

Alpha Borough
Warren County, New Jersey

LAND USE & CIRCULATION MASTER PLAN ELEMENTS

Adopted December 11, 2013



Borough of Alpha Land Use Board

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The original of this master plan was signed and sealed in
accordance with N.J.S.A. 45:14A-12.

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Borough of Alpha
2013 Land Use and Circulation Elements

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INTRODUCTION

Alpha's last comprehensive master plan update was prepared in 1998 and consisted of a land use element and housing element. A stormwater management plan was added in 2006 and an open space and recreation plan was added in 2007. Although a Reexam report was prepared in 2005, it left the 1998 plan virtually unchanged. The Borough considers it a high priority at this time to establish an up-to-date and comprehensive base for addressing future growth and land use regulations, including meaningful conformance with the Highlands Regional Master Plan.

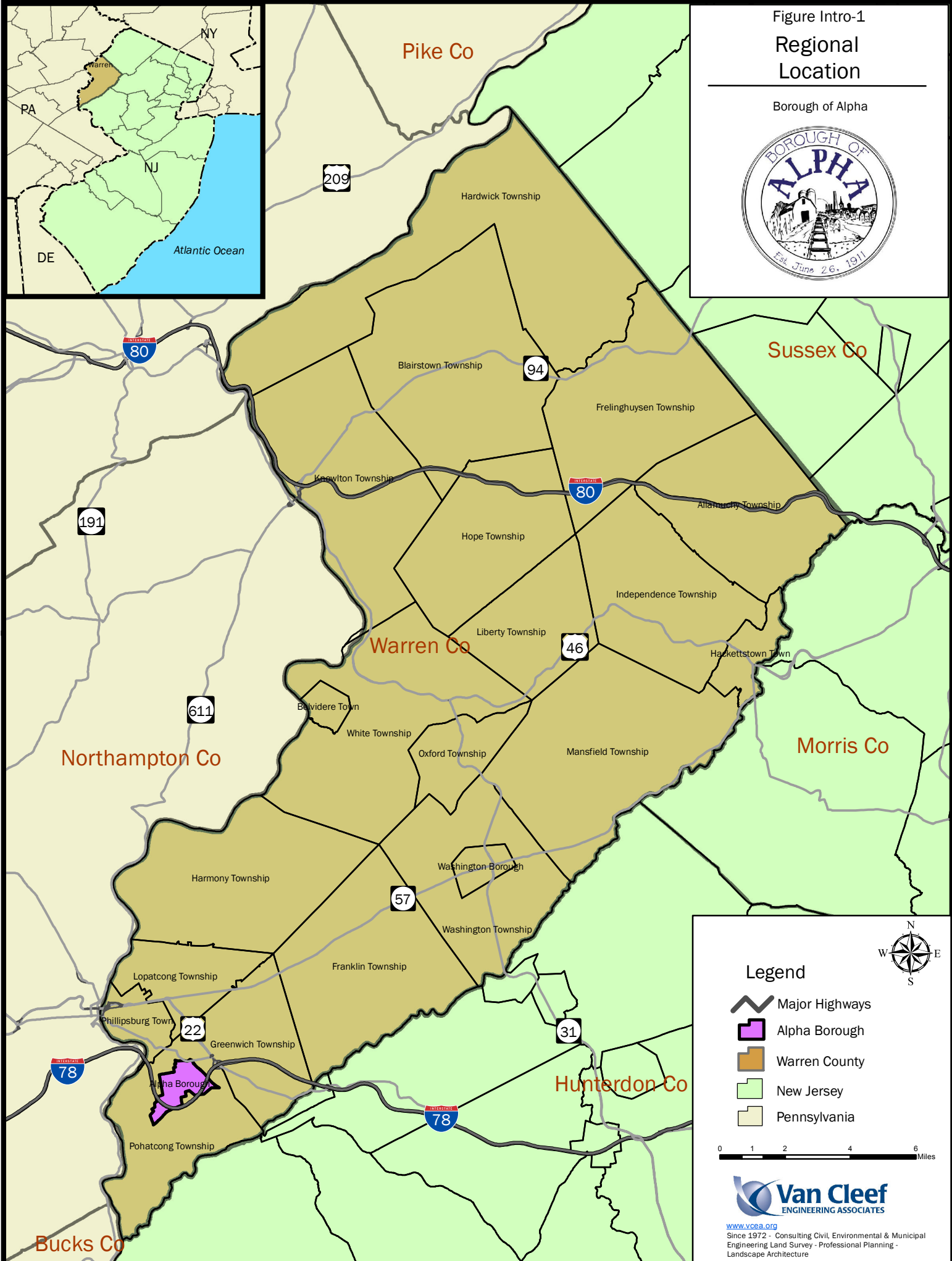
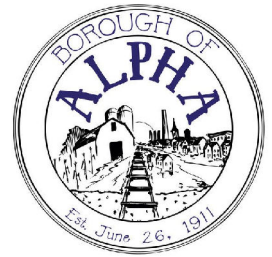
The location, intensity and arrangement of land uses have a substantial impact on the capacity, performance and safety of the transportation system. In recognition of that fact, the Planning Board has decided to prepare and adopt a new land use element *and* a new circulation element of the master plan. The 2013 Land Use Element provides a comprehensive and coordinated approach to achieving the community's goals. The 2013 Circulation Element complements the land use element and makes recommendations to improve the Borough's ability to move goods and people in an efficient manner given existing and future development patterns outlined in the land use element.

Pursuant to the Municipal Land Use Law, the 2013 Land Use and Circulation Elements will "guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare." These new elements will serve as a sound basis for the Borough's policy, regulatory and investment decisions, and as an alternative to an incremental, site-by-site decision making process. Decisions made by all municipal boards and agencies should be measured by their support of and consistency with these master plan elements.

Figure Intro-1

Regional Location

Borough of Alpha



Legend

- Major Highways
- Alpha Borough
- Warren County
- New Jersey
- Pennsylvania



0 1 2 4 6 Miles



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I. GOALS

The Borough's vision is embodied in the following goals, which are further refined through specific policies found in the land use and circulation plans. The goals are considered of equal importance and the order in which they are presented holds no significance.

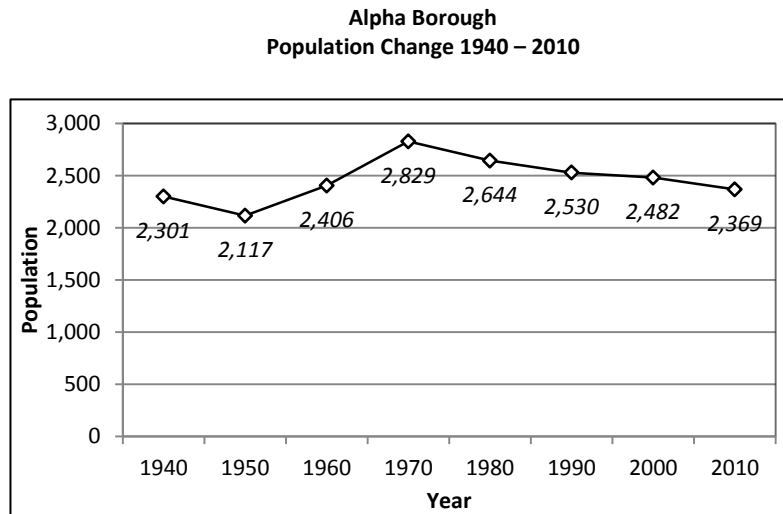
1. Provide for a balance of land uses that preserves the residential character of the neighborhoods while providing convenient retail, commercial, and community services; and low impact, well-designed business and industrial districts.
2. Protect and preserve the Borough's natural and cultural resources to enhance water quality and quantity, manage stormwater, reduce the potential for flood damage, protect endangered habitats, provide open space, and preserve historically and architecturally significant structures.
3. Promote the continuation, expansion and support of agricultural and horticultural uses and opportunities in the Borough.
4. Maximize circulation and mobility options for local and regional trips and link residential areas, commercial districts, and community facilities with a safe and reliable multi-modal system.
5. Ensure that infrastructure systems will support the current and future populations of the Borough by basing growth and development decisions on the existing and planned capacity of both natural and built systems.

II. PLANNING CONTEXT

POPULATION

Growth

Alpha's 2010 population was 2,369. As illustrated in the graph below, this continued a steady decline from the 1970 population of 2,829. That being said, however, Alpha's population has remained relatively stable over the last 70 years, fluctuating by only 712 people from low to high.



Source: US Census

The North Jersey Transportation Planning Authority (NJTPA) issued population and employment projections on August 24, 2009 (pre-2010 Census). As reported by NJTPA, the number of residents in Alpha was expected to increase to 2,850 by the year 2035 (see Table II-1), which would surpass the Borough's 1970 population.

**Table II-1
NJTPA Projection – Alpha Borough**

	2010 Census	NJTPA 2035
Population	2,369	2,850

Density

Alpha was the fifth most densely populated municipality in Warren County in 2010 at 1,316 persons per square mile (PPSM) (see Table II-2) and one of only six municipalities in the county with a population density greater than 1,000. Phillipsburg was the most densely populated municipality at 4,672 PPSM and Hardwick was the least densely populated at only 45 PPSM. The overall density in Warren County was 298 PPSM, which is representative of the largely rural nature of the county. The statewide density was slightly lower than Alpha at 1,007.

Alpha Borough covers 1.7 square miles. It is the second smallest municipality in Warren County after Belvidere, which is 1.35 square miles.

Table II-2 Population Density Rank - 2010	
Municipality	Person Per Square Mile
1. Phillipsburg	4,672
2. Washington Borough	3,313
3. Hackettstown	2,778
4. Belvidere	1,986
5. ALPHA	1,316
6. Lopatcong	1,076
7. Greenwich	512
8. Oxford	405
9. Washington Township	372
10. Independence	277
11. Pohatcong	257
12. Mansfield	253
13. Liberty	245
14. Allamuchy	213
15. Blairstown	193
16. White	171
17. Franklin	131
18. Knowlton	120
19. Harmony	111
20. Hope	102
21. Frelinghuysen	94
22. Hardwick	45
Warren County	298
New Jersey	1,007

Source: US Census, Warren County

Age

As illustrated in Tale II-3, the median age in Alpha is on par with the county and state. The median age increased between 2000 and 2010 in keeping with the county and statewide trends.

Table II-3
Median Age – 2000 & 2010

	Median Age	
	2000	2010
Alpha	37.7	40.6
Warren County	37.6	41.5
New Jersey	36.7	39.0

Source: US Census, 2000 & 2010 Demographic Profile, DP-1

In 2010, Alpha had a lower percentage of residents under age 20 than the county and the state. On the other end of the age spectrum, Alpha had a higher percentage of residents 65 and older than the county and state (see Figure II-4). Alpha ranked slightly lower than the county and state in terms of school aged children. As seen in Table II-5 all but the 45

to 64 age group dropped as a percentage of the population between 2000 and 2010. The 45 to 64 cohort experienced a fairly substantial increase.

**Table II-4
Age Cohorts by Percent - 2010**

	Age Cohort				School Age
	0-19	20-44	45-64	65+	5-19
Alpha	25.1	31.4	27.9	15.6	19.2
Warren County	26.2	29.4	30.3	14.1	20.6
New Jersey	26.1	32.9	27.6	13.5	19.9

Source: US Census, 2010 Demographic Profile, DP-1

**Table II-5
Alpha Age Cohorts by Percent – 2000 & 2010**

Age Cohort	2000	2010
0-19	26.2	25.1
20-44	35.6	31.4
45-64	20.7	27.9
65+	17.5	15.6
5-19 (school age)	20.4	19.2

Source: US Census, 2010 Demographic Profile, DP-1

Income

Based on two standard measurements of income – median household and per capita – Alpha ranked lower than the county and the state in 2010 (see Table II-6).

**Table II-6
Income**

	Per Capita	Median Household
Alpha	\$28,567	\$63,953
Warren County	\$32,985	\$71,364
New Jersey	\$34,858	\$69,811

Source: US Census 2006-2010 ACS, DP-03

Resident Occupation

In 2010, the *management, business, science, & arts* occupations ranked first among Borough, county, and state residents although to a lesser degree in Alpha. Alpha residents reported a higher level of *sales and office* occupations and *production, transportation, & material moving* than county or state residents as a whole (see Table II-7).

Table II-7
Resident Occupation*
(Expressed as % of Employed Civilian Population 16+)

	Management, business, science, & arts	Service	Sales and office	Natural resources, construction, & maintenance	Production, transportation, & material moving
Alpha	29.5	15.8	28.8	9.0	16.9
Warren County	37.2	15.7	25.8	10.0	11.4
New Jersey	39.4	15.8	26.5	7.8	10.4

Source: US Census 2006-2010 ACS, DP03

*"Occupation" is the kind of work a person does to earn a living.

"Industry" is the type of activity at a person's place of work.

Resident Employment

Tables II-8 and II-9 provide an overview of the industries where Alpha residents work. More than three-quarters of Alpha's workforce are employed in the private sector, which is on par with the county and state. The three leading industry types employing Alpha residents are (1) *manufacturing*, (2) *educational services, health care and social assistance*, and (3) *retail trade*. The highest ranked industry group in both the county and state is *educational services, health care and social assistance*.

Table II- 8
Class of Worker
(Expressed as % of employed population 16 years and over)

	Private Wage & Salary Workers	Government Workers	Self-employed Workers	Unpaid Family Workers
Alpha	78.6	17.7	3.7	0.0
Warren County	77.4	16.1	6.3	0.2
New Jersey	80.4	14.6	4.9	0.1

Source: US Census, 2006-2010 ACS, DP03

Table II-9
Employment by Industry Group
(Expressed as % of all resident workers)

Industry Group	Alpha	Warren County	New Jersey
Agriculture, forestry, fishing and hunting, and mining	1.5	1.7	0.3
Construction	7.8	7.4	6.1
Manufacturing	15.4	13.3	9.4
Wholesale trade	4.7	2.6	3.8
Retail trade	13.2	12.3	11.1
Transportation and warehousing, and utilities	7.5	5.5	5.7
Information	2.0	2.7	3.2
Finance and insurance, and real estate, and rental and leasing	2.7	7.0	9.1
Professional, scientific, and management, and administrative and waste management services	10.7	10.4	12.2
Educational services, and health care and social assistance	15.3	21.7	22.3
Arts, entertainment, recreation, and accommodation and food services	4.8	5.9	7.7
Other services except public administration	4.7	4.0	4.4
Public administration	9.8	5.6	4.6
TOTAL	100	100	100

Source: US Census, 2006-2010 ACS, DP03

Resident Commute

Approximately 16% of Alpha's workforce works in the Borough. This is about the same percentage for other census-defined "places" in Warren County (see Table II-10). Just over one-third of Alpha's workforce is employed in Warren County. More Alpha residents work outside of New Jersey than county residents as a whole, reflecting Alpha's close proximity to Pennsylvania.

Table II-10
Job Locations of Alpha Residents
(Expressed as % of workers 16+)

	Worked in:					
	Alpha	Elsewhere in Warren County	Warren County	Other NJ County	New Jersey	Outside NJ
Alpha	16.48	21.29	37.77	47.23	85.00	15.00
Warren County	*		41.75	50.95	92.71	7.29

Source: US Census, 2006-2010 ACS, B08130, B080008

*Of those workers living in a census defined "place" in Warren County, 15.25% worked in their place of residence.

Less than one percent of Alpha workers used public transportation to commute to work – lower than the county and much lower than the state as a whole, which is to be expected given the scarcity of public transportation options. More Alpha residents carpooled to work, however, than either the county or statewide workforce.

Table II-11
Commute to Work, Mode of Travel, 2010
(Expressed as % of workers 16+)

	Drove Alone	Carpooled	Public Transportation	Walked	Other	Worked at Home
Alpha	78.3	14.0	0.4	1.0	---	6.3
Warren County	80.4	9.9	1.9	2.0	1.0	4.8
New Jersey	71.6	9.0	10.6	3.3	2.0	3.5

Source: US Census, 2006-2010 ACS, DP03

EXISTING LAND USE

Existing land use in Alpha is illustrated on Map 1. The land use inventory is based on MOD IV tax data and field adjustments. Alpha's 1.7 square miles includes residential, commercial, industrial, agricultural, and institutional land uses as described below. Table II-8 outlines the distribution of each category by parcel acreage (generally excludes public streets and rights-of-way) and as a percentage of the total Borough.

Residential

Residential properties of all types cover 201 acres or 21.6% of the total parcel acreage. Of that total only 10.6 acres are classified as apartments consisting of five or more units. The largest concentration of apartments is in the northwestern corner of the Borough.

Commercial

There are very few commercial properties (retail, service and office) in the Borough, accounting for only 21 acres or 2.25% of the total. They are, for the most part, concentrated along the Route 519 corridor.

Industrial

Industrial and railroad properties comprise 163 acres or 17.5% of the Borough. The majority of the industrial acreage is located along Industrial Drive.

Agricultural

Over one-third of the Borough (335 acres) is assessed as farmland. Included in that total are 124 acres of SADC preserved farmland in the southwestern corner of the Borough west of I-78 and one acre at the extreme southeastern corner of the Borough.

Public/Quasi-Public

Public and quasi-public land uses (e.g., churches and charitable institutions) cover 136 acres – 14.5% of the Borough. This category includes the municipal complex, schools, fire stations, churches, cemeteries, civic organizations, other community facilities, and 45 acres of parkland.

Vacant

Just over 8% of the Borough – 75 acres – remains vacant. The largest parcels are located between 7th Avenue and the railroad (approved subdivision), along Route 519 (approved COAH housing project), and in the industrial park. The remaining parcels are primarily small, scattered infill lots in the neighborhoods.

Table II-8
2012 Existing Land Use

Land Use Category	Parcel Acres*	% of Total
Vacant Land	75.04	8.05
Residential	190.87	20.48
Apartment	10.63	1.14
Commercial	20.96	2.25
Farm	335.23	35.98
Industrial	134.39	14.42
Railroad	28.89	3.10
Public School	2.93	0.31
Public Property	60.86	6.53
Public Parks	45.21	4.85
Institutional, Church & Charitable Property	26.73	2.87
TOTAL BOROUGH	931.80	100.00

Source: Alpha tax records and field adjustments

* Streets and public rights-of-way are not included in parcel acreage figures.

EXISTING ZONING

There are 12 distinct zoning districts in Alpha – six residential, four commercial/industrial, and two public/quasi-public (see Map 2). Approximately 58% of the Borough is zoned for residential use. Another 8% is zoned for business use and 28% is zoned industrial (see Table II-9). The two largest zones are the R-1A and Industrial. The R-1A zone covers the farmland in the southwestern portion of the Borough while the Industrial zone covers the industrial park along Industrial Drive. There are three zones that carry dual designations – the B-3/R-4 zone along Springtown Road, the B-2/R-5 zone along East Boulevard, both of which are included in the business categories in Table II-3; and the MF/R-5 zone along High Street, which is included in the residential acreage.

**Table II-9
Existing Zoning Districts – Alpha Borough**

Zone	Overview	Acres	% of Total
<i>Residential</i>			
R-1A	Single-family on 6 acre lots Single-family cluster option on 1.5 acre lots Farms	308.61	28.09
R-3	Single-family on 9,375 sq ft lots	39.88	3.63
R-4	Single-family on 7,500 sq ft lots	240.63	21.91
R-5	Single-family on 7,500 sq ft lots Two-family on 9,375 sq ft lots	12.61	1.15
MF/R-5	Multifamily on 5 acre lots; 10 units per acre	9.07	0.83
AH – Affordable Housing	Single-family detached at 4 du/acre Single-family attached at 6 du/acre Four-unit multifamily at 12 du/acre	25.61	2.33
Sub Total		636.41	57.94
<i>Commercial & Industrial</i>			
B-1	General business; retail, wholesale, restaurants, offices, light manufacturing on 15,000 sq ft lots	31.00	2.82
B-2	Small retail stores & offices on 11,000 sq ft lots	19.12	1.74
B-2/R-5	Neighborhood Business/High Density	7.54	0.69
B-3	Small professional & general offices on 7,500 sq ft lots	18.75	1.71
B-3/R-4	Professional Office/High Density	13.81	1.26
Industrial	Manufacturing, research, offices, warehouses on 2 acres	311.55	28.36
Sub Total		401.77	36.58
<i>Public & Quasi-Public</i>			
P	Park	50.39	4.59
C	Cemetery	9.86	0.90
Sub Total		60.25	5.49
TOTAL		1,098.43	100%

Overall there are few inconsistencies between the general zoning categories (e.g., residential, business, industrial) and the underlying land use (see Map 3). The Route 519/Third Avenue corridor presents some minor inconsistencies as it is covered by four different business districts and contains a mix of residential, commercial and light industrial uses. The corridor is analyzed in more depth in a later section.

It should be noted that there are several inconsistencies between the zoning ordinance and the zoning map. Although the R-1 and R-2 zones are found in the ordinance, they are not on the most current map. It appears that the R-1 and R-2 zones have been folded into the newer R-1A zone. The map includes “Park” and “Cemetery” zones; however, there are no corresponding zones or standards in the ordinance. In addition, the dual zones on the map, B-3/R-4, B-2/R-5, and MF/R-5, are not described in the ordinance.

BUSINESS DISTRICTS

County Route 519 Corridor

County Route 519 (Third Avenue & Springtown Road) serves as Alpha's primary business corridor. The corridor is covered by three Business zones – B-1, B-2, and B-3, and one combined zone – B-3/R-4 (see Map 4). Although this is ostensibly a business district, there are numerous residential properties scattered throughout the corridor. With the exception of the B-3/R-4 zone, residential uses are not permitted in any of the Business zones, which makes the existing residential uses non-conforming. The non-residential land uses are compared to the existing zones in Table II-10 and described below.

Starting at the northern end, the corridor is zoned B-2 "Neighborhood Business" from the railroad trestle to Harding Street. It is intended for uses which are designed to serve a local population. The zone is geared towards retail and service establishments and small offices. As can be seen in Table II-10, the existing uses are fairly consistent with the zone except that restaurants are not a specifically permitted use as they are in the B-1 zone.

The central section of the corridor – from Harding Street south to the former Glen Magnetics property – is zoned B-3 "Professional Office." This zone is intended for small office and office conversions. Most of the current non-residential uses are inconsistent with the zone. The only offices in the zone are medical offices which are excluded from the zone's office categories. The remaining uses include retail and service establishments, and a restaurant.

From the trestle southward to just beyond the intersection with Springtown Road, the corridor is zoned B-1 "General Business." This zone is intended for a wide range of business uses which may serve both local and regional markets. Some are traditional "main street" uses while others are more highway-oriented. With a few exceptions, the existing uses in this section of the corridor are consistent with the zone.

The southern-most end of the corridor runs from the B-1 zone to the Pohatcong border. The dual zone designation of B-3/R-4 permits professional offices and "high density" (4 dwelling units per acre) single-family homes. There is currently only one business use in this zone – a landscaping and excavating contractor. The zone is bordered to the west by active farmland; and to the east by a school (Pohatcong), and the proposed 519 housing development.

In summary, the corridor lacks a common theme or purpose. Permitted uses range from traditional Main Street and neighborhood retail, to offices and industrial uses. There are inconsistencies within all of the zones and in particular in the B-3 zone. None of the Business zones address the future of existing residential properties.

Table II-10
Zoning and Land Use Comparison

Corridor Zone	Permitted Uses	Existing Non-Residential Uses*
B-1 - Intended for general business uses which may serve both a local population and a regional population. (15,000 sf lots)	(1) Stores for retail business or wholesale display. (2) Banks and offices. (3) Restaurants. (4) Municipal buildings and uses. (5) Places of worship. (6) Institutional uses and nonprofit organizations. (7) Home improvement centers and lumberyards. (8) Garden centers and plant nurseries. (9) Light manufacturing such as printing, cabinetry, assembly of electronic parts. (10) Mini storage.	<ul style="list-style-type: none"> • Restaurant (2) • Commercial printing • Gas station • Pharmacy • Hair salon • Vehicle storage/farm stand • Car wash • Contractors (Plumbing, Disposal) • Thrift shop • Tools & equipment sales
B-2 - Intended for uses which are designed to serve a local population. (11,000 sf lots)	(1) Personal service businesses. (2) Banks. (3) Professional offices. (4) General business offices. (5) Specialty retail shops.	<ul style="list-style-type: none"> • Pre-school • Security/AV systems – showroom & warehouse • Veterinarian • Dive shop/travel/tanning salon • Bank • Restaurant • Law office • Gas station • Print/pack/ship service • Liquor store • Small strip center – service/restaurants
B-3 - Intended for small office and office conversions. (7,500 sf lots)	(1) Professional offices (except medical). (2) Offices for business, executive and professional purposes. (3) Professional offices (except medical) on the first floor of a one-family residence.	<ul style="list-style-type: none"> • Medical offices (2) • Funeral home • Kitchen & bath store • Hair salon • Restaurant • Furniture store
B-3/R-4 (7,500 sf lots)	<i>B-3 uses plus:</i> (1) One-family dwellings. (2) Municipal parks, playgrounds and buildings. (3) Farms, horticultural uses and greenhouses, but not including poultry or livestock.	<ul style="list-style-type: none"> • Landscaping/Excavating
	<i>Motor vehicle service stations are permitted as a conditional use in all B zones.</i>	

*Survey conducted summer 2012.

Industrial District

Alpha's industrial district corresponds to the industrial park that straddles Industrial Drive from New Brunswick Avenue to I-78 and a thin strip of industrial uses along the south side of New Brunswick Avenue (see Map 5). The bulk of the industrial district is covered by the Industrial zone. The New Brunswick Avenue portion is zoned B-1. Approximately one-half of the district is currently farmed or vacant land creating substantial opportunities for future growth. There are only three residential uses in the district, two along Edge Road and a farmstead on New Brunswick Avenue. Table II-11 compares the existing uses within the district to their respective zones.

For the most part the current uses in the B-1 zone are consistent with that zone, although they lean towards light industrial as opposed to retail uses. Two of the uses – the G.J. Oliver building and Ferguson Containers building – would be more appropriate in the Industrial zone.

The existing businesses in the I-Industrial zone are typical of a general purpose industrial district and would be compatible with the continued development of the district for industrial purposes. The current zoning provides for a broad range of potential uses including manufacturing, research, warehousing, and sales and service. The Industrial zone also specifically prohibits the following uses (*the Borough Council was considering an amendment to the list of prohibited uses at the time of this writing*):

1. The development, production, storage, deployment, usage or fabrication of radioactive materials.
2. Non-municipal outdoor vehicle, leaf and sludge recycling, treatment, conversion or composting of any type.
3. Vehicle recycling or junkyards, wood pallet recycling, incinerators, landfills, resource recovery facilities or the storage and/or transfer of hazardous or toxic fuel or waste of any kind.

The 1998 master plan noted that portions of the Borough were isolated from the Borough-proper by the construction of I-78. Those isolated areas include approximately 54 acres of the Industrial zone located to the south-east of the Interstate. The majority of those acres (46) is presently assessed as farmland and connects to large expanses of farmland in Pohatcong. Approximately five acres are owned by NJDOT. The only developed property in this section is a three-acre triangular parcel fronting on Edge Road that is occupied by a generator/refrigeration company (parcel #16 on Map 5).

At the end of Industrial drive is a 31-acre Borough-owned property. The site contains an abandoned quarry and a closed (1981) municipal landfill that is on the NJDEP list of contaminated sites. The site is primarily vacant except for a portion of the property that is leased to a small trucking firm. Approximately 16 acres of the site are taken up by the excavated quarry pit which presents some obvious development challenges.

**Table II-11
Zoning and Land Use Comparison**

B-1 Permitted Uses (Minimum Lot Size = 15,000 sf)	Existing Uses (2012)
(1) Stores for retail business or wholesale display. (2) Banks and offices. (3) Restaurants. (4) Municipal buildings and uses. (5) Places of worship. (6) Institutional uses and nonprofit organizations. (7) Home improvement centers and lumberyards. (8) Garden centers and plant nurseries. (9) Light manufacturing such as printing, cabinetry, assembly of electronic parts. (10) Mini storage.	<ul style="list-style-type: none"> • Light industrial park - metal finishing, consumer products, electrical control systems • Leigh Fuel - distributor (vacant) • Mixed-use building - retail, martial arts, printing • Storage building (G.J. Oliver) • Ferguson Containers - custom box manufacturer
Industrial Zone Permitted Uses (Minimum Lot Size = 2 Acres)	Existing Uses (2012)
(1) Manufacturing, fabrication, packaging, treatment or conversion of product, including: (a) Printing, publishing and binding. (b) Monument works for the creation and sale of inscribed stone or the combination of raw materials for memorial or aesthetic features. (c) Bottling, packing and packaging facilities. (d) Manufacture and distribution of concrete, clay and brick products. (2) Scientific or research laboratories. (3) Office buildings for business, professional, executive and administrative purposes. (4) Farms, including horticultural uses and commercial greenhouses. (5) Public buildings and uses. (6) Warehouses and wholesale distribution centers, including truck terminals. (7) Commercial and industrial sales and service, including: (a) General construction contracting yard and office. (b) Truck sales and servicing; provided that all repair and painting work shall be performed within an enclosed building. (c) Building material sales. (d) Trades including plumbing, wood and metal, welding, electrical, cabinet and furniture shops. (e) Recycling collection and transfer center for paper, cardboard, aluminum, glass, tin, copper and plastics. (8) Public utility uses. (9) Adult bookstores and/or gift stores and adult motion-picture theaters upon receipt of a conditional use permit. Permitted Conditional Uses (1) Motor vehicle service stations (2) Solar production systems	<ul style="list-style-type: none"> • Contractor • Linde Group - industrial gases and engineering • Alpha Lehigh Tool & Machine • G.J. Oliver - design and manufacturing of steel fabrications and engineered fluid handling systems • BCL solvents and acids • Grain silos • Alpha Press – hydraulic presses • Hunterdon Transformer – design and manufacture • Bihler – contract manufacturing, assembly and packaging • Power Pool Plus - sales and service for the refrigerated transport industry. • Residential (3)

COMMUNITY FACILITIES

Administrative/Public Safety/Education

The Borough's administrative offices, Library and DPW are located at the municipal complex at 1001 East Boulevard (see Map 6). The Fire Company is located at 1109 Lee Avenue. Police services are contracted out. The Alpha Public School covers grades K through 8 and is located at 817 North Boulevard.

Parks and Open Space

The Borough's five outdoor recreation facilities are outlined in Table II-12. The parks cover approximately 46 acres (see Map 6).

Table II-12
Alpha Borough Community Facilities

FACILITY	LOCATION	BLOCK	LOT	ACREAGE
<i>Parks</i>				
McKinley Park	North Park	14.01	1	0.95
Veterans Park	First Ave.	38	1	2.03
Charles Benke Field	Vulcanite Ave.	93 & 94	4, 5 & 1	3.56
Alpha Community Park	W. Vulcanite Ave.	97	1	35.01
John Dolak Memorial Pool	W. Vulcanite Ave.	91	1.01	4.06
			Total	45.61
<i>Community Facilities</i>				
Alpha School	North Blvd.	23	9, 10, 11	
Library	East Blvd.	32	9	
Municipal Building	East Blvd.	32	9	
DPW	East Blvd.	32	8	
Fire Company	Lee Ave.	31	7	
County Garage	Springtown Road	93	3	

NATURAL AND CULTURAL RESOURCES

Alpha's 2012 Environmental Resource Inventory (ERI) is a comprehensive depiction of the natural and cultural resources found throughout the Borough. This section provides an overview of the resources with the greatest potential for impacting future land use and circulation decisions. The ERI should be consulted for more detailed information.

Riparian Areas

There is a riparian area associated with a tributary of the Pohatcong Creek that runs parallel to Route 519. This riparian area is, however, primarily located within parkland and farmland. (See ERI Figure 8)

Steep Slopes

Alpha contains 71 acres of moderately and severely constrained slopes most of which are found along the edges of the quarries and along the railroad and I-78 rights-of way. (See ERI Figure 11)

Critical Wildlife Habitat

Alpha contains 260 acres of critical wildlife habitat suitable to support populations of rare, threatened and endangered species of birds. These habitats are confined to the farmland in the southwestern portion of the Borough. (See ERI Figure 12)

Carbonate Rock

The term "karst" describes a distinctive topography that indicates dissolution of underlying carbonate rocks that can result in sinkholes, sinking streams, bedrock features, caves, and underground streams. The entire Borough is underlain by carbonate rock.

Wellhead Protection Areas

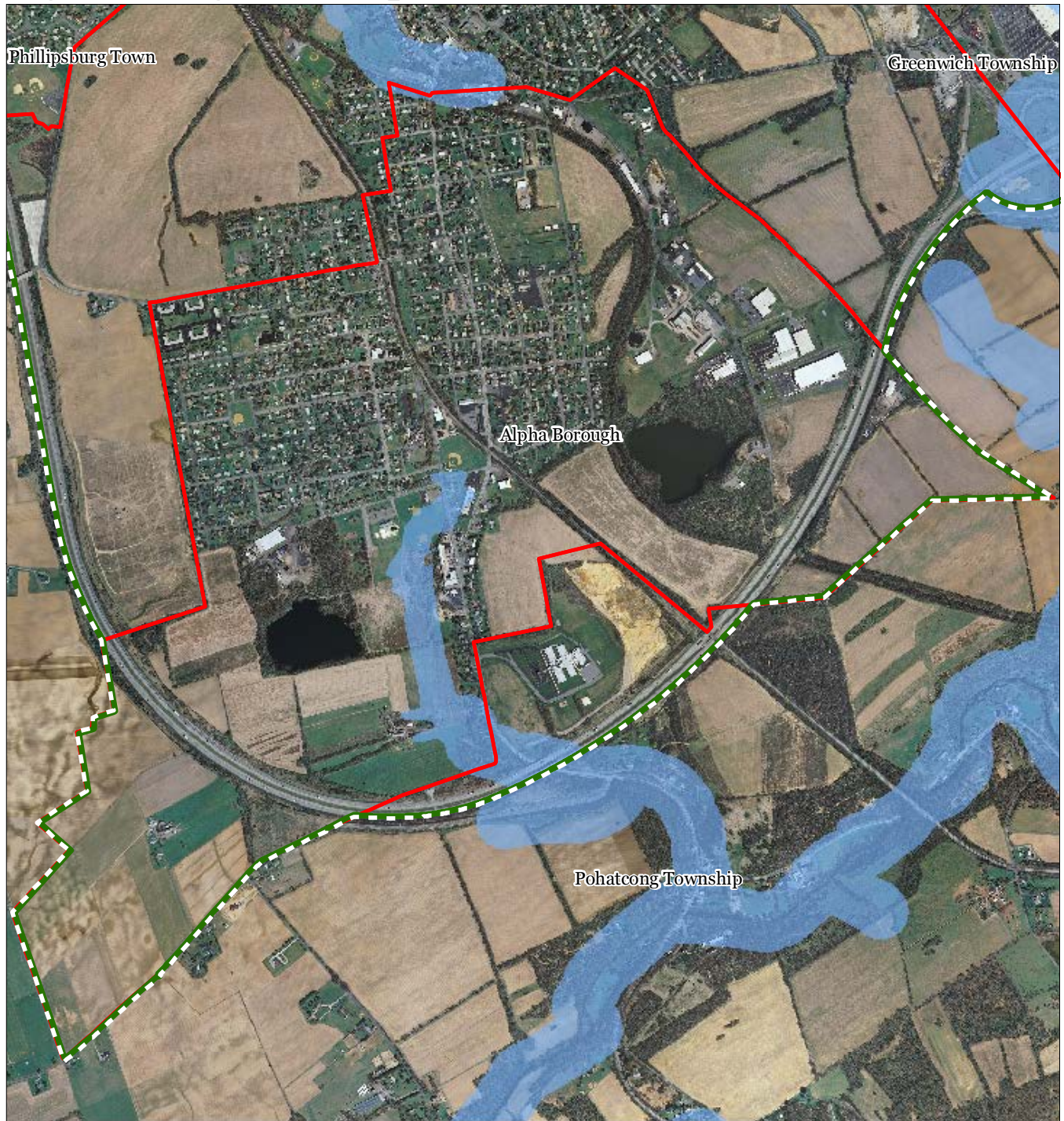
A wellhead protection area (WHPA) is an area around a public community water supply (PCWS) well that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two, five, and twelve-year period of time. There are three PCWS in Alpha with associated protection areas clustered along the northern half of the Borough. (See ERI Figure 23)




Historic Sites and Districts

There are no sites or districts in Alpha listed on the National Register of Historic Places. The NJ State Register lists the following locations as having historical/archaeological significance:

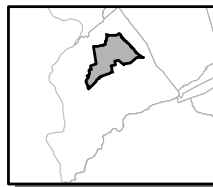
1. Central Railroad of NJ Main Line Corridor Historic District.
2. Lehigh Valley Railroad Historic District.
3. Hamlin Historic Archaeological Site (southwest corner of Alpha).
4. Still Valley Prehistoric District (four or five archaeological sites where Alpha, Pohatcong and Greenwich meet near I-78).

Figure 8: Highlands Riparian Area



-  Riparian Area
-  Preservation Area
-  Municipal Boundaries

Alpha Borough

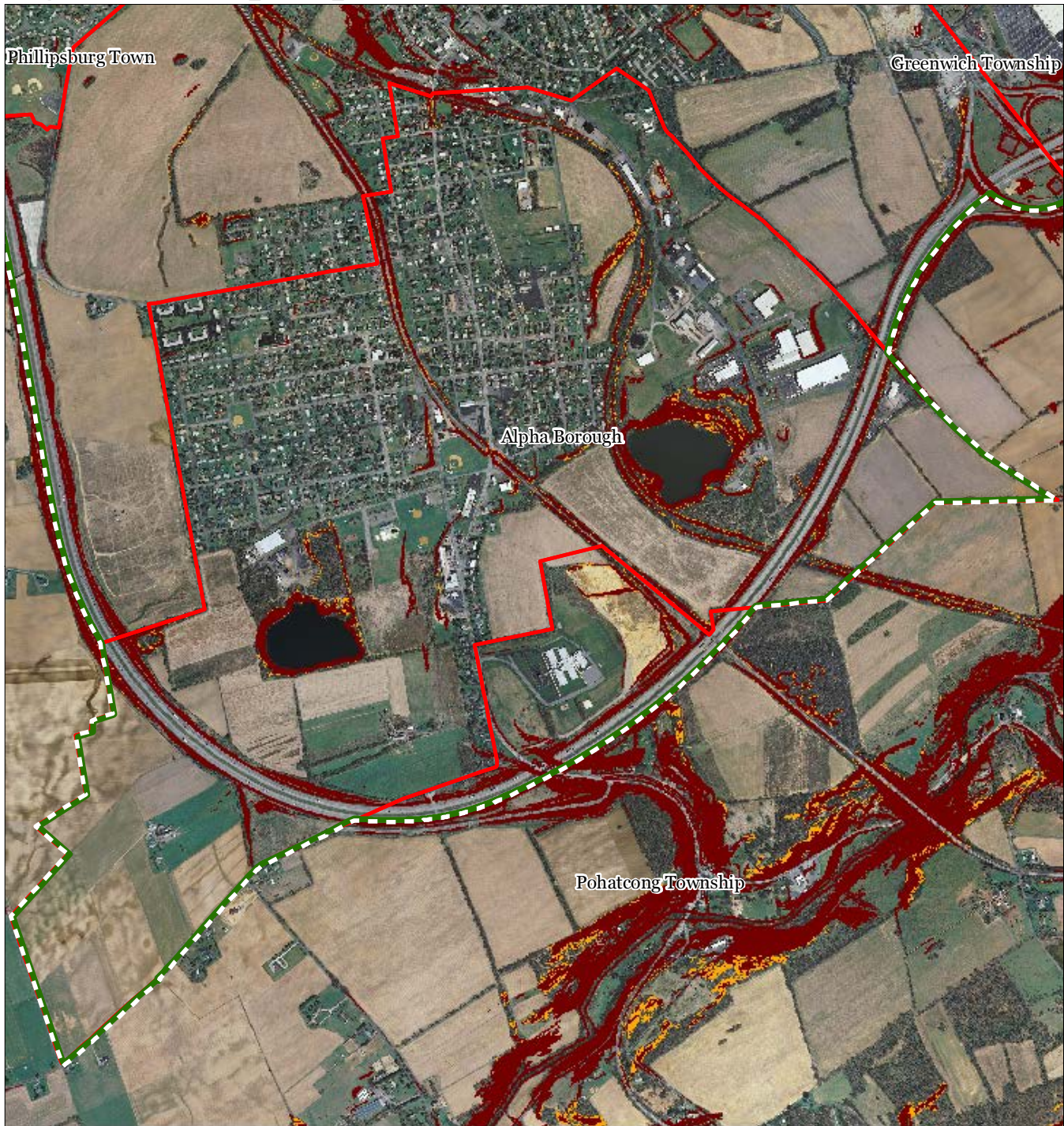


1 inch = 0.266 miles





Highlands Council
New Jersey



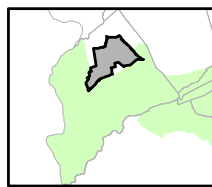
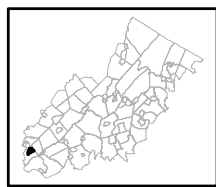
Figure 11: Steep Slope Protection Areas



Steep Slope

-  Moderate
-  Severe
-  Preservation Area
-  Municipal Boundaries

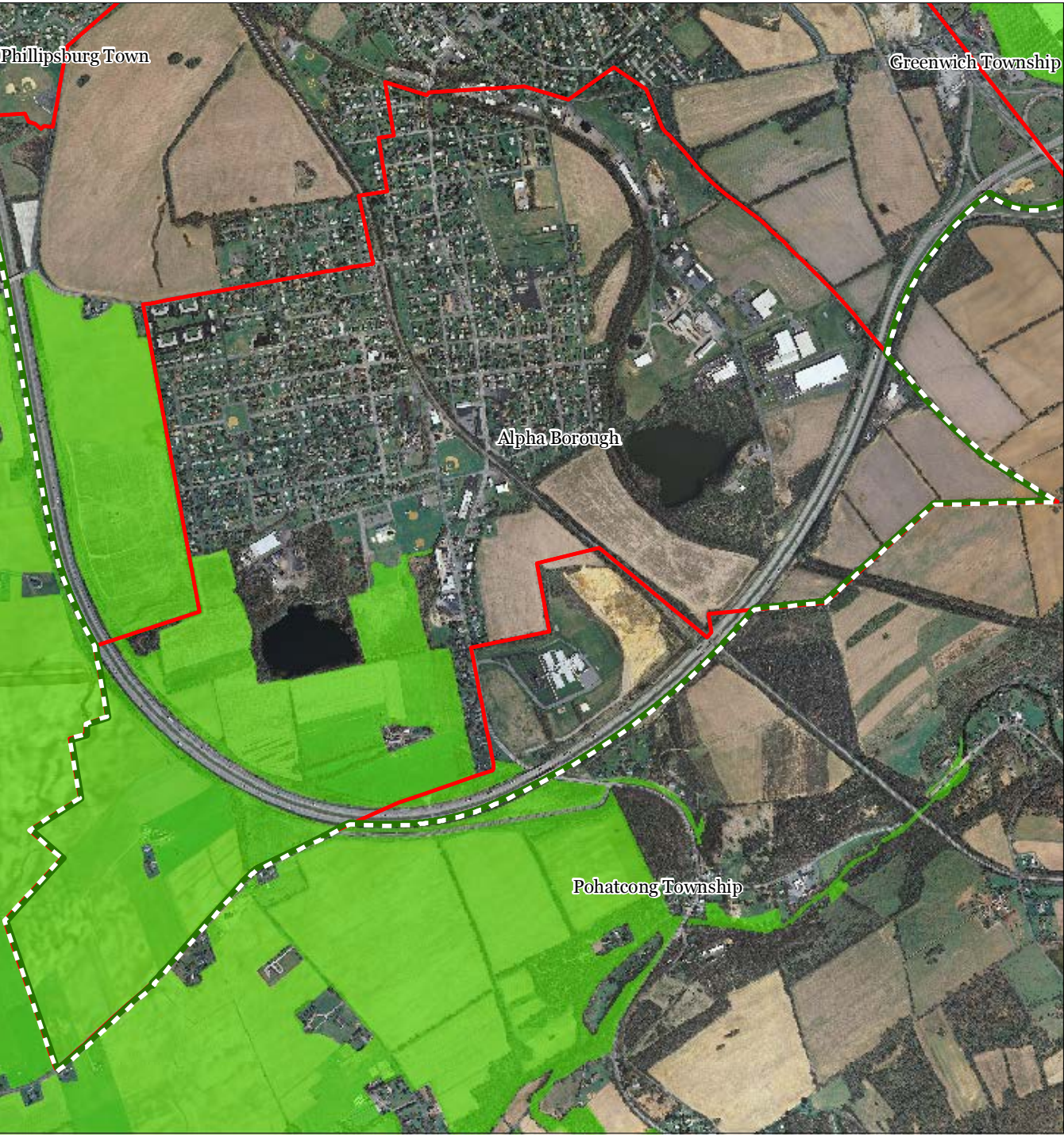
Alpha Borough






1 inch = 0.266 miles

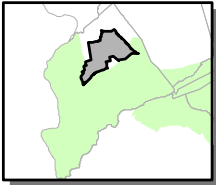
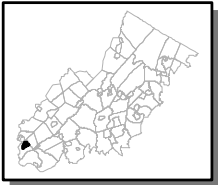


Figure 12: Critical Wildlife Habitat



-  Critical Wildlife Habitat
-  Preservation Area
-  Municipal Boundaries

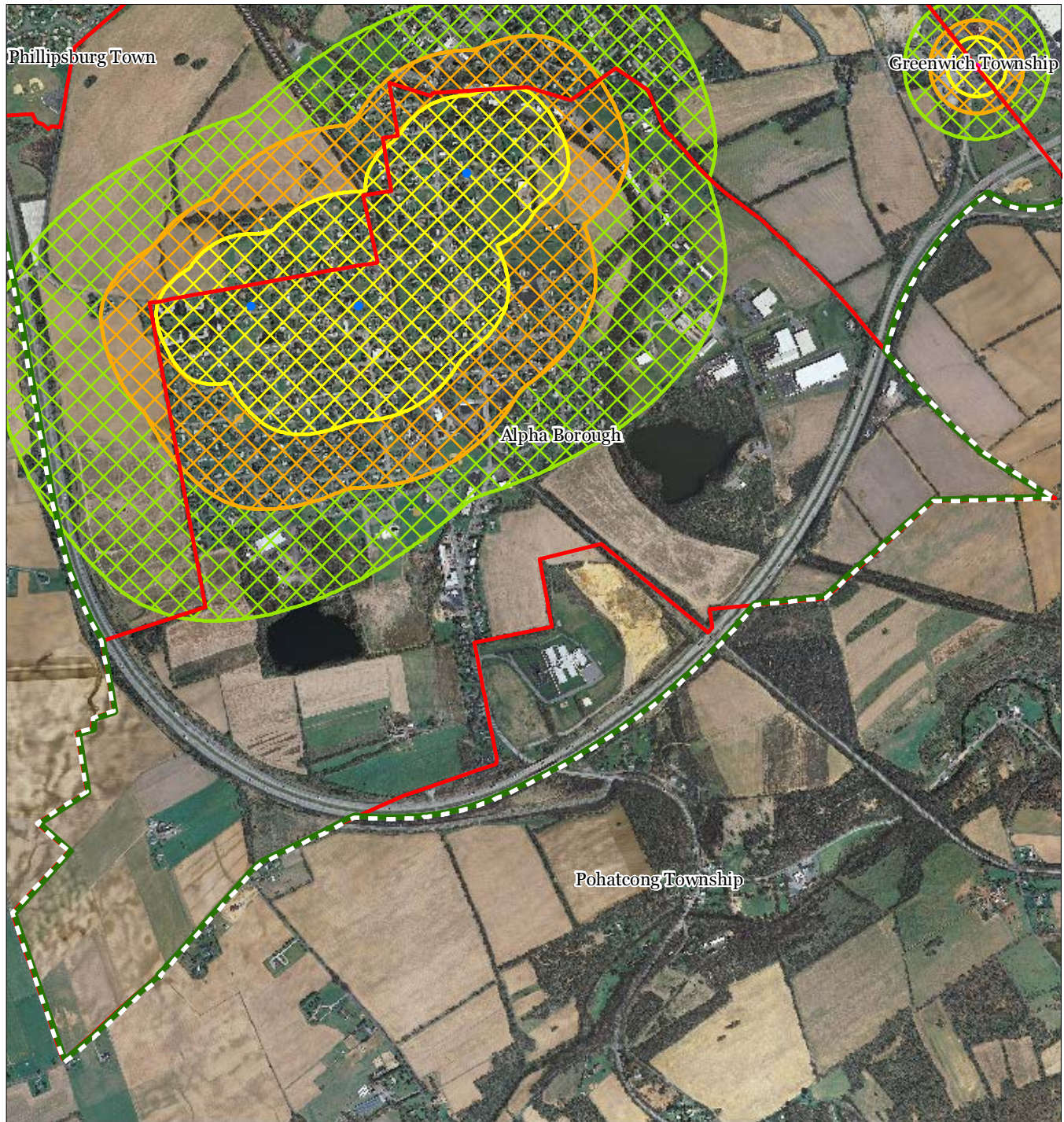
Alpha Borough



1 inch = 0.266 miles





Figure 23: Wellhead Protection Areas



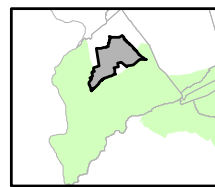
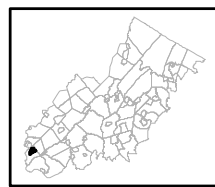
- Public Community Wells
- Public Non-Community Wells

Wellhead Protection Areas

-  2-Year Tier
-  5-Year Tier
-  12-Year Tier

-  Preservation Area
-  Municipal Boundaries

Alpha Borough



1 inch = 0.266 miles

Highlands Council
New Jersey



HOUSING

Tables II-13 through II-16 provide an overview of Alpha’s housing stock. The vast majority of the housing units (83.6%) are single family attached and detached homes. This is a higher percentage than both the county and state. Alpha’s percentage of multi-family homes – 3 units or more – runs well below the county and state. In keeping with the large percentage of single-family homes, roughly three-quarters of the housing units in Alpha are owner-occupied, on par with the county and higher than the state.

Table II-13
Units in Structure

Housing Type	Percent of Total Housing Units		
	Alpha	Warren County	New Jersey
Single-family, detached	64.4	67.8	53.8
Single-family, attached	19.2	11.1	9.2
Two-family	7.4	4.2	9.5
Multi-family (3+ Units)	9.1	15.6	26.5
Mobile home, boat, RV, other	0.0	1.3	1.0
Total	100	100	100

Source: US Census, 2006-2010 ACS 5-Year Estimate, DP04

Table II-14
Housing Tenure

Tenure	Percent of Occupied Housing Units		
	Alpha	Warren County	New Jersey
Owner-occupied	72.1	74.7	65.4
Renter-occupied	27.9	25.3	34.6
Total	100	100	100

Source: US Census, General Population & Housing Characteristics: 2010, DP-1

Approximately 84% of Alpha’s housing stock was built prior to 1970 – in other words at least 40 years old. More than one-third of the housing stock was built prior to 1940. In both cases Alpha’s housing stock far exceeds the age of the county and statewide housing stock.

**Table II-15
Year Structure Built**

Year Built	Percent of Total Housing Units		
	Alpha	Warren County	New Jersey
2005 or later	0.5	1.8	2.5
2000 to 2004	1.9	8.1	5.9
1990 to 1999	2.9	11.5	8.9
1980 to 1989	2.2	11.6	11.6
1970 to 1979	8.6	13.7	13.0
1960 to 1969	17.5	11.6	14.2
1950 to 1959	24.1	10.2	16.1
1940 to 1949	5.9	5.4	8.9
1939 or earlier	36.4	26.1	18.9
Total	100	100	100

Source: US Census, 2006-2010 ACS 5-Year Estimate, DP04

**Table II-16
Age of Housing Stock - Summary**

	% 1969 or earlier (40 + years)	% 1970 - 2010
Alpha	83.9	16.1
Warren County	53.3	46.7
New Jersey	58.1	41.9

Source: US Census, 2006-2010 ACS 5-Year Estimate, DP04

CIRCULATION

Roadways

Alpha's circulation system can be described as a tight grid of local streets that is separated into three distinct sections by the railroads (see Map 7). Although the local grid allows for adequate circulation within the neighborhoods, opportunities for cross-borough or through traffic are very limited. There are only two crossing points along the Norfolk Southern rail line – the overpass on High Street and the underpass on County Route 519. There are no crossings along the inactive NJ Transit line. County Route 519 is the only road that runs the length of the Borough.

Although I-78 cuts through the Borough's southern tier, there is no direct access to the Interstate in Alpha. The nearest interchange in New Jersey is Exit 3 at US Route 22 in Pohatcong. NJ Route 122 (New Brunswick Avenue) touches the northern tip of the Borough and provides access to the industrial park and a direct link to Route 22.

There are three county roads in the Borough – CR 519 (Third Avenue/Springtown Road), CR 641 (Lee Avenue/Springtown Road), and CR 642 (High Street). A fourth county road, CR 635 (Snyders Road), forms part of the Borough's southern border with Pohatcong.

County Route 519 runs the entire length of Warren County extending north to Sussex County and the New York State border and south through Hunterdon County to NJ Route 29 in Stockton.

The Borough's roadways are classified in accordance with the Uniform Functional Classification of Streets established by the Federal Highway Administration in conjunction with the New Jersey Department of Transportation. There are three functional types identified in Alpha: *Urban Principal Arterial*; *Urban Collector*; and *Urban Local*. (See Table II-17 and Map 7)

Table II-17
Functional Classification of Roadways

Classification	Roadway	Jurisdiction
<i>Urban Interstate</i>	I-78	NJDOT
<i>Urban Principal Arterial</i>	New Jersey Route 122	NJDOT
<i>Urban Collector</i>	CR 519	Warren County
	CR 641	Warren County
	CR 642	Warren County
<i>Urban Local</i>	CR 635	Warren County
	All other streets	Alpha Borough

Source: NJDOT

Functional Classification of Roadways

Urban Principal Arterial

Principal arterial highways form an inter-connected network of continuous routes serving corridor movements having the highest traffic volumes and the longest trip lengths. In smaller urban areas (under 50,000) these facilities may be very limited in number and extent and their importance may be primarily derived from the service provided to travel passing through the area. For principal arterials, the concept of service to abutting land should be subordinate to the provision of travel service to major traffic movements.

The principal arterial highway system is stratified into the following two subsystems:

- Interstate system;
- Freeways, expressways or land service highways.

Urban Collector

The collector street system provides both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. Collector roads primarily serve trips of intra-county rather than statewide importance. Travel speeds and volumes are less than on arterial roadways, but are still high relative to local roads.

Urban Local Street

The local street system comprises all facilities not on one of the higher systems. It serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes. Service to through-traffic movement usually is deliberately discouraged.

Source: FHWA/NJDOT

Transit, Bicycle, and Pedestrian

Alpha does not have direct access to any transit service. Studies regarding the extension of the Raritan Valley Line from High Bridge to Phillipsburg have found the proposal to be too costly. There are no bus routes directly serving Alpha although there are several bus routes through Phillipsburg and along Route 22. There are no dedicated bike routes in Alpha and not all streets have sidewalks.

Just as they limit vehicular traffic, the two railroads limit cross-borough pedestrian and bicycle flow to two crossings. The municipal building, library, elementary school and all of the major parks are located to the west of the Norfolk Southern line (see Map 6). This poses a problem for anyone living east of the railroad that might want to walk or bike to those facilities. Likewise, anyone living west of the Norfolk Southern line has limited opportunities to access the stores on Third Avenue/CR 519. And from a practical standpoint, the industrial park is totally inaccessible by foot or bicycle from the west.

Business Districts

County Route 519 Corridor

Route 519 serves as the Borough's main business corridor. As noted above, CR 519 is classified as an *Urban Collector* street, which is not wholly inconsistent with a business corridor if certain features are present to accommodate the abutting businesses such as traffic calming, parking, streetscapes, sidewalks, and crosswalks.

The present corridor profile is as follows:

- ▶ The posted speed limit is 30 mph in front of the school at the southern end of the corridor; 40 mph from there to High Street; and 35 mph from High Street to the northern terminus.
- ▶ On-street parking is prohibited the entire length of the corridor. Most businesses provide some amount of off-street parking.
- ▶ Sidewalks are sporadic. The only continuous segment is on the west side of Third Avenue/CR 519 between Warren Street and the railroad. With the exception of two residential lots, there are no sidewalks from the railroad south.
- ▶ There is only one marked crosswalk the entire length of the corridor, at Warren Street, which lined up with the old railroad pedestrian bridge.
- ▶ The only traffic signal in the corridor is located at High Street.
- ▶ The street is not overly wide with a right-of-way generally measuring 50 feet.

Industrial District

Industrial Drive, which is categorized as an *Urban Local* street is currently the only direct road access into the industrial park. There are no sidewalks or shoulders. Industrial Drive dead-ends in the vicinity of the quarry. There is no road access beyond that point, which isolates a large portion of the industrial district especially the tract that lies between the two railroads. Although the industrial district has extensive frontage on Edge Road (which forms the border between Alpha and Pohatcong), the only properties presently accessing Edge Road are the three residential properties and the light industrial property on the east side of I-78.

Although I-78 runs through the district, there is no direct access to the Interstate. Access to the highway system is via NJ Route 122 (New Brunswick Avenue) to NJ Route 22. From that point the Interstate can be accessed at interchange #3 in Pohatcong.

There are two rail lines in the district – the inactive NJ Transit line and the active Norfolk Southern freight line. A proposed I-78 transit hub/park-and-ride in the industrial park is discussed below.

I-78 Transit Hub/Park-and-Ride

In January 2008 the North Jersey Transportation Planning Authority released the *I-78 Corridor Transit Study* prepared by Dewberry and Urbitran Associates. Among the recommendations was a proposal to construct a multi-modal transit hub/park-and-ride facility off of I-78 in Alpha or Pohatcong. Two potential sites were identified in the Alpha industrial park abutting I-78 (see Figure II-1). Following is an excerpt from the final report.


► *It is recommended* that a new multi-modal transit hub be developed along the I-78 corridor in New Jersey. This hub and park-and-ride would complement the intercept lots in Pennsylvania by providing additional access both to New Jersey-bound and New York City-bound express bus lines, and also to the Raritan Valley Line if it is extended past High Bridge along the former Central Railroad of New Jersey right of way.

There are several sites located adjacent to I-78 within the Borough of Alpha that could potentially be adapted for use as a transit hub. They have direct frontage on I-78 at approximately Milepost 2, and direct access could be provided to the lots via a new interchange with I-78. By doing so, bus and auto movements into the lots would be quick and efficient, and impacts by park-and-ride related traffic on local streets would be negligible.

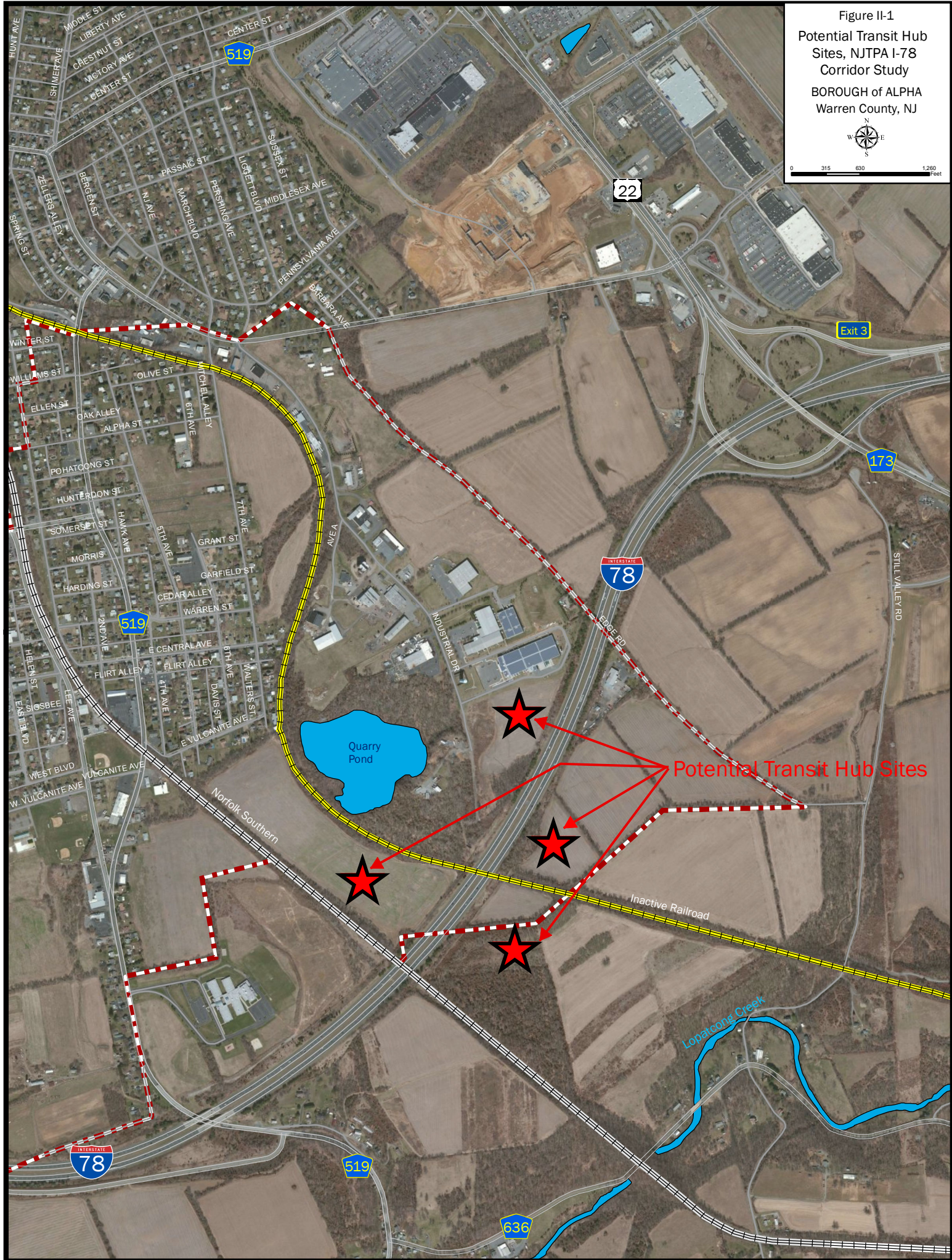
Parking demand could approach 1,500 spaces if both bus and rail lines are served by the site. The site design should be arranged such that a specific section of the parking area could be accessed from local streets, but be physically separated from the main part of the site that would be accessed directly from I-78.

The Delaware River Joint Toll Bridge Commission will need to be involved in planning for this facility, since the Commission owns and maintains the section of I-78 from the Delaware River to US Route 22. Federal Highway Administration approval of any proposed highway access may be required. It is anticipated that this approval would be aided if the park-and-ride is a special use interchange with no access to local streets or private development. A New Jersey Welcome Center for roadside tourist information and services has been proposed to be constructed on this section of I-78 also; consolidating the Welcome Center onto the park-and-ride site would minimize access points on I-78 and would create a single, multi-purpose transportation-related site.

Figure II-1
Potential Transit Hub
Sites, NJTPA I-78
Corridor Study
BOROUGH of ALPHA
Warren County, NJ



0 315 630 1260
Feet



Route 22 Corridor Study

Warren County released the *US Route 22 Corridor Improvement Plan* in 2009. The plan recommended numerous improvements along the Route 22 corridor from the Delaware River to I-78 that range from new signage and signals to major intersection improvements. Although none of the improvements are located in Alpha, proposed improvements to the Route 22/Route 122 intersection and the Route 173/I-78 interchange could have a positive impact on traffic flow through Alpha and particularly benefit traffic from the industrial park. The Route 22/Route 122 improvements include signal coordination, pedestrian facility upgrades, northbound roadway widening and a channelized right-turn lane. Improvements at I-78/Route 173 include the addition of a ramp from I-78 westbound to Route 173 eastbound to negate the need for using the Route 122 jug handle.

The Corridor Plan also discusses the concept of a new I-78 interchange at Carpentersville Road in Pohatcong that was tied to two major housing developments proposed for the same area. One of those proposals – The Hamptons – has been scaled back from 445 units to 242 units. The other proposal – The Regency – still stands at 308 units. The future of both developments is uncertain at this point and the construction of the new interchange would be extremely costly and unlikely to be built entirely with public funds. If the housing is eventually built without the interchange, it can be expected that much of the traffic generated by the developments would come through Alpha (High Street/CR 642 in particular) on their way to the regional highway system.

HIGHLANDS

Alpha is located entirely within the Highlands Planning Area where conformance with the Regional Master Plan is voluntary. Alpha contains three primary Highlands zones – Protection, Conservation, and Existing Community; and two sub-zones – Conservation–Environmentally Constrained, and Existing Community – Environmentally Constrained. Approximately 40% of the Borough has been designated a “Highlands Center,” which supersedes the Highlands zones in favor of locally-developed comprehensive planning policies. The Highlands zones and center are illustrated on ERI Figure 2 on the following page.

Chapter V of this plan includes a detailed analysis of how the Alpha Land Use and Circulation elements will interface with and ultimately be compatible with the Highlands Regional Master Plan.

HIGHLANDS ZONES AND SUB-ZONES IN ALPHA

Protection Zone. The Protection Zone consists of the highest quality natural resource value lands that are essential to maintaining water quality, water quantity and sensitive ecological resources and processes.

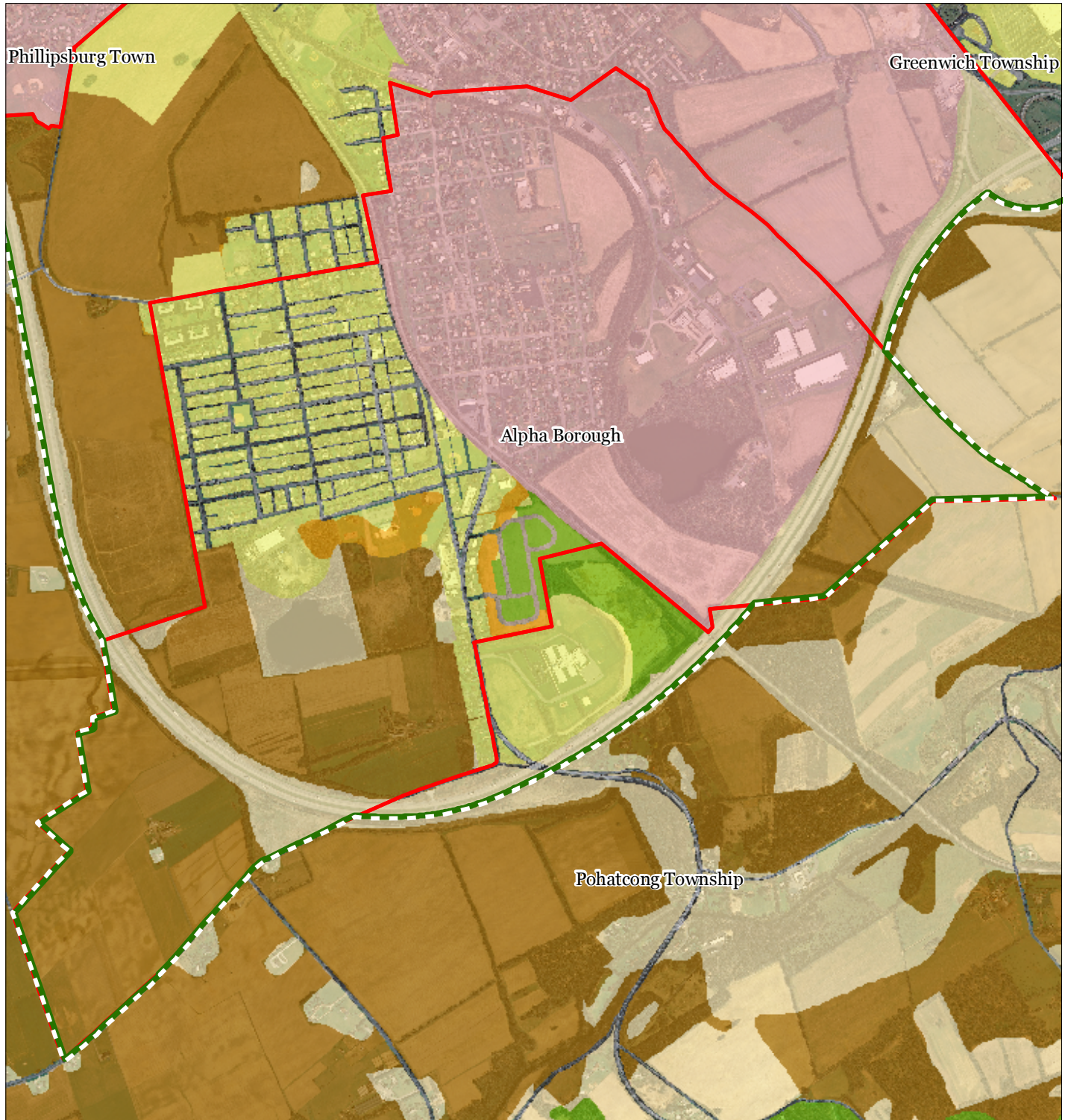
Conservation Zone. The Conservation Zone consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features that should be preserved when possible.

Conservation Zone–Environmentally Constrained Sub-Zone. This sub-zone consists of significant environmental features within the Conservation Zone that should be preserved and protected from non-agricultural development.

Existing Community Zone. The Existing Community Zone consists of areas of concentrated development representing existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that can support additional development and/or redevelopment.

Existing Community Zone–Environmentally Constrained Sub-Zone. This sub-zone consists of significant contiguous critical habitat, steep slopes and forested lands within the Existing Community Zone that should be protected from further fragmentation.

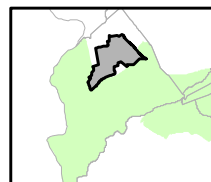
Figure 2: Land Use Capability Map Zones



Regional Master Plan Overlay Zone Designation

Zone	
	Protection
	Conservation
	Existing Community
	Lake Community
	Wildlife Management
	Lakes Greater Than 10 acres
	Preservation Area
	Municipal Boundaries
Sub-Zone	
	Existing Community Environmentally Constrained
	Conservation Environmentally Constrained
	Highlands Center
	Highlands Environmental Resource Site

Alpha Borough



1 inch = 0.266 miles



February 2012

III. LAND USE PLAN

It is the Borough's intention to provide for tightly managed growth that is consistent with the Borough's goals by clearly identifying the preferred location and intensity of future land uses. All land use decisions should be mindful of a parcel's context and discourage inappropriate intrusions into established residential neighborhoods or environmentally sensitive areas.

The first section of this chapter provides a general description of the major initiatives found in the land use plan. Subsequent sections provide detailed descriptions of each land use district, natural resource overlay districts, and low impact development policies. Following the adoption of the land use plan, the Borough's zoning ordinance will need to be reviewed and revised to maintain consistency with the land use plan and to provide more detailed standards for implementing the plan's recommendations.

MAJOR INITIATIVES

◆ Route 519 Corridor

County Route 519 (Third Avenue & Springtown Road) serves as Alpha's primary business corridor. The corridor is presently covered by three Business zones – B-1, B-2, and B-3, and one combined zone – B-3/R-4 (see Map 4). As noted in Chapter II, the corridor presently lacks a common theme or purpose. Permitted uses range from traditional Main Street and neighborhood retail, to offices and industrial uses. There are inconsistencies within all of the zones and none of the Business zones address the future of existing residential properties. The land use plan proposes the following changes in the corridor:

- Combine the B-2 and B-3 zones into a unified Neighborhood Business district that permits neighborhood-scale retail, service, restaurant, and office uses in addition to residential uses at R-4 standards.
- Review permitted uses and bulk standards in the B-1 General Business zone and revise as necessary. Include the former Glen Magnetix property in the B-1 Zone.
- Create appropriate design standards for landscaping, lighting, signage, screening, parking, etc. throughout the corridor.

◆ Industrial District

Alpha's industrial district corresponds to the industrial park that straddles Industrial Drive from New Brunswick Avenue to I-78 and approximately 54 acres located to the south-east of I-78 (see Map 5).

At the end of Industrial drive is a 31-acre Borough-owned property. The site contains an abandoned quarry and a former municipal landfill that is on the NJDEP list of contaminated sites. The site is primarily vacant. The abandoned quarry pit accounts for approximately 16 acres of the site.

The land use plan makes the following recommendations for the industrial district:

- Clearly define permitted and prohibited uses.
- Shift the two industrial properties currently located in the adjoining B-1 zone (Block 102, Lots 3 and 4) into the I-Industrial zone.
- Create design standards for landscaping, lighting, fencing, screening, parking, and signage.
- Initiate discussions with the New Jersey Brownfields Redevelopment Interagency Team regarding remediation and redevelopment of the quarry/landfill site.
- Undertake an investigation of the Borough-owned quarry/landfill for delineation as an "area in need of redevelopment" pursuant to the Local Redevelopment and Housing Law (LRHL).

New Jersey
Brownfields
REDEVELOPMENT

Brownfields Redevelopment Interagency Team

The Brownfields Redevelopment Interagency Team (BRIT) is made up of representatives of numerous state agencies and introduces projects to all affected state agencies and departments. The BRIT enables and facilitates dialogue among the state, the municipality and the developer. This dialogue assists in identifying opportunities and obstacles, as well as applicable financial and technical assistance.

◆ Dual Zones

There are presently three zones in the Borough that carry dual designations – the B-3/R-4 zone along Springtown Road, the B-2/R-5 zone along East Boulevard, and the MF/R-5 zone along High Street. These zones are not described in the zoning ordinance. The land use plan recommends redefining these zones as follows:

- B-3/R-4 (Springtown Road) – Drop the R-4 designation but permit R-4 uses as-of-right in the B-3 Professional Office zone. Standards should be prepared to govern the conversion of residences to offices similar to those presented on page 41. There is only one commercial property in this district – Block 97, Lot 11. It should be moved to the adjoining General Business district.
- B-2/R-5 – Drop the B-2 designation, merge with the two adjoining R-5 zones, and permit certain neighborhood businesses as a conditional use in the R-5 zone. (This is the only R-5 zone in the Borough.)
- MF/R-5 – Drop the R-5 designation as this area is fully developed with multi-family housing.

◆ Agricultural Retention

The current R-1A Low Density Residential zone covers 308 acres in the southwestern corner of the Borough. It is the only zone other than the Industrial zone that includes farming and horticultural uses among the permitted uses. The majority of the zone is assessed as farmland including 124 acres of SADC preserved farmland west of I-78. It also includes a portion of the “Alpha Grasslands,” a Natural Heritage Priority Site. For all intents and purposes the R-1A zone serves as the Borough’s “agricultural” district.

The land use plan therefore recommends the establishment of an *Agriculture* district to replace the R-1A zone with the following policies to underscore the district’s focus on agricultural resources and the viability of agriculture as a business in the Borough.

1. Promote farmland preservation and limit non-agricultural uses within the district to the extent feasible, to those designed to support the preservation of farmland, avoid conflicts with agriculture, and maintain and enhance the sustainability and continued viability of the agricultural industry.
2. Permit residential development only under conservation design parameters, such as cluster development where preservation of agricultural lands within the district is not feasible; and permit retention of the original farmstead or construction of new farmsteads associated with preserved agricultural lands in cluster developments, wherever feasible.

3. Require all land preserved in perpetuity for agricultural purposes as a result of clustering to be subject to a conservation easement enforceable by at least one of the following: the Borough, the County Agriculture Development Board, the SADC or the Highlands Council.
4. Require implementation of best management practices, including development and implementation of a farm conservation plan that addresses the protection and enhancement of surface and ground water quality and natural resources within the district.
5. Permit family and farm labor housing in the district as appropriate, to support the viability of permitted agricultural operations.
6. Promote the Right to Farm Act and incorporate land use regulations that are consistent with and further its intents and purposes.
7. Generally promote the long-term viability of the local agricultural industry by promoting and utilizing existing county, state, and federal agriculture related programs; and developing land use regulations and programs in support of such practices as direct marketing, farmers' markets and roadside stands (located on or off the site of an active farm), ancillary business opportunities, and other such programs or activities.

Transfer of Development Rights (TDR)

The Borough may want to consider establishing a TDR program to further support the preservation of farmland in the Agricultural district. The purpose of the TDR program is to provide an incentive-based process for permanently preserving lands that provide a public benefit through their natural state – in this case agricultural lands. The TDR provisions are intended to preserve land by transferring the development rights associated with a parcel of land in a *sending zone*, the Agricultural zone for example, to a pre-determined *receiving zone*, such as the Industrial zone. The receiving zones are delineated based on their ability to support additional growth and density due to the availability of infrastructure and the absence of severe environmental constraints.

A separate *Development Transfer Master Plan Element* would need to be prepared by the Borough in accordance with Article 18 of the Municipal Land Use Law, "State Transfer of Development Rights," to serve as the basis for Alpha's TDR program and ordinance.

◆ Natural Resource Policies

Alpha does not presently have a master plan conservation element. The land use element does, however, provide for overlay districts to address certain critical resources within the Borough. It is recommended that the Borough prepare a master plan conservation element to further define these and other resources identified in the Borough's ERI and explore the creation of additional overlay districts and supporting ordinances.

LAND USE DISTRICTS

The following land use districts are illustrated on the Land Use Plan Map (Map 8) and described in more detail below.

- Agriculture
- Medium Density Residential
- Medium-High Density Residential
- High Density Residential
- Multi-Family Residential
- Affordable Housing
- General Business
- Neighborhood Business
- Professional Office
- Industrial
- Cemetery
- Public Buildings and Facilities
- Parks & Open Space

Residential Districts

- *Medium Density Residential*

This district corresponds to the current R-3 zone. The primary use is single-family homes at a density of four to five dwelling units per acre.

- *Medium-High Density Residential*

This district corresponds to the current R-4 zone. The primary use is single-family homes at a density of five to six dwelling units per acre.

- *High Density Residential*

This district corresponds to the current R-5 and B-2/R-5 zones, which are combined under the land use plan. The primary use is single-family homes at a density of five to six dwelling units per acre and two-family homes at a density of nine to 10 dwelling units per acre. The district also allows for limited neighborhood-oriented commercial establishments as conditional uses aimed at providing services to the local population such as small retail, service, and office uses.

- *Multi-Family Residential*

This district is located at the northwest corner of the Borough and covers the existing multi-family units bordered by Park Boulevard and High Street. The density in this district is 10 dwelling units per acre. The land use plan removes the current R-5 option.

- *Affordable Housing*

This district corresponds to the existing Affordable Housing zone that was established to accommodate a court-mandated inclusionary housing project. No changes are proposed for this district at this time.

Commercial Districts

- *Agriculture*

This district corresponds to the current R-1A zone with the exception of the quarry property on West Vulcanite Avenue. The purpose of this district is to promote farmland preservation and limit non-agricultural uses within the district to the extent feasible, to those designed to support the preservation of farmland, avoid conflicts with agriculture, and maintain and enhance the sustainability and continued viability of the agricultural industry. (See additional agricultural policies on page 37.)

The land use plan moves the quarry/business park on West Vulcanite Avenue, which is presently in the R-1A zone, to the General Business district.

- *General Business*

This district provides for a broad range of business uses and corresponds to the following areas:

- The current B-1 zone at the southern end of the Route 519 corridor.
- The former Glen Magnetics property on Third Avenue (Block 82, Lot 11).
- The current B-1 zone on New Brunswick Avenue with the exception of Lots 3 and 4 in Block 102, which are moved to the Industrial district.
- The quarry property on West Vulcanite Avenue (Block 97, Lot 2).

The General Business district includes a mixture of local and regional businesses. This district is geared to small and medium-sized establishments as opposed to big-box retailers that are more suited to a highway location; or large manufacturing uses that are more suited to the Industrial district.

Appropriate design standards should also be developed for landscaping, lighting, signage, screening, parking, etc. similar to the guidelines provided at the end of this section for the 519 corridor.

- *Neighborhood Business*

This district combines the B-2 and B-3 zones along the Route 519 corridor into a Neighborhood Business district that permits neighborhood-scale retail, service, restaurant, and office uses in addition to residential uses at R-4 standards. Conversion of residential uses to office uses would be permitted as conditional uses in accordance with the conversion standards found at the end of this section.

The Neighborhood Business district is meant to recognize and accommodate the smaller scale businesses that are generally one lot deep along the corridor, have immediate

contact with single-family neighborhoods, and are interspersed with residential uses. Commercial uses in this district are generally low-intensity in terms of the size of the building, parking and loading requirements, and hours of operation. They must be particularly sensitive to the surrounding residential neighborhoods in terms of noise, light, traffic, and buffering.

The Corridor Design Guidelines found at the end of this section should be adopted to encourage a “Main Street” environment along the 519 corridor.

- *Professional Office*

The Professional Office district provides opportunities for small office buildings and the conversion of residential properties to office uses in accordance with the conversion provisions presented below. The Professional Office district corresponds to the current B-3/R-4 zone at the southern end of Springtown Road and the small B-3 zone on New Brunswick Avenue (Block 104, Lots 1 and 2). Residential uses in the district are permitted in accordance with Medium-High Density Residential (R-4) standards.

Conversion of Existing Residential Properties to Office or Retail Use

The conversion of existing residential properties to office or retail uses in the Neighborhood Business and Professional Office districts should comply with the following conditions:

1. Live-work opportunities are permitted where the first floor of a single-family detached home is converted to a professional office or retail use while maintaining a residential use on the upper floors only if the office or retail use is owned or operated by the resident of the building.
2. The non-residential use should not require any more than five off-street parking spaces and cannot exceed the required number of spaces if less than five. Parking requirements for the non-residential use would have to be satisfied without encroaching on any required setback area for accessory structures and without increasing the existing impervious surface on the lot by more than 10%. Parking is generally prohibited within the required front yard setback for the principal structure.
3. Deliveries to the site are limited to occasional delivery vans operating during normal business hours. Outside storage of any kind is prohibited.
4. All renovated or converted buildings must maintain a residential exterior. The footprint of an existing building cannot be expanded to accommodate a non-residential use.
5. Non-residential signage is restricted to the identification of the name and address of the business. Any lighting beyond that normally associated with a residential use is prohibited unless it is absolutely necessary for safe pedestrian or vehicular movement of patrons on the site.

Route 519 Corridor Design Guidelines

The following guidelines have been developed for non-residential properties located in the Neighborhood Business and General Business districts in the Route 519 corridor. These guidelines are meant to encourage quality architecture, shared access and parking, pedestrian circulation, and extensive landscaped areas.

1. To the extent possible, commercial buildings should be set close to or at the front property line to establish an interesting street wall. Front setback areas should be properly landscaped and used for pedestrian activities.
2. Plazas and green areas should be considered an integral component of all development in the corridor and should be designed to provide a lively human-scale environment. These features should also be designed to provide appropriate visual and noise buffers especially between residential and non-residential areas.
3. Buildings should be designed to provide architectural interest and avoid a monolithic box-like appearance. Pitched roofs and architectural embellishments such as dormers are encouraged. Flat roofs should include appropriate ornamentation such as cornices or parapets. The front of each building should be oriented toward a street.
4. Sidewalks should facilitate pedestrian movement and create opportunities for outdoor eating and shopping areas. Curbs and sidewalks should be continuous with minimal curb cuts. Landscaped areas should be provided along the roadway and include provisions for plantings and shade trees.
5. Ground floor commercial facades should have large, clear storefront glass areas to display the nature of the business and produce an interesting streetscape. A storefront should be separated from the roofline or a second floor by a horizontal architectural element such as a sash, cornice, frieze or molding. The design of awnings and canopies should be architecturally compatible with the style, materials, colors and details of buildings and should not conceal significant architectural features, such as cornices, columns, pilasters or other trim details.
6. Freestanding signs should be consolidated at strategic locations, complement the architectural style of the development, and avoid a cluttered appearance. Façade signs should complement and not interfere with, be out of proportion with, or cover over a building's architectural details.
7. Parking lots should be located behind or next to buildings, so that the buildings can be closer to the roadway, be more visible, and be more accessible to pedestrians. Multiple access points should be reduced through the use of shared and connected parking facilities.
8. Surface parking lots should be extensively landscaped to provide visual relief, to guide circulation, and to minimize impervious coverage.

Industrial District

- *Industrial*

The Industrial district generally corresponds to the current Industrial zone with the addition of two properties along Industrial Drive (Block 102, Lots 3 and 4) that are currently in the B-1 zone. The purpose of this district is to accommodate a broad range of well-designed, modern commercial and industrial uses conducted entirely within the confines of a fully enclosed structure. Such activities would create no major hazard for fire or explosion and produce no toxic or corrosive fumes, gas, smoke, odors, obnoxious dust or vapor, offensive noise or vibration, glare, flashes or objectionable effluent.

Green Buildings

To the extent feasible, all development within the Industrial district is encouraged to incorporate sustainable building principals consistent with the LEED (Leadership in Energy & Environmental Design) Green Building Rating System developed by the U.S. Green Building Council or other comparable system for measuring sustainability. The LEED system is a voluntary national standard that defines high performance green buildings, which are healthier, more environmentally responsible, and more efficient structures.

Green buildings blend environmental, economic, and occupant-oriented performance features designed to:

- Enhance and protect ecosystems and biodiversity
- Improve air and water quality
- Reduce potable water consumption
- Reduce solid waste
- Conserve natural resources
- Minimize strain on local infrastructure
- Reduce energy and operating costs
- Optimize life-cycle economic performance
- Improve air, thermal and acoustic environments
- Enhance occupant comfort and health

Buildings constructed in accordance with the LEED rating system often optimize the use of natural daylight and ventilation, capture water runoff for internal use, utilize finishes and materials low in volatile organic compounds to improve indoor air quality, utilize recycled and renewable building materials, optimize climatic conditions for internal heating and cooling through site orientation and design, utilize energy efficient equipment and systems, and maximize the use of local materials to limit transportation costs.

Public and Quasi-Public Districts

- *Public Buildings and Facilities*

This district includes existing and proposed public buildings, facilities and schools.

- *Parks & Open Space*

This district includes existing and proposed parks and preserved open space. (See the Borough's 2007 Open Space and Recreation Plan for additional details.)

- *Cemetery*

This district covers the existing cemeteries between Fifth and Seventh Avenues. All uses in this district must be directly related to or in support of cemetery operations and comply with all state and local regulations. In addition, the Borough should consider establishing provisions governing setbacks, buffers and screening from residential properties as well as general height, setback, and parking requirements for structures on the site including offices, maintenance buildings, mausoleums, vaults, or other similar structures.

NATURAL RESOURCE OVERLAY DISTRICTS

The following overlay districts apply throughout the Borough as identified in the Alpha Borough ERI or as otherwise indicated by site-specific investigations.

Riparian Areas

The riparian area associated with a tributary of the Pohatcong Creek is primarily located within Alpha Community Park and adjacent farmland (see ERI Figure 8 in Chapter II) and should not have any major impacts on the land use plan outlined above. Buffers will need to be established, however, to protect the integrity of the water resource from impairment due to proximate land uses and/or future development activities. Key functions of buffers include stormwater and flood water retention and filtration, water quality protection, temperature moderation, aquatic ecosystem integrity and channel integrity. Minimum standards for such buffers should be consistent with those established by the NJDEP, which are as follows:

- 300 feet along both sides of any Category One (C1) water, and all upstream tributaries situated within the same HUC 14 watershed.
- 150 feet along both sides of the waters not designated as C1 waters.
- 50 feet along both sides of the water for all other surface water bodies.

By way of example, the following activities and facilities are generally prohibited in a riparian area:

- Removal or clear-cutting of trees and other vegetation or soil disturbance such as grading, except for selective vegetation removal for the purpose of stream or riparian area stabilization or restoration projects that require vegetation removal or grading prior to implementation.
- Storage of any hazardous or noxious materials.
- Alteration of watercourses, regrading, dumping of trash, soil, dirt, fill, vegetative or other debris.
- Use of fertilizers, pesticides, herbicides, and/or other chemicals in excess of prescribed industry standards or the recommendations of the Soil Conservation District.
- Roads, driveways, motor vehicle traffic or parking lots.

Steep Slope Protection Areas

Alpha contains both moderately constrained (15% to less than 20%) and severely constrained (greater than 20%) slopes (see ERI Figure 11 in Chapter II). The steep slopes are primarily found in the quarries and along the railroad and I-78 rights-of-way. As discussed in the ERI, disturbance of such areas can trigger erosion and sedimentation, degradation of surface water quality, silting of wetlands, and alteration of drainage patterns. These processes, when severe, can result in land slumping and landslides that can damage both developed property and ecosystems. The severity and extent of slopes, soil characteristics, and land cover all affect the potential for damages from the disturbance of steep slopes. Accordingly, the following policies will guide the regulation and management of steep slope protection areas.

- Maps and delineations of steep slope protection areas should be updated and improved as better information becomes available and/or as new areas are identified through project reviews pertaining to individual sites and properties.
- Land disturbance within all steep slope protection areas should incorporate *low impact development* techniques to minimize the extent of such disturbance and the potential negative impacts resulting from it.
- Land disturbance within areas of severely and moderately constrained slopes should be prohibited altogether, with exceptions only for linear development.

Critical Wildlife Habitat

As illustrated on ERI Figure 12 in Chapter II, the farmland in the southwestern portion of the Borough contains critical wildlife habitats suitable to support populations of rare, threatened and endangered species of birds. Critical wildlife habitat is designated based on the presence of, and associated habitat required for, the survival and propagation of species of concern. The following policies will guide the regulation and management of critical habitat areas.

- Prohibit the direct impact of new development or expansion or increased intensity of existing development.
- Promote the restoration and enhancement of impaired lands in critical habitat.
- Develop and adopt a habitat conservation and management plan including minimum performance standards and criteria for the protection, enhancement and restoration of lands within critical habitat.

- Require that applications for development affecting critical habitat be subject to the standards and criteria outlined in the applicable habitat conservation and management plan.

Carbonate Rock

The entire Borough and most of the surrounding region is underlain by carbonate rock. Of particular concern are the potential negative impacts of land development practices that do not properly consider the constraints and challenges presented by carbonate rock areas. As discussed in the ERI, dissolution of underlying carbonate rocks (such as limestone and dolomite) by surface water or ground water can cause surface depressions and the development of such features as sinkholes, sinking streams, enlarged bedrock fractures, caves and underground streams. Sinkholes function as funnels, directing surface water runoff into karst aquifers with little or no attenuation of any transported contaminants. Stormwater basins, septic system leaching fields, sewers, agricultural runoff, lawn runoff, underground pipelines, and soil disturbance may also contribute contaminants directly to ground water through karst features. In addition to ground water concerns, karst areas can lead to public safety concerns. Sinkholes present a geologic hazard as they may undermine such infrastructure as stormwater basins, roads, sewer lines, septic systems, and natural gas lines.

Accordingly, the following policies will guide the regulation and management of carbonate rock areas.

- Continuously update and improve maps and delineations of karst features within carbonate rock areas including all lands that drain into carbonate rock areas that contain karst features as better information becomes available and/or as new areas are identified through project reviews pertaining to individual sites and properties.
- Carefully examine land development applications for potential impacts to carbonate rock areas containing karst features, whether by direct disturbance, or by indirect means such as introduction of additional stormwater runoff.
- Ensure that issues and concerns related to carbonate rock are similarly evaluated and addressed in the planning, design, construction and maintenance of public infrastructure projects.
- Prohibit from carbonate rock areas containing karst features and from lands identified as draining into such areas, the construction or installation of new uses, structures or facilities that present an unacceptable risk of hazardous and/or toxic discharge.
- Require that the major potential contaminant sources (PCS) listed at the end of this section incorporate ongoing management of toxic chemical sources and

prohibition of non-permitted discharges, so that the potential for ground water contamination is minimized and the opportunity for discharge discovery and control is maximized.

Wellhead Protection Area

Wellhead protection areas (WHPA) within the Borough are illustrated on ERI Figure 23 in Chapter II. WHPAs are delineated for community water supply wells based upon time of travel, reflecting the time required for ground water to flow into the well. WHPAs are composed of three tiers based upon a 2-year (Tier 1), 5-year (Tier 2), and 12-year (Tier 3) time of travel. Each tier includes the area of each smaller tier within it.

Protection of ground water resources that directly provide water to potable water supply wells is vital to the public health, safety, and welfare of the community. Through regulation of land use, physical facilities and other activities within WHPAs, the potential for ground water contamination can be reduced by preventing the introduction and migration of pollutants into ground water sources that supply water supply wells. The following policies will guide the regulation and management of wellhead protection areas in the Borough.

- Identify and ensure proper management of existing land uses within wellhead protection areas that have a significant potential for contributing pollutants of concern to ground water.
- Prohibit land uses and activities that pose significant risk of ground water contamination from locations delineated as Tier 1 and Tier 2 wellhead protection areas, with enhanced protections within the first 200 feet of any public water system wellhead.
- Require that major potential contaminant sources (PCS) in Tier 1 wellhead protection areas incorporate ongoing management of toxic chemical sources and prohibition of non-permitted discharges, so that the potential for ground water contamination is minimized and the opportunity for discharge discovery and control is maximized.
- Ensure that stormwater management plans pertinent to both development applications and municipal-wide planning, address wellhead protection requirements.
- Encourage stormwater reuse for non-agricultural irrigation and other non-potable water purposes to minimize the volume of stormwater discharges (other than from clean sources) within a Tier 1 or Tier 2 wellhead protection area.
- Restrict development activities that pose threats to the water quality of public water supply wells.

- Ensure that development activities and existing land use activities implement best management practices to protect the quality of ground water within wellhead protection areas.
- Ensure that the uses, structures or activities permitted within utility service areas, as proposed within the municipal portion of the Areawide Water Quality Management Plan or Wastewater Management Plan will not adversely affect any wellhead protection area.

MAJOR POTENTIAL CONTAMINANT SOURCES

Based on New Jersey Safe Drinking Water Act regulations and NJDEP regulations

1. Underground fuel and chemical storage and oil tanks regulated by NJDEP under provisions of the Underground Storage of Hazardous Substances Act (N.J.S.A. 58:10A-21 et seq.).
2. Above-ground storage facility for a hazardous substance or waste with a cumulative capacity greater than 2,000 gallons.
3. Automotive service center (repair & maintenance).
4. Dry cleaning processing facility.
5. Road salt storage facility.
6. Cemetery.
7. Highway maintenance yard.
8. Truck, bus, locomotive maintenance yard.
9. Site for storage and maintenance of heavy construction equipment and materials,
10. Site for storage and maintenance of equipment and materials for landscaping excluding household storage and maintenance of such equipment.
11. Livestock operation containing 300 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] as defined by the NJ Department of Agriculture in its Criteria and Standards for Animal Waste Management, at NJAC 2:91.
12. Quarrying and/or mining facility.
13. Asphalt and/or concrete manufacturing facility.
14. Junkyard/auto recycling and scrap metal facility.
15. Residential or agricultural motor fuel in NJDEP exempted underground storage tanks (i.e., under 1,000 gallons).

MINOR POTENTIAL CONTAMINANT SOURCES

Based on New Jersey Safe Drinking Water Act regulations and NJDEP regulations

1. Underground storage of hazardous substance or waste of less than 50 gallons.
2. Underground heating oil storage tank with a capacity of less than 2,000 gallons.
3. Sewage treatment facility regulated by a NJPDES permit granted under NJAC 7:14A.
4. Industrial waste line.
5. Septic system disposal field.
6. Facility requiring a ground water discharge permit issued by the NJDEP pursuant to N.J.A.C 7:14A et seq.
7. Stormwater retention-recharge basin or an industrial property receiving runoff from surfaces other than roof areas.
8. Dry well on an industrial property receiving runoff from surfaces other than roof areas.
9. Waste oil collection, storage and recycling facility.
10. Agricultural chemical bulk storage and mixing or loading facility including crop dusting facilities.
11. Above-ground storage of hazardous substance or waste in quantities of less than 2,000 gallons.
12. Livestock operation containing 8 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] or those receiving 142 or more tons of animal waste per year as defined by the NJ Department of Agriculture pursuant to its Criteria and Standards for Animal Waste Management, at NJAC 2:91.

LOW IMPACT DEVELOPMENT

This plan embraces the concept of Low Impact Development (LID) and seeks to ensure its maximum use in land development activities throughout the Borough. LID encompasses a broad array of development and management techniques that can minimize or mitigate the potential adverse impacts of land use and development on the natural environment. LID is used in stormwater management, resource management, “green” building, and sustainable site design. In stormwater management for example, LID techniques can be employed to capture rainfall, filter it through existing vegetation, and maximize its absorption by on-site soils in order to recharge ground water supplies. In site design, LID would incorporate strategies to reduce site disturbance, limit impervious coverage, and integrate existing natural features affecting the site and/or its immediate surroundings into the proposed layout and design.

To accomplish such aims, specific LID standards should be developed and incorporated into Alpha’s land use regulations. LID practices should include, but by no means be limited to the following:

1. Stormwater management LID standards that preserve or mimic the natural hydrologic features and characteristics of the land.
 - a. Use of stormwater management features that maintain, restore and enhance the pre-existing natural drainage patterns of the site.
 - b. Limitations on impervious coverage allowances to maximize stormwater infiltration and reduce runoff.
 - c. Requirements for site-specific hydrologic studies which identify the velocity, volume and pattern of water flow into, through and flowing from a parcel proposed for development.
 - d. Requirements that stormwater management systems employ a “design with nature” approach by use of grass channels, dry swales, wet swales (vegetated channels designed to retain water or marshy conditions that support wetland vegetation), infiltration basins, bio-swales and water gardens, constructed wetlands, green roofs, and other low impact approaches to attenuate and control stormwater and provide multiple environmental benefits.
2. LID practices that minimize land disturbance during construction activities.
 - a. Requirements for site-specific analysis of environmental features and constraints as an integral component of site design.
 - b. Limitations on site disturbance, soil compaction, clearing and grading to the minimum necessary to allow for permissible development.

- c. Provisions to minimize soil erosion and airborne dust during construction and to protect streams and other water bodies from silt and sedimentation.
- 3. LID best management practices applied where any development application proposes disturbance of a resource identified in the Borough's ERI.
 - a. To the maximum extent practicable identified resources should be avoided or their disturbance minimized through site design.
 - b. The quality and value of the resources located on development sites should be maintained by use of LID strategies that minimize the impacts of development to the maximum extent possible.
- 4. LID practices for design of sites, buildings, structures and roadways. Development and redevelopment projects should follow a prescribed conservation design planning process that considers existing site features and site context; maximizes opportunities for open space and connections to open space systems; and incorporates LID practices in all aspects of stormwater management, site layout, and resource protection. In addition to the previously listed items (1-3, above) these include but are not limited to the following:
 - a. Use of water conservation measures in site layout and structures, including but not limited to such practices as water efficient landscaping (including use of native and drought-tolerant plant species), rain collection systems, use of gray water, and water-efficient landscape irrigation.
 - b. Use of low maintenance landscaping that encourages retention and planting of native vegetation and minimizes lawn areas and use of fertilizers and pesticides.
 - c. Use of pervious paving materials and minimization of impervious surfaces.
 - d. Use of micro-climate conditions to maximize solar gain for winter heating and minimize solar gain during high temperature summer conditions.
 - e. Re-use and recycling of building materials when development involves demolition.
 - f. Inclusion of energy-efficient features in site layouts and buildings.
 - g. Roadway design standards (subject to RSIS limitations) that incorporate LID techniques to address stormwater management, limit impervious coverage, ensure planting of native and drought-resistant vegetation, and integrate other "green street" design initiatives.

ZONING REVISIONS

The zoning ordinance will need to be revised to ensure conformity with the land use plan. At a minimum, the zoning map should be revised to match zone boundaries to the land use districts illustrated on the land use plan map (Map 8). The zoning ordinance will also need to incorporate use standards, bulk requirements, design standards and nomenclature changes to reflect new and revised districts; eliminate other districts; and to generally implement the goals and policies of the master plan.

Following is a summary of the zoning changes needed to implement the land use plan:

- Develop design standards for the 519 corridor and the Industrial zone.
- Review and revise the list of permitted and prohibited uses in the Industrial zone.
- Relabel the current “dual zones” as follows: B-3/R-4 to B-3; B-2/R-5 to R-5; and MF/R-5 to MF and revise the list of conditional and principal uses as appropriate.
- Permit residential uses in the B-2 and B-3 zones in accordance with R-4 standards.
- Replace the R-1A zone with the Agriculture zone and develop appropriate standards.
- Adopt standards for converting residential buildings to office or retail use.
- Establish a Cemetery zone and develop standards.
- Create Natural Resource Overlay districts.
- Adopt Low Impact Development standards.

IV. CIRCULATION PLAN

As noted in Chapter II, Alpha's circulation system is a tight grid of local streets that is separated into three distinct sections by two railroads. Although the local grid allows for adequate circulation within the neighborhoods, opportunities for cross-borough or through traffic are very limited. And although I-78 cuts through the Borough's southern tier, there is no direct access to the Interstate in Alpha.

Given the developed nature of the Borough and the presence of the two railroad rights-of-way, there are few opportunities to expand the roadway system. There are, however, some strategic improvements that can be made to enhance overall circulation within and through the Borough, particularly related to the Route 519 corridor and the industrial district.

Route 519 Corridor (*See Figure IV-1 at the end of this Chapter*)

- Provide a continuous sidewalk on both sides of the corridor from Williams Street south to the end of the General Business district.
- Provide pedestrian crossings at strategic intersections and include bump-outs, enhanced crosswalks, and crossing signals where practical. The following intersections should be considered priorities for crosswalks due to the concentration of retail uses at these locations: Alpha Street, Pohatcong Street, High Street, Morris Street, Warren Street, and Springtown Road.
- Permit on-street parking where there is adequate width.
- Promote shared parking on commercial properties to reduce curb-cuts.
- Provide a dedicated bike lane where there is adequate width.
- Realign or restripe the 519/641 (Third Avenue/Springtown) intersection to better channelize traffic entering 519 from 641 and accommodate a pedestrian crossing.
- Restripe the 519/Hawk Avenue intersection to better channelize traffic.
- Provide signage directing vehicular and pedestrian traffic to the two railroad crossings.

Industrial District (*See Figure IV-2 at the end of this Chapter*)

- Realign the Industrial Drive/Route 122 (New Brunswick Avenue) intersection to create a 90 degree "T" intersection.

- Extend Industrial Drive from its current terminus southward through Borough-owned property to the NJ Transit rail line.
- Create a new municipal street connecting Industrial Drive to Edge Road along the existing 40-foot right-of-way that runs between Lot 4 (Alpha Press) and Lot 10 (Hunterdon Transformer) in Block 100.
- Establish a consistent 50-foot right-of-way for Edge Road and limit the number of curb cuts.
- Provide direct truck access to I-78 via the proposed transit hub discussed below.

General Bicycle and Pedestrian Circulation

The following steps should be taken to promote safer bicycle and pedestrian circulation throughout the Borough:

- Missing sidewalk links should be inventoried, prioritized, and completed especially along routes to schools, parks, and community facilities;
- Traffic calming techniques, such as enhanced crosswalks, curb extensions, crossing signals, islands and narrowed travel lanes, should be utilized in areas of high pedestrian activity; and
- Secure and accessible bicycle racks should be provided at the school, library, and parks.

I-78 Interchanges

Multi-Modal Transit Hub

As noted in Chapter II, the North Jersey Transportation Planning Authority released the *I-78 Corridor Transit Study* in January 2008. Included in the study's recommendations was a proposal to construct a multi-modal transit hub/park-and-ride facility, possibly coupled with a welcome center off of I-78 in Alpha or Pohatcong. Two potential sites were identified in Alpha, both within the industrial park abutting I-78.

While this proposal may have merit from a regional transportation perspective, it could have a negative impact on both land use and circulation within the Alpha industrial district. First of all, the proposed transit hub sites would likely replace developable industrial parcels with tax-exempt facilities. This impact could be mitigated somewhat if the transit hub/welcome center were located on the Borough-owned quarry/land fill site and if a full-scale welcome center provided jobs for Alpha residents.

Second, although the proposal would limit access to the transit hub from local streets, that access would have to be from Industrial Drive, which is the only road serving the interior of the industrial district. Additional traffic studies would have to be prepared to determine the actual volume of traffic that would be added to Industrial Drive and what impact that might have on truck traffic in the district and on the Industrial Drive/New Brunswick Avenue intersection. The industrial district could, however, benefit from direct access to and from I-78.

It should be noted that the transit hub proposal was presented as a general concept with few details. Additional studies would be necessary to move the concept forward. If and when that happens, the Borough would need to ensure that the issues cited above are fully addressed.

Carpentersville Road

The 2009 Route 22 Corridor Plan discusses the concept of a new I-78 interchange at Carpentersville Road in Pohatcong that was tied to two major housing developments proposed for the same area – the 242 unit “Hamptons” and the 308 unit “Regency.” The future of both developments is somewhat uncertain at this point and the construction of the new interchange would be extremely costly and unlikely to be built entirely with public funds. If the housing is eventually built without the interchange, it can be expected that much of the traffic generated by the developments would come through Alpha (High Street/CR 642 in particular) on their way to the highway system.

Conceptually, the interchange would appear to benefit Alpha by keeping at least a portion of the through-traffic generated by the housing developments off of High Street. The interchange would also provide Alpha residents and businesses with an alternative route to I-78. More in-depth traffic studies would have to be prepared to fully measure the impact of the interchange; but it seems evident that the Borough would be better off with the interchange than without it if the housing is built as proposed.

Complete Streets

The term “complete streets” was coined in 2003. The complete streets concept considers facilities for pedestrians, bicyclists, transit users and people with varying degrees of ability, integral components of the transportation network. This represents a shift from the traditional mindset that such facilities are amenities to be provided in certain unique circumstances, as opposed to essential design elements. A complete street may include such elements as sidewalks, bike lanes, bus lanes, comfortable and accessible transit stops, frequent and safe crossing opportunities, median islands, pedestrian signals, curb extensions, and narrower travel lanes.

Incomplete Streets – limit transportation choices by making walking, bicycling, and taking public transportation inconvenient, unattractive, and too often dangerous.

National Complete Streets Coalition

In December 2009, the NJ Department of Transportation (NJDOT) adopted an internal policy to:

“...create and implement a Complete Streets Policy in New Jersey through the planning, design, construction, maintenance and operation of new and retrofit transportation facilities within public rights of way that are federally or state funded, including projects processed or administered through the Department’s Capital Program.”

The Department strongly encouraged the adoption of similar policies by regional and local jurisdictions who apply for funding through Local Aid programs. The Department highlighted the following benefits of a complete streets policy:

- Complete streets improve safety for pedestrians, bicyclists, children, older citizens, non-drivers and the mobility challenged as well as those that cannot afford a car or choose to live car free.
- Provide connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities.
- Promote healthy lifestyles.
- Create more livable communities.
- Reduce traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions.
- Complete streets make fiscal sense by incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project, thus sparing the expense of retrofits later.

It is not the intention of a complete streets policy to force-fit facilities into every roadway design. Local and regional context, safety, environmental constraints and existing and future user patterns must be taken into consideration. It is also understood that a complete streets policy is not limited to or focused on pedestrians and bicyclists. It applies equally to trucks, buses, emergency vehicles and automobiles – the entire spectrum of transportation modes. The goal is to create a connected network that provides reasonable access to all modes of travel for all users of the transportation system.

Generally, complete street elements should be incorporated into all new and substantially rebuilt streets or street sections, whether built by the Borough or a private developer. Maintenance and minor alterations to the right-of-way should incorporate complete street elements whenever possible but in no case should such maintenance or alteration create a condition that is less compatible with the complete streets policy.

The circulation element recommends that the Borough adopt a complete streets policy similar to the sample presented on the next page, which is based on the NJDOT complete streets policy. A detailed complete streets toolbox should be developed to guide the implementation of the Borough’s complete streets policy over time.

Sample Complete Streets Policy

A Resolution Establishing and Adopting a Complete Streets Policy

Whereas, a Complete Street is defined as a means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options; and

WHEREAS, the Borough Council wishes to implement a Complete Streets policy through the planning, design, construction, maintenance and operation of new and retrofit transportation facilities, enabling safe access and mobility of pedestrians, bicyclists, and transit users of all ages and abilities.

NOW, THEREFORE, be it resolved that new construction and reconstruction (excluding maintenance) of all public roads or bridges, or other portions of the transportation network, undertaken by the Borough of Alpha; or new construction and reconstruction of transportation facilities that are intended to be transferred to the Borough of Alpha, shall be designed and constructed as Complete Streets whenever feasible to do so in order to safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles and their passengers, with special priority given to pedestrian safety; and

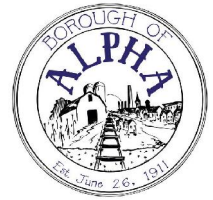
BE IT FURTHER RESOLVED that requests for exemptions from the Complete Streets policy shall be presented in writing to the Borough Council, after review by the Borough Engineer, and shall be documented with supporting data that indicates the reasons for the exemption, which are limited to the following:

1. Pedestrians and bicycles are prohibited on the roadway by law.
2. There is a scarcity of population, travel and attractors, both existing and future that would warrant these accommodations.
3. Detrimental environmental impacts would outweigh the need for these accommodations.
4. The cost of accommodations is excessively disproportionate to the cost of project, more than twenty percent (20%) of total cost.
5. The safety or timing of a project is compromised by the inclusion of Complete Streets.

Figure IV-1 519 Corridor Circulation Improvements

2013 Land Use And Circulation Plan

Borough of Alpha
Warren County, New Jersey
July 2013



Legend

- Restripe / Realign Intersection
- Proposed Crosswalks
- Existing Sidewalks
- Proposed Sidewalks
- Municipal Boundary
- Roads
- Streams
- Active Railroad
- Inactive Railroad



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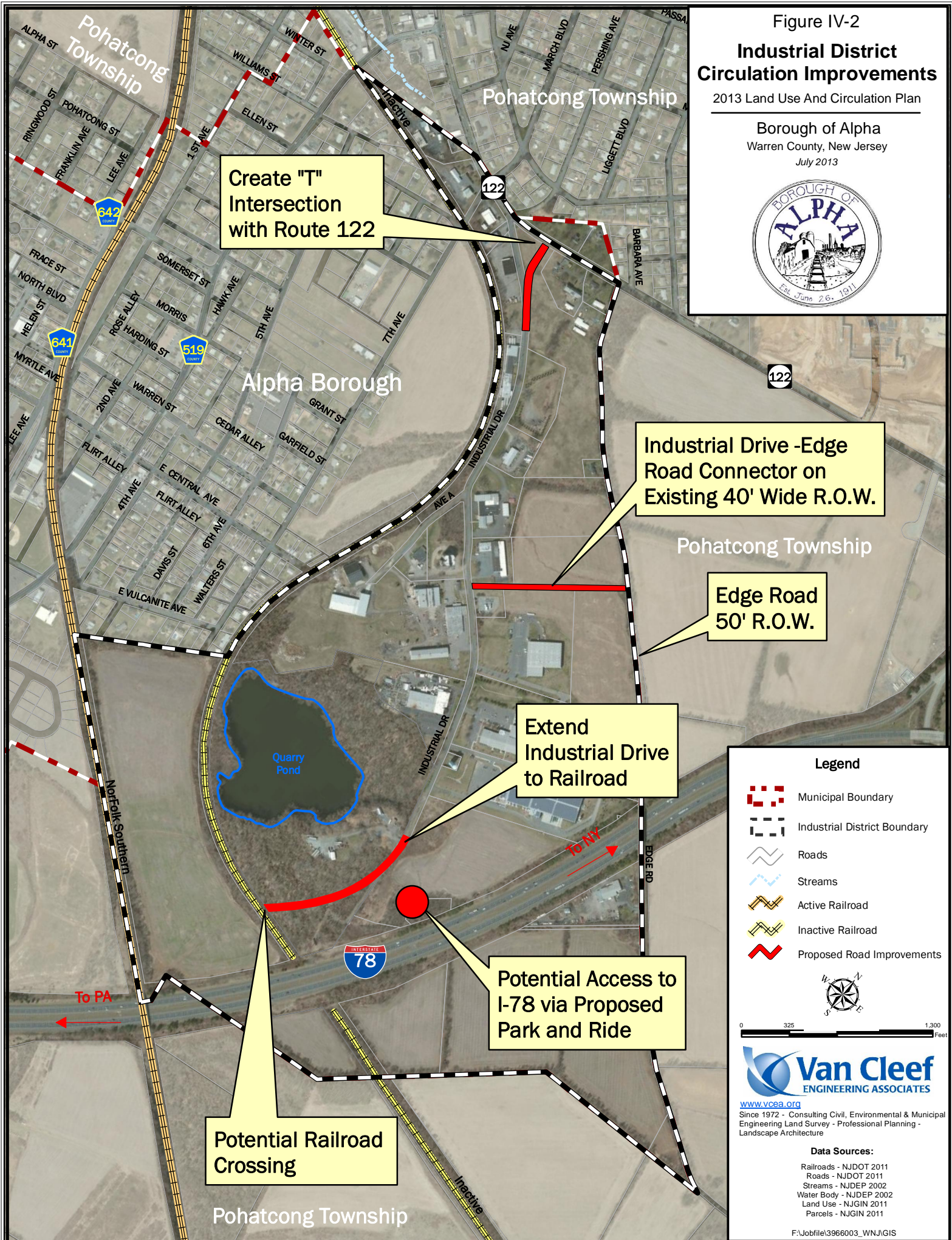
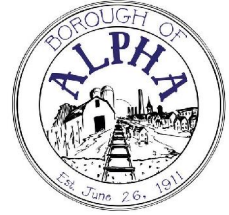
Since 1972 - Consulting Civil, Environmental & Municipal
Engineering Land Survey - Professional Planning -
Landscape Architecture

Data Sources:

Railroads - NJDOT 2011
Roads - NJDOT 2011
Streams - NJDEP 2002
Water Body - NJDEP 2002
Land Use - NJGIN 2011
Parcels - NJGIN 2011

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Figure IV-2
**Industrial District
 Circulation Improvements**
 2013 Land Use And Circulation Plan
 Borough of Alpha
 Warren County, New Jersey
 July 2013



V. RELATIONSHIP TO OTHER PLANS

The Municipal Land Use Law requires the master plan to include a specific policy statement indicating the relationship of the proposed development of the municipality, as developed in the master plan to the master plans of contiguous municipalities (Alpha is totally surrounded by Pohatcong Township), the master plan of the county in which the municipality is located (Warren), the State Development and Redevelopment Plan (State Strategic Plan), and the Highlands Regional Master Plan.

Pohatcong Township

A current land use plan map was not available for Pohatcong. In its stead, the zoning map was used as an indicator of potential land uses. A two-way consistency exists between the Alpha land use plan and the Pohatcong zones at the municipal border as indicated in Table V-1 and on Map 9.

**Table V-1
District Comparison**

Alpha Land Use District	Abutting Pohatcong Zone
Agriculture	Residential/Rural
Medium Density Residential	Residential Medium Density
Medium-High Density Residential	Residential High Density & Residential/Rural with Age Restricted overlay
Multi-Family Residential	Affordable Housing & Residential/Rural with Age Restricted overlay
Affordable Housing	Residential High Density
General Business	Professional Office Business
Industrial	Industrial

Warren County

Alpha's land use and circulation plans are largely consistent with the County's 2004/2005 Strategic Growth Plan and the following county goals:

- Preserve and enhance rural character as well as agricultural, natural, environmental, historic and open space resources.
- Focus growth in existing centers.
- Protect and enhance water quality and quantity.
- Maintain and improve the existing transportation system to provide safe and efficient mobility and access.
- Provide safe and efficient alternative modes of transportation to reduce auto dependence.

- Encourage desirable development that provides local employment opportunities in existing centers.

Alpha's plan also incorporates the following smart growth principles advocated by the county strategic plan:

- mixed land uses;
- compact, clustered community design;
- range of housing prices and types;
- walkable neighborhoods;
- use of existing infrastructure;
- infill and redevelopment of existing centers;
- redevelopment of brownfields;
- open space and farmland preservation; and
- interconnectivity of roadways, pedestrian ways and neighborhoods.

NJ State Strategic Plan

The 2001 State Development and Redevelopment Plan (SDRP) was scheduled to be replaced by a new "State Strategic Plan" in 2012/2013. At the time this master plan was being prepared, the new State plan was still in final draft form. The State Strategic Plan will eliminate the planning areas found in the SDRP in favor of *Priority Growth Investment Areas* and *Priority Preservation Investment Areas*. To guide the criteria for identifying these investment areas the State Strategic Plan establishes "Garden State Values." According to the Strategic Plan, these values reflect the appropriate balance of channeling growth toward existing infrastructure, promoting urban and first tier suburban redevelopment initiatives, and protecting critical natural resources.

Alpha's land use and circulation plans are in alignment with the following Garden State Values:

- Concentrate development and mix uses.
- Prioritize redevelopment, infill, and existing infrastructure.
- Create high-quality, livable places.
- Provide transportation choice & efficient mobility of goods.
- Diversify housing opportunities.
- Provide for healthy communities through environmental protection and enhancement.
- Protect, restore and enhance agricultural, recreational and heritage lands.
- Make decisions within a regional framework.

Highlands Regional Master Plan

Highlands Zones

Alpha is located entirely within the Highlands Planning Area where conformance with the Regional Master Plan (RMP) is voluntary. Alpha contains three primary Highlands zones – *Protection*, *Conservation*, and *Existing Community*; and two sub-zones – *Conservation – Environmentally Constrained*, and *Existing Community – Environmentally Constrained* (see ERI Figure 2 in Chapter II). Approximately 40% of the Borough has been designated a “Highlands Center,” which supersedes the Highlands zones in favor of locally-developed comprehensive planning policies. The center boundary is illustrated on Map 8. The Alpha land use and circulation plans are generally consistent with the RMP zones as illustrated in Table V-2.

Highlands Resources

Although the land use plan is not a substitute for a full conservation element, it does include policies covering those Highlands resources that are considered to have the most impact on – or be impacted by – future land use and circulation decisions. To that end the land use plan establishes Borough-wide *Natural Resource Overlay Districts* that address riparian areas, steep slope protection areas, critical wildlife habitat, carbonate rock, and wellhead protection areas. The plan also embraces the concept of *Low Impact Development* practices designed to minimize or mitigate the potential adverse impacts of land use and development on the natural environment. The new *Agriculture* district promotes farmland preservation.

Table V-2
Highlands Plan Comparison

Highlands Zone	Alpha Land Use Plan
Protection Zone. The Protection Zone consists of the highest quality natural resource value lands that are essential to maintaining water quality, water quantity and sensitive ecological resources and processes.	The protection zone corresponds with the approved 108-unit “519 Project.” This project is the result of a court mandate and the land use plan recognizes it as such, i.e. an Affordable Housing District. The RMP Land Use Capability Map ought to be amended to reflect this.
Conservation Zone. The Conservation Zone consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features that should be preserved when possible. Conservation–Environmentally Constrained Sub-Zone. This sub-zone consists of significant environmental features within the Conservation Zone that should be preserved and protected from non-agricultural development.	These highlands zones generally correspond with existing preserved and non-preserved farmland in the Borough. The land use plan designates these lands for continued agricultural uses. The conservation zone also covers a fair amount of Alpha Community Park, which remains designated as parkland in the land use plan.

<p>Existing Community Zone. The Existing Community Zone consists of areas of concentrated development representing existing communities. These areas tend to have limited environmental constraints due to previous development patterns, and may have existing infrastructure that can support additional development and/or redevelopment.</p> <p>Existing Community–Environmentally Constrained Sub-Zone. This sub-zone consists of significant contiguous critical habitat, steep slopes and forested lands within the Existing Community Zone that should be protected from further fragmentation.</p>	<p>The existing community zone corresponds with the existing neighborhoods located west of Route 519. The land use plan calls for the continuation of these areas as medium to high-density residential areas with supportive commercial and institutional uses.</p> <p>The environmentally constrained subzone corresponds to a portion of the 519 COAH project and Alpha Community Park. As noted above, the Borough is currently bound by a court mandate on the 519 project. The parkland remains parkland in the land use plan.</p>
<p>Highlands Center. The Highlands Center is designed to allow for compact mixed use development that supports local and regional economic and commerce needs and protect Highlands resources by incorporating Smart Growth principles and Low Impact Development techniques. The Center provides for areas of infill development and redevelopment that are both consistent with available water supply and wastewater treatment capacities, and designed in accordance with smart growth development standards.</p>	<p>The Alpha Highlands Center encompasses that portion of the Borough situated east of Route 519 and north of I-78. The main features are the 519 corridor and the industrial district. The land use plan includes recommendations for rezoning the 519 corridor to better reflect existing and preferred conditions and to bolster the corridor as the Borough’s main commercial street while accommodating residential uses and residential/commercial conversions.</p> <p>The land use plan also maintains and promotes continued infill development in the industrial district to accommodate regional economic opportunities. The recently completed WWMP allocates enough capacity to service full build-out of the district.</p> <p>The circulation plan includes recommendations for improving circulation along the corridor and in the industrial district as well as promoting the adoption of a “complete streets” policy.</p>

VI. MAPS

1. Existing Land Use
2. Existing Zoning
3. Existing Land Use and Zoning
4. 519 Corridor Existing Land Use and Zoning
5. Industrial District Existing Land Use and Zoning
6. Community Facilities
7. Roadway Classification
8. Land Use Plan
9. Adjoining Zones