7.0 HISTORIC CONTEXT

This section provides an overview of the historical development of Appoquinimink Hundred and Pencader Hundred, New Castle County, with a focus on the APE for the period extending from 1630 to the present. This work is meant only to supplement the July 2005 Historic Context and Reconnaissance Survey Report prepared for The Delaware Department of Transportation by A.D. Marble & Company. Consequently, additional research was conducted on an as-needed basis.

7.1 1630-1730+/-, Exploration and Frontier Settlement

7.1.1 General History

Located in southwestern New Castle County, the area was known as the "Forest of Appoquinimink Hundred" by colonial surveyors of Pennsylvania (Pryor 1975: 1). Due to the fact that Delaware's Upper Peninsula Zone was removed from any major navigable waterways, there was no European presence during the earliest colonization period. In the 1680s William Penn sought landowners from Maryland and Virginia who wanted to expand their holdings. Quite a few Catholic families from Maryland did settle in the area in the earliest period (Pryor 1975: 2). Settlement in Appoquinimink Hundred was comparatively sparse during this period. In 1683 there were only 40 taxable inhabitants between Appoquinimink Creek and Duck Creek. Appoquinomink is first noted as a hundred in 1708 (Scharf 1888: 1015). Appoquinimink is an Indian term said to mean wounded duck (Scharf 1888: 1015).

Pencader Hundred encompasses a large portion of the Welsh Tract and a small portion of St. Augustine Manor. Early Welsh families settled in this hundred, particularly in the area of Iron Hill. Pencader is a Welsh term for Iron Hill or "the highest seat" (Scharf 1888: 948). The earliest roads in Pencader extended from New Castle and Christiana to the head of the Elk River in Maryland. In 1703 the Welsh Tract Baptist Church was constructed in Pencader Hundred, and the Penader Presbyterian Church, located on the road from New Castle to Head of Elk, was constituted as a church as early as 1710 (Scharf 1888: 954-955).

7.1.2 Agriculture

The land within Appoquinimink Hundred is well watered and very productive. Evidently, it was recognized early for its potential and attracted both immigrants and residents of other sections of Delaware and Maryland (Scharf 1888: 1015). There were large unimproved marsh or woodland areas kept for livestock forage (Herman et al. 1985). The early farmers of the region used a mixed farming strategy whereby large acreages were used to grow cash crops as well as grow food for sustenance. The soil of Pencader Hundred is a red loam with a clay sub-soil, and yields well to cultivation, and the land is watered by several small streams which flow through it (Scharf 1888: 948).

7.1.3 Residential Architecture

Building prior to 1740 focused on the construction of impermanent architecture. Houses of this sort were intended to last from a few years to a decade or more. The owners of these houses expected to replace them with more substantial and durable houses within the span of a generation, but this did not always happen (Herman 1987: 84).

7.1.4 Transportation

When the Swedes and Dutch occupied the land prior to 1664, water transportation was virtually the only mode of conveyance. When English settlers moved into this area during the late seventeenth century their farms or plantations were established on or near navigable waterways to enable convenient transportation of goods and produce. Perhaps the first road in Appoquinimink Hundred was the one laid out from the head of Sassafras River to a navigable point on Duck Creek, a distance of about ten miles (Pryor 1975: 5). Another early roadway was Augustus Herman's Cart Road, which follows a portion of the current U.S. 301 corridor. This road extended from Odessa in Appoquinimink through present-day Middletown to Bohemia Landing, a place of considerable importance in Maryland (Passmore et al 1978: 11; Scharf 1888: 413-116). Bohemia Landing, located only a few miles from the navigable section of Appoquinimink River, provided an excellent opportunity to ship goods between the Delaware River and the Chesapeake Bay using Herman's Cart Road (Johnston 1881: 186-204). In 1679, the government established seven road districts and ordered the construction of a continuous road from Blackbird Creek northward through the Drawyer's Creek area to beyond the Brandywine Creek. This new highway (present-day SR 71) intersected several extant cartways.

7.1.5 Community and Commercial Development

Up to the mid 1600s the European settlement of Delaware was largely confined to closely spaced Dutch and Swedish villages along the Delaware River and Delaware Bay. Settlement patterns began to shift after the English gained control of Delaware after 1664. The English began creating farm complexes along inland waterways such as the Appoquinimink River. The small village of Cantwell's Bridge developed as a transportation hub as a result of the intersection of Herman's Cart Road and landings on the Appoquinimink River. By the late seventeenth century St. Anne's Church was established in Appoquinimink Hundred and was the first congregation established in southern New Castle County.

7.1.6 Industry

The earliest industries in New Castle County were primarily related to agriculture, the production of construction materials, or the production of goods for household use. These industries included saw and grist mills and tanneries.

7.1.7 African-American History and Culture

Just as the Dutch were losing control of Delaware in 1664 they sent both African men and women to the colony. One source estimated that by 1721 there were 500 African-American slaves living in Delaware (Newton 1997). Perhaps as many as 200 free African-Americans also lived in Delaware around 1720 (United States Bureau of the Census 1961:756). While there were few differences between the lives of white and African-American servants during the late seventeenth century, laws were passed beginning in 1700 that put restraints on African-American freedoms. These acts imposed harsh penalties on African-Americans for offenses, prohibited them from bearing arms, banned them from assembly, and established a separate jury system for the trial of African-Americans. Subsequent laws placed even greater restrictions on African-Americans by prohibiting them from voting, holding office, giving evidence against whites, and marrying outside of their race (Newton 1997).

7.2 1730-1770+/-, Intensified and Durable Occupation

7.2.1 General History

During the mid-1700s the Upper Peninsula Zone of Delaware slowly developed its infrastructure in response to population growth and agricultural expansion. Also during this period housing became larger and more substantial in materials.

7.2.2 Agriculture

During this period farms were no longer isolated but abutted each other. The large grants of land, formerly owned by absentee owners in Maryland and Virginia, were broken up into smaller farms operated by their owners or their tenants. Delaware's soils are mostly sandy types that are relatively acid and nutrient poor. Within a century after clearing the land for farming, crop yields became pitifully low (Passmore et al 1978: 16).

7.2.3 Residential Architecture

During this period houses constructed of logs dominated the architectural landscape. Nevertheless, there were some rare examples of brick buildings constructed during this period. One of these in the study area is Lum's Mill House (CRS No. N00415) built ca. 1730. It is a two-story, three-bay house featuring a belt course and pent eaves between the first and second stories.

7.2.4 Transportation

Initially, the settlers undertook road construction to move goods to landings along the streams, to gain access to mills for processing, to attend church or meetings, or to travel to larger communities on market days or for government business (Fox 2003:7). However, colonial government authorities quickly observed the need for roads and established standards for their construction (Scharf 1888:413-416). In 1752, the

Delaware Colonial Assembly passed an act establishing minimum standards for roads designated as "King's Highways." The act required roads to be forty feet in width, cleared of all obstructions, and include sufficient bridges and crossings.

7.2.5 Community and Commercial Development

Similar to recent times, transportation systems affected settlement patterns. For example, Sir Richard Cantwell's construction of a bridge over the Appoquinimink River in 1731, enabled the development of the village of Cantwell's Bridge.

7.2.6 Industry

Grist and sawmills were the backbone of rural industry in the eighteenth and nineteenth centuries. They became much more common in Appoquinimink Hundred and Pencader Hundred during this time. The expansion of agriculture and an improving transportation network spurred the growth of the milling industry. Mills produced products for local use as well as for export.

Samuel Clement's mill (CRS No. N00415), located at Lums Pond State Park, was constructed about 1736. It is no longer extant but was one of the earliest mills in western New Castle County.

7.2.7 African-American History and Culture

As more land was cleared and the number of farms increased, the demand for agricultural labor increased as well. As a result, the number of slaves imported into Delaware increased after 1730. This followed similar patterns that occurred in the tobacco colonies of Virginia and Maryland during this same period (Berlin 1998).

Most African-American slaves at this time worked as field laborers or as domestic servants. However, some became skilled craftsmen and tradesmen. An estimated 1,836 African-Americans lived in Delaware by 1770 (United States Bureau of the Census 1961:756).

7.3 1770-1830+/-, Early Industrialization

7.3.1 General History

This was a period of economic, political, and social upheaval, all of which had an affect on the agricultural landscape of the Upper Peninsula Zone, both positively and negatively. Generally, there was little military action in the area during the American Revolution. However, there was a minor battle at Cooch's Bridge on September 3, 1777. After learning that the British army had landed on the Elk River, General Washington sent a body of light infantry and cavalry under General Maxwell to fight a holding action. The American forces were finally out-gunned and were forced into a hasty retreat. The Americans suffered about thirty casualties during the engagement

(www.revolutionaryday.com/usroute202/coochs/default.htm). There was no direct military effect from the War of 1812 on the study area. However, economic disruption caused by the wars and a series of trade embargoes, the depletion of soils, and the opening of new lands in the West, seriously affected the farm families of Appoquinimink and Pencader Hundreds. The future of the area was to be brightened with the construction of the Chesapeake and Delaware Canal, which opened in 1829.

7.3.2 Agriculture

Market-oriented farming further intensified during this period. Farmers continued to practice the same mixed farming, centered on wheat and corn production. In addition, scientific agricultural principles, chiefly four- to nine-field crop rotation systems, began being applied during this time. Also, market-oriented livestock holdings increased significantly after the Revolution. During the Revolutionary era "native stock" cattle were most important for their meat not milk or butter (Passmore et al. 1978:34-35). Recognizing the need to improve soils and increase crop production, farmers formed the first agricultural society in New Castle County in 1804, which was subsequently revived in 1818 (Reed 1947:378).

Lines of social and economic stratification became more pronounced in this period as a rural farming elite class began to develop out of this prosperous farm economy. Members of this elite farming class diversified their wealth through investment in urban property, banking, transportation, and manufacturing interests. Elite farmers constructed well-ordered rural estates that reflected their dominance in the social hierarchy.

The period also saw the emergence of more durable and numerous farm outbuildings on the more economically successful farms in the study area. Also, specialized horse barns were constructed as farmers shifted from oxen to horses as preferred work animals (Herman et al. 1992). Few examples of farm outbuildings from this period survive in the study area.

The consolidation of large land holdings by the agricultural elite, along with the widespread manumission of slaves between 1780 and 1830, greatly contributed to farm tenancy in the region. In response to increased needs for tenant housing wrought by the above changes and the influence of agricultural reform writers, the "house and garden" plan developed. Under the "house and garden" plan, a farm owner leased to his laborer a small house and a small plot for raising garden crops and livestock as part of a formal contract. These tenancies were often clustered together along roadways or tree lines, but were always within sight of the main farm complex. Built on piers and thus being portable, "house and garden" tenant houses were easily moved; farm owners would frequently move these dwellings within the farm (Sheppard et al. 2001). The size and quality of construction of these tenant houses was not equivalent to the more permanent main dwellings; thus, few tenant houses remain on the landscape from this or later periods.

During the early 1800s, the wheat farmers of New Castle County suffered setbacks from an eroding export market, competition from western farmers, and the depletion of their soils. As a result of these collective conditions, many farms failed during this time (Herman et al. 1985:8-2). Due to the poor state of the soil and disease prone winter wheat during the early 1800s more buckwheat was grown at that time (Passmore et al 1978: 27). In the early 1800s oats was part of a four-year rotation consisting of oats, wheat, grasses, and corn (Passmore et al 1978: 28). Root crops were more important for livestock feed than hay during the nineteenth century (Passmore et al 1978: 29).

7.3.3 Residential Architecture

In the period 1770 to 1830 there was an intense building program that resulted in increased numbers of durable houses. Housing for the rural elite made up a significant component of the architecture of Delaware's Upper Peninsula. The rural elite were the wealthiest 20 percent of the taxable population, and their dwellings symbolized their self-perceived status within the communities they occupied (Siders et al. 1993:18).

Full Georgian plan houses were introduced in the study area in the later decades of the eighteenth century (Lanier and Herman 1997:26, 31). The central hall or passage served to provide functional control and effectively directed movement through the house. The full Georgian plan was most common in the dwellings of the upper classes during this period (Siders et al. 1993:E5-E6). Also in this period, architectural ornamentation on dwellings became more common, especially among the houses of the rural elite (Siders et al. 1993:E4).

Wood continued to be the most common building material during this period (Siders et al. 1993:E11). Plank construction, which utilized logs sawn on all sides and joined at the corners with vertical planks, was also used. What appears to be an early nineteenth century frame house in Appoquinimink Hundred is the I. Taylor House (CRS No. N05870). This two-and-a-half story, three-bay, weatherboard house has an irregular fenestration pattern, giving the appearance of a pre-Georgian structure. The house has blank gable-end walls and two interior stuccoed brick chimneys at each gable end.

Nevertheless, brick is the most common building material of the surviving eighteenth-century dwellings in the Upper Peninsula, largely because of their larger size. At least three brick dwellings dating to this period were identified in the APE during the reconnaissance survey. The ca. 1818 Middleton House (CRS No. N00870) is located within Aiken's Tavern Historic District (CRS No. N03875). A two-story structure, the Middleton House, was constructed in two, three-bay sections. Although constructed at the same time, the sections are at different heights. The stuccoed brick James Cann House (CRS No. N03977), also located in Pencader Hundred, was constructed prior to 1835. The hall and parlor plan of the main block of this vernacular farmhouse harkens back to pre-Georgian building types. Brook Ramble (CRS No. N00101), constructed ca. 1790, is located in Appoquinimink Hundred. This two-story, three-bay, brick house is a two-thirds Georgian style house with a two-bay kitchen wing built to the gable end.

As previously noted in the agricultural discussion for this period, another dwelling type that appeared with increasing frequency in the area was the tenant house. These open plan structures, built with log or timber frame, contained one to three rooms and ranged from one to two stories in height and provided shelter for agricultural laborers on the farm (Sheppard 2001:11). No extant tenant houses dating to this period were identified during this reconnaissance survey.

7.3.4 Transportation

The transportation network continued to improve during this period. A line of stages was established between New Castle and Elk River in 1775, using coaches pulled with four to six horses. Forty years later a fast stage line between Wilmington and Philadelphia made the trip in four hours (Passmore et al 1978: 45). Another example of an improvement is the Warwick-Middletown Road. This roadway first appeared on Dennis Griffith's 1795 map of Maryland and later on Heald's 1820 map of New Castle County roads. The road provided access to Warwick, Maryland, and the landings on the Sassafras River. At Middletown, the Warwick-Middletown Road connected with the Appoquinimink Road, which led to Cantwell's Bridge and the landings on the Appoquinimink Creek, providing another route for transshipments between the Delaware River and the Chesapeake Bay (Griffith 1795; Heald 1820; Johnston 1881:200-204; Scharf 1888:413-433).

A major transportation improvement of this period was the construction of the Chesapeake and Delaware (C&D) Canal. Beginning with the Dutch in the seventeenth century, men conceived of constructing a canal between the Delaware River and the Chesapeake Bay to improve trade opportunities and provide means to move goods more easily. During the 1760s, Thomas Gilpin conducted a number of surveys for such an undertaking but accomplished nothing further. In December 1799, the Maryland General Assembly chartered the Chesapeake and Delaware Canal Company and work on the canal began in 1804. Despite a large expenditure of money, the company failed to complete any substantive work. Practical construction work began during the mid-1820s. Finally, the canal opened to general boat traffic in 1829 (Scharf 1888:413-433; Gray 1989).

7.3.5 Community and Commercial Development

Because the primary groups living in the community at this time were generally self-sufficient, commercial centers and villages developed relatively slowly in the study area. In time, however, businesses were established within the communities to service the growing population and were generally formed at the intersection of major roads or at economically strategic locations. Although just outside the immediate study area, Middletown served as the commercial and banking center for at least part of Appoquinimink Hundred. Likewise, Newark served as a commercial and banking center for Pencader Hundred. Within the study area, some of today's remaining communities, including Cooch's Bridge, and Glasgow, were also among the earliest organized communities in the APE. In 1803 an act was passed to incorporate the trustees of the "Glasgow

Grammar School" (Scharf 1888: 954). Commercial development in the study area, which included taverns for travelers, was generally limited to these early crossroads villages.

Middletown

The town of Middletown was laid out and developed significantly during this period. The earliest industry recorded in the vicinity of modern Middletown was the Peterson Tannery, which was purchased by David Witherspoon in 1761 from the heirs of the tannery's original owner. In the same year, a tavern was recorded in St. Georges Hundred, also belonging to David Witherspoon. A small settlement subsequently began to grow around the tavern and, in December 1784, Thomas Witherspoon, nephew and heir of David Witherspoon, announced in *The Pennsylvania Gazette* that he had platted a town called Middletown around the Witherspoon Tavern and offered 300 building lots for sale (*The Pennsylvania Gazette,* August 4, 1784). A second advertisement in December of the same year announced the town's layout as completed (*The Pennsylvania Gazette,* December 15, 1784).

Cooch's Bridge

Cooch's Bridge is a small village that developed as a result of its proximity to Iron Hill and its location on the Christina River which served as a power source for iron working, grist mills, sawmills, etc. Thomas Cooch, a miller, arrived from England in 1746 and bought up the better mill seats in the area. His mill was burned by the British during the American Revolution. The Cooch House served as headquarters for General Cornwallis in 1777. The mill was rebuilt in 1792 by Cooch's grandson. Another mill in the village is the Dayett mill constructed in 1822 by William Cooch.

Aikentown (Glasgow)

Aiken's Tavern, present-day Glasgow situated near the center of Pencader Hundred, was the site of a military engagement during the American Revolution. The Battle of Cooch's Bridge began near Aiken's Tavern on September 3, 1777. American troops, under the command of General Maxwell, established a position near Aiken's Tavern. The Americans withdrew from Aiken's Tavern and established a new position near Cooch's Bridge. Following conclusion of the engagement, Aiken's Tavern served as the headquarters of General Howe.

In 1791 Mathew Aiken established a tavern at the present-day site of Glasgow. The village was initially known as Aikentown. By 1794 the village was also known as Glasgow. The village functioned as a crossroads village providing services to the local agricultural community. During this period the village included a hotel, general store, blacksmith shop, and wheelwright shop.

7.3.6 Industry

The many streams of northern New Castle County attracted settlers there, and it was the waterpower from these streams that enabled the county to be more prosperous than the lower counties for the first 150 years of the state's history. By the time of the American Revolution not only was wheat from Delaware shipped to Brandywine River mills for

processing but wheat from Pennsylvania as well. Delaware became the leading wheat milling center in the United States (Passmore et al: 1978: 23). No significant changes occurred in the industrial character of the study area during this period. The earliest record of the mill that became known as Wiggin's Grist Mill (CRS No. N13548) was the 1816 assessment list when it was the property of Joseph & Whitby. It was a two-story frame building, situated a mile north of Townsend, but it is no longer extant (Scharf 1888:1015-1023).

7.3.7 African-American History and Culture

A series of social movements and economic changes affected Delaware's Africa-American population during this period. This period witnessed large-scale manumission of slaves, thus creating a significant free segment among the African-American population. The widespread manumission began among the Methodists and Quakers. Delaware Quakers began to free their slaves in 1775. Soon, many other slave owners followed their example (Newton 1997).

In 1787, Delaware's assembly passed a manumission law and an act banning the sale of Delaware slaves out of state (Berlin 1998:278; Gooding 1978:3; Newton 1997). Despite the new manumission law and the efforts of local abolitionist societies, in 1790 the first United States decennial census recorded 2,565 slaves in New Castle County and over 8,800 slaves statewide. In addition, during this period other labor arrangements, such as tenancy, sharecropping, and employment of wage-laborers, proved to be much more practical and profitable solutions and began to replace the institution of slavery.

As a result of these social, legal, and economic changes, a large-scale manumission of slaves occurred in Delaware between 1780 and 1830. The slave population in New Castle County decreased by almost 70 percent during the period between 1790 and 1830 (Table 5).

Table 5. African-Americans in New Castle County, Delaware: 1790-1860.

Year	Total Population in New Castle County	Slaves in New Castle County	Free African-Americans in New Castle County	Percentage of Total African-Americans in New Castle County Population
1790	19,688	2,562	no data	no data
1800	25,361	1,838	2,754	18%
1810	24,429	1,047	3,919	20%
1820	27,899	1,195	4,343	20%
1830	29,720	786	5,708	22%
1840	33,120	541	6,773	22%
1850	42,780	394	7,621	19%
1860	54,797	254	8,188	15%

Source: United States Historical Census Browser, University of Virginia

The freeing of the state's slaves directly resulted in the burgeoning of the free African-American population. Between 1800 and 1830, New Castle County's free African-American population more than doubled. Skelcher identified both free and slave African-

American settlements extending from the Delaware River shore at Port Penn south to Odessa and west into Middletown (Skelcher 1995a:81-82). In the rural portions of the county, free African-American men worked as farm laborers or in trades relating to the growing agricultural economy, such as milling and hauling. Increasingly, African-Americans became tenant farmers. They rented farms via cash payment to the landlords or through distribution of a share of the crop harvest. Landownership among African-Americans in rural New Castle County remained low throughout this period (Skelcher 1995a).

Still, Delaware's white majority population generally regarded African-Americans, slaves and free alike, with suspicion and condescension. In spite of adopting laws fostering manumission and barring interstate slave trade, the Delaware assembly passed a law in 1807 in response to the rapidly growing free African-American population in Delaware barring "free negroes" from entering the state. Although this law was repealed the following year, an even stricter law was subsequently passed that all but prohibited African-American migration into the state (Gooding 1978:4).

This period also witnessed the birth of the African Methodist Episcopal Church (A.M.E.), which was formed by Richard Allen, a former Delaware slave, and black preacher Absalom Jones in 1816 (Wright 1916:5). By 1824, the Smyrna Circuit of the A.M.E. had 173 congregants including 17 from Middletown (Payne 1891:44).

7.4 1830-1880+/-, Industrialization and Early Urbanization

7.4.1 General History

By the mid-nineteenth century, the inhabitants of St. Georges Hundred and the adjoining Appoquinimink and Pencader Hundreds were generally experiencing an economic upsurge, which resulted in the revitalization and rebuilding of the agricultural landscape. This economic resurgence was the result of the several factors, including taking full advantage of the C&D Canal, the extension of the railroad into the area, improved farming techniques, the adoption of new agricultural products, and the blossoming of major markets in the industrial cities of the Mid-Atlantic and Northeast. During this period, manufacturing expanded, with 380 factories in the state at the beginning of the Civil War. Although a border state, Delaware saw no military action on its soil during the Civil War. The Underground Railroad, the emancipation of slaves in 1863, the subsequent Union victory, and economic opportunity brought thousands of free African-Americans from the South to Delaware during this time. Many of the large-scale farm complexes that remain on the landscape today were constructed during this period.

7.4.2 Agriculture

An agricultural writer noted the marked change in Delaware agriculture from the early 1830s to the early 1850s. This change for the better was attributed to the liberal use of guano, lime, and plaster (Federal Writers' Project 1938: 84). DeCunzo and Garcia document that the period 1850 to 1870 was one of intensification and expansion in

agriculture in the state. During that same period New Castle County's total acreage in farmland increased from 80% to 90% (DeCunzo and Garcia 1992: 31). In Appoquinimink Hundred during this period more land became concentrated in the hands of a few wealthy farmers (DeCunzo and Garcia 1992: 79). Agriculture was at the center of the economic prosperity that occurred during this period in the Upper Peninsula Zone. The general upswing in fortunes for farmers in the northern section of the Upper Peninsula Zone was the result of the following factors: the adoption of new farming techniques and crops, the mechanization of agricultural processes, the growth of nearby urban markets, and the expansion and improvement of transportation networks. During the mid-1800s, farms in New Castle County and in particular those in the area around Odessa were some of the most productive in the state (Reed 1947:374-375).

The average farm size in Appoquinimink Hundred in 1850 was 189 acres of which an average of 66 percent was held as improved land. The Hundred's average farm size was reduced to 140 acres by 1880 with 74 percent maintained as improved land (Mayer 1975:59-63). These figures are considerably less than those for St. George's Hundred. The divergence between the superiority of the state of agriculture in St. George's Hundred and the backwardness of Appoquinimink is illustrated by the difference in land values and value of farm machinery. Land value per acre in Appoquinimink was about half the value in St. George's (Mayer 1975: 67-71). The boundary between St. George's and Appoquinimink Hundreds is a division between the large commercial wheat and dairy farms to the north and the central region of mixed farming. While improved land in Appoquinimink was higher than other hundreds of the Central Region, it was lower than hundreds to the north. The most important general difference between the eight northern hundreds including Pencader and St. George's Hundreds and those further south was the scale of livestock raising. The capital and labor costs of dairying are relatively great, but it also means the farms are more productive and more valuable (DeCunzo and Garcia 1992: 36-37).

One of the important things that occurred during this time was that the General Assembly had a statewide geological survey performed. The survey resulted with information on the fertility of the various soils in the state and what was needed to make them fertile where they were deficient (Passmore et al 1978: 16). James Booth, who performed the survey, recognized that Delaware soils needed organic matter and lime in order to be highly productive. His survey prompted the use of marl, a compact clay-sand deposit embedded with ancient seashells, in southern New Castle County. The area's farmers prospered from using the marl on their fields as well as by selling it to other farmers (Passmore et al 1978: 17). Legumes such as clover and alfalfa restored soil fertility, and crimson clover was the main legume in Delaware crop rotation from 1870 through the 1930s (Passmore et al 1978: 18). The central Delaware area, stretching from Milford on the south to Middletown on the north, contains some of the most productive soils on the Atlantic coast (Passmore et al 1978: 19).

In response to demographic pressures, changing agricultural practices, and the influence of agricultural reform writers, central Delaware farmers adopted the earlier idea of the house and garden as a strategy for housing their married agricultural workers and in the

process created a specific building form to meet their needs. The "house and garden" helped bring order and stratification to the agricultural landscape by making a clear statement about the place of laborers in the business of agriculture. Farmers wanted to keep good laborers in the community, but they also wanted to reinforce the economic and social distinction between farm owners/managers and their employees (Sheppard et al 1992: 39). The majority of the population in Appoquinimink Hundred did not own the farms they managed. As time went on during the period 1850 to 1880, tenancy decreased in Appoquinimink due to lower land values (Mayer 1975:22).

Farmers in the northern section of Upper Peninsula Zone continued wheat and corn cultivation during the first half of this period. However, farms in this area became more specialized, diversified, and commercially-oriented after the Civil War as dairy production and the fairly short-lived boom in peach growing became important aspects of this area's agricultural output. This move to diversification was the result of negative pressures resulting from the massive expansion of grain production in the Midwest and Upper Midwest and positive factors resulting from the growth of Delaware's railroad system. Railroads facilitated quick shipment of perishable dairy and fruit products to the growing urban markets in Wilmington, Philadelphia, and Baltimore (Herman and Siders et al. 1989). These cities experienced a great industrial boom during this period, which resulted in major population influxes and exponential growth. Railroads directly linked rural areas in central Delaware to these burgeoning urban markets. Population in the study area, which had been in decline, rebounded in this period as prosperity returned.

Faced with declining fortunes, depleted soils, and changing market conditions, farmers recognized the need to revitalize the New Castle County Agricultural Society in the 1830s (Reed 1947:373-377). There is also evidence that farmers were listening to trade magazines. *Boyds' Delaware State Directory* of 1859-60 noted five dealers in guano, ten dealers in lime, plaster and cement, and 31 dealers in agricultural implements (Boyd 1859: 231, 240, 187). Also, by 1874 the Grange movement had spread to the study area with the chartering of the Peach Blossom Chapter of the Grange in Middletown (Delaware State Grange 1975:10, 317). These societies, which helped farmers share knowledge and experience in a spirit of fellowship and cooperation, fostered innovative agricultural methods that aimed to increase production and thereby promote farm life. Of particular importance in the Upper Peninsula Zone was the effort to encourage fertilization to restore exhausted farmland. A system of manuring, liming, and marling was vigorously employed throughout Delaware. Improved land drainage practices were also adopted, as was the increasing use of much-improved, horse-powered farm implements such as mechanical planters, hay rakes, and reapers. These combined efforts resulted in a major growth in crop yields per acre, which also led to a great increase in the value of farmland (Reed 1947:373-377).

The peach industry was also a major economic boost for Delaware farmers in the mid- and late 1800s. Beginning in the 1830s in the vicinity of Delaware City to the northeast, peach orchards became wildly profitable for a number of prominent farmers. Peach growing spread south in the 1850s and 1860s into the Middletown-Odessa area. Peaches netted Daniel Corbit, a prosperous farmer near Odessa, over $12,000 in 1857 and over

$21,000 in 1860 (Reed 1947:382). As the peach crop was so potentially profitable, some farmers converted as much as half of their former wheat fields into peach orchards during the mid-1800s. The peak production year was in 1875 when Middletown was the peach-growing center of the state. Between 35 to 50 carloads of peaches were shipped daily during harvest season that year (Passmore et al 1978: 69). The peach growing industry subsequently moved south as a peach blight known as the "yellows" began decimating Delaware's peach orchards. The blight had appeared as early as 1842 in the Delaware City area (DeCunzo and Garcia 1992:46). The blight then spread throughout the state. By the 1890s, Delaware's peach boom was over (Reed 1947:382). The only time Appoquinimink Hundred took the lead over St. George's in agricultural products was with peaches during this period (Mayer 1975: 129).

By 1870 farmers in the Middletown area in an effort to stem losses from the peach industry began diversifying with tomatoes. It was not long before five tomato canneries were prospering in Middletown. By 1912 Delaware was furnishing one-tenth of the entire United States output of canned tomatoes (Passmore et al 1978: 80).

An agricultural district, known as "the Levels," is located partially in St. Georges Hundred and partially in Appoquinimink Hundred. The Levels extends from the Pennsylvania Railroad on the east to the Maryland line on the west and from Middletown on the north to Wiggins' Mill Pond on the south. By 1850, this highly productive area was greatly invested in the dairy industry. In addition, the average wheat production per farm here was higher than for St. Georges Hundred, the highest in the state. The principal feed for the cows was hay, and hay production in the Levels increased tremendously between 1850 and 1880. During the 1860s and 1870s farmers of the Levels invested heavily in peach production, but after about 1880 these farmers returned to grain and dairy production. The farms in the Levels exhibited a high degree of landholding consolidation combined with a market-oriented and capital-intensive agriculture (Brooks et al. 1985: 8-6, 8-8, 8-12, 8-14).

The upper portion of New Castle County had traditionally been known as the primary dairy production center of the state. Dairying first centered on butter production, but with the advent of train systems, milk became the emphasis. The fortunes of Delaware farmers vastly grew between 1830 and 1880. This was particularly true for farmers in St. Georges Hundred, which was ranked among the top three wealthiest hundreds in Delaware in 1850.

Continuing a trend from the late 1700s, farm tenancy became an even more common and vital system during this period, with approximately half the farms being operated by tenants during any given time. Tenant farmers paid landlords through a share of the crops or a fixed rent. The employment of tenant laborers and day laborers also increased during this period. The "house and garden" system continued to be employed to shelter farm tenants. In some cases, farm owners actually sold or gave the house and a small lot to their tenants, particularly after 1860 (Sheppard et al. 2001:E3).

Numerous agrarian outbuildings were constructed during this period as commercial farming developed and diversified. Common agrarian outbuildings were related to the fattening of cattle and included grain and hay storage facilities such as threshing barns, corncribs/granaries, and hay barns. Transportation and machinery related outbuildings that appeared in this period include carriage houses, wagon sheds, and stables (Lanier and Herman 1997:55-57). Typically, the outbuildings of the study area consisted of a grouping of shed-like structures around the farmhouse (Mayer 1975: 53).

7.4.3 Residential Architecture

As noted above in the agricultural section, some of the farmers in the study area, particularly those in the Levels area, became wealthy during the period 1850 to 1880. This resulted in a widespread rebuilding of the built environment. Among the goals of the rural elite in this area was to create rural estates that reflected their social values and economic station. An early example or forerunner of what took place on these farms during the mid-nineteenth century is Brook Ramble (CRS No. N00101). This two-story, side-passage, brick house was built in the 1790-1810 period with an original service wing. One purpose of the new buildings was to incorporate household support functions into the main body of the house (Brooks et al. 1985: 7-5). Because many of these houses were built during the time when peach production was at its height, the houses became known as "Peach houses." These new and rebuilt houses and their surrounding landscapes were architectural representations of the rural elite's agrarian sensibilities regarding class, economics, social relationships, and domestic roles (Herman et al. 1985:8-3 to 8-5). The new houses, similar to Brook Ramble, were stylish, designed with unheated stair passages, and included many of the domestic services formerly relegated to outbuildings (Brooks et al. 1985: 7-8).

The farmsteads of the Levels represent a significant period of building, rebuilding, and modification that occurred primarily in the period between 1830 and 1870. Due to the incorporation of food storage and food preparation activities into the new or previous structures, the result was the characteristic ell-shaped houses. The owners of these farm complexes used an amalgamation of architectural styles that were in common use by the mid-nineteenth century including the Georgian, Federal, Greek Revival, Italianate, and Gothic Revival (Brooks et al. 1985: 7-1). While it is difficult to isolate a house of a "pure" style, it is possible to see the preponderance of a few dominant post-Georgian styles including Federal, Greek Revival, and Italianate in individual examples. Located in Appoquinimink Hundred, the National Register listed Mayfield (CRS No. N05832) fits the above characteristics. This two-story, five-bay, brick house with a kitchen wing to the rear was built prior to 1849 by William Wilson and retains characteristics of both the Federal and Greek Revival styles.

The dwellings of tenants were not always relegated to simple one- and two-room structures. Some of the dwellings erected on tenant farms during the rebuilding period of the mid-nineteenth century were similar in design and finish to other dwellings being erected by landed farmers in the area. A more complete picture of the hierarchy of

dwellings erected in this period is discussed in documentation of the area around "The Levels":

> Major tenants, also known as farmers and farm mangers, were provided with houses comparable in plan and finish to those of the owners, but still decidedly less extravagant. The tenants' residences describe a middle range of an architectural hierarchy. At the upper end were mansions like those occupied by the Cochrans; at the bottom for laborers were the rough one and two-room cottages set on the edges of nearby towns or along the margins of fields. Competent farm mangers were in demand in the mid 19th-century neighborhood of the Levels, and among the concessions made to their stature was housing appropriate to their social and economic station. Despite their non-property owning status, the tenants on the Levels in the 1850s were probably better off financially, materially and certainly architecturally than most land-holding farmers in the remaining three-quarters of the state (Brooks et al. 1985:7-13-71-15)

Dwellings also arose for the housing of slaves. Extant buildings associated with slavery are rare in the APE.

Between 1820 and 1860 farm owners, usually large farm owners or farm managers, in Central Delaware focused on a specific building type as the most appropriate for housing their agricultural laborers. Known as the "house and garden," these houses were usually placed on a piece of marginal land or near roadways but within view of the farm's main house. A traditional building form was used which contained a main room on the first floor with a winder stair leading to a single open room above, and included a one-story shed-roof addition either to a gable end or rear elevation. The houses were often placed on about an acre of ground that served as a garden for the laborer and his family (Sheppard et al 1992: 1-4).

7.4.4 Transportation

Innovations in the transportation system, particularly the establishment of railroads, were critical to the economic expansion of the United States during the mid-1800s. This was true for the agricultural economy of St. Georges, Appoquinimink, and Pencader Hundreds as well. The use of the full potential of the C&D Canal also facilitated economic expansion. In 1837, 100,000 tons of cargo passed through the C&D Canal, and by the late 1850s, tonnage on this route exceeded the half-million mark (Taylor 1951:41-42). By 1872, the peak tonnage year, over 1.3 million tons were transported on the manmade waterway. The canal, along with the completion of the DRR in 1855, provided the necessary transportation linkages with major markets and assured the economic success of the farms in the APE and New Castle County (Taylor 1951:78).

The construction of the Philadelphia, Wilmington, and Baltimore (PW&B)-backed Delaware Railroad (DRR) changed the fortunes of central and southern Delaware. First incorporated in 1836, the DRR Company envisioned linking Wilmington and the

southern half of the state by rail. However, periodic downturns in the economy stalled the project for years (Hoffecker 1977:46). The State of Delaware delayed lending its financial backing to the project until 1852. Within a year, the PW&B grew increasingly interested in the Delaware project and threw its weight behind the line's successful completion by funding construction work. In 1855, the PW&B leased the DRR for a period of 21 years and provided equipment and operational control. By the end of 1856, the DRR's tracks had passed through Dover and arrived in Seaford, a distance of over 70 miles. In 1859, the DRR reached to the Delaware-Maryland state line at a location the railroad company dubbed Delmar (Hayman 1979:19-31).

According to Thomas Scharf's *History of Delaware*, the DRR had a profound effect on the state's agricultural economy, allowing perishable produce to quickly reach distant markets (1888). Even before the DRR's completion, peach orchards began to be planted along its route. During 1875, the Middletown railroad station shipped 35 carloads of peaches daily with 530 baskets per car, making a total of 1.5 million baskets shipped to market during that year. Total peach shipments for the entire state in 1875 amounted to five million baskets (Scharf 1888:433-444). Hence, it can be safely said that the railroad directly precipitated Delaware's amazing, although short-lived, peach boom.

7.4.5 Community and Commercial Development

Largely due to developments in transportation and economic prosperity on the surrounding farm complexes, the towns in the study area experienced significant growth during this period. Middletown in particular became a hub for the shipment of local farm produce on the DRR to urban centers to the north and south (Darsie 1997:35-38). A number of canneries for the processing of peaches were started within the crossroads communities located along the DRR south of the canal, including Middletown, Townsend, and Blackbird Station. The intersection of primary and secondary roadways came to be known as "corners" in the nineteenth century. These small communities were generally named for a prominent local landowner and contained a local business, a post office, perhaps a church or school, and the dwellings of those who worked on nearby farms. The village of Fieldsboro is located at the northeastern tip of the project area. By 1849 Fieldsboro contained a church, a school, and about nine residences (Rea and Price 1849). By 1868 Fieldsboro also contained a post office (J.G. Beers 1868). The village of Blackbird is located just southeast of the project area. In 1849 there were about eight residences in the village, and a store and post office was located just north of town. An even smaller village, called "Commercial Corner," composed of three buildings, was located just east of Townsend (Rea and Price 1849). By 1893 Commercial Corner was known as Ginn's Corner (G.W. Baist 1893). However, it still only contained three buildings.

Middletown

Due to the commercial and residential growth that the coming of the railroad prompted, Middletown was formally chartered in 1861. In 1867, Middletown Hall was erected, and by 1868 the town's population had reached 1,000, up over 650 residents from the year 1850. The *State Directory* (Boyd 1874) characterized Middletown as a railroad town and

listed among its business enterprises four banks, a carriage maker, a wagon maker, a tinsmith, five hotelkeepers, a postmaster, four general merchants, a saloon, a physician, two milliners, a watchmaker, a shoemaker, and an undertaker (Boyd 1874). (The tinsmith is particularly noteworthy as tinsmiths were often associated with the canning industry).

Townsend

Prior to 1850 there was a small village of African-Americans located here. The village was called Charley Town after Charles Lloyd, but the Rea and Price Map of 1850 notes the location as "Charleston." About 1850 Samuel Townsend purchased a portion of the land where the town would be located. After the railroad was constructed, a station was located at Townsend. The first store in town was opened in 1851 by Levi Lattomus (Scharf 1888: 1015-1023). In 1874 Townsend was described as rapidly growing into importance and as an important railroad station on the Delaware Railroad at the junction of Queen Anne's and Kent County Railroad. Then it was in the midst of a fine agricultural and fruit-growing region (Boyd 1874: 516).

Glasgow

In 1859 the village of Glasgow was a thriving community, including a variety of trades and industries. The village included six "country stores;" two hotels, the Buck Hotel and Glasgow Hotel; and a lumber dealer (Boyd 1859: 234). Industrial operations included two flour and grist mills, Edward Nowland's carriage manufacturing shop, and S.W. Clement's sawmill. The community included a number of skilled craftsmen, such as blacksmiths, carpenters, dressmakers, boot makers, and a brick maker. There were also several merchants, selling coal and lumber. The village also maintained two physicians. In 1868 the village included the Glasgow Hotel, a Presbyterian Church, Methodist Church, two blacksmith shops, two general stores.

Cooch's Bridge

In 1874 the industries at Cooch's Bridge included clover mills, flour and grist mills, a plaster mill, and iron mines. J. Wilkins Cooch and Adam Dayett had the mills. Cooch was also the postmaster. At that time, there was a hotel ran by Godfrey Hartenstein in the village and two merchants. There were also two African-American churches in the village: African Union and Methodist Episcopal (Boyd 1874: 403).

Fieldsboro

The 1850 *A Map of the State of Delaware* shows a few buildings in the village of Fieldsboro. There is also a school located there at that time.

7.4.6 Industry

The types of industrial enterprises operating in the study area diversified during this period. Joining the traditional grist milling operations were brickmaking and canning firms. The expansion of industry was linked to the extension of the DRR to St. Georges Hundred in the 1850s. The industrial facilities were built with sidings on the railroad for easy loading and unloading of goods. This allowed for the further expansion of industry through this agricultural area.

Brick manufacturing and associated clay mining never played a large role in Delaware's economy. Brickmaking was performed on a small scale throughout the eighteenth and nineteenth centuries in all three Delaware counties (Booth 1841:177). By 1860, only four brickyards were operating in the state along with one drain tile works, one firebrick manufactory, and four potteries (Ries and Leighton 1909:77). In 1872 a brickyard was opened a short distance south of Townsend by Samuel R. Warren. Warren operated it a year and then sold the operation to D.B. Maloney who still owned it in 1888. At that time bricks were manufactured six months out of the year, providing employment for five men. The plant manufactured 175,000 bricks annually for home consumption (Scharf 1888: 1015-1023).

During the 1840s, canning represented almost 12 percent of the state's manufacturing establishments, employed a number equaling 25 percent of the labor force, and hired more women than all other industries combined. From 1860 to 1940, the number of canneries operating within Delaware increased from three to more than 70, and the value of cannery products approached $7 million or nearly five percent of the state's manufacturing production (Doerrfield et al. 1993:1). Most canneries were located south of the C&D Canal, which separates the northern third of New Castle County from the southern portion of the state. The Upper Peninsula and Lower Peninsula/Swamp zones contained a majority of the canneries in the state (Doerrfield et al. 1993:9-11).

The canneries more than likely produced canned fruits and vegetables including peaches, tomatoes, peas, and sweet potatoes. Survey forms prepared for CRS Nos. N-05143 and N-05146 mention that the small crossroads community of Armstrongs Corner grew in size due to the number of industries concentrated at this intersection and within several hundred feet of the DRR. The cannery at Armstrongs Corner, known as the Cole Canning Company, was owned by a Baltimore businessman (Mildred Schafer, personal communication, 2005) (CRS Nos. N05143 and N05146). The property is now vacant with the exception of one building located adjacent to the DRR tracks. The property is currently being used as a gravel operation. One additional property type commonly associated with the area's peach production is basket factories; background research revealed no known basket factories within the APE.

7.4.7 African-American History and Culture

During the antebellum period, Delaware continued to follow a conflicted path in regard to African-American rights. Efforts by Delaware abolitionists to enact a law banning slavery failed in the legislature in 1847. In the same year, the legislature issued laws protecting the property of African-Americans and their right to seek redress in the court system for injury to property. In 1852 the Delaware legislature enacted further constraints that barred African-Americans from holding public office, restricted them from testifying against whites, and curtailed voting rights. In 1859, the state passed a Jim Crow law that prohibited blacks from riding in any Delaware railroad car used to convey white passengers (Reed 1947:576).

Being a border state in regard to the slave issue, Delaware became an important conduit in the Underground Railroad. Harriet Tubman, the most recognized figure on the Underground Railroad, made 19 forays into slave territory, which took her through many Delaware communities including Middletown (Thompson 1986; Bernhardt 2003:67-73). According to Charles Blockson, Underground Railroad "stations" were located in Middletown and Odessa (1987:146). Members and ministers of the A.M.E. Church Smyrna Circuit were suspected of helping slaves escape via the Underground Railroad (Trusty 1999:295).

The trend of decreasing slave numbers and a rising free population among African-Americans continued up until emancipation in 1863. Just prior to the Civil War, New Castle County had only 254 slaves. The county's total free African-American population also rose significantly between 1830 and 1860 ***(Table 5)***. By 1840, free African-Americans accounted for 20 percent of the county's total inhabitants. By 1860, eleven free African-Americans owned farms in Pencader Hundred, and four owned their own farms in St. Georges Hundred (Dean 1970). Just prior to the beginning of the Civil War in 1860, both St. Georges and Pencader Hundreds had the highest proportions of African-American inhabitants of all the hundreds in New Castle County. Thirty-six percent of the inhabitants in St. Georges and Pencader Hundreds were of African descent in 1860 (DeCunzo and Catts 1990:76). Appoquinimink Hundred had a higher percentage of black farm operators than St. Georges. Farms operated by blacks tended to have a much lower value and be smaller operations (Mayer 1975: 27).

Following trends from previous periods, African-Americans in Appoquinimink, St. Georges and Pencader Hundreds were predominately employed in agriculture during the mid- and late 1800s. In 1870 of a total of 930 farm laborers in Appoquinimink Hundred, half were black (Mayer 1975: 31). African-American enclaves also began developing in Odessa and, in particular, Middletown, where the extension of the railroad and the related economic growth created non-agricultural employment opportunities.

Delaware provided very little support for public schools until 1829 when the state legislature passed a free school act. The act provided for the education to whites only and did not fund schools for black children (Bevan 1929:667-669). As a result, the education of African-American children fell to philanthropic or religious organizations. Prior to the Civil War, only seven schools dedicated to the education of African-American children existed in Delaware (Skelcher 1999:3). In 1866, Quakers and Methodists formed the Delaware Association for the Moral Improvement and Education of the Colored People to create an educational system for African-Americans (Skelcher 1999:6-7). Between 1867 and 1876, this association established 32 schools throughout Delaware, enrolling 1,200 students (Hoffecker 1977:107-108).

The A.M.E. Church experienced unprecedented growth during the 1800s, remaining a social pillar for the African-American community (A.M.E. Church website). During the mid nineteenth century the African-American community of Appoquinimink Hundred established Lee's Chapel (CRS No. N05875), located at the intersection of U.S. 13 and Pine Tree Road. Lee's Chapel was affiliated with the A.M.E and continues to serve the

community. The local community supported the church, with the owners of the Pine Tree Farm being noted as prominent members. The African-American community was also served by the establishment of a school at Pine Tree Corners during the late nineteenth or early twentieth century.

7.5 1880-1940+/-, Urbanization and Early Suburbanization

7.5.1 General History

During this period, industry and manufacturing greatly expanded in Delaware. A reciprocal decrease in the number of people employed in agriculture also occurred. With this change, a greater percentage of the state's population resided in cities rather than in rural areas. Important improvements in transportation occurred, chiefly the construction of U.S. 113/U.S. 13, T. Colman duPont's innovative concrete highway. By 1900, commercial agriculture, urbanism, and light industry were all growing in Delaware. Farmers in this "automobile age" further diversified their products, moving towards dairy, poultry, and garden vegetable/orchard farming. Toward the end of the period, suburban communities began developing outside of urban centers (DelDOT website).

7.5.2 Agriculture

During this period, farmers in the study area faced a growing set of challenges. They responded to changing market and economic conditions by adopting new products, moving into product specialization, finding new labor sources, and increasingly using laborsaving technology.

Following the short-lived peach boom of the 1870s, farmers in New Castle County began to suffer a series of setbacks. During the last quarter of the nineteenth century, farm commodity prices began to fall. The value of farmland also began to decrease. By 1880, farm values in the Upper Peninsula Zone had fallen back to their 1850 levels (Herman et al. 1989:34). Depressions in the early 1890s and in the 1930s further eroded the holdings of farmers, disrupting well-established landownership patterns. Some farmers were forced to split up and sell off their land holdings, which resulted in diversification and reallocation of property.

Although the expanding industrial cities of the Mid-Atlantic and Northeast were a vital market for Delaware's agricultural production, the industrial sector also created its share of problems. As industries greatly expanded in and around Wilmington, the competition for labor increased. Workers were increasingly lured away from farm jobs in rural New Castle County to urban industrial jobs, which promised significantly higher wages. As a result, the overall cost of labor rose, and in some cases, rural labor shortages developed. In 1920, a shortage of reliable tenants also developed, disrupting the long-standing labor relationships, and negatively affecting landlords' standards of living (DeCunzo and Garcia 1992:188-190). In response, farmers began to increasingly employ laborsaving technology, including steam-powered and internal combustion engine-powered machines

and tractors. They also employed itinerant or migrant laborers during periods of seasonal demands, primarily during harvest time.

Another factor in the complex agricultural systems of this period was the advent of large-scale canning companies, which began purchasing large tracts of agricultural land in the state. These big commercial operations used modern mechanization to significantly reduce production costs. Independent farmers found it increasingly difficult to compete with the canning companies (Doerrfield et al. 1993).

In spite of growing industrialization in northern Delaware and the challenges that it wrought, agriculture remained an important and viable economic pursuit in New Castle County although farm sizes and total agricultural acreage decreased (Siders et al. 1993:16). Farmers in southern New Castle County responded to the changing economic and market conditions by continuing to commercialize their efforts. Dairy production steadily rose between 1880 and 1940. The sanitary dairy movement resulted in the construction of modern dairy barns, with concrete floors, improved ventilation, and better milk handling mechanisms (Shriber 2002).

The area around Middletown turned to dairying after the turn of the century. There was a substantial number of tenant farmers in that area, and since tenant farmers owned all their own animals, they could keep all the dairy herd income. The largest commercial creamery in the state, Cook and Brady, was located at Middletown. The years from 1914 to 1928 were prosperous ones for dairy farmers. By 1928 over 95% of Delaware's milk was sold as fluid milk (Passmore et al 1978: 42). In 1924 the new Bureau of Dairy Industry in the U.S. Department of Agriculture undertook the sponsorship of cooperative testing associations. These farmer-run, Extension Service supervised groups were called Dairy Herd Improvement Associations (DHIA). The first DHIA in Delaware was formed in New Castle County in 1929. These associations have made great strides in raising milk production in the state (Passmore et al 1978: 44).

The raising of poultry for both egg and meat production also became an important component of the area's farm economy after 1880. By 1925 the value of poultry in the state was exceeded only by the value of all breeds of cattle. The value of eggs sold was more than the value of dairy products. Eight-week old chickens, called broilers, have brought in half or more of the state's farm income since 1934 (Passmore et al 1978: 56-58).

While peaches were once a bonanza crop in Delaware, by the 1930s Delaware was known for its early-apple production. Often these apples could be put on the market prior to August 1. In 1937 production stood at 2,750,000 bushels (Delaware 1938: 85-86).

With the advent of the automobile in the early 1900s and vastly improved highways, farmers could truck their fresh produce directly to farmers' markets in Wilmington and Philadelphia and sell it themselves. Some farmers began to specialize in truck farming (the cultivation of vegetables on a large and specialized scale), while others focused on dairy or poultry production. Some farmers raised produce on a contract basis for the

canning companies. These large corporations were able to utilize the most up-to-date machinery, effectively decreasing their costs in manpower and making it difficult for the small independent farmers to compete. Still other farmers continued to grow a diverse range of products as their forefathers had. Farmers with access to large amounts of acreage generally focused on field crop production such as wheat and corn (Siders et al. 1993:47; DeCunzo and Garcia 1992:170).

An effective State Board of Agriculture was formed in 1901, which along with the Division of Agricultural Extension, connected with the University of Delaware, worked to carry information on agriculture and home economics into the rural districts of the state (Passmore et al 1978: 38-39; Delaware 1938: 87). The goals of the Extension include, producing better farming, better farmhouses, more equitable distribution of farm products, and an enthusiasm for rural life by youth.

In 1937 wheat ranked first in dollar value for field crops produced in Delaware. Although nearly four times the amount of corn was produced that year, its value was second to wheat. Soybeans came in a distant third in value, and hay was ranked fourth (Delaware 1938: 85).

7.5.3 Residential Architecture

Beginning around 1900, residential building types diversified. A change in building materials occurred at this time as improving transportation and technology made mass-produced building materials available including concrete, crushed stone, sheet metal and concrete block. The new materials replaced fieldstone and other traditional masonry materials. Brick was also used, especially as less costly machine-made bricks became available. Cut lumber was brought in by rail from the West as local lumber supplies became depleted. These new, cheaper materials were used for most building types, from farm buildings to residences. Another important aspect of house construction during this period was the expansion of materials available for exterior cladding and roofing materials. These included wooden clapboards, shaped shingles, tarpaper, asphalt siding and shingles, terra cotta, and metal roofing (McAlester 2000:33-48; Simpson 1999: 1-8).

By 1900, the romantic styles of the previous period were generally replaced by new styles, including the Colonial Revival and new forms such as the American Four Square, a form of the Prairie style, and the Bungalow. A few housing forms were built repeatedly in the study area with limited stylistic pretension applied to a vernacular shell. The most common forms of this period were variations on the Bungalow style, the American Four Square, and the Cape Cod house. These forms featured more open floor plans than the central hall dwellings of earlier periods, and they quickly became the new forms used in the APE. A fairly good example of the Bungalow style within the APE is CRS No. N06213. This frame, three-bay gable-front house has an enclosed front porch and a jerkinhead roof dormer. A good example of a Prairie style house is CRS Temp No. B00010, located on Summit Bridge Road. This two-story frame house with a wrap-around porch has characteristics typical of the Prairie style, including low-pitched roof with wide eaves, massive square porch

supports, and asymmetrical entrance. A one-and-a-half story frame house at Townsend (CRS Temp No. B00053) is a typical example of the Cape Cod style within the project area.

Despite the introduction of new dwelling styles and forms, the two-story home with a side gable roof and central hall continued to be erected in the APE during this period (CRS No. N05226). The addition of a cross gable on the façade was a common elaboration at the turn of the century (McAlester 2000:263-265). An example of the simple vernacular form with a side gable roof is found on Summit Bridge Road in CRS No. N06220, a two-story frame house built in two sections. An enclosed front porch was added later. A three-bay, two-story, frame farmhouse (CRS No. N05933) on Green Giant Road is a good example of a turn-of-the-century house with a cross gable.

Also during this period, with the introduction of the automobile, garages began to appear on residential properties in the APE. These early garages were not attached to the house and were generally located either beside or behind the residence. A typical example (CRS Temp No. B00017) is found on a property on Main Street in Townsend. This single bay, frame garage has a hipped roof.

7.5.4 Transportation

In March 1881, the Pennsylvania Railroad (PRR) gained control of the PW&B and with it came the PW&B lease of the DRR. At the turn of the twentieth century, before the highway era, railroads provided the most important means of transportation in Delaware (Hoffecker 1977:157). The PRR continued to operate the DRR under the existing lease arrangement until 1917 when the PRR directly assumed the lease of the DRR and began operating the route as a direct PRR subsidiary (Burgess and Kennedy 1949:404-406, 554). By 1923, the DRR featured the stations and sidings within or in the vicinity of the U.S. 301 APE, including facilities at Townsend.

During the opening years of the twentieth century, maritime officials expressed interest in developing the Intracoastal Waterway, which would include the C&D Canal. However, its narrow channel and relatively small locks prevented modern ships from passing through the canal. In order to bring the canal up to modern standards befitting the Intracoastal Waterway, the federal government acquired the C&D Canal in 1919. Work to improve the canal began in 1922, and the U.S. Army Corps of Engineers completed the project in 1927. As a result of widening the waterway and removing the locks, shipping skyrocketed from 608,000 tons in 1927 to 3.8 million tons in 1940 (Gray 1989:199-247).

In 1916, the United States Congress approved the Federal Aid Highway Act, which offered 50 percent matching funds to states that established highway departments. The Delaware General Assembly passed the Highway Act of 1917 creating such a department within the state. The new highway department initiated the planning of a state highway network by surveying and defining routes. This first effort in establishing intrastate routes resulted in present-day S.R. 1, U.S. 13, and U.S. 113. In 1923, the state lawmakers approved a motor vehicle fuel tax to fund highway construction and improvements. With federal matching funds and fuel tax revenue, every large population center in Delaware

had a paved road to connect to the primary highway system by the mid-1920s. During the late 1920s, Delaware obtained federal funding to widen the DuPont Highway from two to four lanes (Spero 1991:183-188).

The DuPont Highway (U.S. 13/U.S. 113), which opened in 1924, connected northern and southern Delaware and shifted the state's agricultural production permanently toward non-local markets. The Federal Highway Administration designated DuPont Highway as "U.S. 13" from Wilmington to Dover and "U.S. 113" from Dover southward to the Delaware-Maryland state line. Named for T. Colman duPont, who personally financed the project, the DuPont Highway was the first modern, paved road to run the entire length of Delaware (Historical Society of Delaware website). Modern, paved highways not only aided Delaware's agricultural economic sector, but also gave rise to automobile tourism at the eastern end of the study area.

7.5.5 Community and Commercial Development

The vastly improved transportation system and technology of the late 1800s and early 1900s had a profound effect on community development across the state. Access to railways and trolley transportation systems and the introduction of the automobile, opened up new areas to development, particularly residential development, as residents could now commute relatively long distances to their jobs. During this early phase of suburbanization, residential communities not only expanded outwards from the urban cores of cities like Wilmington but also from moderately sized towns such as Middletown and Townsend (Herman et al. 1989:34). As a result, a number of new houses were built in the area, generally on the outskirts of existing communities or on narrow strips of land at the edges of farms in close proximity to the improved highways. While some communities expanded in this period, others, including Ginns Corner and Pine Tree Crossroads, appear to have remained the same in size or to have ceased growing altogether.

The introduction of modern transportation also greatly facilitated the growth of commercial districts, which provided retail, leisure, and tourist services. A new breed of automotive business developed along the modernized roads and highways in the second quarter of the twentieth century. These businesses included gas stations, diners, motels, campsites, roadside stands, and specialty shops. Within the study area, this new automotive entrepreneurship appears to have been confined to U.S. 301 and U.S. 13, and, to a lesser extent, on secondary roads such as S.R. 299.

Middletown

With the decline in the local area's peach production in the 1880s, the focus of Middletown's canneries turned to processing tomatoes and other vegetable crops. By 1888, the population had reached 1,600, with the focus of economic activity still related to farming in the study area. In 1900, there were five canneries operating in the town (Darsie 1997:53).

Despite the growth of the canning industry, by 1900 Middletown had begun to experience a net decrease in population, as the prospect of higher-wage manufacturing jobs in Wilmington, Philadelphia, and Baltimore, and instability in the local farm economy led many workers previously engaged in agricultural activities to seek jobs in the cities. The trend continued throughout the early part of the twentieth century with Middletown's population reduced to 1,247 by the time of the 1930 census. The loss of labor available to farmers was in part offset by increasing mechanization on farms.

The trend toward suburban residential development that had begun in the 1930s in other parts of Delaware, closer to cities, initially had a modest effect on Middletown. By 1940, the town's population had climbed to 1,529, and by 1950 it had reached 1,755. These increases in population were reflected a trend toward the subdivision of strips of land fronting on major roads along the edges of farms for the purpose of constructing residences.

Townsend

In 1884 Townsend was noted as a station on the Townsend Branch and Delaware Division of the P.W. & B. Railroad in New Castle County. There were 14 businessmen, professionals, and tradesmen listed in the village (Polk 1884: 118). The town had grown so rapidly that by 1885 it was incorporated as a town. At this time a plot of the town was made and streets were laid out. In 1888 the population was 350. Large quantities of grain and peaches were shipped from the rail stations there each year (Scharf 1888: 1015-1023). Baist's 1893 map shows the intersection of the Queen Anne & Kent Railroad with the Delaware Railroad at Townsend. The town at that time included a station, a freight house, an evaporating house, the Lottamas store and post office, Mulaney lumberyard, two wagon works, and two churches. By 1908 Townsend's population was 400. At this time Townsend's business and manufacturing interests included: a brick manufacturer, the Townsend Hotel, the Townsend Creamery Company, the Townsend Canning Company, the Townsend Roller Mills, and an agricultural implement store (Polk 1908: 192).

Glasgow

In 1884 the village of Glasgow had a population of 200. The village included two general stores, a hotel, wagon shop, and blacksmith shop (Polk 1884: 92). Baist's 1893 map shows the Pencader Presbyterian Church and cemetery at the crossroads in Glasgow. At that time there was also a Presbyterian orphanage there. Businesses included: three stores, a hotel, a school, and a blacksmith and wagon works. By 1908 Glasgow's population had dropped to 106. At that time the town had about 16 professional and businessmen (Polk 1908: 149). In 1929 the village of Glasgow was located along the Philadelphia, Baltimore & Wilmington Railroad's Newark & Delaware City Division (Bevan 1929: 801).

Cooch's Bridge

In 1884 Cooch's Bridge had a population of 150. The village included a general store, two milling operations, and an iron ore mine (Polk 1884: 84). By 1908 the village's population had dropped to 50. W. E. Dayett was the postmaster, and J. Irvin operated a

flour mill there (Polk 1908: 109). In 1929 Cooch's Bridge was described as "a hamlet of fifty inhabitants" located along the Philadelphia, Baltimore & Wilmington Railroad's Newark & Delaware City Division. The village included a mill operated by J. Irvin Dayett (Bevan 1929: 799)

Fieldsboro

In 1884 Fieldsboro was described as a small hamlet three miles from Townsend with a population of 40. It contained a post office, three general stores, a flour mill, blacksmith, and a dealer in livestock (Polk 1884: 91). By 1908 Fieldsboro was noted as located four miles from Middletown, the nearest banking point, and three miles from Townsend, the nearest shipping point with a population of 50 (Polk 1908: 145).

Following the turn of the century, new residences were erected along both sides of Summit Bridge Road (CRS Nos. N05235, N05236, N12018, N12019).

7.5.6 Industry

In 1882, business partners Appleton & Hart erected a frame building, twenty-four by forty feet, on the corner of Commerce and Gray Streets in Townsend. They fitted it up with two evaporators and began evaporating peaches. In 1884 Appleton sold his share to Hart, who enlarged the size and capacity of the operation. In 1888 the capacity was eight hundred baskets per day. During the six-week evaporating season, G.M.D. Hart employed 100 workers. The fruit was shipped largely to New York and Philadelphia (Scharf 1888: 1015-1023).

7.5.7 African-American History and Culture

The African-American population continued to grow in New Castle County during this period, although it began slipping in terms of its percentage of the total county population (***Table 6***). This growth, however, was increasingly due to expansion of the African-American population in Wilmington, as thousands of blacks migrated northward to flee from the economic privations and discrimination of the Jim Crow South. In rural central Delaware, including the study area, African-American populations actually declined, especially during the 1920s and early 1930s (Skelcher 1995a:114). Still, African-American population concentrations could be found around Summit Bridge, Middletown, and Townsend during this time (Skelcher 1995a:131). This was largely due to poor economic conditions and limited opportunities. Some rural black communities were also displaced by infrastructural improvements. For instance, the African-Americans living along the C&D Canal at Summit Bridge were forced to relocate when the canal was expanded in 1937. Other groups were displaced by the construction of the duPont Highway in the 1920s (Skelcher 1995a:112-113).

Table 6. African-Americans in New Castle County, Delaware:1880-2000.

Year	Total Population in New Castle County	African-Americans in New Castle County	Percentage of Total African-Americans in New Castle County Population
1880	77,716	12,636	16%
1890	97,182	14,365	15%
1900	109,697	16,241	15%
1910	123,188	15,682	13%
1920	148,239	16,325	11%
1930	161,032	18,471	11%
1940	179,562	20,446	11%
1950	218,879	25,739	12%
1960	307,446	36,039	12%
1970	385,856	n.d.	n.d.
1980	398,115	59,492	15%
1990	441,946	71,895	17%
2000	500,265	99,648	20%

Sources: United States Historical Census Browser, University of Virginia, Accessed 5/25/05; United States Census, 1950-2000. Note: n.d.= no data

African-Americans in Delaware continued to be at a social and economic disadvantage due to a number of chronic negative factors. First, literacy rates remained below average, although over 80 schools for African-Americans had been established by the turn of the twentieth century (Skelcher 1999:35). In 1919 "Colored Schools" were located in Townsend and Pine Tree Corner in Appoquinimink Hundred. A boon for African-American public education came in the form of Pierre duPont, who created the Delaware Auxiliary Association and funded it with a $2.5 million trust. Between 1920 and 1931, the Auxiliary Association completed 89 schools for African-American children. These new schools improved the education of African-American children in Delaware dramatically (Skelcher 1995b:144). The DuPont School (CRS No. N06224) along Summit Bridge Road, is a highly altered example of a DuPont Schoolhouse. The National Register eligible Townsend Colored School (CRS No. N12129) was one of twenty-three DuPont sponsored schools constructed in New Castle County between 1922 and 1925. By the early 1930s, some rural African-American schools were being closed due to declining population, lower enrollment, and consolidation: the African-American school in Odessa closed by 1932 (Skelcher 1995a:115). Schools remained segregated throughout this period.

Although they gained the right to vote, African-Americans were not able to organize an effective political base during this period, as state politics were dominated by the pro-white Democratic Party. Democrats had established a restrictive poll tax in 1873 although it was abolished by the new state constitution in 1897 (Livesay 1968:91-9).

Although farming continued to be the economic mainstay of southern New Castle County, census statistics from 1900 show that African-Americans owned only 1.7 percent of New Castle County's farms (United States Historical Census Browser, Year: 1900). Of the 69 farms in the county overseen by managers, only three were operated by African-American managers in 1900 (United States Historical Census Browser, Year: 1900). Following wider trends, African-Americans began leaving agricultural jobs during this period for work in industry. Nevertheless, African-Americans still made up a significant

percentage of Delaware's agricultural labor force in 1940 (United States Historical Census Browser, Year:1940).

Still, when African-Americans did find industrial work, they were mainly relegated to unskilled jobs. By 1940, African-Americans accounted for just over two percent of the skilled and semi-skilled jobs in Delaware (Livesay 1968:101). Non-farm opportunities for African-Americans in the study area would have included jobs in areas such as industry and transportation.

7.6 1940-Present, Commercialization and Suburbanization

7.6.1 General History

As automobile use became commonplace after World War II, the expansion of transportation networks was needed. In the mid-1950s the Interstate Highway Act was passed. The automobile along with the American dream of a home in the suburbs fostered the growth of suburbanization in northern Delaware. Dense suburbanization and commercialization began around Wilmington and then spread to adjacent areas, such as Newark and New Castle. As the available lands around Wilmington were swallowed up by massive-scale residential and commercial development, the more rural portions of New Castle County became attractive locations for further development. This pressure, along with the modernization of S.R. 896, the creation of I-95, and the construction of the new S.R. 1 highway in the 1990s, all helped facilitate the extreme level of suburbanization and commercialization present in and/or planned for development in the study area today. With this dramatic change in land use, farming in the study area declined, ending its nearly 300-year prominence as the primary livelihood in this area of New Castle County.

7.6.2 Agriculture

The number of farms in Delaware has steadily decreased since 1974 from 3,400 then to 2,300 in 2004. At the same time the average size of farms in Delaware has increased from 185 acres in 1974 to 230 acres in 2004. An even more dramatic change is in the value of the average farm from 1974 to 2002, from $180,000 to $980,000. The loss of farms occurred most in the size that had been traditionally that of the family farm. These farms ranged in size from 50 acres to 499 acres. During this same period the number of farms larger than 500 acres increased. In 2004 the amount of Delaware land in farms was about half what it was in 1965 (National Agricultural Statistics Service website accessed 1/17/06; Delaware Agricultural Statistics 2005: 2).

Farmers in the study area continued to successfully run dairy, grain, and truck operations throughout the mid-twentieth century. Some farmers continued to grow sweet corn, melons, and other vegetable crops, which were either trucked to nearby urban markets or sold from the farm, usually from a roadside stand. Increases in agricultural production were accomplished by the increased use of modern farm machinery, hybrid crop species, man-made fertilizers, irrigation systems, and agrichemicals. The use of large diesel

tractors enabled larger tracts of land to be cultivated. Mechanical milking equipment also facilitated increased dairy production from larger herds, as fewer young people entered the agricultural labor force. These modern devices pushed agricultural production yields beyond previous levels. An example of this is in 1974 when 534 farms sold hogs and pigs, but in 2002 only 86 farms sold hogs and pigs. Despite the dramatic drop in the number of farms selling hogs and pigs, the actual number of hogs and pigs sold only dropped from 82,000 in 1974 to 69,000 in 2002 (National Agricultural Statistics Service website accessed 1/17/06).

Despite record production levels, adverse economic pressures affected the remaining farmers in the study area. By 1990, agriculture accounted for only one-half of one percent of the total jobs in New Castle County (Mullin & Lonergan Associates, Inc. 2003). This statistic can be related to the demand for new houses in northern Delaware. As the housing demands increased in the late twentieth century, land prices rose to record levels. Infrastructural needs created by the increase in the residential population of formerly thinly populated agricultural areas like Pencader, St. Georges, and Appoquinimink Hundreds caused property taxes to rise dramatically. Faced with rising operational costs, increasing competition from industrial-scale agribusinesses, and the unwillingness or inability of the younger generation to take over farm operations, many older farmers ceased their farming operation and sold their land to large development companies. These firms have constructed or plan to construct multi-unit residential subdivisions and commercial services on former agricultural land. This trend is dramatically altering the area's rural landscape.

Although limited in scale, agriculture is still practiced in the study area. The fields that remain in agricultural production are usually part of large-scale custom farming. In these cases, crop-farming operations pay rent to lease large agricultural tracts, often from multiple landowners. These operations often grow soybeans, corn, wheat, and barley, which are sold in bulk to large agribusinesses.

Horse farming was conducted west of Townsend (CRS No. N05883) in the post World War II era, but there are no longer any extant buildings and features associated with this farm type remaining on this farm. Based on the results of the reconnaissance survey, there are a couple of post 1962 horse farms located northeast of Townsend, but these of course were not surveyed due to their age.

7.6.3 Residential Architecture

The most recent period of development has seen dramatic changes in the range of building types in the APE and a significant increase in the number of non-farm residences. In the early twentieth century, houses were constructed on small strips of land at the edges of farms, at the sides of roads and highways, or as secondary dwellings on family farms. These houses were generally of frame construction and one or two stories in height. More recent residential development is usually located in planned subdivisions. The houses in the new subdivisions are generally much larger in size than the dwellings constructed through the 1970s.

Minimal Traditional, or "tract," houses (small one-story houses with side gable roofs, sometimes with dominant front gable projections) were constructed during the post-World War II period within the APE. As suggested by their label, Minimal Traditional houses incorporate a minimal amount of traditional detailing. An example of a rather plain Minimal Traditional house is CRS Temp No. B00004, a one-story frame house built on a raised foundation just off New Discovery Road. Ranch style houses became popular in the 1950s and 1960s, and variations of this style are still built to some extent today. After 1945, garages were commonly attached to this type of house. The Ranch style house emphasizes its rambling form by maximizing its façade width. Typically, these were placed on larger lots than was previously done in the 1930s and 1940s (McAlester 2000: 479). An example of a Ranch style house within the APE is CRS Temp No. B00047. Built ca. 1962, it is one-story brick house with attached garage, all under a hipped roof.

There is one development of mobile homes located in the APE. Lockhart Trailer Court (CRS Temp No. B00061) is an early twentieth century residence with a small trailer court located to the rear. The trailer court includes approximately six mobile housing units. The property does appear to have been developed as a mobile home court, but was converted to its present use during the late twentieth century.

7.6.4 Transportation

In the late 1930s through the late 1940s, as passenger ridership on the railroads began to wane, the PRR started decreasing service on various lines in southern Delaware. Passenger train operations between Wilmington and Delmar ended in 1965 (Baer, personal communication, 2004). However, freight service continued on the DRR. During the early to mid-1970s, freight traffic dropped precipitously and the northeastern railroad companies deferred track maintenance as a cost-saving measure (Gunnarsson 1991:165-166). Today, Norfolk Southern operates the former DRR line through Mt. Pleasant and Middletown and southward through the State of Delaware.

The C&D Canal remains as the route of choice for cargo ships and pleasure craft traveling between the Delaware River and the Chesapeake Bay. In 1954, the U.S. Army Corps of Engineers received authorization to increase the canal's measurements to a working depth of 35 feet and a channel width of 450 feet to accommodate ever larger ships that were being built, although the agency did not complete the enlargement project until 1981. Even without the improvements being completed, tonnage increased beyond 11 million in the mid-1960s. In 1989, tonnage on the C&D Canal was projected to reach the 20 million ton mark, with deep-draft commercial ship traffic exceeding 10,000, not to mention the pleasure craft that used the waterway (Gray 1989:xi, 247, 255-256).

By 1940, the Delaware State Highway System comprised 3,930 miles of improved roadways, with 70 percent of New Castle County's highways hard-surfaced (Spero 1991:189). During the early 1940s, the State Highway Department began assigning State Route (S.R.) numbers to various roadways throughout Delaware. Middletown-Warwick Road and Middletown-Odessa Road became S.R. 4, while Summit Bridge Road was

designated S.R. 71 from its intersection with U.S. 13 near Blackbird State Forest to the C&D Canal. Above the C&D Canal, S.R. 71 veered to the northeast on Red Lion Road, and the state designated the northern section of Summit Bridge Road S.R. 896 (Delaware State Highway Department 1942). By 1957, the Delaware State Highway Department had re-designated Middletown-Warwick Road as combined S.R. 71/S.R. 299. At Middletown, S.R. 71 extended north on Summit Bridge Road, combining with S.R. 896, while S.R. 299 traveled east on Middletown-Odessa Road (Delaware State Highway Department 1957). Two years later, Middletown-Warwick Road and Summit Bridge Road received the federal highway designation of U.S. 301, a route designed to carry traffic between Richmond, Virginia, and U.S. 13 in the Wilmington metropolitan area, where it provided connections to other highways traveling north and south (Delaware State Highway Department 1959; Esso 1964).

In 1960, the new Summit Bridge over the C&D Canal opened after the State Highway Department constructed a new section of road around the north end of Baker Airfield to connect S.R. 71/S.R. 896/U.S. 301 to the new bridge (AARoads website). Today, Summit Bridge Road remains a two-lane roadway through the project area. In the 1990s, a large section of S.R. 896 was reconstructed and widened north of the study area. Also in the 1990s and continuing into the 2000s, S.R. 1 was rebuilt into a limited-access, four-lane highway.

7.6.5 Community and Commercial Development

By the end of World War II, the pattern and density of settlement in Delaware had spread from localized urban centers to interlocked suburban communities across the state. Small communities were replaced by commercial and industrial strip development extending along major roads. Subdivisions or planned communities grew out of former farm fields. Most of the subdivisions are single-family residential developments of low or medium density and typically feature modest to ample lots on curvilinear streets terminating in cul-de-sacs. As in the case of Middletown and Townsend, suburbanization also continued to expand outward from established towns. The expansion of automobile ownership in the second half of the twentieth century fueled these patterns of development. This trend continues today, as planned communities and commercial strip developments are created, approved, and constructed in the U.S. 301 study area.

Middletown

Since the early 1990s, the southern New Castle County area has undergone rapid development. Growth in residential, commercial, and industrial areas surrounding the town of Middletown has greatly contributed to this expansion. This unprecedented growth has changed the rural character of the area. Towns like Middletown and nearby Odessa have traditionally been the centers of residential, educational, commercial, and industrial activities within the broader agricultural landscape. However, this pattern has been replaced by intensive-planned, residential communities concentrated around the C&D Canal bridge crossings of major highways at S.R. 896/U.S. 301 and S.R. 1 (Middletown Comprehensive Plan Update 2001:6).

Because rapid growth was outstripping infrastructure capacity, affecting resources and impacting quality of life, both local and county governments realized the need to manage new development. In the late 1990s, New Castle County government outlined its plans for the pattern of development in the region (New Castle County, Department of Land Use 1997 and 2002). In these plans, areas north, northwest, and northeast of the Middletown municipal boundaries were zoned for residential, commercial, and industrial development of a suburban character ideally serviced by a new public sewer and water system. Middletown began a program of annexation of rural lands west, east, and south of the original municipal boundary between 1997 and 2001. This added nearly 1,900 acres to Middletown, doubling the size of the town.

In May 2001, a bill was introduced into the State Assembly to limit Middletown's expansion. The rationale behind the bill was the lag in State-provided roadway and school infrastructure. Ultimately, Middletown officials agreed to a five-year annexation moratorium. Still, growth is expected to continue. According to Delaware Population Consortium's report (2000), population in the Middletown-Odessa Census County Subdivision is projected to grow 52% from an estimated 28,379 persons in 2000 to 43,123 persons by 2020. Households in the Middletown-Odessa area are projected to grow 73% from 9,564 to 16,607.

Townsend

Townsend has grown substantially since the 1960s, particularly north of town. There was sporadic residential development along Summit Bridge Road in the 1980s and 1990s mixed in with previous construction. However, substantial residential subdivisions were developed between Summit Bridge Road and the Norfolk Southern Railroad from the 1990s into 2005. In addition, there were huge developments west of the Norfolk Southern Railroad line and north of Caldwell Corner Road. There are two smaller developments adjoining to the southwest of the original town. Taken together, these modern subdivisions and developments quadruple the original area of the town. Typical of the period, these developments are laid out with curvilinear shapes and cul-de-sacs to provide limited access to them.

Glasgow

The village of Glasgow is bisected by the Pulaski Highway (U.S. 40) and S.R. 896. It has also been recently bypassed to the east by U.S. 301. The west-bound lanes of U.S. 40 travel to the north side of a row of houses and the east-bound lanes to the south. Although some historic structures remain, the historic layout and feeling of the nineteenth-century village has been altered by the intrusion of highways. There is large-scale commercial and industrial development to the southwest of the original village, and beyond that there are large residential subdivisions. There are also modern subdivisions west of the village and south of Pulaski Highway. There is still some open land to the northwest of the village.

Cooch's Bridge

The village of Cooch's Bridge, located in the northwest quadrant of the intersection of Old Baltimore Pike with Old Cooch's Bridge Road and Cooch's Bridge Road, appears

fairly intact. However, large modern residential subdivisions fill nearly all the land between Old Cooch's Bridge Road and current S.R. 896 to the west.

Fieldsboro

The village of Fieldsboro has been largely obliterated due to the construction of the multi-lane S.R. 1. In addition, there are modern residential developments to the east and west of the original village.

Other Communities

While the historic-period cores of Middletown and Townsend remain at the center of more recent development, many of the other communities in the study area experienced a general decline due to the loss of associated industry and businesses during this period. Most of the former "corner" communities, located at the crossroads of once-important roadways, have either been removed or have been incorporated into modern strip development.

7.6.6 Industry

Industrialization began to expand throughout the U.S. 301 project area during the World War II and post-war eras. As the automobile became a part of everyday life and the network of local, state, and national roadways continued to grow, so did the idea of moving businesses along major thoroughfares outside of the historic-period cores of small-town America. This phenomenon was no exception in the U.S. 301 corridor. During this time period a number of industrial businesses that began to develop in the project area. These businesses continued to take advantage of the C&D Canal, the DRR, and the numerous state and national highways that service the area. A number of industrial resources dating to this period are located north and west of the residential community of Middletown in the vicinity of the railroad.

7.6.7 African-American History and Culture

During the first half of this period, segregation continued to limit opportunities for African-Americans desiring a higher education. The State College for Colored Students in Dover remained the only institution of higher learning for African-Americans until 1948, when the University of Delaware opened a few of its programs to black students. While the *Brown v Board of Education, Topeka* decision ended legal segregation of public schools in 1954, the U.S. Civil Rights Commission did not certify Delaware's school desegregation until 1968 (Skelcher 1999:117-118). In the interim, the schools built by duPont and the Auxiliary Association not only provided for education but also served as community centers for many African-American communities.

As indicated by Table 6, the African-American population of New Castle County continued to grow in the mid- and late twentieth century, becoming an increasingly larger portion of the total population. This growth was largely due to the expansion of the African-American population of urban and suburban Wilmington to the north. The

proportion of African-Americans in rural parts of the county decreased, especially as upscale residential developments began encroaching into former agricultural areas. The African-American residents in the study area appear to have remained in Middletown, as they constituted 20% of the population of the town in the late twentieth century (Vanasse 2000).

Churches continued to serve as important social and cultural centers for the African-American community during this time. Lee's Chapel, at the intersection of Pine Tree Road and U.S. 13, continued to function throughout the late twentieth and early twentieth centuries.