasibility study for a busway on West Chester Pike between I-476 and 69th Street terminal. This study is nearly complete, although the results of the study have not been released.

Bicycle and Pedestrian Facilities

Currently, cycling and walking are not viable means of transportation in most areas along the Route 3 or Route 252 corridors. There are no bicycle lanes along either roadway or within close proximity of the corridor; however, sufficient shoulders are present along Route 252. The high-speed nature of Route 3 makes cycling without safely designated bicycle lanes very dangerous. The close proximity of Ridley Creek State Park creates a demand for bicycle access. Designating bicycle lanes along both Route 3 and other contributing local roads where cycling could be conducted safely would increase the number of transit options available to residents, and may contribute to a decrease in roadway congestion. Ancillary improvements, such as "Share the

Route 3, West Chester Pike Land Use and Access Management Strategies

Road" signs and pavement markings may also help to draw the attention of drivers to the presence of cyclists, creating a safer environment for alternate modes along Route 3.

Additionally, the Route 3 corridor has been designated a primary bicycle improvement area by the Delaware County Planning Department through its Bicycle Plan. The Bicycle Plan is an implementation tool that outlines objectives for bicycle amenities within Delaware County, and identifies a proposed bicycle network of on-road facilities. The decision to designate Route 3 within the highest priority group was based on the current number of riders, the desire of bicyclists for safer facilities along this roadway, and the possible demand for bicycling (derived from assessing major destinations within the County).

Due to the style of development along Route 3, which includes long distances between structures and uses, no shelter or shade along the sidewalks, and sidewalks that are relatively unprotected from the high-speed travel on Route 3, walking is not an attractive or convenient option for residents who would like to commute, shop or recreate along West Chester Pike. West Chester Pike has almost continuous sidewalks from Boot Road to I-476, which provides safe access to a large number of bus stops for three SEPTA bus routes. However, sidewalks are lacking along Route 252 and areas west of Boot Road on West Chester Pike, which makes this area unsafe for pedestrians. Although new developments are increasingly providing sidewalks, such as those along Route 252 north of Gradyville Road, the unsafe conditions still exist for pedestrians along the vast portions of Route 3 that have previously been developed without pedestrian facilities.



Chapter 3

Goals and Objectives

The goals and objectives identified in this chapter create the foundation for the Route 3 Land Use and Access Management Strategies Study. Broadly defined, these goals are an attempt to harmonize the disparate wants and needs of three townships, the county, and the regional interests of DVRPC, PennDOT, and SEPTA. Setting far-reaching and optimistic goals that can be tempered by pragmatic objectives is the best way to reach all parties' desired ends. The recommendations given later in this study are designed to respond directly to the goals presented in this chapter.

Growth Management Goals

- Achieve a future overall development pattern that is responsive to the economic, social and cultural needs of corridor residents and businesses and cognizant of regional trends.
- ☐ Ensure that land use regulations are inspired by a coherent vision for the future of the corridor, are amenable to redevelopment efforts, and improve consistency between communities' planning goals and what actually gets built.
- Coordinate development and transportation goals and projects with adjacent municipalities and with regional plans for the county, and promote multimunicipal cooperative agreements for transportation projects and improvements.
- Ensure that new development and redevelopment occurs in an efficient manner that is: compatible with existing conditions; minimizes short- and long-term costs

to the public and private sectors; minimizes degradation of natural, historic and cultural environments; and meets local and regional objectives.

Continue to expand and diversify the corridor's economic base in order to provide additional municipal services, maintain and develop community facilities, and offer a broad range of job opportunities for community residents.

Growth Management Objectives

- ✓ Encourage sketch plan review prior to preliminary plan submittal and require a site analysis as the basis for development proposals.
- ✓ Focus new development in areas where infrastructure already exists; make redevelopment and infill a priority through incentives and comprehensive plan language.
- ✓ Encourage connectivity between new and existing developments. Utilize existing infrastructure and accommodate walking and cycling as an equal means for getting around.
- ✓ Coordinate planning and development efforts among the local governments and institutions, school districts, county governments, and state and federal agencies including SEPTA and DVRPC.
- ✓ Update and amend local Comprehensive plans to reflect corridor-wide development goals.

Circulation Goals

- Provide a safe and efficient circulation system, (both vehicle and pedestrian) which can maximize safety, minimize congestion, and establish a beneficial relationship between land use and local circulation patterns throughout the corridor.
- Balance the use of Route 3 as a commercial center for the municipalities in the corridor with its use as a throughway for regional travel.
- Promote access management techniques to ensure that the circulation system functions at maximum efficiency, and ensure the safety of users of the circulation system by identifying and improving unsafe road sections of intersections.
- Coordinate development and transportation goals and programs with adjacent municipalities and with regional plans for the county, and promote multimunicipal cooperative agreements for transportation projects and improvements.

Circulation Objectives

- ✓ Establish priorities for balancing the function of the road network with existing and pending land use.
- ✓ Make the approvals process work for all parties by establishing working relationships between municipalities, developers, and PennDOT. Make early sketch plan review a requirement for developers and keep the three parties informed of changes as they occur.
- ✓ Coordinate developments with state highway officials to assure optimum levels of service and ease of access from specific sites, and in particular, the use of shared access on arterial roads.

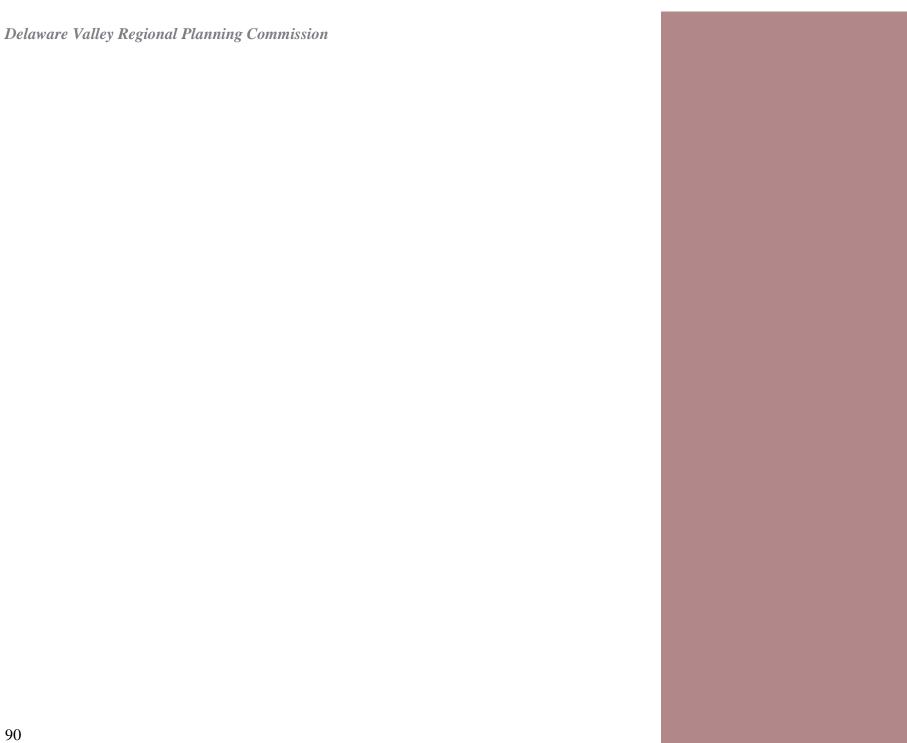
- ✓ Make SEPTA bus service a more viable transportation option by providing amenities for transit users, like bus shelters and sidewalks.
- ✓ Adopt access management principles to increase mobility, including such features as frontage roads, roundabouts and coordinated signalization.
- ✓ Identify and generally set priorities for projects that are appropriate for inclusion on DVRPC's Transportation Improvement Program and PennDOT's Twelve –Year Transportation Program.
- ✓ Promote the development of a network of pedestrian and bicycle facilities linking residential, employment, shopping, school, open space and recreation sites, and transit stops.

Community Character Goals

- Protect the cultural and historic character of the corridor by identifying important elements like structures and landscapes for future preservation efforts.
- ☐ Encourage Townships to adopt coherent, corridor-wide design standards to improve community cohesion and the aesthetic quality of the built environment.
- ☐ Ensure that parks and open spaces will be preserved and expanded to service the increased residential population.
- Protect, preserve, manage and enhance the natural and scenic resources of the corridor (in particular the water resources, steep slopes and biotic resources to prevent soil erosion and conserve important vegetative resources)

Community Character Objectives

- ✓ Protect the viability of existing housing stock and commercial space, and preserve the character of existing neighborhoods.
- ✓ Investigate methods of encouraging the preservation of significant built resources through both public and private means.
- ✓ Adopt historic preservation ordinances and include specific properties and structures to be preserved in the communities' comprehensive plan.
- ✓ Where applicable, require the placement of lots and buildings, roads, and other structures to occur in ways that preserve natural resources and scenic vistas.
- ✓ Create design standards for berming, natural landscaping, and (where applicable) increased building setbacks along the Route 3 corridor to preserve and enhance visual amenities.



Chapter 4

Recommendations & Conclusion

The Route 3 corridor looks and behaves markedly different traveling from I-476 to the Chester County line. Similarly, the three study area municipalities have their own individual identities. Making recommendations for this corridor requires balancing the individuality of these communities with the overarching need to recognize that the corridor is one piece of the larger, regional network. How these diverse identities come into concert with one another is the metric by which quality of life can be gauged, and the effectiveness of the roadway judged.

Traffic is a byproduct of prosperity; lots of cars on the road means there are people going to work, goods being moved and people with the economic wherewithal to own and fuel vehicles. Since Delaware County and the three study municipalities are fortunate enough to have growing or stable populations and growing employment opportunities, traffic is not going to go away. However, increasing mobility and local residents' access to amenities within their communities is a desirable and achievable goal. Since Route 3 exists to serve more than just the local community, the following recommendations are tailored to fit the many needs of the many different users of the roadway. That said, the quality of life of those who live along and around West Chester Pike should not be diminished because of through travelers. Recommendations for each of the individual municipalities address the issues, problems, and opportunities that are unique to Marple, Newtown and Edgmont Townships.

In the following section, general recommendations for the corridor at-large will be addressed to SEPTA, PennDOT, and Delaware County. For each municipality, a list of general recommendations that dovetail with the goals and objectives laid out in the last chapter will be followed by more site-specific recommendations.

Recommendations to SEPTA

Based on this study's analysis of land use, employment, and current bus service, a few recommendations can be directed to SEPTA:

- Future changes to the service frequency and routing of bus route 118 should be considered. With the addition of the commercial and residential properties at Newtown Town Center at the corner of Routes 3 and 252, and with the addition of multiple new residential units along route 252, increased demand is likely to follow.
- Add bus stops in Marple and Newtown Townships, where appropriate.
- Work with Edgmont Township to improve the transit amenities at bus stops along Route 3.
- The feasibility of Bus Rapid Transit along Route 3 is currently being explored by DVRPC. SEPTA should take appropriate actions to implement the recommendations from this study upon its release.

Recommendations to PennDOT

It is imperative to have the support of PennDOT in order for this study's recommendations to be effective. Many of the specific municipal recommendations will require the financial and technical assistance of PennDOT, therefore open dialogue and cooperation is the first and most important recommendation. Furthermore PennDOT should:

• Consider impacts on communities' quality of life when planning transportation investments.

- Inform municipalities how best to address problems with transportation investments, such as coordinated signal systems.
- Encourage and support sketch plan appraisals, providing developers and municipalities with suggestions early on that can help expedite project approval in its later stages.
- Coordinate design activities for new projects with the affected municipality, and support the involvement of neighbor municipalities that may be affected by new projects.
- Investigate the feasibility of widening Route 252 at the Springton Reservoir.
- Apply access management principles when approving plans for new developments. Limiting the number of access points, introducing roundabouts and frontage roads, and other access management techniques should be employed when new projects are being considered.
- Where possible, support municipal efforts to provide and improve safe facilities for alternate modes, such as bicycles and pedestrians.

Recommendations to Delaware County

The Delaware County Planning Department (DCPD) has been actively involved with the development and implementation of this study. A few follow-up recommendations to DCPD include:

• Elect a traffic study of Route 252 and of Route 3 for the DVRPC Annual Planning Work Program.

- Encourage municipalities to update or create comprehensive plans that dovetail with the aims of Delaware County's forthcoming Comprehensive Plan.
- Encourage municipalities to provide facilities for alternate modes along Route 3 and Route 252.
- Play a more active role in assisting communities with planning concepts and techniques.

General Recommendations to Municipalities in the Study Area

Some recommendations apply to all of the municipalities in the study area. These include:

- All municipalities in the Route 3 Corridor should consider adopting a Corridor Access Management Overlay District in whole or in part, to plan for better access management along West Chester Pike and Route 252. Corridor Access Management Overlay Districts provide additional access controls along major roadways, limiting land uses and access points in these areas. This is an effective way to improve road efficiency and safety, and should be considered by the townships in the corridor for adoption in the short term, within two to five years. These overlay districts require amendments to the municipal Zoning Ordinance and possibly also the Subdivision and Land Development Ordinance and may also be strengthened by modifications to the Comprehensive Plan. Preparation of a sample district will be undertaken as part of the Phase II work program in Fiscal Year 2006.
- All municipalities in the corridor should consider adopting capital improvements plans and programs to ensure that adequate infrastructure is available to support new development. Capital Improvement

Plans and Programs are official documents that set out a municipality's plans for future capital improvements, such as roads and other public facilities, and how the improvements will be financed. The range and scope of these can vary considerably, from one to 20 years, but most cover a five to six year period. If a capital improvement plan and program are consistent with the municipal Comprehensive Plan and Zoning Ordinance, they can be useful planning tools, allowing the municipality to plan ahead for future growth and improvements, lowering costs by predicting needs before demand arises.

The Board of Supervisors is responsible for the decision to draft or modify a capital improvement plan and program. Development of the plan and program is the responsibility of township staff or an outside professional hired for this purpose. Capital improvement plans are stand-alone documents, but are only effective if they are consistent with other municipal planning documents. Therefore, modifications to the municipal Comp Plan and Township ordinances may be necessary.

 All municipalities should consider encouraging Traditional Neighborhood Development, which can replace strip commercial development and random suburban sprawl with centered, community-based development.

Traditional neighborhood development applies historic development patterns to new development projects, encouraging compactness and a mix of uses in a pedestrian-friendly, village-type setting. Adopting traditional neighborhood development strategies is a high priority, and should be undertaken immediately because of the high costs of sprawl. This can best be achieved through modifying the Comprehensive Plan, amending the municipal Zoning Ordinance, and adopting an Official Map, which identifies the layouts of streets, parks, and other public spaces.

 All municipalities in the corridor should consider adopting and official map in areas where new roads may be necessary in the future. Official Maps legally establish the location of existing and proposed streets, parks, and other public lands and facilities. Creating an official map, and thereby planning the future locations of public facilities, notifies landowners and future developers of the locations of future public improvements. The official map allows municipalities to have the option to purchase or obtain easements on land designated for future public facilities in the event that development is proposed on this land. Official maps are also useful for establishing desired street patterns for future development.

 All municipalities in the corridor should cooperate with each other to the fullest extent possible. This will provide additional leverage when requesting that PennDOT or other agencies respond to local concerns, and will also result in more coordination in shaping development patterns in the corridor.
 Multi-Municipal comprehensive plans or similar joint ordinances can lead to improved coordination.

Multi-municipal Comprehensive Plans allow formalized cooperation between municipalities, usually adjacent to each other, to coordinate on various planning issues. Participating in multi-municipal comprehensive plans, according to recent amendments to the MPC, can help to protect municipalities from curative amendments, provide funding incentives, require state agencies to consider local plans in decision making, and other benefits. A multi-municipal plan represents a useful planning strategy for adjacent communities that share common issues and needs.

Marple Township

With low property taxes and easy access to I-476 and Route 3, Marple Township is poised for redevelopment and revitalization. Steeped in traditions, like the annual Fourth of July Parade, Marple is a classic community with much to offer to future residents. Since road and utility infrastructure is already in place, developers can take advantage of reduced variable costs to provide updated housing and commercial development to the area.

Over the course of Phase II of the Route 3 corridor planning work, specific implementation measures will be carried out to plan for future redevelopment efforts and for ways to strengthen Marple's identity. The following general recommendations address some of these issues, as well as some pedestrian and transit options. A specific recommendation for a frontage road along Route 3 at the commercial strip near the intersection of Route 320 is documented later.

General Recommendations

In addition to the recommendations already made, Marple Township should consider a number of activities, including:

- Enhance transit ridership by considering a park and ride lot near I-476.
- Adopt design standards through local ordinances for signage, facades, and landscaping along the Route 3 corridor.
- Add street trees along Route 3 sidewalks to reduce pollution, provide shade, and add to the aesthetic quality of the corridor.
- Add bus shelters at the commercial areas along Route 3 to provide safety and comfort to transit users.

- Provide adequate parkland and recreation facilities for new residential developments along Route 252.
- Employ access management techniques along Route 3 near the Newtown Township line to reduce access points and improve traffic flow through the corridor.
- Continue the multi-municipal coordination that was begun during the Route 3 Land Use and Access Management Strategies Study.

Frontage Road at Route 3 and Route 320

The historic buildings that run eastward from the corner of Route 320 and Route 3 were once the cornerstones of Marple's commercial district. While these buildings are still in use as businesses, the structures have deteriorated over time. Diagonal parking in front of the strip runs for approximately 500 feet; this means there is a 500-foot section of open access for cars to pull into and out of through traffic on Route 3. Backing into a major arterial is not safe; therefore, access management

Figure 1: Existing Conditions, Route 3 and Route 320 Vicinity



Source: WRT Design, DVRPC 2005

principles should be applied to reengineer this parking area both to protect patrons of these shops and to add to the aesthetic value of the roadway.

Frontage roads separate high-speed through traffic from low speed and pedestrian traffic. By using a median strip to separate the two uses, through traffic can flow more efficiently while drivers can easily access retail locations by way of the slower speed frontage road and on-street, parallel parking. Additionally, the atmosphere for pedestrians and cyclists is much safer due to the decreasing conflict with high-speed traffic on Route 3.

Currently, the sidewalk along these businesses is very narrow, and the lack of streetscaping detracts from the aesthetic quality of the area. By reengineering the roadway, the current median strip, and the recommended additional median, the commercial area can take on a much more pedestrian-friendly appeal.

Pedestrian Realm
Slow Speed Area (8 mph)
suitable for pedestrians
and traffic intermingling

Parking Slow-speed Access Lane 8 8' 11' 11' 10' 9' 11' 11' 8' 10'

10' 8' 12' Total Bight of Way

Figure 2: Conceptual Cross-Section

Source: WRT Design, DVRPC 2005

Shown in this conceptual cross-section (looking east from the intersection with Route 320), by narrowing lanes (still within acceptable PennDOT standards), narrowing the central median strip and adding another narrow strip, three distinct lanes can be created. The far left frontage lane provides as much on-street parking as before, while increasing the sidewalk width to make walking more comfortable. The addition of bus shelters makes Route 3 a friendlier environment for transit users.

This simulation shows the added frontage road with additional street trees. Parking is consolidated on the frontage road and access is limited, separating high and low speed traffic everywhere but at shared stops. This frontage road would continue for the entire length of the commercial strip, from Route 320 to Church Road, heading east. This measure would reduce accidents, add to the aesthetic quality of the area, and provide a more pleasant commercial area for Marple Township. The Conceptual Sketch Plan in Figure 4 shows these changes in further detail.

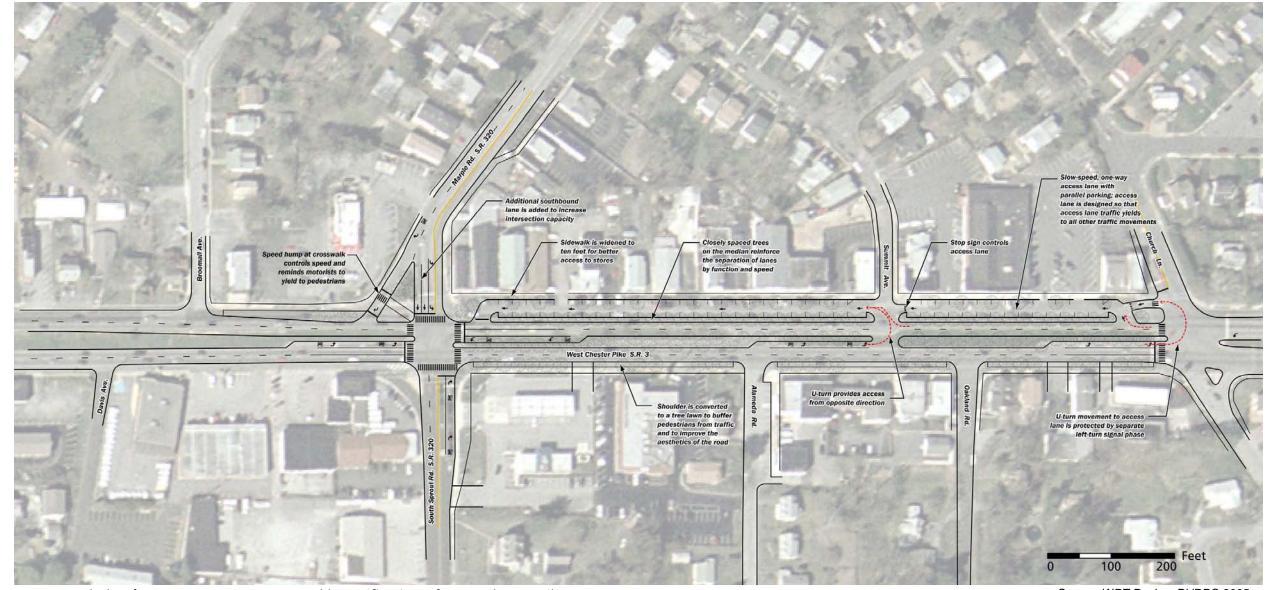
Figure 3: Simulated Frontage Road



Source: WRT Design, DVRPC 2005

This conceptual plan would provide a destination for Marple residents, and would ultimately help the businesses on Route 3. However, due to the intensity of construction this is a major redevelopment that would require long-term capital programming and funding.

Figure 4. Conceptual Sketch Plan





Newtown Township

As of mid-2005, there are at least two major developments north of Route 3 on Route 252 that could add significant population and traffic to Newtown Square. Coupling these developments with the pending residential development occurring south of Route 3 on Route 252 and there is an immediate need for planning strategies. Historically, Newtown Township's development scheme was piecemeal; developments did not follow any traditional patterns, therefore when looking at aerial photography, there is no "there" in Newtown Township. Recently Township officials began to consider the broader, global affects of incoming developments, as well as redevelopment requests. With growing frequency, Newtown Township is requesting development site plans in the early stages of project approval, not only to increase the efficiency of the approval, but also to ensure that the impacts of all developments are considered collectively rather than on a site-by-site basis. Now is an ideal time for Newtown to establish precedents that will make future redevelopment less auto dependant, more pedestrian friendly, more pleasant and ordered.

General recommendations found below will help Newtown Township prepare for future redevelopment, as well as addressing the short-term needs of pedestrians, transit users, and through-travelers. A conceptual site design re-imagines what development could look like in Newtown. Although controversial, this re-design is only meant to show alternatives to status quo development patterns—alternatives that used to be the norm in traditional American communities.

General Recommendations

In addition to the recommendations already made, Newtown Township should consider a number of activities, including:

 Adopt design standards through local ordinances for signage, facades, and landscaping along the Route 3 corridor.

- Add street trees along Route 3 sidewalks to reduce pollution, provide shade, and add to the aesthetic quality of the corridor.
- Continue to encourage developers to submit sketch plans early for PennDOT and Township review. Early review should give PennDOT and the Township the ability to suggest alternatives that fit within the larger development scheme in the township and the region.
- Add bus shelters at the commercial areas along Route 3 and at Dunwoody Retirement Center to provide safety and comfort to transit users.
- Where possible, encourage infill and reuse of commercial structures along Route 3. Provide incentives for reusing vacant structures and parcels.
- Maintain as much natural character as possible by protecting the natural resources and view sheds surrounding the Springton Reservoir.
- Continue identification and protection of greenways and open spaces in the township. Acquire key natural resource properties that are threatened by development pressure to create a network of open space or greenways.
- Continue efforts to establish a trail system through residential neighborhoods that link other parts of the township with amenities like athletic fields, the reservoir, Ridley Creek State Park, and open spaces.
- Employ a Corridor Access Management Overlay District along Route 3 to reduce access points and improve traffic flow through the corridor.
- Continue the multi-municipal coordination that was begun during the Route 3 Land Use and Access Management Strategies Study.

Specific Recommendations

Greenways and Trail Systems

Newtown Township should coordinate with the other municipalities in the study area to establish a continuous greenway through the area and create a regional trail system. A pedestrian and bicycle trail could link the numerous neighborhoods and the Delaware County Community College to amenities like the Springton Pointe Reservoir and Ridley Creek State Park. Encouraging developers to incorporate and pay for an interlocking trail system would provide the township with a great recreational opportunity and an alternative mode of transportation.

Conceptual Site Re-engineering

A number of new developments are to be built along the east side of Route 252 south of Route 3 in the next few years. Since the site plans for these developments come to the Township at different times, it is difficult for township staff to make recommendations that may make the developments more amenable to each other. Since there are no subdivision requirements that call for specific site layout or design standards in Newtown, developers can design their projects with little or no concern for what may be being built around them. Theses are the conditions that lead to "sprawl" – type suburban developments.

For this section, all pending site plans were collected from the Township Engineer (Pennoni Associates) and aggregated onto an aerial photograph. This way, it would be easier to get a clear sense as to what the area will look like when all the developments are built. The following rendering shows pending developments overlain on the existing aerial photograph.

In this rendering, it is easy to see that there are few connections between developments and little land is conserved for open space. The developments are not doing much to alleviate auto dependency, create a sense of place, or interface with the community around them. Driving though these developments would be confusing; it seems like a driver would be able to link onto the grid patterned streets in Marple, but there is no convenient connection.

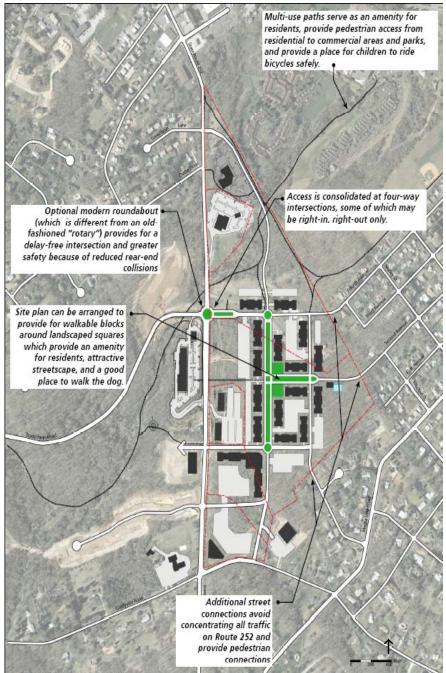
The number of access points added to Route 252 is also an issue. Since visibility and congestion are already problems on Route 252, adding new access points will only slow though traffic and create more accidents. Only one four way intersection is shown, which means there probably will not be other signals added for additional access points, making left-hand turning movements more dangerous.

Since these developments have already been approved, there is little that can still be done to change the way the sites are built. Some measures can be introduced to developers, such as a trail system that would link Marple's residential neighborhoods with Newtown's neighborhoods, as well as the athletic fields and Springton Reservoir on the west side of Route 252

Figure 5: Pending Development Overlay



Figure 6. Alternative Development Pattern-Consolidated Access



The plan to the right illustrates how the pending developments in Newtown could be re-imagined into a more traditional town layout. The grid-patterned streets make getting around easy and intuitive, while green squares and spaces make the development more liveable and attractive.

While some may consider this sort of plan "radical," it is important to see how certain aspects of the plan could be incorporated into future development. For instance, multi-use paths, shown in the upper right hand corner, can be incorporated into almost any type of development and provide a public amenity for all residents. Consolidating access points is also an important benefit that limits congestion and potential for accidents.



Edgmont Township

Since Marple and Newtown Townships are relatively built out, more opportunities for new ideas and planning exist in Edgmont Township. Most of the commercial uses in Edgmont are concentrated along Route 3, many concentrated around the boundary between Newtown and Edgmont. Apart from that, most of the township is residential and rural. Maintaining this character while encouraging responsible growth will become more of a priority as growth pressure mounts in the coming years.

Throughout Phase I of the process, Edgmont has made clear that they would like to have greater control over the signage and aesthetics of the corridor. During the Phase II-Implementation activities, further analysis of signage and design ordinances can be explored. Until then, the following general recommendations should serve as a guide for future planning:

General Recommendations

- Adopt design standards through local ordinances for signage, facades, and landscaping along the Route 3 corridor.
- Add street trees along Route 3 sidewalks to reduce pollution, provide shade, and add to the aesthetic quality of the corridor.
- Encourage developers to submit sketch plans early for PennDOT and Township review. Early review should give PennDOT and the Township the ability to suggest alternatives that fit within the larger development scheme in the township and the region.
- Add bus shelters and other transit amenities (where appropriate) at the commercial areas along Route 3 to provide safety and comfort to transit users.

Delaware Valley Regional Planning Commission

- Encourage infill and reuse of commercial structures along Route 3. Provide incentives for reusing vacant structures and parcels.
- Protect adjacent land around Ridley Creek State Park. Maintain as much natural character as possible.
- Identify and protect greenways and open spaces in the township. Acquire properties that are threatened by development pressure.
- Establish a trail system through residential neighborhoods that link other parts of the township with amenities like athletic fields, the reservoir, Ridley Creek State Park, and open spaces..
- Continue the multi-municipal coordination that was begun during the Route 3 Land Use and Access Management Strategies Study.

Greenway and Trail System

Since Edgmont Township is in a prime location between two attractive natural areas, it is important that they make these areas accessible to residents by means other than the automobile. Multi-use, walking and cycling trails that would connect Ridley Creek State Park and Springton Reservoir would be a regional amenity and would promote better health in the community. Lacing the trail through neighborhoods would take cyclists off the somewhat dangerous Providence Road, thereby reducing risk and encouraging outdoor recreation.

Specific Recommendations

Scenic areas, green spaces and wooded coves make Edgmont a bucolic township at the suburban fringe. Maintaining this character should be the paramount planning goal for township officials. Design standards that require minimum building setbacks, lot placement, and other controls should be employed in order to protect the area's unique

status. Likewise, design standards along the Route 3 corridor can help Edgmont stay away from a generic sprawling development pattern.

Providence Road, a major collector for Edgmont, twists and turns up and down hills on the eastern edge of the State Park. While it is sufficient to handle current traffic flows, it would behoove Edgmont to employ the use of an Official Map and access management ordinances so that when new development does come, the Township has some leverage for getting developers to pay for necessary road improvements. Likewise, by identifying future growth areas, the township could mitigate large sewer and infrastructure expenditures by getting developers to build in predefined areas where these utilities already exist.

Providence Road Infrastructure Improvements

Heading southbound on Providence Road towards Route 3, the two through travel lanes are joined by a third lane which acts as a spur for right turning vehicles to merge onto Route 3, West Chester Pike. The current array allows for dedicated right turns and a shared left/through lane. The intersection backs up because through traffic cannot get around left-turning vehicles when queued behind them. Because the intersection is slightly skewed, it can also be confusing for out of town drivers. Currently Southbound Route 252 is too narrow to include a dedicated left turn lane, which would alleviate this problem and allow traffic to flow better. Previous discussions and coordination with PennDOT about this matter should be continued in an effort to improve the efficiency of this roadway.

The following illustration shows the same intersection, only with an added through lane on the north side of Route 3 on Providence Road. This potential site design was created to show how another lane could be added by narrowing road widths overall, and widening the throat of the road further back. The modified intersection configuration would also require encroaching on the privately owned property on the west side of Providence Road. The Township does not currently own an easement or right of way in this area, thus requiring the cooperation of the property owner to successfully

implement this design. This site plan is not a pending development; rather, it is only a recommendation.

Figure 7: Route 3 and Providence Road Intersection

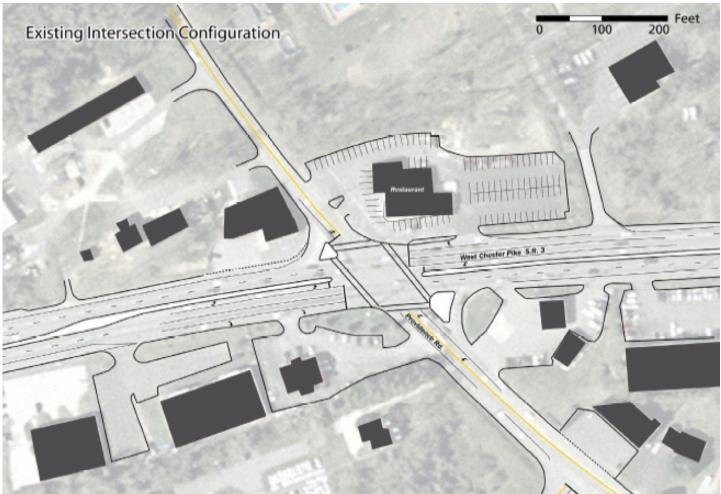




Figure 8: Proposed Providence Road Widening

Conclusion

The Route 3 Corridor Study has examined land use and transportation issues affecting Marple, Newtown and Edgmont townships, in northwestern Delaware County. In the recommendations section of the report, particular attention is given to access management strategies that can help to enhance traffic flow, while also yielding a more compatible land use and development pattern. During phase two of the study, in Fiscal Year 2006, the three townships will continue a cooperative process to address these issues and strategies. However, the emphasis of this phase will be on implementation activities that can assist in accomplishing study recommendations. Through multimunicipal and individual actions, the study corridor communities can better face the continuing development and travel demand issues that confront Route 3, West Chester Pike.

APPENDIX A IMPLEMENTATION ACTIVITIES

Implementation Activities

In Phase II of the Route 3 Land Use and Access Management Strategies Study, DVRPC will carry out planning tasks specified by the Study Advisory Committee. Some potential implementation activities for Phase II include:

- ☐ In-Depth, Corridor Access Management analysis for secondary areas
- Access Management Model Ordinances
- Amendments to Comprehensive Plans
- □ Special Historic Preservation and/or Mixed Use Zoning Overlay Districts
- Inventory of Funding Sources for Planning Activities
- Exploring modified SEPTA bus service routes to serve new residential areas
- Official Map Model Ordinances

APPENDIX B-STUDY PARTICIPANTS

Study Participants

Samantha Reiner, Manager Edgmont Township

Jim Sheldrake, Manager Newtown Township

George Clement, Assistant Manager Newtown Township

Joe Flicker, Manager Marple Township

Jeannine Conner, Commissioner Marple Township

Joe Romano, Director of Code Enforcement Marple Township

Jan Ceton, Treasurer Marple Township

Michael Pacifico, Vice President Pacifico Marple Ford

Tom Shaffer, Senior Transportation Planner Delaware County Planning Dept.

Cecile Charlton, Executive Director Delaware County Transportation Management Association

Chris Williams, Associate/Senior Project Manager McMahon Associates

Fran Hanney, Traffic Services Manager PennDOT District 6-0

Susan LaPenta, Traffic Services Engineer PennDOT District 6-0

John Calnan, Manager, Suburban Route & Service Planning SEPTA

Kevin Denton, Regional Planner DVRPC

Amanda DeCort, Regional Planner DVRPC

Richard Bickel, Deputy Director, Regional Planning Division DVRPC

Route 3, West Chester Pike, Land Use and Access Management Strategies, Phase I

Publication No.: 05029

Date Published: March 2006

Geographic Area Covered: Marple, Newtown and Edgmont Townships, Delaware County, Pennsylvania

Key Words: Land use, transportation, access management, transportation and land use linkage, multimunicipal planning, zoning, implementation

Delaware Valley Regional Planning Commission 190 North Independence Mall West 8th Floor Philadelphia PA 19106-1520

Phone: 215-592-1800 Fax: 215-592-9125 Internet: www.dvrpc.org

Project Planners: Kevin Denton, Regional Planner Staff Contact: Kelly Rossiter, Regional Planner

Phone: 215-238-2890

Email: krossiter@dvrpc.org

ABSTRACT

Phase I of this report documents existing conditions and recommends local land use and access management strategies for the communities along the Routes 3 and 252 corridors in Delaware County.

Future growth pressure and redevelopment opportunities coupled with traffic congestion problems make this area ripe for the employment of access management techniques. This study recommends land use control measures and proactive collaboration with the Pennsylvania Department of Transportation to maintain or improve mobility in the face of increased future population. This study also seeks to establish aesthetic consistency along the corridor through the modification of land use planning documents and local ordinances.



Delaware Valley Regional Planning Commission

190 North Independence Mall West 8th Floor Philadelphia, PA 19106 215.592.1800 www.dvrpc.org



