NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Environmental Site Remediation Database Search Results

Record Count: 16 Rows: 1 to 16

Export XLS | Export CSV | Export KML

	Site Code	Site Name	Program	Site Class	County	City/town	Address
1	C336067	Stewart International Airport	BCP	N	ORANGE	New Windsor	Breunig Road/Second Street
2	C336086	New Windsor River Road Site	BCP	A	ORANGE	New Windsor	1220 River Road
3	E336075	Quassaick Creek Property	ERP	N	ORANGE	New Windsor	2 Columbus Street
4	336012	James Weygant Property	HW	N	ORANGE	New Windsor	Bull Road
5	336019	New Windsor Town Landfill	HW	04	ORANGE	New Windsor	Silver Stream Road
6	336031	CHG & E Little Britain Road	HW	A	ORANGE	New Windsor	410 Little Britain Road
7	336036	American Felt and Filter Corp.	HW	02	ORANGE	New Windsor	Walsh Avenue
8	336037	Macbeth Kollmorgen Corp.	HW	04	ORANGE	New Windsor	617 Little Britain Road
9	336044	Mason Property (Newburgh Roof)	HW	N	ORANGE	New Windsor	Mount Airy Road
10	336048	Weather Oak Hill and Route 207	HW	P	ORANGE	New Windsor	Weather Oak Hill Rd & Rt 207
11	336076	Former Eastern Electronics Corp.	HW	P	ORANGE	New Windsor	3 Ruscitti Road
12	336077	251 Walsh Road	HW	P	ORANGE	New Windsor	251 Walsh Road
13	336078	Former Safety Kleen Dry Cleaners	HW	02	ORANGE	New Windsor	115 Temple Hill Road
14	V00121	137 Walsh Road (Former FWAR Facility)	VCP	N	ORANGE	New Windsor	137 Walsh Road
15	V00135	Dennison Monarch Systems Facility	VCP	A	ORANGE	New Windsor	15-21 Ruscitti Road
16	V00312	CHG&E Little Britain Road	VCP	A	ORANGE	New Windsor	410 Little Britain Road

Refine Current Search

NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: New Windsor Town Landfill
Site Code: 336019
Program: State Superfund Program
Classification: 04
EPA ID Number:

Location

DEC Region: 3
Address: Silver Stream Road
City: New Windsor Zip: 12550
County:ORANGE
Latitude: 41.494490670
Longitude: -74.080091840
Site Type: LANDFILL
Estimated Size: 14.000 Acres

Site Owner(s) and Operator(s)

Current Owner Name: TOWN OF NEW WINDSOR
Current Owner(s) Address: 555 UNION AVENUE
NEW WINDSOR,NY, 12550
Owner(s) during disposal: TOWN OF NEW WINDSOR
Current On-Site Operator: TOWN OF NEW WINDSOR
Stated Operator(s) Address: 555 UNION AVENUE
NEW WINDSOR,NY 12550

Hazardous Waste Disposal Period

From: June 62 **To:** April 76

Site Description

Location: The New Windsor Town Landfill site is located in a suburban portion of Orange County,

NY. The 14-acre site is located one-quarter mile west of the NYS Thruway at the end of Silver Stream Road. Site Features: There are no buildings or structures on the site. There are wooded areas on all sides of the site, except the south where the NYS Thruway abuts the property. Current Zoning and Land Use: The site is currently inactive, and is zoned for commercial use. The surrounding parcels are a mix of residential and commercial, with Stewart International Airport land adjacent to the northwest corner of the site. The nearest residential area is 800 feet southwest of the site. Past Use of the Site: The landfill operated between 1962 and 1976, accepting both municipal and industrial waste. These wastes impacted both the groundwater under the mass, as well as the surface water and sediments of an adjacent stream. Site Geology and Hydrogeology: The landfill is underlain by layers of ablation till and lodgement till over bedrock in the southern portion of the site. The central and northern portions of the site are underlain by marsh deposits and lacustrine deposits over bedrock. Groundwater in the unconsolidated aquifer (overburden) generally flows to the south-southeast towards Lake Washington. However, the local flow pattern is such that the gradients turn to the north in the vicinity of the Thruway roadbed and the low-lying wetlands. The bedrock aquifer has a predominant south-southeast flow direction.

Summary of Project Completion Dates

Projects associated with this site are listed in the Project Completion Dates table and are grouped by Operable Unit (OU). A site can be divided into a number of operable units depending on the complexity of the site and the number of issues associated with a site. Sites are often divided into operable units based on the media to be addressed (such as groundwater or contaminated soil), geographic area, or other factors.

Contaminants of Concern (Including Materials Disposed)

Type of Waste	Quantity of Waste
METALS	UNKNOWN
ADHESIVE WASTE WATER	5000-6000 GALLONS
SODA) (D002)	UNKNOWN
CYANIDES(SOLUBLE CYANIDE SALTS)	UNKNOWN
VOLATILE ORGANICS	UNKNOWN

Site Environmental Assessment

Nature and Extent of Contamination: Prior to Remediation: Based upon investigations conducted to date, the primary contaminants of concern are inorganics, primarily barium, lead and manganese, and volatile organic compounds in the surface water immediately adjacent to the landfill mass. Surface Water- The compounds detected include: arsenic (2.7 ppb), barium (309 ppb), lead (22 ppb), manganese (2,080 ppb), chloroethane (53 ppb), benzene (2.4 ppb) and

chlorobenzene (2.4 ppb). Post-Remediation: Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were arsenic, barium, lead, manganese, chloroethane, benzene and chlorobenzene in the surface water of the creek downgradient of the site.

Site Health Assessment

The leachate collection and gas venting systems are in place in addition to an operation and maintenance plan which consists of quarterly sampling of on-site monitoring wells to determine possible off-site migration of contaminants. The site is capped; therefore, exposure to contaminated soil is not expected. The remedial activities at the landfill are expected to prevent human exposure to site-related contaminants.

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NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: Stewart Airport
Site Code: 336022
Program: State Superfund Program
Classification: C
EPA ID Number:

Location

DEC Region: 3
Address: 1 Militia Way
City: Newburgh Zip: 12550
County:ORANGE
Latitude: 41.497292680
Longitude: -74.080183970
Site Type: DUMP
Estimated Size: 1.000 Acres

Site Owner(s) and Operator(s)

Current Owner Name: NYS Department of Transportation
Current Owner(s) Address: 50 Wold Road
Albany,NY, 12232
Current On-Site Operator: U.S. DEPARTMENT OF THE AIR FORCE
Stated Operator(s) Address:
,NY
Current On-Site Operator: US Department of the Air Force
Stated Operator(s) Address: 1 Militia Way
Newburgh,NY 12550

Hazardous Waste Disposal Period

From: 1960 **To:** 1970

Site Description

Location: This site is a former pesticide burial area is a very small portion (less than one acre) of the entire Stewart Air National Guard Base (Base), which is located southeast of the airport complex at the Stewart International Airpot (IAP). Site Features: The Base is 268 acres in size and is part of the Stewart IAP, which is located 2.5 miles west of the City of Newburgh, New York. The entire airport property occupies approximately 9,800 acres in Orange County, and supports landing strips and taxiways as well as the Air National Guard (ANG) Base facilities. The Base facilities are located in both the Towns of Newburgh and New Windsor, New York. Current Zoning/Uses: The airport facilities are zoned for Industrial usage in the Town of Newburgh, and Airport usage in New Windsor. Historic Uses: The Site was the subject of several previous investigations and one removal action. The first investigation of the pesticide burial area was performed by NYSDEC in the early 1980's. In 1984, an investigation was carried out by Dames and Moore for the New York Air National Guard (NYANG). An additional investigation was conducted in 1985 and 1986. NYANG completed an interim removal action in 1988. A Remedial Investigation followed in 1997 and a Record of Decision was signed in March of 2000. The NYANG completed a groundwater monitoring program between 2000 and 2005 to determine if residual pesticide contamination is present. Groundwater pesticide levels are below class GA groundwater standards downgradient of the site.

Summary of Project Completion Dates

Projects associated with this site are listed in the Project Completion Dates table and are grouped by Operable Unit (OU). A site can be divided into a number of operable units depending on the complexity of the site and the number of issues associated with a site. Sites are often divided into operable units based on the media to be addressed (such as groundwater or contaminated soil), geographic area, or other factors.

Contaminants of Concern (Including Materials Disposed)

Type of Waste	Quantity of Waste
2,4-D (U240, D016); 2,4,5-T (D017)	UNKNOWN
PESTICIDES- DDT, DDE (U061); DDD (U060);	UNKNOWN

Site Environmental Assessment

Groundwater samples were collected from the three monitoring wells in the vicinity of the pesticide burial area between 2000 and 2005 and analyzed for pesticides. Pesticides were not detected in concentrations exceeding the NYSDEC groundwater standards in the downgradient monitoring wells during any of the sampling events. The third monitoring well is upgradient of the site and had exceedences of pesticides, but these were not associated with

the site and will be handled separately in the future. Therfore, no further monitoring or remedial action was required for groundwater. Soil samples were collected during the Remedial Investigation that was performed after the soil excavation of the source area during an interim remedial measure. Only two of 23 soil samples exceeded NYSDEC Part 375 - Protection of Human Health Residential criteria for pesticide contamination. The two soil samples were collected at depths of 26.5 feet and 17-feet below ground surface (bgs). The soil sample at 26.5 ft bgs showed 4-4-DDT at 4.3 mg/kg and the soil sample at 17 ft bgs showed 4-4-DDT at 9.4 mg/kg and 4-4DDD at 8.5 mg/kg. Since these soils are at a depth greater than 15-ft, it was determined that no further actions were necessary and the deed restriction is no longer required. All samples were below the Part 375 Protection of Groundwater SCO. Based on the remedial investigation the inetrim removal measure addressed the disposal of pesticides at the site and remediation of the site is complete. Prior to remediation, the primary contaminants of concern were pesticides in soil. No institutional controls or site management is required.

Site Health Assessment

No contact with site-related contaminants is expected.

For more Information: E-mail Us

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NEW WINDSOR 2009 COMPREHENSIVE PLAN UPDATE

Town of New Windsor
Orange County, New York

Prepared With the Technical Assistance of:

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MAY 2009

This project is made possible, in part, with funds from the County of Orange and the Orange County Planning Department.

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I. INTRODUCTION

One of the most important powers granted to a municipality by the State of New York is the authority and responsibility to undertake comprehensive planning and land use regulation for the purpose of protecting the public health, safety and general welfare of its residents. A comprehensive plan includes an analysis of existing conditions, the identification of problem areas, a discussion of both the long and short term goals aimed at achieving an overall vision, and a plan for implementing specific tools to help a community reach its stated goals. Adoption of this comprehensive plan will be subject to the provisions of the State Environmental Quality Review Act and a Generic Environmental Impact Statement (GEIS) will be prepared.

The most important function for a Plan is to help guide the future growth and development of the Town, through a series of coordinated goals, policies and strategies. The Plan should record the best thinking of the Town as to its future physical growth and development and to give direction to both public and private development.

The Plan should encompass a long term vision of the community, but while its objectives are long-range, the Plan should be capable of offering guidance for short-range land use decisions upon adoption. Although it is often difficult to address immediate issues and problems with long-range concepts and principles, short term solutions without respect for long-term purposes can dilute the ultimate effectiveness and impact of the immediate solution.

The format of the Plan is divided into nine chapters. Chapters two through eight include the primary development issues addressed in the Plan. Chapter nine addresses the overall proposed land use pattern and incorporates the goals and recommendations of chapters two through seven. The final chapter outlines the steps necessary for implementation and the basis for revising or adding zoning and land use regulations. The primary subjects are:

- Population, Housing & Residential Development
- Economic Development
- Natural Resources
- Transportation
- Water & Sewer
- Agriculture
- Land Use & Zoning

The Draft Plan has been developed by the Planning Consultant with extensive input from the Comprehensive Plan Advisory Committee. Two public workshops have been held and public input has been received through the Town's website and a Town Hall drop off for written comments.

A. Mission Statement

The mission statement developed with input from the Comprehensive Plan's Citizens Advisory Committee is:

Balance residential and non-residential development in a responsible manner that will allow for improved protection of natural resources and maintenance of the traditional rural residential character of portions of the Town, while increasing the tax base, encouraging attractive economic activity with higher paying jobs and providing a variety of housing types and supportive municipal services to meet the needs of present and future residents.

B. Principles of the Plan

The Plan has been formulated in accordance with a set of overall principles, which should be used as the basis for all Town actions:

1. Recognize the uniqueness of New Windsor as a community within the rapidly growing Hudson Valley region, and strive to preserve its suburban and exurban character.

2. Promote economic growth to ensure a balanced and economically viable community.

3. Preserve the important natural resources and historic qualities of New Windsor.

4. Promote the development of a modern sustainable economy and environment that supports residents and enhances the quality of life.

5. Plan for changes within the community so that new development or redevelopment results in a residential community with a superior quality of life consistent with contemporary planning principles.

6. Enhance the sense of community for residents of the Town, by providing for a central focus of activity, public services that enhance the wellbeing of residents, and increased opportunities to live, work and shop in New Windsor.

C. General Planning Policies

The general planning policies of the Plan are to:

1. Recognize that New Windsor is part of a larger region; therefore, planning its future must take into account the impact, beneficial or otherwise, of this interdependent relationship.

2. Encourage actions by all Town agencies and departments to reflect the goals, policies and strategies of the Plan. All pertinent codes, regulations, and ordinances

which effect development should be reviewed, strengthened where necessary, and enforced to support the goals of the Plan.

3. The Town's financial resources should be considered when planning for future municipal improvements and services.

4. Promote greater citizen awareness of and participation in, local planning efforts through meetings, publications, and other appropriate mechanisms.

5. Set up an escrow system for developers to assure adequate funds for necessary planning, engineering, and other expert reviews to assist the Planning Board during all project reviews.

D. Background

The Town of New Windsor is located along the Hudson River approximately 60 miles north of New York City in Orange County, New York. It is bordered to the north by the City and Town of Newburgh and the Town of Montgomery, to the west by the Town of Montgomery and the Town of Hamptonburgh, to the south by the Town of Blooming Grove and the Town of Cornwall, and to the east by the Hudson River (refer to Figure 1).

New Windsor was originally part of lands deeded to Captain John Evens in the late 1600s. Once vacated, it became part of the lands known as the "Precinct of the Highlands". In 1743 more definite borders were delineated which encompassed parts of the present towns of New Windsor, Newburgh, Marlboro, and Plattekill until 1762 when the precinct was divided and the Town of New Windsor and City of Newburgh were created.[1] During much of the Revolutionary War, New Windsor served as the major command post for the Continental Army.

The Town evolved in an organic fashion over time due to its proximity to the Hudson River and surrounding larger cities, particularly New York City. Rail service and road infrastructure created to serve these other large cities slowly began to infiltrate the eastern portion of the Town which generated opportunities for development in this area. Industrial and commercial uses slowly emerged along rail lines and the River while residential development occurred just west of this development to accommodate workers. Throughout the 1960's and 1970's residential development spread westward as transportation infrastructure was greatly expanded. Historic land use patterns have remained consistent.

A major force in the Town's history was the development of Stewart Airport, dating back to 1930, which served primarily military purposes. It's now emerging into a major regional air and cargo facility that will have a major influence on the Town's development.

[1] Ruttenber, E.M. and L.H. Clark. History of Orange County, New York. Interlaken, NY. 1986. page 210.

E. State Environmental Quality Review Act (SEQRA)

New York State's Environmental Quality Review Act (SEQRA) establishes a process to review an action's potential impact on a community and its environment, and to mitigate any adverse impacts which may result. The SEQRA process identifies and establishes thresholds for the types of activities likely to require no environmental review (Type II Action), or, conversely, activities likely to require the preparation of full documentation in the form of a draft and/or final environmental impact statement (Type I). The adoption of a Comprehensive Plan is considered a Type I Action.

The Town Board, the only body that may adopt a Plan, will automatically be the Lead Agency to conduct the SEQR process.

II. POPULATION, HOUSING, AND RESIDENTIAL DEVELOPMENT OPPORTUNITIES

A. Goals

Goal: Maintain and improve the quality of existing neighborhoods and housing stock.

Goal: Expand and protect housing opportunities for residents of the Town.

Goal: Plan to accommodate growth at densities commensurate with environmental and infrastructure constraints in well planned neighborhoods.

B. Summary of Existing Conditions

1. Population

The Town of New Windsor, with a current estimated population of 24,966, makes up approximately 6.7 percent of the total population of Orange County as of 2005. The populations of both New Windsor and Orange County increased significantly between 1960 and 1970. Over the twenty years that followed, the population continued a high rate of growth, but slightly declined between 1990 and 2000. The U.S. Census estimates that the population has rebounded significantly from approximately 22,866 in 2000 to approximately 24,966 in 2005 an increase of 8.4 percent. The Orange County Planning Department estimates that the population will again sharply increase both at the local and County levels. By the year 2020 it is projected that population within New Windsor may reach almost 40,000.

The 1975 Town Comprehensive Plan had estimated much greater population increases projecting a population total between 41,000 and 57,000 by 1985 and 76,900 by the year 2000.

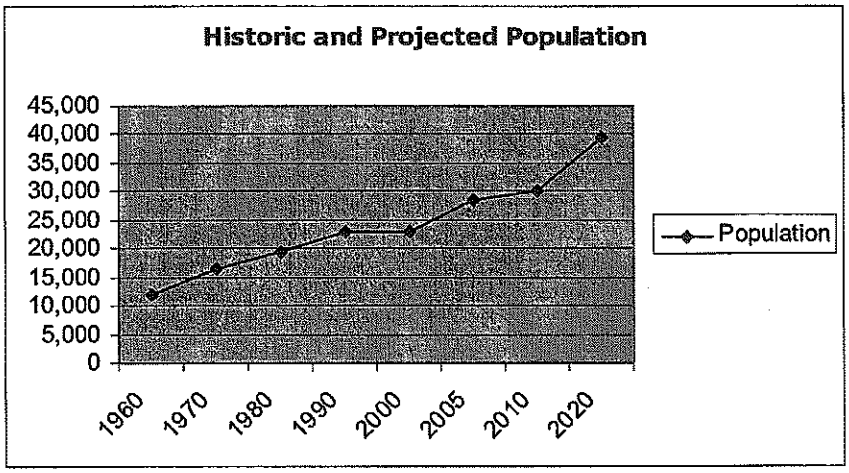
Table 1 below shows historic population totals in the Town of New Windsor and Orange County from 1960 to 2000 and population projections from various sources. As noted, the Census Bureau estimates the 2005 Town population to be nearly 25,000.

Table 1 – Historic Population & Projected, 1960-2020

Year	New Windsor	Percent Change	Orange County	Percent Change
1960	11,908	--	183,734	--
1970[2]	16,650	39.82%	221,657	20.64%
1980[3]	19,502	17.13%	259,603	17.12%
1990	22,937	17.61%	307,647	18.51%
2000	22,866	-0.31%	341,367	10.96%
2005[4]	24,966	9.18%	372,893	9.24%
2010[5]	30,099	20.56%	386,215	3.57%
2020	39,621	31.64%	436,954	13.14%

Multiple sources; see footnotes.

Age related data is helpful to understand potential future needs for housing and other services. The median population age within the Town is 36.7 years which is slightly higher than the County median age of 34.7. The population is spread out relatively evenly among the other age cohorts. Compared to the County, New Windsor has a lower percentage of school-aged children and a greater percentage of senior citizens (refer to Table 2).



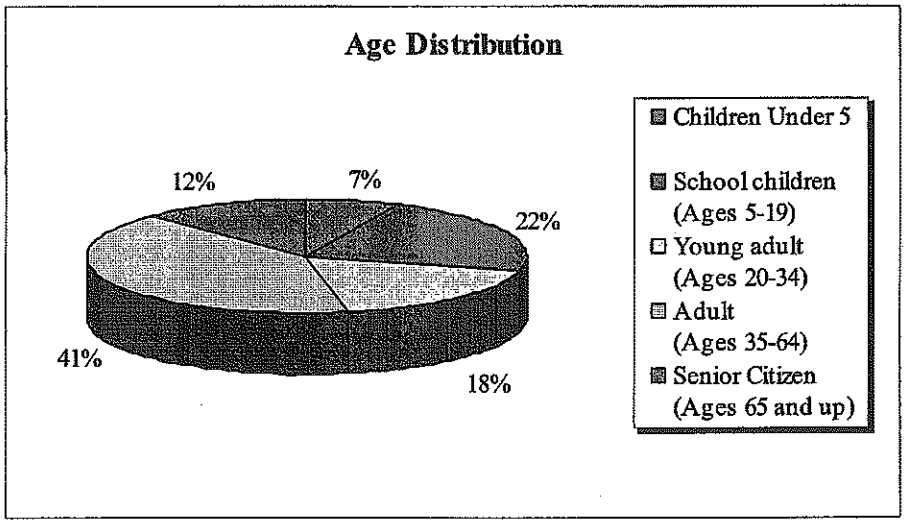
Multiple sources; see footnotes.

[2] 1960 and 1970 population totals from Town of New Windsor Basic Studies Summary, Proposed Development Plan. Manuel S. Emanuel Associates, Inc. 1975.
[3] 1980 population provided by Orange County Data Book, Orange County Department of Planning and Development, 1986
[4] 1990, 2000 census population totals and 2005 population estimate provided by U.S. Census Bureau
[5] 2010 and 2020 population projections from Orange County Department of Planning, 2002

Table 2 – Population by Age, 2000

	New Windsor		Orange County	
Age Group	**Population**	**Percent**	**Population**	**Percent**
Under 5 years	1,592	7	25,970	7.6
5 to 9 years	1,745	7.6	28,746	8.4
10 to 14 years	1,773	7.8	28,599	8.4
15 to 19 years	1,452	6.4	25,554	7.5
20 to 24 years	1,118	4.9	19,938	5.8
25 to 34 years	3,048	13.3	43,419	12.7
35 to 44 years	4,096	17.9	59,099	17.3
45 to 54 years	3,217	14.1	47,221	13.8
55 to 59 years	1,150	5	16,100	4.7
60 to 64 years	815	3.6	11,536	3.4
65 to 74 years	1,505	6.6	18,256	5.3
75 to 84 years	1,038	4.5	12,294	3.6
85 years and over	317	1.4	4,635	1.4
Median Age	36.7	--	34.7	--

Source: U.S. census, 2000



Source: U.S. census, 2000

2. Housing

It is important to regularly inventory housing characteristics and compare what exists with current and future populations to determine if the Town's housing stock is adequate to meet their needs or to determine what changes, if any, need to be made or are desirable to meeting planning goals.

The Town of New Windsor has a large diversified housing stock consisting of 8,759 total units (2000 U.S. Census) with a 4.1 percent vacancy rate (2000 census). Of the 8,396 occupied housing units, just over 70 percent are owner occupied while, conversely, just under 29 percent are rental units (refer to Table 3). As noted later in this section, the total housing stock has increased by about 20 percent since 2000.

Table 3 – Housing Stock, 2000

	Units	Percentage
Vacant	363	4.1
Occupied	8,396	95.9
Seasonal/Occasional Use	70	0.8
Owner Occupied	5,917	70.5
Renter Occupied	2,479	29.5
Total Housing Units	8,759	--
Average Household Size	2.69	--

Source: 2000 U.S. Census

As is the case throughout Orange County, the majority of the Town's housing units are detached single family dwellings. The breakdown of attached units, as shown in Table 4, may have changed since the 2000 census as a number of multi-family housing units have been recently constructed within the Town.

Table 4 – Units in Structure, 2000

Type of dwelling	Units	Percentage
1-unit, detached	5,175	59.4
1-unit, attached	641	7.4
2 units	459	5.3
3 or 4 units	466	5.3
5 to 9 units	676	7.8
10 to 19 units	342	3.9
20 or more units	320	3.7
Mobile home	628	7.2
Boat, RV, van, etc.	7	0.1

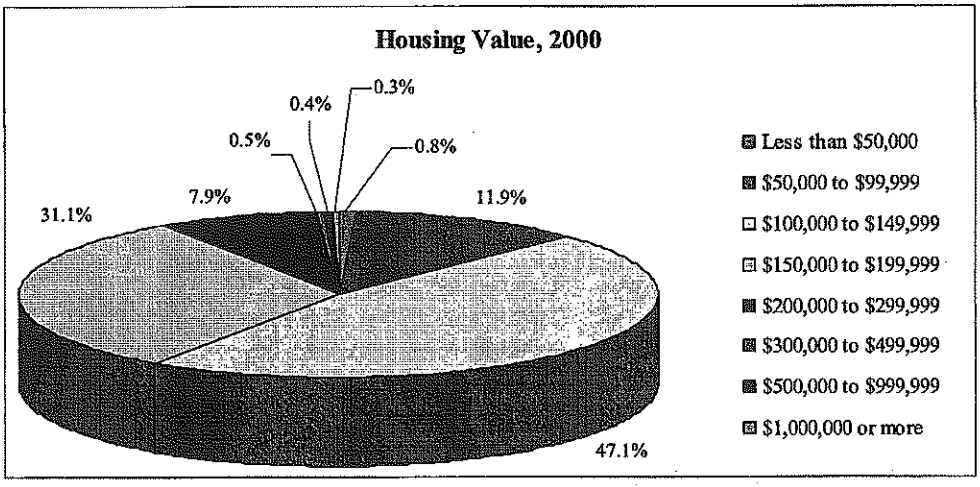
Source: 2000 U.S. Census

Housing value within the Town, in 2000, was slightly lower than Orange County as a whole in 2000 at $141,500. Approximately 78 percent of the homes within the Town are priced between $100,000 and $199,999 with approximately 1 percent priced over $300,000. In neighboring Rockland County, the median home value was approximately $101,000 higher and it is generally agreed that it is one of the factors leading to the recent influx of new residents to Orange County (refer to Tables 5 and 6).

Table 5 – Housing Value, 2000

Value	Units	Percentage
Less than $50,000	38	0.8
$50,000 to $99,999	561	11.9
$100,000 to $149,999	2,228	47.1
$150,000 to $199,999	1,471	31.1
$200,000 to $299,999	373	7.9
$300,000 to $499,999	24	0.5
$500,000 to $999,999	19	0.4
$1,000,000 or more	13	0.3

Source: 2000 U.S. Census



Source: 2000 U.S. Census

It should also be noted that the price range for condominium units in new developments within the Town such as The Grove, are much higher than the previously mentioned average home price starting at $345,000.[6]

Table 6 – Median Home Value, 2000

New Windsor	$141,500
Orange County	$144,500
Rockland County	$242,500

Source: 2000 U.S. Census

[6] According to developer K.Hovnanian Home Builders website

According to the Greater Hudson Valley Multiple Listing Service, the median price for homes sold in New Windsor in 2005 was $310,000 and $313,900 in 2006. The County median's for these two recent years was $317,500 and $319,000 respectively.

Recent Development

Since 2000, there have been a number of residential developments constructed within the Town. According to records in the Town's Planning and Zoning Office, approximately 1,816 new housing units have either been built or have been proposed within the Town over the last five years. This is equivalent to just over 20 percent of the total housing stock from the 2000 census. Of this new development, approximately 1,337 units are multi family dwellings.

Senior Citizen Housing Developments

There are currently two designated age-restricted developments within the Town which restrict residents to ages 55 and older. A third age-restricted development known as Benedict Pond, consisting of 120 units, has been approved by the Planning Board but is subject to the water moratorium currently in place.

Presently there are five other proposed age-restricted developments before the Town Board, Town Planning Board, or the Zoning Board of Appeals comprising of a total of approximately 700 units.

Affordable Housing

The only designated "affordable" housing currently built within the Town is the New Windsor Senior Housing project located in Vails Gate. In general, monthly housing costs are in line with resident's annual income. Less than 25 percent of Town residents spend more than 30 percent of their annual income on housing related costs according to the U.S. Census. This is similar to Orange County as a whole. However, a portion of those paying more than 30 percent are families earning 80 percent or less of the Town's median income.

The term "affordable" is defined as housing that costs no more than 30 percent of a homeowner's monthly income and that is guaranteed to remain affordable for a period of time to families who qualify under specific income guidelines (refer to Table 7). Typically a qualifying household would need to earn less than 80 percent of the local median income. Affordable housing can be age restricted or can be reserved for specific groups such as municipal employees, emergency medical and fire fighting volunteers or can simply be allocated to anyone meeting income requirements set by the U.S. Department of Housing and Urban Development (HUD).

Table 7 – Orange County HUD Eligibility Income Limits, 2007

	Percent of Orange County Median Income					
Family Size	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**
1	$16,050	$21,400	$26,750	$32,100	$37,450	$41,300
2	$18,300	$24,440	$30,550	$36,660	$42,770	$47,200
3	$20,600	$27,520	$34,400	$41,280	$48,160	$53,100
4	$22,900	$30,560	$38,200	$45,840	$53,480	$59,000
5	$24,750	$33,000	$41,250	$49,500	$57,750	$63,700
6	$26,550	35,440	$44,300	$53,160	$62,020	$68,450
7	$28,400	$37,880	$47,350	$56,820	$66,290	$73,150
8	$30,250	$40,320	$50,400	$60,480	$70,560	$77,900

Prepared by Turner Miller Group
Source: Orange County Office of Community Development

Table 8 indicates the maximum rents, including utilities that can be charged by a landlord/developer in Orange County to qualify for Low Income Affordable Production Program subsidies. These limits are set by HUD based on 65 percent of the County's median income.

Table 8 – Orange County Low Income Rent Limits Including Utilities, 2007

Bedrooms	Rent Limits*
1	$866.00
2	$1,060.00
3	$1,257.00
4	$1,383.00

Prepared by Turner Miller Group
Source: Orange County Office of Community Development; HUD
* 65 percent of median income

There is some portion of the Town's current population that would benefit from more affordable housing.

3. Residential Development Opportunities

A Geographic Information System (GIS) was utilized in an analysis of approximate residential development potential and the likely population that could be generated if this development were to occur in the Town in accordance with current Town zoning policies.

Development Potential Methodology

In order to assess residential development potential, privately owned vacant and over-sized lots most susceptible to further development were identified. An assessment was then made of the potential buildout of these lots under existing zoning. The development

potential analysis is intended to provide a "snapshot" of potential buildout under the Town's present regulatory environment.

County and Town-owned lands, transmission easements, quasi-public facilities, houses of worship, cemeteries and land presently developed as multi-family residences were assumed to have no potential for additional development.

Once the lots meeting the minimum lot size in their respective zoning districts were identified, the next step was to identify the factors that would affect the development potential of each lot. The factors considered included:

- The Town's current zoning classifications;
- FEMA 100-year Floodplains;
- NYSDEC & NWI wetlands;
- Soils; and
- Waterbodies.

The extent of the known constraints are based on various sources of data including mapping products acquired from the New York State Department of Environmental Conservation (NYSDEC), the Federal Emergency Management Agency (FEMA), the Army Corps of Engineers (ACOE), and the United States Department of Agriculture (USDA), as well as subdivision applications previously submitted to the Town for approval.

Environmental constraints were factored, with deductions on a parcel-by-parcel basis to yield a net developable lot area. In determining residential development potential, the net developable lot area was decreased by 15% to take into account space for the installation of infrastructure and inefficiencies in lot layout; the remaining net developable lot area was then divided by the minimum lot area of the respective district in which the property was located to yield the potential number of additional residential development lots.

The deductions taken are as follows (based on assumption):

- Infrastructure – 15% deduction;
- FEMA 100-year Floodplains, NYSDEC & NWI wetlands, and waterbodies – 50% of the land area of that portion of a parcel with constraints was counted as part of minimum lot area.

Land Use & Zoning

The following residential zoning districts are found within the Town (refer to Figure 13):

- R-1 – 80,000 sq. ft. minimum lot size – not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer)
- R-2 – 80,000 sq. ft. minimum lot size – not to exceed 1 dwelling on each lot, without central water and without central sewer

- R-3 – 80,000 sq. ft. minimum lot size for one-family – not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer); and 120,000 sq. ft. minimum for two-family – not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer)
- R-4 – 43,560 sq. ft. minimum lot size - not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer)
- R-5 – 43,560 sq. ft. minimum lot size for one-family; 65,000 sq. ft. minimum for two-family – not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer); and 5 acres (7,000 sq. ft. per unit) for multi-family with both central water and sewer
- PO – 43,560 sq. ft. minimum lot size – not to exceed 1 dwelling on each lot (regardless of the availability of central water or central sewer)
- CL-1 – 12,500 sq. ft. minimum lot size – not to exceed 1 dwelling on each lot, with both central water and central sewer

Development potential was calculated based on the most intense residential use permitted in each of the respective zoning districts. The analysis assumes that all vacant land with the potential for development in the PO zoning district would be used for residential uses.

Development Potential Analysis

Of the identified lots with the potential for further development, NYSDEC & NWI wetlands and soil properties and conditions pose the greatest limitation on the additional number of building lots that would be permitted on a parcel-by-parcel basis. FEMA 100-year Floodplains and waterbodies also result in further limitations on development.

The analysis indicates there is the potential for an additional 3,350+/- residential dwelling units in the Town under existing zoning, not including those presently approved by the Planning Board. Approximately 1,350 additional dwelling units have been approved by the Planning Board but have not yet been built. According to the 2000 U.S. Census the average household size for the Town of New Windsor is 2.69 persons. If an additional 4,700 dwelling units were constructed in the Town, the population would increase by approximately 12,650 persons, if family sizes remained the same, for a total population in the Town of approximately 37,616 persons (refer to Table 9). This does not include potential development under the Town's senior citizen housing provision, which permits 9 to 18 dwelling units per acre.

A number of developments within the Town have been approved by the Town Planning Board but have not yet been built because they are subject to the Town's current water moratorium (refer to Table 9) which was imposed by resolution of the Town Board on January 3, 2003. This moratorium prohibits the extension of the Town's existing water mains, and as a result, prohibits new developments from connecting to the Town's water system unless adequate mitigation measures are implemented. In addition, the Town is actively seeking to improve its water supply system. Towards that end, in August 2007 the Town entered into an agreement with the City of Newburgh to acquire up to an additional 1,000,000 gpd of water from the City for various public and municipal purposes which the Town can access and use in addition to the regular and usual supply

available from the New York City Catskill Aqueduct. The Town has also recently applied for and received a permit from the NYSDEC to add additional water supply wells, known as the St. Anne's wells, to its water supply system.

Table 9 – Potential Residential Population

Description	Town of New Windsor
Town Population (2005)*	24,966
Potential Additional Residential Dwelling Units	3,350
Residential Dwelling Units Approved by Planning Board (not yet built)	1,350
Additional Residents (2.69/DU – from 2000 Census)	12,650
Potential Future Population (under current zoning)	37,616

Prepared by Turner Miller Group
Source: 2000 U.S. Census
* 2005 population is an estimate from the US Census Bureau

Table 10 below illustrates development potential in the Town broken down by current zoning districts.

Table 10 – Residential Development Potential by Zoning District

Zoning District	Estimated Additional Dwelling Units
R-1	1,475
R-2	95
R-3	350
R-4	300
R-5	980
PI	125
PO	15
CL-1	0

Prepared by Turner Miller Group

The proposed adoption of the Comprehensive Plan and zoning amendments that will ultimately implement the Plan are anticipated to result in a change in the total development potential on the remaining developable parcels within the Town.

C. Recommendations

1. Neighborhood Quality

- Established residential portions of the Town should generally retain their existing housing densities.

- Increase the permitted residential densities in the R-3 and R-4 zones. Potential changes should take available water and sewer infrastructure into account.

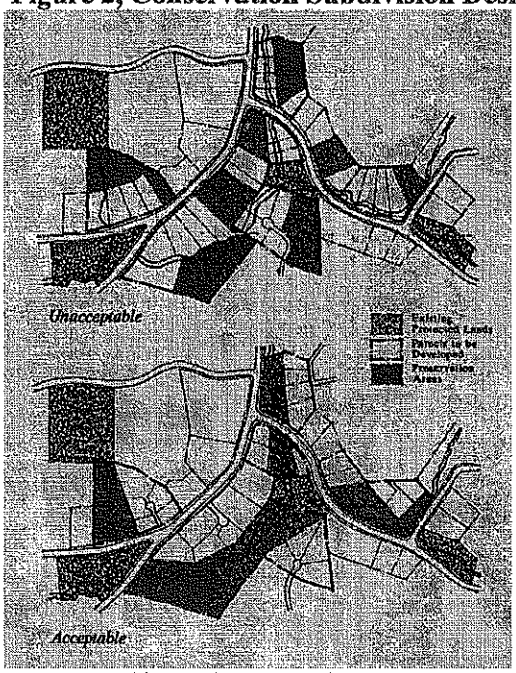
- Vegetative buffers should be created and or retained between developments and local roadways and neighboring non-residential land uses in order to preserve the rural residential character and scenic viewsheds within the Town. Requiring buffers of 50 feet or more will help to achieve or retain neighborhood quality.

2. Housing Production

- Encourage the production of housing appropriate to all segments of the population, including lower, moderate, and upper income housing, to maintain a balanced community. Consider variable zoning incentives and set asides to achieve this objective.

- Developers of new subdivisions in the western portion of the Town should be required to explore clustering as an option in order to conserve open space and natural resources, create efficient infrastructure, including limiting the amount of impervious surface, and provide diversity in housing. Cluster development may be required at the discretion of the Planning Board. Cluster layouts should be designed based on a specific formula to determine the best way for each specific development to fit into the landscape based on the environmental features of each specific site, as well as to contribute towards an open space and natural resource protection system. The Town may provide incentives for development that maintains at least 40 percent of open areas, and where open space contributes to Town open space and natural resource protection policies.

Figure 2, Conservation Subdivision Design



Source: Rural by Design, Randall Arendt

- Senior citizen housing should be planned as part of the community where services and utilities are available and where there is good access to transportation and community services.

- The location of senior citizen housing in the Town should be limited to the medium and high density residential zones identified on the Land Use Plan (Figure 14). This would reduce potential incompatibility and the potential for uncontrolled expansion of utilities into low density residential areas. It would also help to reduce the potential of population growth that exceeds the capability of services and infrastructure, including roads.

- The portion of the senior housing overlay district west of the Silver Stream Reservoir should be eliminated from the newly revised senior housing law adopted by the Town to reduce the intensity of development near the Reservoir, a public drinking water source.

The newly revised senior housing law adopted by the Town allows for senior housing to be developed solely within a redrawn and limited Senior Citizen Overlay District which defines areas in the Town which are appropriate for age restricted developments. The law does not differentiate between different types of facilities including independent living, congregate care, assisted living, nursing homes, etc. which differ significantly and should be addressed. Appropriate standards for each type of development should be articulated in the ordinance.

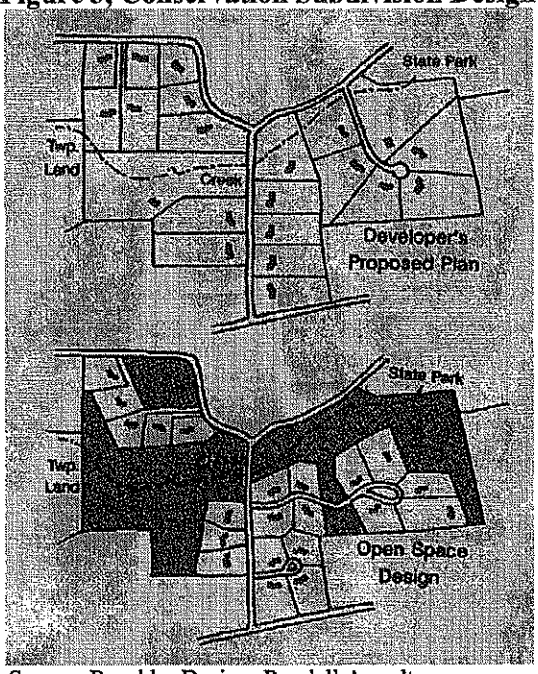
- Establish a committee of senior citizens to keep abreast of the latest trends in senior housing by identifying and investigating successful endeavors of other municipalities. This committee could make periodic reports to the Town Board on these matters with suggestions to achieve senior housing within the context of the Town Plan.

- Use available federal, state, and local resources to support the production of affordable housing.

- Coordinate building heights and floor area ratios (FAR) with set back requirements in order to protect the integrity of neighborhoods. Larger homes should be set back further from roadways and their scale should be consistent with the neighborhood. This will protect neighborhoods from intrusion of oversized houses not consistent with the neighborhood scale. Further, the Town may wish to restrict building footprints by a percentage of lot size. This would ensure that there is a sufficient area of the building lot for accessory uses (i.e. pool, shed, etc.)

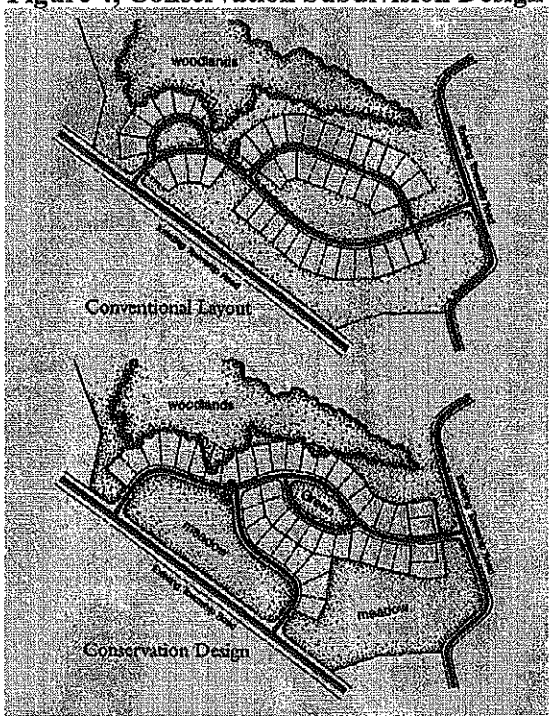
- Only require sidewalks in development that is of an appropriate density – generally two units per acre or higher.

Figure 3, Conservation Subdivision Design



Source: Rural by Design, Randall Arendt

Figure 4, Conservation Subdivision Design



Source: Conservation Design, Randall Arendt

- Develop a Conservation Cluster Overlay Zone that would allow for incentives in the form of increased residential density in exchange for the preservation and/or dedication of open space lands as part of a development. This overlay zone could share the boundaries of the Town's R-1, R-2, and R-3 zones and require the preservation and protection of a determined percentage of lands to be developed (e.g. 50%). If additional lands are preserved above the minimum base required, increased density incentives could be provided on a sliding scale basis. Only lands meeting minimum eligibility criteria would be considered for designation for Conservation Cluster Development. Cluster development may be required at the discretion of the Planning Board.

Conservation Subdivision Design is a term coined by Randall Arendt. The concept uses open space resources present on a site to be developed at the starting point for design.

The four-step process in designing a conservation subdivision include:

1. Identify conservation areas
2. Locate development lots
3. Align streets and trails
4. Draw in the lot lines

A ***conservation easement*** is a legal tool that ensures that conservation lands set aside as a result of this process remain undeveloped.

Ownership options for conservation lands include individuals, homeowner's associations, land conservancies, or the Town.

Source: Randall Arendt's Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks (1996) and Growing Greener: Putting conservation into Local Plans and Ordinances (1999).

III. ECONOMIC DEVELOPMENT

A. Goals

Goal: Ensure a sound local economy which attracts investment, increases the tax base, creates employment for Town residents and generates public revenues.

Goal: Establish 400 +/- acre special economic development area on Route 747 adjacent to Stewart Airport as a high quality economic development zone.

Goal: Enhance and expand non-residential development to include infill along existing mixed use corridors. Extend well designed commercial development into new areas along heavily traveled routes (e.g. portions of Routes 207 and 300) in order to encourage economic development while limiting unplanned and scattered strip development.

Goal: Assure that new development meets high design standards and is well integrated with existing development.

B. Summary of Existing Conditions

In the year 2000 the Town had a total workforce of 10,837 defined as the employed civilian population within the Town aged 16 and over. These workers are employed in the following industries:

Table 11 – Employment by Industry, 2000

Industry	Number	Percentage
Agriculture, Forestry, Fishing and Mining	110	1%
Construction	800	5.5%
Manufacturing	886	8.2%
Wholesale Trade	431	4%
Retail Trade	1544	14.2%
Transportation, Warehousing and Utilities	761	7%
Information	371	3.4%
Finance, Insurance, Real Estate	774	7.1%
Professional, Scientific, Management, Administrative and Waste management	828	7.6%
Education, Health and Social Services	2494	23%
Arts, Entertainment, Recreation, Accommodation and Food Service	663	6.1%
Public Administration	489	4.5%
Other Services	886	8.2%

Source: U.S. Census, 2000
Prepared by Turner Miller Group

The high percentage of employment in retail and education and health services reflects the nature of the area's major employers and the strong retail and service based economy. The low employment in agriculture, on the other hand, reflects the diminishing role of agriculture as an employer.

Unemployment within the Town for the same year (2000) was 2.8% equivalent to approximately 483 individuals.

Median household income for residents of the Town was $51,113 this is slightly less than the median household income for Orange County which was $52,058. While these figures have undoubtedly increased for both Town and County, it is likely that the Town is still close to the median, not significantly higher or lower.

C. Recommendations

1. Airport Related Development

- Develop a plan and zoning framework for the utilization of the 400+/- acre tract of land adjacent to Stewart Airport that is not part of the Stewart State Forest. The Town should encourage airport related development such as hotels, conference centers, medical, educational, and high end research and office space to be constructed in this area in an attractive, economically sustainable and environmentally sensitive manner. It should reflect a combination of destination uses that would benefit from the Airport and surrounding regional highway system, and uses that will serve and support the immediate region.

- Large vegetative buffers in excess of 100 feet, to be determined by the Planning Board, should be maintained between the airport and any development.

- Developments should retain as many mature trees as possible as to not reduce existing noise and visual barriers.

2. Other Major Economic Development Areas

- Generally, commercial and industrial development should be limited to areas already developed including infill.

- Commercial and corporate development should generally be encouraged along Route 207 from Toleman Road east to Union Avenue and from Route 300 to the Five Corners Intersection to support the airport and further economic development.

- Future non-residential development should be limited along residential corridors along Route 207, generally west of Toleman Road, and other predominantly residential corridors in order to maintain the rural and historic qualities of these areas (see Land Use Plan).

- Develop public-private development relationships with major private landholders along River Road and the Hudson River in an effort to redevelop areas of the waterfront for public access, commercial (retail, office, restaurant, entertainment, etc.), recreational, and mixed-use residential.

- Coordinate with the Orange County Partnership and Chamber of Commerce to promote local business and quality employment in designated areas, particularly in the eastern portion of the Town along major routes and thoroughfares.

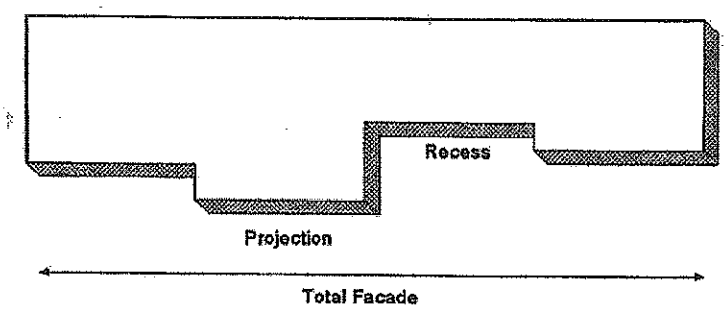
3. Design Guidelines

- Developments should be designed using natural materials and be developed at a pedestrian scale. Roofs should be pitched or gabled and other architectural elements should be incorporated whenever possible in order to reduce monotony, create interesting development, and retain the attractiveness of corridors.

Example of façade projection and recess along Route 207

- The size of a development should be appropriate for its surroundings. Large facades, over 100 feet in length, should be designed to visually reduce the mass of the building.

Figure 5
Illustration of Facade Projection and Recess
For Buildings over 100 feet in Length



- Proximity of a development project to historic corridors or structures and rural or scenic areas should be taken into consideration in design. New development should be designed to blend into the landscape in which it is being designed.

- Signage should be constructed of similar materials and color as the building to which it is accessory. Pylon or pole signs should be avoided and monument signs should only be permitted in cases where the Planning Board determines that a building is not sufficiently visible from the roadway.

- Landscaping plans should be reviewed by the Planning Board during the planning review process to ensure not only a mix of appropriate vegetation on the property but also to ensure adequate screening from neighboring properties, around parking areas and dumpster enclosures.

- Curb cuts should be minimized along congested commercial corridors and should be set back from intersections.

IV. NATURAL RESOURCES

A. Goals

Goal: Protect sensitive environmental areas and incorporate into an open space/natural resource system.

Goal: Protect groundwater resources so that residents of the western portion of the Town and areas without central water who will continue to utilize individual private wells into the foreseeable future and are assured high quality water.

Goal: Mandate the protection and enhancement of surface waters, including public water supplies, within the Town to promote environmental stewardship as well as public recreational opportunities.

B. Summary of Existing Conditions

There are environmentally sensitive features and areas present throughout the Town that will need to be taken into consideration in developing the Plan (refer to Figure 6).

1. Water resources

A major objective of the Comprehensive Plan is to accommodate future growth in a manner that respects the Town's environmental resources. New Windsor has the great fortune to be located both in the Hudson River Valley which was recently named a National Heritage Area and also located directly on the west bank of the scenic Hudson River. The River is not only an important natural resource but the location of a number of historic events dating back to the Revolutionary War. The river corridors have also hosted much of the Town's major industrial development within the 19th and 20th Centuries.

Washington Lake, Silver Stream Reservoir, and Beaverdam Lake are the Town's major waterbodies and are major sources of water supply. There are also a number of smaller lakes and ponds throughout the Town. The Moodna and Quassaic Creeks are scenic tributaries of the Hudson River which run through Orange County. The Moodna Creek enters the Town in the southeast corner for a short distance as it meets the Hudson River. The Quassaic enters the Town in the northeast corner from the City of Newburgh as it meets the Hudson River.

Sand and Gravel aquifers are located throughout the central and eastern portions of the Town (refer to Figure 6). They are not presently utilized as a primary source for public and private water systems in the Town; however, their protection as important natural resources is of paramount importance. The Town's aquifers are recharged primarily from infiltration of precipitation.

2. Wetlands and Floodplains

State and Federal wetlands are prevalent within the Town. Large tracts of wetlands exist on the Stewart State Forest lands. Wetlands are also located along the banks of each of the Town's major and minor water bodies, at the mouth of the Moodna Creek where it meets the Hudson River, and the majority of the land between Temple Hill Road and Interstate 87, north of Mertes Lane. Smaller wetlands are scattered throughout the Town.

Wetlands are strictly regulated and are important as habitats, water quality and drainage control.

It is also noted that in 2007 – 2008 the NYSDEC updated its wetland inventory maps for portions of New Windsor.

FEMA 100 and 500 year flood plains are located along the bank of the Hudson River, Beaver Dam Lake, and along the Moodna Creek. In addition to flooding hazards this land should be considered critical to water quality as well.

3. Significant Animal and Plant Habitats

According to the New York State Department of Environmental Conservation's (NYSDEC) Natural Heritage Program, the following species located within the Town are listed by the State as Endangered or Threatened (refer to Tables 12 and 13 and Figure 7). The Bald Eagle, known to be in the Moodna Creek Area, has been delisted by the State as an endangered or threatened species; however, it remains protected under the Federal Migratory Bird Act.

Table 12 – State Listed Animal Communities

	Common Name	Latin Name	General Location
Endangered	Indiana Bat	Myotis Sodalist	Southwestern Corner
	Shortnose Sturgeon	Acipenser Brevirostrum	Hudson River area
Threatened	Upland Sandpiper	Bartramia Longicauda	Stewart Forest

Prepared by Turner Miller Group
Source: NYSDEC Natural Heritage Program 12/06

Table 13 – State Listed Plant Communities

	Common Name	Latin Name	General Location
Threatened	Least Bittern	Ixobrychus Exilis	Moodna Creek Area
	Spongy Arrowhead	Sagittaria Montevidensis	Moodna Creek Area

Prepared by Turner Miller Group
Source: NYSDEC Natural Heritage Program 12/06

The NYSDEC also identifies a number of other significant plant and fish habitats. These include:

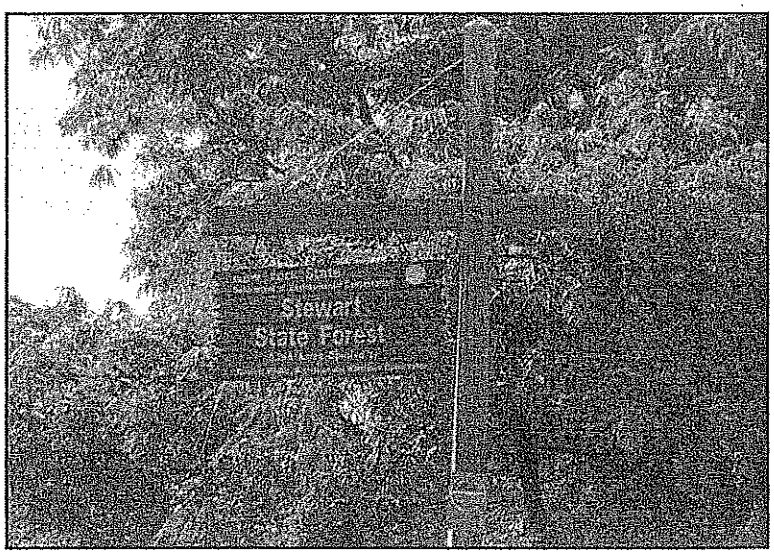
- Brackish Intertidal Mudflats;
- Brackish Tidal Mudflats;
- Anadromous Fish Concentration Area;
- Waterfowl Winter Concentration Area; and
- Tidal River Community.

These identified significant communities are all located in the Moodna Creek and Hudson River watershed areas.

4. Stewart Forest Lands

In addition to parkland, the New York State Department of Environmental Conservation (NYSDEC) maintains open space, trails and natural habitats on Stewart Forest Lands in the northwestern portion of the Town. In March of 1999 New York State transferred approximately 5,110 acres of Stewart Land that was under the control of the New York State Department of Transportation to the NYSDEC. In June of 2006, an additional 1,600 acres were transferred for a total of approximately 6,700 acres. This area is known as a reforestation area called Stewart State Forest.

Currently, some agricultural uses still continue on the land with approximately 400 acres bring leased for farming. The Orange County Historical Society maintains five historic buildings along Route 207 and Route 208. The remainder of the land supports diverse wildlife, including a number of rare species.



Stewart State Forest

C. Recommendations

1. Groundwater Resources

- Adopt aquifer protection regulations. Aquifer protection overlay zones delineated by the boundaries of sand & gravel aquifers and their recharge areas should be established in the Town. Regulations should regulate activities and developments which can take place within the designated zones. The storage of fertilizers, toxic chemicals, salt or coal should be prohibited and the use of pesticides as well as the construction of water supply wells, and infiltration basins should be regulated in these areas.

- Designate aquifers as critical environmental areas (CEA's) as defined by the regulations implementing the New York State Environmental Quality Review Act (SEQRA). Actions within areas that are designated CEA's are scrutinized more closely to determine their potential impact on the CEA's qualities and characteristics. Regulations of this type will help to minimize the infiltration of contaminants into groundwater.

- Enhance Stormwater Management practices within the Town. Regulations should aim to reduce flood damage, soil erosion, and stormwater runoff, maintain groundwater recharge, and minimize pollution of stormwater runoff in order to maintain the integrity of local water resources. Regulations should include strict erosion and sediment control standards such as the implementation of diversions, sediment basins, or other similar structures prior to any on-site grading. All new or replacement water supply or storm drain systems should be designed to minimize infiltration.

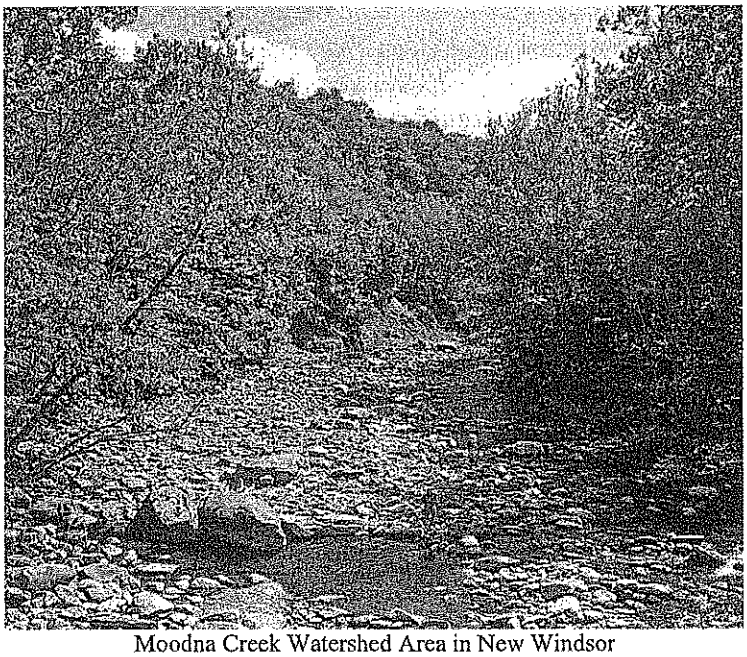
- Adopt irrigation control regulations to control and reduce water used for lawn and landscaping irrigation.

2. Surface Water Resources

- Create watershed protection overlay zones delineated by the boundaries of the drainage areas of the Silver Stream Reservoir and Washington Lake and generally within 100 feet of the banks of ponds, creeks and streams in the Town. This overlay should require special focus on site coverage and quality of runoff. Special permits for construction, filling, excavation or grading will be required. It should restrict certain development and vegetative clearing activities that might degrade water quality. In addition, the buffer of open space that is created will serve as a natural corridor for wildlife.

- Adopt environmental protection laws that protect all streams/creeks, waterbodies, and floodplains in the Town and provide for a minimum required buffer area of 50 to 100 feet between the resource and development of any kind. These buffers are generally measured from the bank of a stream. Setback distance should reflect

site specific environmental factors such as geology, slope, and type and quantity of vegetation.



Moodna Creek Watershed Area in New Windsor

- Utilize available organizational and financial resources, within the budgetary constraints of the Town to acquire/purchase additional watershed protection lands directly adjoining the Silver Stream Reservoir. These lands should be kept as open space to help protect the integrity of the watershed.

- Work jointly with the City of Newburgh to assist in the protection of City owned watershed lands surrounding the Silver Stream Reservoir.

3. Air Resources

- Continue to monitor local blasting protocols to determine if modifications are needed.

- Develop initiatives to encourage the use of varied transportation modes, including non-motorized modes of walking and bicycling when feasible, reducing vehicular emissions. These include improving pedestrian access and safety at intersections, particularly at the five corners intersection, and in and around commercial development areas, (see traffic calming recommendations) and working with the County to improve and expand Dial –a– Bus services, which may include the development and maintenance of bus shelters.

- Institute an energy conservation program through the following measures:

- Consumer education with information available at Town Hall and on the Town website.
- Require developers to explore the use of alternate forms of energy, particularly in new commercial or residential buildings. This should include solar lighting where appropriate. The County and State offer grants and tax incentives for green design.
- Encourage new one- or two-family dwelling or multifamily dwellings of three stories or less to meet the requirements for a New York Energy Star labeled home.

o Encourage local government to utilize green building and energy conservation technologies and practices in the renovation and construction of municipal buildings and facilities.

4. Open Space

o Encourage alternative approaches to development including residential conservation clustering on larger lots particularly within environmentally sensitive areas and particularly in the western portion of the Town. Cluster development may be required at the discretion of the Planning Board. Layouts should be based on a specific formula intended to ensure appropriate density so that dwelling units are sited appropriately and important open spaces are preserved.

o Work cooperatively with the New York State Department of Environmental Conservation in the preservation and protection of the Stewart Forest lands.

o Continue to explore creative strategies for the acquisition of open space, particularly open space that contributes to the protection of natural resources and sensitive environments. Methods may include dedication of open space during subdivision, conservation cluster development with incentives for additional open space, payment of a fee-in-lieu of dedication, gifting, transfer of development rights, conservation easements and other methods deemed appropriate by the Town.

o Explore methods of providing public pedestrian access to watershed protection areas of Town's ponds and reservoirs for canoeing, fishing, and other activities.

o Open space that is created or maintained by the design of a subdivision should provide for connections to other similar open spaces.

o Work in conjunction with Orange County and the Palisades Interstate Park Commission to protect the Moodna Creek Corridor by creating a greenway by linking the Knox Headquarters and Butterhill Park properties with the Hudson River along the Town's southeast border.

5. Tree Preservation

- Draft and adopt a tree preservation law to help protect the Town's woodland character. For example, the Town should consider placing limitations on cutting down trees in the public right-of-way and restricting clear cutting particularly during site development.

- Work cooperatively with the Orange County and New York State departments of transportation to ensure that trees are preserved or provided along County and State routes within the Town.

- Explore sources of funding (i.e. grants) that would allow for the additional planting of street trees and shrubs along public thoroughfares.

V. TRANSPORTATION

A. Goals

Goal: Improve the functionality of major arterials without major expansion of roads.

Goal: Create or support efforts to connect Stewart Airport to the regional road and transportation system in order to enhance the airport and limit traffic on local roads.

Goal: Expand local bus service to connect the Town's population centers to commercial and major employment areas.

B. Summary of Existing Conditions

The community's transportation system is closely linked to the Town's land use pattern and to the local quality of life. It is essential to the economic health of a community as well as the ability to link people with jobs and services.

Major planning for transportation systems and infrastructure in the area is the responsibility of the Orange County Transportation Council (OCTC). They are also the Metropolitan Planning Organization (MPO) for Orange County. They are responsible for transit system coordination, certain transportation planning functions, and creating a transportation capital improvement program for the County that consists of the following elements:

- Unified Planning Work Program (annual);
- Long Range Transportation Plan (every four years); and
- Transportation Improvement Program (every two years).

The following road improvements are scheduled to take place within the Town as reported in the OCTC 2006-2010 Transportation Improvement Program:

- Lake Road rehab from railroad bridge to the Town of Blooming Grove Town line;
- Jackson Avenue reconstruction from Route 207 to the Town of Cornwall town line; and
- Construction of a continuous left turn lane along Route 207 from Bruenig Road (Stewart Airport) to Route 300.

1. Road Network

There are over 90 miles of Town roads within New Windsor which are maintained by the Town Highway Department. The Department also maintains six miles of County-owned roadways consisting of Union Avenue (Route 69) and Forge Hill Road (Route 74). The NYSDOT maintains major state highways within the Town including NYS Routes 300, 207, 747, 94 and U.S. Route 9W. The Town's only expressway, the New York State Thruway, is maintained by the Thruway Authority. There is no direct access to the Thruway within the Town. NYS Route 207 (Little Britain Road) which extends from the

Town of Hamptonburgh to the east side of Washington Lake in the Town of Newburgh and Route 94 (Blooming Grove Turnpike) are the only major east/west thoroughfares within the Town. The NYS Thruway runs north/south but with no interchange within the Town, NYS Route 300, Windsor Highway (Route 32), and U.S. Route 9W are more practical for local north/south travel. The State has completed the construction of Route 747, the new alignment of Drury Lane to connect Interstate 84 with Stewart Airport (refer to Figure 8).

The function of the various roadways as freeways and major arterials (regional), collectors (connecting arterials and sections of the community) and local roads (generally serving neighborhoods) usually reflects the level of government responsibility. For purposes of planning the road classifications reflect this current arrangement.

With the exception of the NYS Thruway and U.S. Route 9W, all roads within the Town provide one moving lane in each direction with additional turning lanes at some major intersections. The largest intersection, known locally as Five Corners (intersection of Route 300, Route 32, including Windsor Highway, and Route 94) has been repeatedly cited as having congestion problems and needing improvements; however, some improvements have been implemented, including non-signalized turning lanes as a result of the Hannaford's project.

2. Automobile Traffic

Despite recent efforts by the County to increase bus routes and park & ride opportunities 82 percent of Town residents drive alone to and from work while only 13.4 percent carpool or use public transportation (2000 census). The median travel time to work for Town residents was 38 minutes in 2000. This number has been steadily increasing with population increases that have occurred county-wide. These numbers are likely to change now that the State has completed the construction of Route 747, the new alignment of Drury Lane to connect Interstate 84 with Stewart Airport. Also increasing is the percentage of the population that travels outside the County for employment. According to the Orange County Long Range Transportation Plan, as of 2003, 26 percent of County residents commuted to work outside of Orange County with the majority traveling to Rockland County followed by Westchester County and New York City. The Orange County Transportation Council has recently approved a Town wide traffic study.

Traffic counts, obtained from the Orange County Planning Department, show that since 1980 traffic has increased on all major roads within the Town. The largest increases are along Route 207 where between 1980 and 2002 traffic within the Town increased an average of over 137 percent, or 4.2 percent annually. Traffic in this area will most likely continue to be a problem with the impending expansion of Stewart Airport although alternate access routes to the airport from the north may limit new airport traffic on local roads.

The data also shows that traffic around the Five Corners intersection has also increased over the last 20 years with the greatest increase occurring along Route 300 (Temple Hill

Road) between the five corners intersection in Vails Gate and the intersection with Route 207.

Table 14 – Traffic Volumes, 1980 – 2002

Route	From	To	Average Annual Daily Vehicle Trips				Percent Change	Percent Change per Year
			1980	1990	2000	2002		
Rt. 32	5 Corners	Union Ave	12,080	13,350	12,777	13,194	5.77%	0.28%
Rt. 94	5 Corners	Willow Ln.	6,750	9,050	10,170	N/A	50.67%	2.07%
Rt. 94	Willow Ln.	Rt. 9W	6,750	6,050	7,500	10,183	11.11%	0.53%
Rt. 207	CR 54 / SR 747.	Breunig Rd.	4,850	9,150	9,096	9,551	87.55%	3.19%
Rt. 207	Breunig Rd.	Union Ave.	4,570	17,700	15,846	15,629	246.74%	6.41%
Rt. 207	Union Ave.	Rt. 207 / 300 split	12,700	18,210	22,692	N/A	78.68%	2.94%
Rt. 300	5 Corners	Rt. 207	9,050	12,250	16,066	15,669	77.52%	2.91%
Average							137.52%	2.91%

Source: Orange County Department of Planning
Prepared by: Turner Miller Group

3. Transit

Bus

Bus transit currently serves two primary client groups: 1. commuters to New York City and other areas outside the immediate community and 2. the transit-dependent public that has limited alternative means of transportation to local services or employment. Service is provided in Orange County through regional, local, and Dial-a-Bus services.

Fixed route bus service is of three main types: 1. regional inter-county service including commuter service, 2. intra-county transportation, and 3. local services in major population centers. The local routes are largely limited to service within commercial and retail areas in and around the cities of Newburgh and Middletown and the Villages of Monroe and Kiryas Joel. New routes are occasionally introduced if demand warrants.

The Newburgh-Beacon Bus Corporation has operated two local routes in the City of Newburgh and its environs for many years. Service is provided within the City as well as to the Newburgh Mall and Wal-Mart on Route 300, the Shop-Rite on Route 32, and the Vails Gate shopping areas. Under contract with the NYSDOT the Corporation also operates a route connecting Stewart Airport with downtown Newburgh and the Metro-North Railroad Beacon Station.

Short Line Bus service operated by Coach USA provides service between Orange and Rockland Counties and New York City at times traveling as far west as Port Jervis. Bus

stops convenient to New WIndsor residents includes multiple daily stops in Vails Gate at the Five Corners Intersection of Routes 300, 94 and 32, and a stop at the Stewart Airport Park and Ride lot.

Coach USA also provides local service within Orange, Sullivan, and Ulster Counties between larger population and commercial centers. Local Service includes service between the following:

- Tuxedo and Middletown via Route 17M.*
- Newburgh and Middletown via Route 17K.
- Kerhonkson (Ulster County) and Monroe via Route 209.*
- Harriman and Newburgh via Route 32 which includes a stop in Vails Gate at the Five Corners Intersection.
- Bear Mountain to Newburgh.*

* Do not serve New Windsor directly.

Dial-a-Bus Services

There are presently nine Dial-a-Bus services in Orange County, all municipally-operated. Dial-a-Bus services are non-fixed route systems that provide transportation services to meet the needs of the general public as well as particular individuals such as the disabled and elderly. The operations are all small but they provide an essential service for the transit dependent. In New Windsor, Dial-a-Bus services run from 8:00 am to 4:00 pm Monday through Friday. Service is provided throughout the Towns of New Windsor and Cornwall and the City of Newburgh.

4. Trucking / Freight

The major freight, distribution, and warehousing operations for Orange County are clustered near I-84 in Montgomery (Exit 5), near I-84 and I-87 close to Stewart Airport in the Towns of Newburgh and New Windsor, and near NY Route 17 (future I-86) in the Town of Chester. Truck traffic frequently travels through New Windsor when traveling from these warehouses to major routes. As Stewart Airport expands freight, distribution, and warehousing facilities along with truck traffic will likely increase. However, the new Route 747 Interchange that has been constructed has been effective at alleviating a portion of truck traffic traveling through the Town.

5. Stewart Airport

Stewart Airport is a major regional transportation facility whose role in the regional transportation system as both a passenger and freight facility will impact growth in the Town and region.

Stewart Airport currently has two runways, the larger of which, at 11,818 feet long and 150 feet wide, is one of the longest in the Northeast. The terminal was originally

constructed as a military hangar, but has been modified to its current size of 110,000 square feet on two levels with eight departure gates.

In addition to the airfield and passenger terminal, Stewart Airport also contains a cargo terminal, general aviation hangars, fuel farms, an air traffic control tower, a U.S. Animal Import Center, an industrial park, and is home to several military posts.

Access to Stewart Airport is provided via two separate routes: Breunig Road off of NYS Route 207 and International Boulevard off of NYS Route 747. Breunig Road is a three-lane roadway which originates at the signalized intersection with NYS Route 207 and goes north to the terminal. NYS Route 207 is a two-lane highway running east-west along the southern boundary of the Airport. The project to provide new access from I-84 via the new interchange at NYS Route 747 and International Boulevard to the airport was completed in 2008.

New International Blvd. Entrance to Stewart Airport off of NYS Route 747

The planned expansion of Stewart Airport is likely to generate demand for additional development. The extent to which the Town can shape or influence this development is an important consideration in the Town Plan.

Air Cargo

Stewart Airport handles a variety of cargo from oversize freight, to express packages, to livestock. In 1989 34,576 tons of cargo were shipped from Stewart Airport. This total more than doubled to 79,555 by 1996.[7] The development of land around the surrounding area and the provision of air cargo storage and handling facilities at the Airport will likely spur additional growth.

[7] According to Orange County Transportation Council's Draft Long Range Transportation Plan 2/07.

Breunig Road Entrance to Stewart Airport off of Little Britain Road (Rt. 207).

Airport Master Plan

Stewart Airport completed its master plan in 2006 which will guide its upcoming expansion. The plan lays out a new vision for the airport focused on transforming the airport into a world-class aviation center for passengers, cargo, and corporate activity serving the Hudson Valley and the New York Metropolitan area.

The Airport Activity Forecast in the Master Plan estimates that passenger service will expand by approximately 339 percent from the 2002 passenger total of 181,339 to approximately 798,000 passengers in 2022. [8]

The following roadway improvements are recommended as part of the Stewart Airport Master Plan and are intended to segregate local and airport traffic:

- Construction of a loop road extension which would extend Circulation Drive to the south to align with the proposed east/west connector. To avoid the need for a traffic signal, a modern roundabout is recommended at the intersection of Breunig and Circulation Drive.

The Plan also recommends an extension of the Metro-North Railroad commuter rail to the passenger terminal via a aerial viaduct. Although, actual rail alignment and planning would be determined by the Railroad, the Plan recommends connecting to the existing Port Jervis Line, near Salisbury Mills. The Port Jervis Line terminates in Hoboken, New

[8] Projected by the Stewart International Airport Master Plan Update. This number represents the moderate growth model, higher estimates were attained with a robust model and lower estimates with a base model.

Jersey, where connections via PATH to New York City's Penn Station and Herald Square are available. There is also a transfer from Secaucus, New Jersey to Penn Station.

Other on-site upgrades would include an expansion and internal reconfiguration of the existing passenger terminal, adding two additional taxiways and improvement of cargo and general support facilities.

6. Traffic Safety & Vehicular Accidents

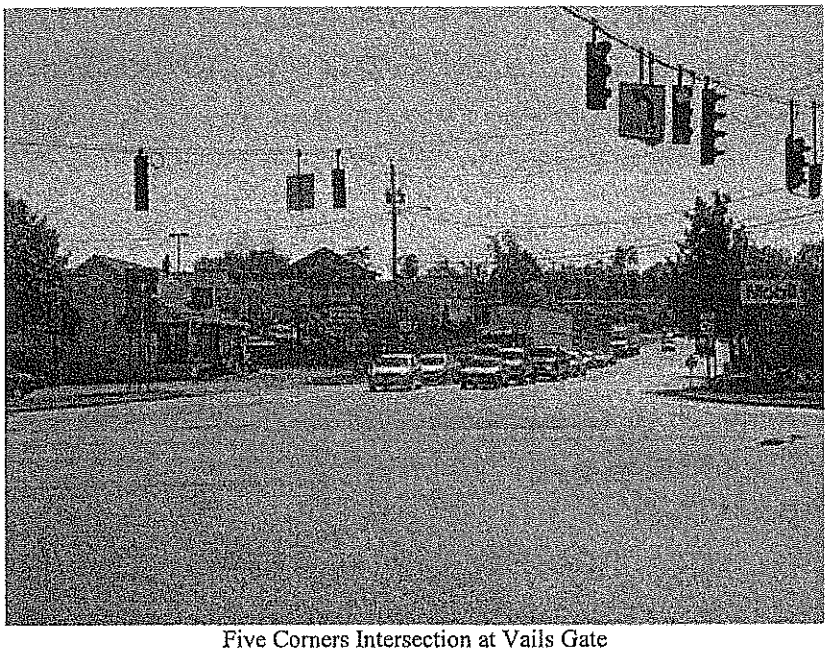
Accident and injury data which often reflects the degree of safety design issues at intersections was obtained from the Town Police Department for major intersections within the Town. The following data was reported (refer to Tables 15 and 16):

Table 15 – Vehicular Accidents at Major Intersections, 2001 – 2006

Intersection	2001	2002	2003	2004	2005	2006	Totals
Five Corners	16	8	14	16	21	15	90
Rt. 300 & Rt. 207	4	5	9	12	14	6	50
Windsor Hwy. (Rt. 32) & Union Ave.	6	5	7	6	10	9	43
Blooming Grove Tpk. (Rt. 94) & Rt. 9W	4	2	5	1	1	4	17

Source: Town of New Windsor Police Department
Prepared by: Turner Miller Group

As the data indicates, the highest number of accidents both annually and total over the evaluated six year period were recorded at the Five Corners Intersection (shown below). This intersection is also the location with the highest number of serious accidents as indicated by the number of injuries reported. There were no fatalities recorded at any of these intersections during the years studied.



Five Corners Intersection at Vails Gate

Table 16 – Vehicular Injuries at Major Intersections, 2001 – 2006

Intersection	2001	2002	2003	2004	2005	2006	Totals
Five Corners	5	1	4	5	1	2	18
Rt. 300 & Rt. 207	1	1	3	3	3	1	12
Windsor Hwy. (Rt. 32) & Union Ave.	1	1	3	1	3	0	9
Blooming Grove Tpk. (Rt. 94) & Rt. 9W	1	2	0	1	0	2	6

Source: Town of New Windsor Police Department
Prepared by: Turner Miller Group

Much of the traffic volume on the Town's major arteries is generated from outside of the Town so that while the Town can address traffic reduction in the Plan, the approach to congestion and safety improvements requires coordination among various levels of government. Among the approaches to consider are expanded mass-transit opportunities.

C. Recommendations

1. Roads

- Require new subdivisions to connect to other local roads and adjacent subdivisions within the Town and discourage the use of cul-de-sacs in order to aid in circulation and keeping unnecessary traffic off major roadways. All new

connections should be unrestricted access. Techniques, such as traffic calming methods described below, should be implemented to ensure local neighborhood roadways are impacted as little as possible by through traffic.

- Urge County and the NYSDOT to construct turning lanes where appropriate on major roadways as recommended in the NYSDOT Master Plan.

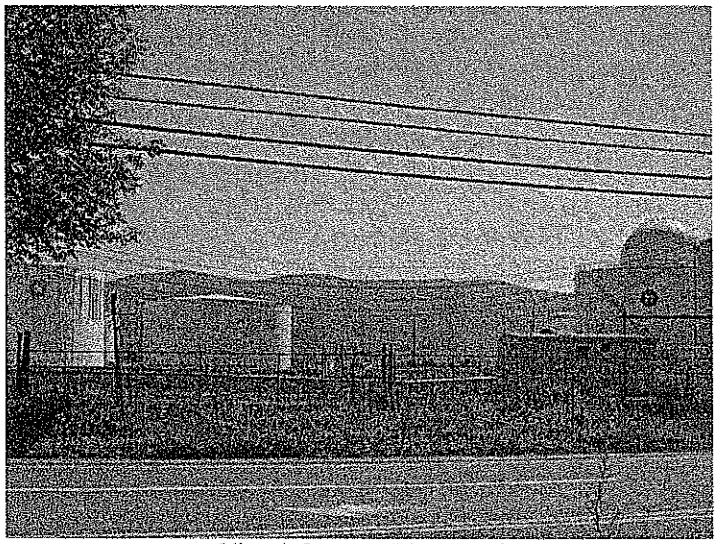
- Perform a traffic and pedestrian safety analysis of the Five Corners Intersection. Provide crosswalks at the Intersection.

- Pursue a connection of Routes 300 and 94 and Routes 300 and 32 by establishing bypasses around the Five Corners Intersection. Pursue similar proposals where opportunity exists.

- Reduce access points along major roads and encourage joint use of curb cuts and marginal access drives.

- Create highway improvement overlay zones along:

    - Route 300 and Route 207 from the five corners intersection to and including Route 747.
    - Route 94, from the five corners intersection a short distance southwest to the Thruway overpass.
    - Route 94, from the five corners intersection to the Newburgh City line.
    - Route 32, from the five corners intersection to the Newburgh City line.



Oil tank farms on River Road

The highway improvement overlay zone should be designed to require developers to adhere to stricter guidelines and standards related to landscaping, design, setbacks, and access control.

- In creating these highway improvement overlay provisions, it is suggested that issues related to lots bisected by zoning lines and provisions for buffers between commercial and residential uses be addressed. Wherever possible and practical zoning district boundaries should run along lot lines.

2. Public Transportation

- Encourage the County to fund additional Dial-A-Bus service.

- Explore ways to increase access to bus service in the Town by expanding the number of bus routes and stops. An emphasis should be placed on providing transportation to Town parks and recreational facilities, major commercial and employment areas, and regional mass transit such as park & ride locations.

- Encourage the development and maintenance of bus shelters along existing bus routes throughout the Town

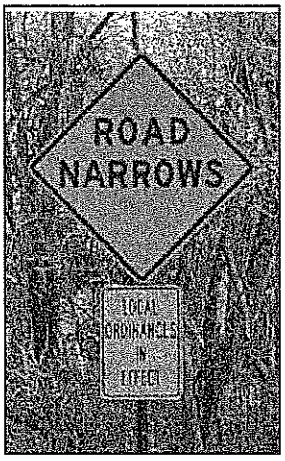
3. Traffic Calming

- Identify areas within the Town where traffic calming is appropriate due to excessive speed, congestion or high levels of pedestrian activity. Both commercial areas as well as intersections close to schools and recreational uses should be closely evaluated.

- Design and implement traffic calming techniques where deemed appropriate such as lower speed limits, narrow lane widths, and applying one or more physical traffic calming techniques such as rumble strips, speed bumps, paved or planted islands, or textured or painted cross walks.

- Apply necessary signage in conjunction with traffic calming techniques especially at known pedestrian crossings and near schools and recreation lands.

- Reduce speed limits where appropriate. For the most part, this will require coordination with County and NYSDOT.


ROAD
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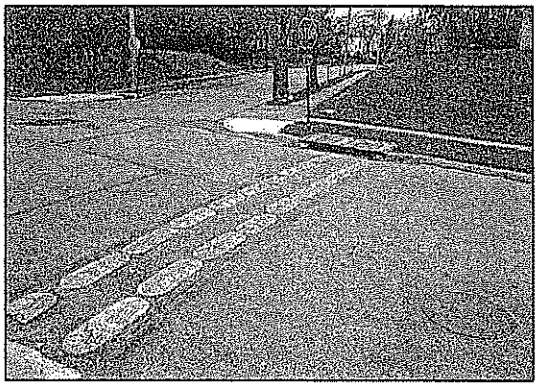


SLOW
CHILDREN
LOCAL
ORDINANCES
IN
EFFECT

VI. PARKS, RECREATION, & HISTORIC RESOURCES

A. Goals

Goal: Assure access to a wide variety of open space and recreation facilities for residents in all parts of Town.

Goal: Protect architecturally and historically significant structures, sites, streets and corridors – a source of community identity, and social and economic vitality.

B. Summary of Existing Conditions

Parks, Recreation, and open space lands are located throughout the Town and are owned and maintained by a number of local and regional agencies (refer to Figure 9).

1. Local Parks

The Town of New Windsor has an extensive network of parks and recreation facilities which is continuing to expand. The Town maintains approximately 135 acres of parkland which supports a number of facilities such as sports fields, tennis courts, playgrounds, picnic areas and natural open spaces (refer to Table 17 below). The largest and most recently constructed, Mt Airy Sports Complex, is still undergoing improvements. When completed, the complex will contain a gymnasium, playground, sports fields, tennis courts, softball fields, walking trails, and a concession area. According to the Director of the Parks and Recreation Department, the Town is currently in the process of collecting data on park capacity and patronage at the Town's facilities. This information plus an analysis of park locations and accessibility in relation to population will assist in developing and refining recommendations for the Comprehensive Plan.

Generally accepted standards suggest 10 acres of local parks per one-thousand population. Equally if not more important than an average standard is the range of facilities and their accessibility. While the combination of Town, County, and school district sites exceeds this standard, expanded facilities will likely be needed as the Town grows, particularly in newly developing areas.

2. New York State Parks

In 1988 New York State purchased 102 acres within the Town overlooking the Hudson River known as the Kowawese Unique Area at Plum Point. Maintained by Orange County, this site boasts scenic views of the Hudson River and over 2,000 feet of sandy shoreline as well as hiking trails and a picnic area. Crestview Lake Park is also owned by New York State, but is now the location of a new through road from Route 747 to Stewart Airport.

The New York State Department of Environmental Conservation (NYSDEC) maintains open space, trails and natural habitats on Stewart Forest Lands in the northwestern portion of the Town. In March of 1999 New York State transferred approximately 5,110

acres of Stewart Land that was under the control of the New York State Department of Transportation to the NYSDEC. In June of 2006, an additional 1,600 acres were transferred for a total of approximately 6,700 acres. This area is known as a reforestation area called Stewart State Forest.

Kowawese Unique Area at Plum Point

3. School Facilities

In addition to municipal parks, the Town's school districts maintain recreation facilities and open space within the Town for use by the district's school children. The following schools are located within the Town and offer facilities such as sports fields, playground equipment and open space.

- Little Britain Elementary, Washingtonville School District.
- Heritage Junior High School, Newburgh Enlarged City School District.
- New Windsor Elementary School, Newburgh Enlarged City School District.
- Vales Gate Elementary School, Newburgh Enlarged City School District.
- Temple Hill Academy, Newburgh Enlarged City School District.

Often these facilities are available for public use during non-school hours.

4. Private Recreational Facilities

The following private recreational facilities are located within the Town:

- New Windsor Golf Course – Located off of Bethlehem Road.
- New Windsor Little League – Baseball fields located off of Cedar Avenue.
- Washingtonville Soccer Club – Soccer fields located off of Shaw Road.

Table 17 – Town of New Windsor Parks

Park	Size	Location	Facilities
Mount Airy Sports Complex	40.9 Acres	Mount Airy Road off of Route 94	Playground and sports fields with more under construction
Plum Point Park	6.8 Acres	Route 9W	Scenic views, play area, pavilion, and picnic areas
Ruscitti Park	4.1 Acres	Union Avenue	Softball field, basketball court, playground, and pavilion
San Giacomo Park	9 Acres	Union Avenue	Four tennis courts, play area, baseball field, and basketball courts
Butterhill Park	38.2 Acres	Creamery Drive at Guernsey Drive	Small play area and open grassy area.
Beaver Dam Park	4.3 Acres	Chestnut Avenue	Small playground with benches and basketball court
Bull Road Park	40,000 sq ft	Bull Road	Basketball court & small grassy area
Town Cantonment Lands	71.1 Acres	Route 300	Reproduction Revolutionary War Cabins
NYS Park Facilities Managed by Orange County & NYSDEC			
Kowawese Unique Area	102 Acres	Rt. 9W on the Hudson River	Boating, fishing, biking, nature trails, & picnic area
Crestview Lake Park	+/- 25 Acres	James A. Kelly Drive	Swimming, playground, open area with scenic views (not currently utilized).
Stewart State Forest	+/- 6,700 Acres	Northwest portion of Town	walking, running, mountain biking, horseback riding, bird watching

Prepared by Turner Miller Group

5. Orange County Park & Open Space Plans

Parkland and open space are important for the Town, as well as the County as a whole to maintain its rural character as well as enhance the quality of life of its residents. Orange County, in its Open Space Plan of 2004, asserts that open space has great social, environmental, and economic benefits and it should be considered a service just as education or transportation infrastructure. [9] The County plan presents the following recommendations based on a series of meetings with interested groups, individuals, and County and local elected officials:

- Preserve open space and unique natural lands;

[9] Orange County 2004 Open Space Plan.

- Improve recreational opportunities by increasing facilities and services;
- Improve the availability of linked, interconnecting trails for access to cultural and natural resources;
- Increase public access to natural and cultural history programs and services;
- Develop County-wide facilities for cultural education;
- Protect and preserve historic properties;
- Provide more parks in urban areas; and
- Preserve farmlands and related operations.

6. Sidewalks

Sidewalks can and do provide an important recreational benefit to the Town, when appropriately sited. The Town of New Windsor Subdivision of Land Law Section 257-24(B) gives the Planning Board the authority to waive sidewalks during the subdivision review process. Generally speaking, sidewalks can serve as critical links in the transportation network providing pedestrian access to commercial districts, schools, businesses, government offices, and recreation areas. A good system of sidewalks may allow older pedestrians who are no longer able to drive, a continued independent lifestyle. Sidewalks can be gathering places in neighborhoods and business districts, and offer space for families and friends to walk and socialize together. Well-maintained sidewalks encourage exercise and provide the benefits of a healthy lifestyle.

The appropriateness of requiring sidewalks in new subdivisions in the Town should be selected carefully to maximize their usefulness to the community. New Windsor is notable for a having a mix of more or less dense development and it is important to preserve the rural nature of the outlying areas of the Town. In those areas, sidewalks might provide fewer benefits, especially in areas where there are no adjoining or nearby amenities or other communities that could be connected by a system of sidewalks. Sidewalks in those areas would be inadequate or inappropriate to the community's needs, and as such would amount to an inefficient use of money and resources.

The waiver of sidewalks may provide a cost benefit to the developer. Under the Town's current fee schedule, there is no differentiation between projects with and without sidewalks for per-lot recreation fees.

7. Historic Resources

The Town of New Windsor has a rich historic background with numerous historic sites and buildings. Three properties are listed on the State and National Historic Register and many are of local interest and importance (refer to Table 18). It is important to preserve this history to the greatest extent possible. The preservation of historic structures and sites not only adds to the unique character and sense of place of a particular area but also spurs economic activity through tourism.

Table 18 – Listed Historic Structures

Name	Original Construction	Location
Edmonston House	1755	1042 Rt. 94
Cantonment*	1782	Rt. 300
Cantonment Officer's Hut*	1783	Rt. 300
Last Encampment of the Continental Army*	1782	Rt. 300
General Knox's Headquarters*	1754	Forge Hill Rd
Dr. John Nicoll House	1735	2882 Rt. 9W
General James Clinton House **	1798	Rt. 207 across from Beattie Rd.
George Denniston House **	c.1770	Rt. 207
Denniston House	c. 1825	505 Jackson Ave
Dr. Moses Higby House	c.1770	170 Union Ave
Major William Telford Tavern **	1759	Rt. 207
John Haskell House***	c.1720	Windsor Hwy off Rt. 32
Woodburn Hall	1825	117 Sandpiper Ln.
John Bull House	1856	Bull Rd, south of 207
Jacob Mills House	1770	Rt. 207, west of Moores Mill Rd.
St. Thomas Episcopal Church	1847	Old 9W
Elmwood School #6 **	1869	Rt. 207 at Route 747

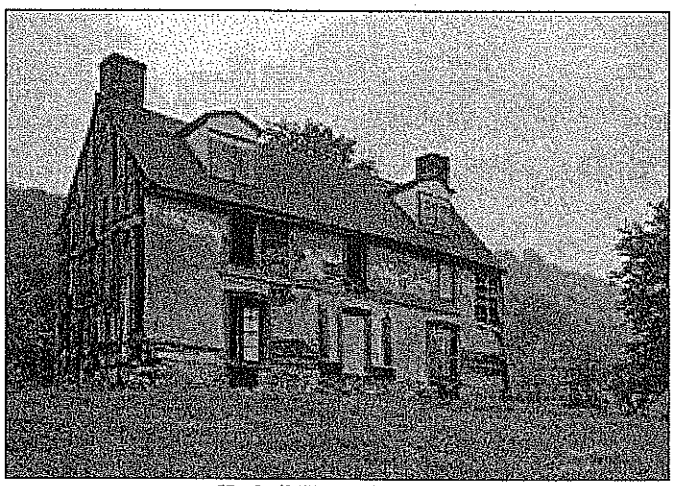
Prepared by Turner Miller Group
* Listed on NYS Historic Register
** Maintained by Orange County Historical Society
*** Listed in Historic American Building Survey

Currently the Town has two established Historic Corridors which are focused around the two New York State Historic Sites; Knox Headquarters and the New Windsor Cantonment. The boundaries of the two corridors are as follows:

- New Windsor Cantonment Historical Corridor: This corridor runs from the New York State Thruway Overpass on Route 207 (Little Britain Road) in a southeasterly direction along Routes 207 and 300 (Temple Hill Road), to the intersection of Route 300 and Old Temple Hill Road. The extent of the district is 400 feet on each side of the right-of-way line of the designated road.
- Knox Headquarters Historical Corridor: This corridor runs from the intersection of Route 94 (Blooming Grove Turnpike) in an easterly direction along Forge Hill Road to the intersection of Forge Hill Road and Route 9W. The extent of the district is 400 feet on each side of the right-of-way of the designated road.

According to the Town Zoning Code the Town can impose special conditions and restriction on these two districts, "For the protection, enhancement, perpetuation…" of

the two areas. However, outside of this delineation of district boundaries, the Zoning does not further regulate historic structures nor does it regulate development adjacent to historic sites or corridors.



Haskell House (c. 1720)

The majority of the historic properties within the Town are privately owned as it is typically not economically feasible for municipal agencies to maintain them. As such, many of the historic sites have been renovated or altered to meet the changing needs of their owners over time. Currently there are no regulations in the Town Code against altering or demolishing historic structures that have not been listed on the State or National Historic Registers.

County Maintained Properties

In 2001 the NYSDEC transferred ownership rights of four New Windsor properties from New York State to the Orange County Historical Society (OCHS). These properties, all on Stewart Forest Lands along Route 207, had previously been threatened by demolition for a number of years when bulldozers cleared land for Stewart Airport and when the State determined it would be more economical to tear them down. Each of the properties are rented out to residential tenants whose rent pays for the structures' upkeep. OCHS offers tours occasionally with tenants' consent.

Architectural Survey

Colette Fulton, with assistance from the Town Historian, put together an architectural survey for the Town in 1988. This is a collection of raw data obtained from old maps, books, interviews with homeowners and descendents of historic persons. The survey consists of 91 historic structures in total. Many of the buildings were constructed and played important roles during the Revolutionary War period, the most prominent being the New Windsor Cantonment, the Last Encampment of the Continental Army and Knox's Headquarters. (Refer to Table 19 for a list of important homes of distinction.)

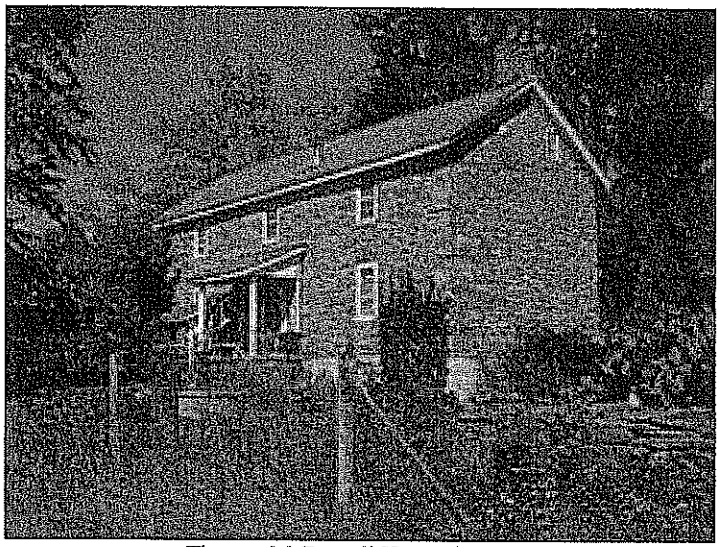
Three of the buildings included in the survey have been torn down or destroyed since the survey was completed and other structures have since had their historic character compromised by alterations made by homeowners over the years. Some of the homes have been well-maintained or restored by their owners to resemble their original appearance character.

Table 19 – Local Homes of Distinction

House Name	Original Construction	Location
Linden – Leonard Nicoll House	1842	113 Rt 9W
Thomas McDowell House	1750	637 Jackson Ave
"Stonefield" – Moffat's Academy	1745	west side of station rd, south of Rt 207
Terwilliger – Wixon House	1790	East side of Bull Rd at 207
Lockwood House	c. 1800	748 Union Ave.
Stewart – Weed House	c. 1780	East side of Station Rd, south of rail road tracks
Williams – Roe House	c. 1780	67 Forge Hill Rd.
Uzal Knapp House	c. 1780	1733 Little Britain Rd.
Jacob Schultz House	1792	west side of Bethlehem Rd at Mt Airy Rd.
Topping House	c. 1840	east side of Station Rd, south of Rt 207
Welling House	1765	East side of Toleman Rd.
Denniston/Wallace House	1856	East side of Station Rd. South of Rt 207
French – Furdeen House	c. 1835	West side of S. Jackson Ave, south of Rt 207
Denniston – Corwin House	c. 1790	North side of Lake Rd just west of S. Jackson Ave.
Denniston Tennant House	c. 1870	575 Jackson Ave.
Elfwood (currently the McQuade Foundation)	c. 1870	621 Blooming Grove Tpk
John Ellison Store	c. 1790	815 Rt. 94
Denniston – Dean House	1829	North side Dean Hill Rd
Beatie House	c. 1835	345 Beatie Rd
William Sayer House	1847	East side N. Jackson Ave (MTA property)
Dickson House	c. 1800	392 Union Ave
McCullough House	1929	9 St. Joseph's Pl.
Appleton – Morse	c. 1770	12 Union Ave.
Appleton – Morse #2	c. 1770	16 Union Ave.
Fresh Air Home	1872	8 Lush Lane
James "Squire" Patton	c. 1790	256 Little Britain Rd.
Connolly House	1915	252 Walsh Ave.
Dennis Coan House	1930	59 Silver Spring Rd
Higgins Houses	c. 1880	62 Silver Spring Rd
Quassaick Avenue District Mansions		

Roe - Brewster House	1870	11 Oakridge Dr.
Stonecrest Mansion	1872	11 Stonecrest Dr.
Stonecrest Carriage House & Barn	unknown	S. Stonecrest Dr.
Ten Broeck House	1870	257 Walsh Ave
Glenhurst	1890	145 Quassaick Ave
Mountain View	1884	Tree Haven Lane
Cedar Crest	1881	176 Quassaick Ave
Clark - Zeigler House	c.1820	Fanewood Dr.

Prepared by Turner Miller Group



Thomas McDowell House (c.1750)

Quassaick Avenue Mansions

Quassaick Avenue area contains a number of Victorian-style mansions that were constructed in the late 1800's which have survived well over time. Today these mansions are surrounded by a modest neighborhood with homes set on the lands which were once used as great gardens and promenades for the wealthy landowners. The homes are still used for residential purposes. Some have been converted to multi-family units.

C. Recommendations

1. Park Lands

- Explore opportunities for emerging recreational needs including but not limited to skateboarding, equestrian trails, etc.

- Emphasis should be placed on maintaining and/or enhancing the physical condition of parks where appropriate.

- Expand physical access to the Hudson River where possible.

- Additional access to the river, including a potential boat-launch should be included in future redevelopment of waterfront lands.

- As development expands into the western portion of Town, additional recreational sites and needs should be assessed. Consideration should be given to accessibility to newly developing areas. This can be achieved through the development process.

- The appropriateness of requiring sidewalks in new subdivisions in the Town should be selected carefully to maximize their usefulness to the community.

- In subdivisions where sidewalks are deemed inappropriate, additional recreational facilities should be considered to offset the loss of the recreational benefits associated with sidewalks. Future residents of those subdivisions could take advantage of other recreational facilities, especially Town park facilities, to meet their recreational needs.

- The Town should consider amending its fee schedule to increase the recreation fee for projects where the Planning Board has waived the required sidewalks. This will offset the loss of recreational opportunities provided by sidewalks, and will also enhance the Town's available resources for Town recreational facilities to meet the recreational needs of the new homes.

2. Architectural Survey

- Perform a comprehensive update to the architectural survey conducted in 1988 by Colette Fulton, with assistance from the Town Historian. A number of buildings included in the survey have been torn down, or destroyed since the survey was completed and other structures have had their historic character compromised by alterations made by homeowners over the years.

3. Historic Preservation

- Vegetative buffers should be required to protect historic developments and their surrounding viewsheds from new developments.

- Create a program that could provide positive recognition to historic resources in the Town identified as important or significant by an updated architectural survey. For example, a historic plaques program could be initiated to identify historic structures.

- Encourage property owners to list their eligible properties on the National Register of Historic Places and the State Historic Register. Information and review forms could be placed on the Town's website. Listing alone would not

prevent homeowners from modifying the exterior of their homes but can enhance the opportunity for assistance to restore structures.

- Retain the Town's two established Historic Corridors which are focused around the two New York State Historic Sites; Knox Headquarters and the New Windsor Cantonment. The boundaries of the two corridors are as follows:

    - New Windsor Cantonment Historical Corridor: This corridor runs from the New York State Thruway Overpass on Route 207 (Little Britain Road) in a southeasterly direction along Routes 207 and 300 (Temple Hill Road), to the intersection of Route 300 and Old Temple Hill Road. The extent of the district is 400 feet on each side of the right-of-way line of the designated road.
    - Knox Headquarters Historical Corridor: This corridor runs from the intersection of Route 94 (Blooming Grove Turnpike) in an easterly direction along Forge Hill Road to the intersection of Forge Hill Road and Route 9W. The extent of the district is 400 feet on each side of the right-of-way of the designated road.

- Ensure that state landmarks, designated by the Town's architectural survey as locally important and properties which generally contribute to the character of an established historic district are retained with their historic features and altered as little as possible.

- Ensure that new construction or structural alterations to existing structures are compatible with a historic district's character.

VII. UTILITIES

A. Goals

Goal: Provide for the orderly and responsible development and expansion of water and sewerage systems in the Town; limit expansion west of the Thruway.

Goal: Manage the Town's water resources to maintain and where possible improve water quality and quantity.

B. Summary of Existing Conditions

1. Water Supply

New Windsor presently has 13 water districts in the eastern half and north central portion of the Town (refer to Figure 10).

The Town's water is supplied from the Catskill aqueduct which feeds from the Ashokan Reservoir. The water feeds into two separate water filtration plants: Reily Filtration Plant which as a capacity of approximately 3 million gallons per day, and Stewart Airport filtration plant which has a capacity of approximately 500,000 gallons per day. Local water demand typically varies based on time of year but generally averages between 2.4 and 2.5 million gallons per day. Daily peak demand can vary between 3.6 and 3.8 million gallons per day during the summer months.

On August 27, 2007 officials from the Town of New Windsor signed an agreement with the City of Newburgh to provide the Town with an additional 1 million gallons of water supply per day for the next 20 years. After this period has expired the Town has the option to renew the contract with the City.

Water supply will come from three separate connection points: the Silver Stream Reservoir, Little Britain Road, and Route 32 (Miron Lumber). If water is drawn from the Silver Stream Reservoir, New Windsor will pay Newburgh the same rate New York City charges for aqueduct water; if from the other connections, Newburgh will charge the Town the same fee as the "in-city" rate.

This important agreement will not only ensure a stable water supply for the residents of New Windsor, but also makes protection of the watershed and prevention of water waste a mutual responsibility.

The Town is also exploring additional water supply from the development of new high-yield groundwater supply wells and planned expansion of the Reily and Stewart filtration plants.

The Orange County Water Authority is presently evaluating the feasibility of connecting the Catskill and Delaware aqueducts to provide an additional backup source.

A portion of the residential development surrounding Beaverdam Lake is served by the Beaver Dam community well system, a private corporation (approximately 150 of 700 homes).

A number of developments within the Town have been approved by the Town Planning Board but have not yet been built because they are subject to the Town's current water moratorium which was imposed by resolution of the Town Board on January 3, 2003. This moratorium prohibits new developments from connecting to the Town's water system unless adequate mitigation measures are implemented.

In addition, the Town is actively seeking to improve its water supply system. Towards that end, in August 2007 the Town entered into an agreement with the City of Newburgh to acquire up to an additional 1 million GPD of water from the City for various public and municipal purposes which the Town can access and use in addition to the regular and usual supply available from the New York City Catskill Aqueduct. The Town has also recently applied for and received a permit from the NYSDEC to add additional water supply wells, known as the Saint Anne's wells, to its water supply system.

2. Sewer

New Windsor presently has 24 sewer districts in the eastern half and north central portion of the Town, as well as one located around Beaver Dam Lake in the south central portion of the Town (refer to Figure 11).

New Windsor is presently in a sewer moratorium that has been imposed by the Town Board due to the lack of additional capacity in the system. Any additional capacity that does exist is slated for existing districts. Presently the average sewer flow within the Town is approximately 4 million gallons per day. The Town's sewage treatment facility is located adjacent to the Moodna Creek on U.S. Route 9W in the southeastern portion of the Town.

One major problem that has been identified by the Town Engineer is ground and surface water infiltration and inflow. The Town is currently monitoring infiltration and inflow within the system to work towards correcting the problem.

Moodna Development Corporation previously had a sewer allocation of approximately 1.2 million gallons per day prior to the Corporation's closing. This additional capacity is being divided between the Town of New Windsor and Majestic Weaving.

The Town is presently exploring the expansion of its existing plant to 10.75 million gallons per day. The expansion should be addressed as economic development requires.

Two pumping stations are being upgraded as a result of ongoing development within the Town.

C. Recommendations

- Where appropriate capacity exists, a development that is consistent with the Town's planning policies, zoning, land use controls, and surrounding neighborhood should be able to tie into existing Town water and sewer systems or package plants in order to protect aquifers, streams, and waterbodies.

- New water and sewer districts should be permitted to be free standing if practical and any new infrastructure costs should be the responsibility of the developer.

- Priority for municipal water and sewer should be given to existing districts with any expansion limited to infill and possible municipal expansion only if the capacity is available and only if the proposed development is consistent with the Town's planning objectives, zoning, sound land use principals and environmental controls.

VIII. AGRICULTURE

A. Goals

Goal: Preserve the agricultural resources of New Windsor, as an important component of the community's economy and exurban character.

Goal: Protect working agricultural landscapes and operations as development pressures continue to increase.

B. Summary of Existing Conditions

Agriculture and agricultural related uses continue to represent an important segment of the Town's economy and existing land use, primarily west of the Thruway (approximately 11% of total land area in the Town). A portion of the Town is located within Agricultural District No. 1, which was created by the New York State Legislature in 1972.

Pineview Farm, New Windsor

As development pressures continue to increase in the region the preservation of agricultural land and the Town's remaining rural and exurban character have diminished. The issue of farmland conversions is of paramount importance for New Windsor.

C. Recommendations

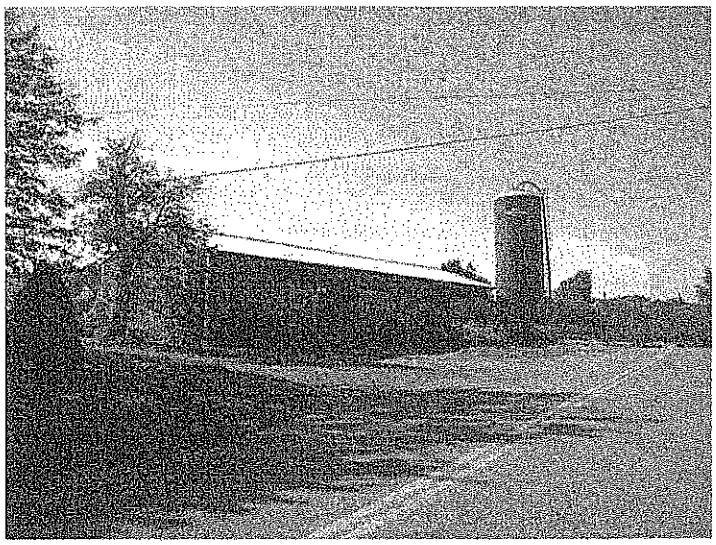
- Insure that zoning regulations do not inhibit the operation of existing agricultural operations.

- Promote agriculture-based tourism in New Windsor. This may include "pick-your-own" or "cut-your-own" type operations that would add to the local economy while keeping farming activities in the public eye.

- Allow for increased flexibility in permitting alternative uses for existing agricultural facilities or buildings in order to assure economic viability. These alternative uses should include only those compatible with the surrounding neighborhood, but could include wineries, cold storage, and processing.

- Promote citizen education on farmland preservation.

- Revisit current regulations relating to housing and maintaining horses in the Town's Zoning Code to assure adequate space, buffering and the well being of animals. Land requirements should incrementally increase on a sliding scale based on the number of horses.



IX. LAND USE & ZONING

A. Summary of Existing Conditions

1. Land Use

Existing land use information for the Town was obtained from the Town of New Windsor's Assessor's Office, Orange County GIS, and the New York State Office of Real Property Services. This information was supplemented and updated through field checks and a review of aerial orthophotography. In addition, drafts of the land use maps were coordinated with and reviewed by the Citizens Advisory Committee members for additional accuracy.

The Town is comprised of approximately 23,500 acres or 36.6 square miles of land and water area. Approximately 26 percent is vacant, 11 percent is agricultural, 24 percent is occupied by Stewart State Forest and another 2 percent is occupied by Stewart Airport (refer to Table 20).

The following general categories of land use have been utilized in the development of the Plan:

- Agricultural – Property actively used for the production of crops or livestock.
- Commercial – Property used for the sale of goods and/or services. Includes hotels, restaurants, storage facilities, retail services, banks and office buildings, and multi-purpose properties.
- Community Services – Property used for the well-being of the community. Includes schools, religious facilities, health care facilities, and government facilities.
- Forested – Lands covered by mature forests, such as large state parks.
- Industrial – Property used for the production and fabrication of durable and non-durable goods. Includes manufacturing and processing uses.
- Public Services – Property used to provide services to the general public. Includes utility and communication services, transportation services (excluding roads) and waste disposal facilities.
- Recreation & Entertainment – Property used by groups for recreation, amusement or entertainment. Includes sports facilities, beaches, marinas, and parks.
- Residential – Property used for human habitation including single- and multi-family, year round and seasonal residences.
- Vacant – Property that is not in use or lacks permanent improvement.

Figure 12 illustrates the existing land uses and concentrations of land use activities throughout the Town (broken down into more detailed categories than described above). It should be noted that the Land Use Plan map is generalized and is not designed to convey specific land use on a parcel by parcel basis or specific boundaries of future zoning.

A summary of current land use categories, including the percentage of total land area and square miles are identified in Table 20.

Table 20 – Existing Land Use by Category, 2007

Land Use Category	Percent of Total Land Area*	Square Miles*
One-Family Residential	21%	7.8
Two-Family Residential	<1%	0.2
Multi-Family Residential	1%	0.4
Commercial	2%	0.7
Office	<1%	0.1
Mixed Use	1%	0.4
Town Owned/Public (other than parks & rec.)	1%	0.4
Quasi-Public (churches, schools, etc.)	7%	2.6
Stewart International Airport	2%	0.7
Park/Recreation	4%	1.5
Agriculture	11%	4.1
Stewart State Forest	24%	8.9
Industrial	2%	0.7
Utilities or Railroad	6%	2.2
Vacant Land	12%	4.4
Unclassified	4%	1.5

Prepared by Turner Miller Group
Source: Orange County GIS
* Values rounded

2. Existing Zoning

Existing zoning in New Windsor, illustrated on Figure 13, is generally consistent with the permitted uses in the respective districts. The Town's zoning boundaries divide the Town into several distinct areas with their own types of land uses and concentrations of compatible uses that define the overall character of the community. The text of the zoning regulations identify the uses permitted in each of the zoning districts as well as the applicable bulk and dimensional requirements for each zoning district. Currently the Town has thirteen separate zoning designations as follows:

- R-1 Rural Residential
- R-2 Open Space Residential
- R-3 Suburban Residential
- R-4 Suburban Residential
- R-5 Multiple Family Residential
- CL-1 Clustered Suburban Residential
- AP Airport Uses
- AP-1 Airport Uses
- C Design Shopping
- NC Neighborhood Commercial
- OLI Office and Light Industrial
- PI Planned Industrial
- PO Professional Office

Uses permitted within each of the thirteen zoning districts in the Town as well as applicable bulk and dimensional requirements can be found in the Town's Zoning Local Law.

While the Town's current zoning is generally consistent with land uses, several inconsistencies exist. These inconsistencies are addressed in the Land Use Plan and include:

- The medium density Suburban Residential (R-3) zone west of Beaver Dam Lake is inconsistent with existing land uses consisting primarily of agricultural land and large lot residential uses.

- The Office and Light Industrial (OLI) Zone along Route 207 east of Station Road is inconsistent with existing land uses in the area consisting primarily of single-family residential and vacant land uses.

- The southern frontage along Little Britain Road (Route 207), east of the Thruway, presently zoned Planned Industry (PI), is inconsistent with existing land uses consisting primarily of residential and limited commercial uses.

- The area east of the Thruway and west of Route 300 between the Last Encampment of the Continental Army and Mertes Lane, presently zoned Planned Industrial (PI), is inconsistent with existing land uses consisting primarily of residential, park, and vacant land uses.

Senior Housing

In addition to the above zoning districts the Town recently passed legislation restricting senior housing developments to a redrawn and limited Senior Housing Overlay District. Such age restricted residential developments, must be sited on lots of at least five acres, and require the issuance of a special permit from the Town Board and subsequent site plan review by the Planning Board. The legislation's stated intent is to encourage housing opportunities for senior citizens and to ensure that developments are sited in

appropriate areas. Allowable density is restricted to nine units per acre with up to fourteen units per acre permitted if a development provides affordable housing as defined in the law. In the case where 100 percent of proposed units are affordable a density of up to 18 units per acre is permitted.

Affordable housing is defined as residential units available for a sales price or rental fee that will be affordable to households earning 100 percent of the Orange County, New York, median family income as established by the United States Department of Housing and Urban Development; or if no such statistics are available, then as that term may be defined by and for the County of Orange, Department of Planning.

3. Planning & Zoning in Adjoining Communities

The following describes existing zoning along the bordering portions of communities directly adjacent to the Town of New Windsor. This is important in understanding the relationship of adjoining zoning and land uses with the Town in order to achieve compatibility or provide a basis for reconciling differences if practical or possible.

Town of Montgomery

The area of Montgomery that borders New Windsor is zoned for Industrial use. Bordering districts include the I-1, I-3 and I-4 which allow for general industrial uses, machinery plants, laboratories, wholesale businesses and incinerators.

Town of Newburgh

Most of the land within the Town of Newburgh which borders New Windsor is part of or related to Stewart Airport. Land is zoned mainly for industrial uses (I), an Interchange Business Zone (IB) and a small Professional Office zone (O) on the eastern border with the City of Newburgh.

City of Newburgh

The City of Newburgh has a wide variety of Zones which border the Town of New Windsor. The majority of the land along the border is zoned for heavy commercial and industrial use with Heavy Commercial/ Light Industrial (I-1) and Waterfront Industrial (W-2) zoning designations. The western portion of the border is zoned Office and Distribution (PO-2). A small area surrounding Lake Street is zoned for commercial use (C-3).

Town of Hamptonburgh

Hamptonburgh's zoning on its border with the Town of New Windsor is mainly residential, consisting of single family residences on lots ranging in allowable size between two and three acres. A small portion of land on the north end of the boundary consists of an Industrial Park District (IP).

Town of Cornwall

The area of Cornwall that borders New Windsor is zoned for Residential use of varying densities, commercial, and office and industrial uses. Bordering districts include the SR-1 and SR-2 Suburban Residence Districts, the SLR Suburban Low-Density Residence District, the HC Highway Commercial District, and the PIO Planning Industrial and Office District.

Town of Blooming Grove

The area of Blooming Grove that borders New Windsor is zoned Rural Residential (RR) 2-acre minimum lot sizes are required.

B. Recommendations

The recommendations for future use of land follow from the goals and recommendations included in the various plan elements discussed above.

The Land Use Plan reflects modifications, clarifications, and refinements of Town policy as currently reflected in the Town Zoning Ordinance and Map. In all instances the future development or redevelopment of these areas will be required to meet high design and land utilization standards. The primary purposes of the land use plan categories are as follows:

- Low and high density residential zones will essentially retain the densities and uses now permitted in the R-1 and R-2 (low density) and R-5 (high density) zones. The Town may wish to consider increasing the permitted density for one-family dwellings in the R-5 Zone from 1 unit per acre to 3 to 4 units per acre.

- Medium density residential zones (R-3 and R-4) will permit the Town's pre October 2001 densities for one-family dwellings. The minimum lot area in the R-3 Zone will vary between 21,780 and 43,560 square feet depending on the availability of central water and sewer. The minimum lot area in the R-4 Zone will vary between 15,000 and 43,560 square feet depending on the availability of central water and sewer.

- The Office-Residential category is intended to allow some flexibility in office uses while retaining the residential character, particularly of the section of Route 207 between Station Road and Lake Road.

- The Office category will retain the uses presently permitted in the Town's zoning. Its purpose is to encourage office development, but not a broad range of commercial activity.

- The Highway Commercial category will permit a full range of commercial activity along major highways. Residential development is not included in this category.

- The Neighborhood Commercial category will permit commercial uses and offices intended to serve the immediate area or neighborhood, primarily with convenience goods and services.

- The Limited Commercial category will permit a greater range and more intensive land uses than what is permitted in the Neighborhood Commercial zone. This will include retail stores and restaurants, service establishments, professional office buildings, hotels and motels, mini warehouses, and other similar uses. This category does not include large shopping centers and big-box stores because of the smaller lots and character of the Route 207 Corridor.

- Mixed Use is a category intended to limit the size and scale of commercial, office, and possibly residential uses along major highway corridors. Mixed use development will be encouraged.

- The Riverfront Development category is designed to encourage reuse of primarily industrial waterfront areas with water dependent and water enhanced activities. Additional access to the Hudson River is encouraged where possible.

- The Campus Economic Development category will encourage high quality economic activity generated by the presence of Stewart Airport. This will include hotel, conference center, educational facilities, high tech business, corporate offices and similar uses.

- The Airport & Planned Development category is similar to the Campus Economic Development category but will occur on airport lands where opportunities exist.

- The Office & Light Industrial is also similar to the Campus Economic Development category but will occur on smaller parcels and will encourage smaller industrial uses.

- The Planned Industrial category will encourage a full range of non-nuisance environmentally sensitive industrial activities.

The proposed pattern of land use is reflected on the Proposed Land Use Plan map (refer to Figure 14). The Land Use Plan establishes the predominant land use attributes in each area and along major corridors. The proposals, such as watershed protection overlays will be translated into regulations in the implementation phase of the Plan.

Once the Proposed Land Use Plan map is converted and translated into the Town's Official Zoning Map the zone boundaries will generally follow lot lines.

- Eliminate the higher density residential area west of Beaver Dam Lake (currently zoned R-3) and convert to a lower density consistent with the area's surrounding Rural Residential (R-1) zoning.

- Eliminate a portion of the higher density residential area directly west of the Silver Stream Reservoir (currently zoned R-3) and convert to a lower density consistent with the area's surrounding Rural Residential (R-1 and R-2) zoning.

- Eliminate the Office and Light Industrial (OLI) Zone along Route 207 east of Station Road and create a new Office Residential (OR) district. This new land use and zoning category should permit offices in residential structures on lots fronting Route 207. New development should be consistent with the area's existing residential character and surroundings and would be built out at a low density.

- Eliminate the Neighborhood Commercial (NC) Zone along Route 207 from Silver Stream Road to just west of Jackson Avenue and create a new Limited Commercial (LC) district.

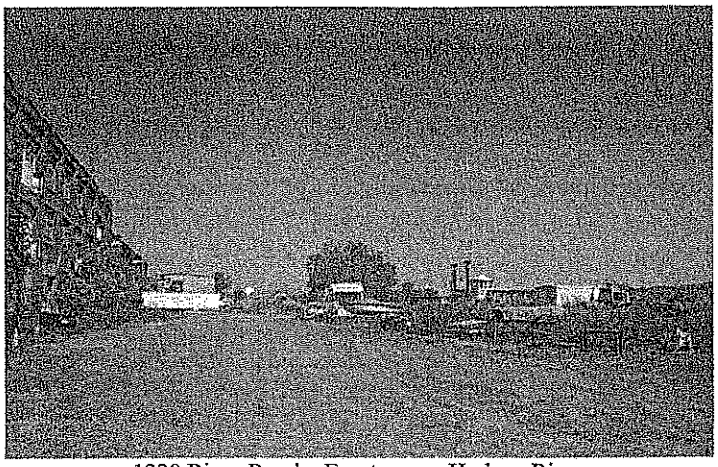
- Eliminate the portion of the senior housing overlay district west of the Silver Stream Reservoir to reduce the intensity of development near the Reservoir, a public drinking water source.

- Rezone the Bivona Lane area directly south of Route 207 in the vicinity of Stewart Airport from Suburban Residential (R-3) to Limited Commercial (LC).

- Extend the existing Planned Industry (PI) Zone east of Route 32 in the northeastern portion of the Town by rezoning the town-owned lands northeast of Ruscitti Road from Suburban Residential (R-4) to Planned Industry (PI).

- Rezone a small portion (6 lots) of the northern frontage along Union Avenue east of Route 32 in the vicinity of James Street and Daniher Avenue from Suburban Residential (R-4) to Highway Commercial (HC).

- Rezone portions of the northeastern most section of the Town both east and west of River Road from Planned Industry (PI) to Riverfront Development (RD). This new zoning should permit uses such as restaurants, retail, theaters, galleries, marinas, mixed use residential and other water dependent or water enhanced uses.



1220 River Road – Frontage on Hudson River

- Rezone the southern frontage (generally one lot deep) along Little Britain Road (Route 207), east of the Thruway to Washington Lake from Planned Industry (PI) and Suburban Residential (R-4) to mixed use. The mixed use area would include residential and limited commercial development.

- Rezone the area east of the Thruway and west of Route 300 between the Last Encampment of the Continental Army and Mertes Lane as medium density residential.

- Rezone the 400+/- acre tract of land adjacent to Stewart Airport (east and west of Route 747) from AP to Airport and Planned Development. This new zone should permit airport related development such as hotels, conference centers, and medical, educational, and high end research and office space in a campus like setting with significant open space, landscaped buffers, architectural guidelines, etc.

- There are not presently any zoning regulations pertaining to setbacks and/or the placement of 'customary and incidental uses' in residential zones for such items as tennis courts, jungle gyms, basketball courts, etc. The Town should include language in its zoning to regulate the placement of such incidental uses to limit any potential impacts they may pose on the surrounding neighborhood.

- Establish setback requirements for parking areas, driveways, roads and buffer areas.

- Modify zoning text and map to position zoning district boundaries along property lines and assure buffers between residential and business uses, where appropriate and practicable.

- Set up an escrow system for developers to assure adequate funds for necessary planning, engineering, and other expert reviews to assist the Planning Board during all project reviews.

X. PLAN IMPLEMENTATION

This section includes a description and prioritization of the specific actions items that the Town should take to implement the Plan. An incremental approach to the Plan's implementation is most appropriate as the availability of staff, funding, and other resources will be important.

The Town Board is ultimately responsible for implementation of this Plan. However, the key to successful implementation is the cooperation and coordination of the various Town boards and agencies responsible for land use decisions.

The Comprehensive Plan should be understood as a "living document"; a document that will need to be updated and adjusted from time to time to reflect the current needs and conditions of the Town. Because of this the Town Board should monitor the successful implementation of the Plan, by reviewing strategies on an annual basis.

Prior to the adoption of the Plan the SEQR process will be completed by the Town Board. This process consists of drafting and adopting a Generic Environmental Impact Statement (GEIS) for the Plan.

Detailed descriptions of each of the following key implementation items can be found in each of the corresponding sections of the Plan.

A. High Priority Implementation Items

These implementation action items should be initiated within 1 year of the adoption of the Plan.

1. Population, Housing, & Residential Development

- Increase the permitted residential densities in the R-3 and R-4 zones. Potential changes should take available water and sewer infrastructure into account.
- Develop appropriate development standards for each type of senior housing in the Town's ordinance.
- Establish a committee of senior citizens to keep abreast of the latest trends in senior housing by identifying and investigating successful endeavors of other municipalities.
- Develop a Conservation Cluster Overlay Zone that would allow for incentives in the form of increased residential density in exchange for the preservation and/or dedication of open space lands as part of a development.

2. Economic Development

- Develop a plan and zoning framework for the utilization of the 400+/- acre tract of land adjacent to Stewart Airport that is not part of the Stewart State Forest.

- Develop public-private development relationships with major private landholders along River Road and the Hudson River in an effort to redevelop areas of the waterfront for public access, commercial (retail, office, restaurant, entertainment, etc.), recreational, and mixed-use residential.

3. Natural Resources

- Adopt a watershed protection law and overlay zone delineated by the boundaries of the drainage areas of the Silver Stream Reservoir and Washington Lake and generally within 100 feet of the banks of ponds, creeks and streams in the Town.

- Adopt aquifer protection regulations.

- Adopt environmental protection laws that protect all streams/creeks, waterbodies, wetlands and floodplains in the Town.

- Establish a permitting process for activities that occur within stream, wetland, and floodplain protection buffers.

- Draft and adopt a tree preservation law to help protect the Town's woodland character.

4. Transportation

- Perform a traffic and pedestrian safety analysis of the Five Corners Intersection. Provide crosswalks at the Intersection.

- Pursue a connection of Routes 300 and 94 and Routes 300 and 32 by establishing a bypasses around the Five Corners Intersection. Pursue similar proposal where opportunity exists.

- Create highway improvement overlay zones along:

    - Route 300 and Route 207 from the five corners intersection to and including Route 747.
    - Route 94, from the five corners intersection a short distance southwest to the Thruway overpass.
    - Route 94, from the five corners intersection to the Newburgh City line.
    - Route 32, from the five corners intersection to the Newburgh City line.

- Identify areas within the Town where traffic calming is appropriate due to excessive speed, congestion or high levels of pedestrian activity.

- Design and implement traffic calming techniques where deemed appropriate.

- Reduce speed limits where appropriate. For the most part, this will require coordination with County and NYSDOT.

5. Parks, Recreation, & Historic Resources

- In subdivisions where sidewalks are deemed inappropriate, additional recreational facilities should be considered to offset the loss of the recreational benefits associated with sidewalks.

- The Town should consider amending its fee schedule to increase the recreation fee for projects where the Planning Board has waived the required sidewalks. This will offset the loss of recreational opportunities provided by sidewalks, and will also enhance the Town's available resources for Town recreational facilities to meet the recreational needs of the new homes.

6. Agriculture

- Revisit current regulations relating to housing and maintaining horses in the Town's Zoning Code to assure adequate space, buffering and the well being of animals.

7. Land Use & Zoning

Review and revise the Town Zoning Code to achieve the following objectives:

- Eliminate the higher density residential area west of Beaver Dam Lake (currently zoned R-3) and convert to a lower density consistent with the area's surrounding Rural Residential (R-1) zoning.

- Eliminate a portion of the higher density residential area directly west of the Silver Stream Reservoir (currently zoned R-3) and convert to a lower density consistent with the area's surrounding Rural Residential (R-1 and R-2) zoning.

- Eliminate the Office and Light Industrial (OLI) Zone along Route 207 east of Station Road and create and new Office Residential (OR) district. This new land use and zoning category would permit offices in residential structures on lots fronting Route 207. New development should be consistent with the area's existing character and surroundings and would be built out at a low density.

- Eliminate the Neighborhood Commercial (NC) Zone along Route 207 from Silver Stream Road to just west of Jackson Avenue and create a new Limited Commercial (LC) district.

- Eliminate the portion of the senior housing overlay district west of the Silver Stream Reservoir to reduce the intensity of development near the Reservoir, a public drinking water source.

- Rezone the Bivona Lane area directly south of Route 207 in the vicinity of Stewart Airport from Suburban Residential (R-3) to Limited Commercial (LC).

- Extend the existing Planned Industry (PI) Zone east of Route 32 in the northeastern portion of the Town by rezoning the town-owned lands northeast of Ruscitti Road from Suburban Residential (R-4) to Planned Industry (PI).

- Rezone a small portion (6 lots) of the northern frontage along Union Avenue east of Route 32 in the vicinity of James St. and Daniher Avenue from Suburban Residential (R-4) to Highway Commercial (HC).

- Rezone portions of the northeastern most section of the Town both east and west of River Road from Planned Industry (PI) to Riverfront Development (RD). This new zoning should permit uses such as restaurants, retail, theaters, galleries, marinas, mixed use residential and other water dependent or water enhanced uses.

- Rezone the southern frontage (generally one lot deep) along Little Britain Road (Route 207), east of the Thruway to Washington Lake from Planned Industry (PI) and Suburban Residential (R-4) to mixed use.

- Rezone the area east of the Thruway and west of Route 300 between the Last Encampment of the Continental Army and Mertes Lane as medium density residential.

- Rezone the 400+/- acre tract of land adjacent to Stewart Airport (east and west of Route 747) from AP to Airport and Planned Development. This new zone should permit airport related development such as hotels, conference centers, and medical, educational, and high end research and office space in a campus like setting with significant open space, landscaped buffers, architectural guidelines, etc.

- There are not presently any zoning regulations pertaining to setbacks and/or the placement of 'customary and incidental uses' in residential zones for such items as tennis courts, jungle gyms, basketball courts, etc. The Town should include language in its zoning to regulate the placement of such incidental uses to limit any potential impacts they may pose on the surrounding neighborhood.

- Establish setback requirements for parking areas, driveways, roads and buffer areas.

- Modify zoning text and map to position zoning district boundaries along property lines and assure buffers between residential and business uses, where appropriate and practicable.

- Set up an escrow system for developers to assure adequate funds for necessary planning, engineering, and other expert reviews to assist the Planning Board during all project reviews.

B. Moderate Priority Implementation Items

These implementation action items should be initiated within 2 to 5 years of the adoption of the Plan.

1. Population, Housing, & Residential Development

- Coordinate building heights and floor area ratios (FAR) with set back requirements in order to protect the integrity of neighborhoods. Further, the Town may wish to restrict building footprints by a percentage of lot size to ensure there is a sufficient area of the building lot for accessory uses.

2. Natural Resources

- Designate aquifers as critical environmental areas (CEAs) as defined by the regulations implementing the New York State Environmental Quality Review Act (SEQRA).

- Enhance Stormwater Management practices within the Town.

- Adopt irrigation control regulations to control and reduce water used for lawn and landscaping irrigation.

- Continue to monitor local blasting protocols to determine if modifications are needed.

- Work in conjunction with Orange County and the Palisades Interstate Park Commission to protect the Moodna Creek Corridor by creating a greenway by linking the Knox Headquarters and Butterhill Park properties with the Hudson River along the Town's southeast border.

- Explore sources of funding (i.e. grants) that would allow for the additional planting of street trees and shrubs along public thoroughfares.

3. Parks, Recreation, & Historic Resources

- Additional access to the Hudson River, including a potential boat-launch should be included in future redevelopment of waterfront lands.

- Perform a comprehensive update to the architectural survey conducted in 1988 by Colette Fulton, with assistance from the Town Historian.

- Create a program that could provide positive recognition to historic resources in the Town identified as important or significant by an updated architectural survey.

4. Agriculture

- Promote citizen education on farmland preservation.

C. Ongoing Implementation Items

These implementation action items should be initiated on an ongoing basis from the adoption of the Plan.

1. Population, Housing, & Residential Development

- Vegetative buffers should be created and or retained between developments and local roadways and neighboring non-residential land uses in order to preserve the rural residential character and scenic viewsheds within the Town.

- Encourage the production of housing appropriate to all segments of the population, including lower, moderate, and upper income housing, to maintain a balanced community. Consider variable zoning incentives and set asides to achieve this objective.

- Developers of new subdivisions in the western portion of the Town should be required to explore clustering as an option in order to conserve open space and natural resources, create efficient infrastructure, including limiting the amount of impervious surface, and providing diversity in housing.

- Senior citizen housing should be planned as part of the community where services and utilities are available and where there is good access to transportation and community services.

- The location of senior citizen housing in the Town should be limited to the medium and high density residential zones identified on the Land Use Plan (Figure 14)

- Require sidewalks in development that is of an appropriate density – generally two units per acre or higher.

- Use available federal, state, and local resources to support the production of affordable housing.

2. Economic Development

- Large vegetative buffers in excess of 100 feet, to be determined by the Planning Board, should be maintained between the airport and any development.

- Developments should retain as many mature trees as possible as to not reduce existing noise and visual barriers.

- Generally, commercial and industrial development should be limited to areas already developed including infill.

- Commercial and corporate development should generally be encouraged along Route 207 from Toleman Road east to Union Avenue and from Route 300 to the Five Corners Intersection to support the airport and further economic development.

- Future non-residential development should be limited along residential corridors along Route 207, generally west of Toleman Road, and other predominantly residential corridors in order to maintain the rural and historic qualities of these areas (see Land Use Plan).

- Coordinate with the Orange County Partnership and Chamber of Commerce to promote local business and quality employment in designated areas, particularly in the eastern portion of the Town along major routes and thoroughfares.

- Developments should be designed using natural materials and be developed at a pedestrian scale. Roofs should be pitched or gabled and other architectural elements should be incorporated whenever possible in order to reduce monotony, create interesting development, and retain the attractiveness of corridors.

- The size of a development should be appropriate for its surroundings. Large facades, over 100 feet in length, should be designed to visually reduce the mass of the building.

- Proximity of a development project to historic corridors or structures and rural or scenic areas should be taken into consideration in design. New development should be designed to blend into the landscape in which it is being designed.

- Signage should be constructed of similar materials and color as the building to which it is accessory. Pylon or pole signs should be avoided and monument signs should only be permitted in cases where the Planning Board determines that a building is not sufficiently visible from the roadway.

- Landscaping plans should be reviewed by the Planning Board during the planning review process to ensure not only a mix of appropriate vegetation on the property but also to ensure adequate screening from neighboring properties, around parking areas and dumpster enclosures.

- Curb cuts should be minimized along congested commercial corridors and should be set back from intersections.

3. Natural Resources

- Utilize available organizational and financial resources, within the budgetary constraints of the Town to acquire/purchase or otherwise protect additional watershed protection lands directly adjoining the Silver Stream Reservoir.

- Work jointly with the City of Newburgh to assist in the protection of City owned watershed lands surrounding the Silver Stream Reservoir.

- Develop initiatives to encourage the use of varied transportation modes, including non-motorized modes of walking and bicycling when feasible, reducing vehicular emissions.

- Institute an energy conservation program through the following measures:

    - Consumer education with information available at Town Hall and on the Town website.
    - Require developers to explore the use of alternate forms of energy, particularly in new commercial or residential buildings. This should include solar lighting where appropriate. The County and State offer grants and tax incentives for green design.
    - Encourage new one- or two-family dwelling or multifamily dwellings of three stories or less to meet the requirements for a New York Energy Star labeled home.

- Encourage local government to utilize green building and energy conservation technologies and practices in the renovation and construction of municipal buildings and facilities.

- Encourage alternative approaches to development including residential conservation clustering on larger lots particularly within environmentally sensitive areas and particularly in the western portion of the Town. Cluster development may be required at the discretion of the Planning Board.

- Work cooperatively with the New York State Department of Environmental Conservation in the preservation and protection of the Stewart Forest lands.

- Continue to explore creative strategies for the acquisition of open space, particularly open space that contributes to the protection of natural resources and sensitive environments.

- Explore methods of providing public pedestrian access to watershed protection areas of Town's ponds and reservoirs for canoeing, fishing, and other activities.

- Open space that is created or maintained by the design of a subdivision should provide for connections to other similar open spaces.

- Work cooperatively with the Orange County and New York State departments of transportation to ensure that trees are preserved or provided along County and State routes within the Town.

4. Transportation

- Require new subdivisions to connect to other local roads and adjacent subdivisions within the Town and discourage the use of cul-de-sacs in order to aid in circulation and keeping unnecessary traffic off major roadways. All new connections should be unrestricted access. Traffic calming methods should be implemented to ensure local neighborhood roadways are impacted as little as possible by through traffic.

- Urge Orange County and the NYSDOT to construct turning lanes where appropriate on major roadways as recommended in the NYSDOT Master Plan.

- Reduce access points along major roads and encourage joint use of curb cuts and marginal access drives.

- Encourage the County to fund additional Dial-A-Bus service.

- Explore ways to increase access to bus service in the Town by expanding the number of bus routes and stops.

- Encourage the development and maintenance of bus shelters along existing bus routes throughout the Town

- Apply necessary signage in conjunction with traffic calming techniques especially at known pedestrian crossings and near schools and recreation lands.

5. Parks, Recreation, & Historic Resources

- Explore opportunities for emerging recreational needs including, but not limited to skateboarding, equestrian trails, etc.

- Emphasis should be placed on maintaining and/or enhancing the physical condition of parks where appropriate.

- Expand physical access to the Hudson River where possible.

- As development expands into the western portion of Town, additional recreational sites and needs should be assessed. Consideration should be given to accessibility to newly developing areas.

- The appropriateness of requiring sidewalks in new subdivisions in the Town should be selected carefully to maximize their usefulness to the community.

- Vegetative buffers should be required to protect historic developments and their surrounding viewsheds from new developments.

- Encourage property owners to list their eligible properties on the National Register of Historic Places and the State Historic Register.

6. Utilities

- Where appropriate capacity exists, a development that is consistent with the Town's planning policies, zoning, land use controls, and surrounding neighborhood should be able to tie into existing Town water and sewer systems or package plants in order to protect aquifers, streams, and waterbodies.

- New water and sewer districts should be permitted to be free standing if practical and any new infrastructure costs should be the responsibility of the developer.

- Priority for municipal water and sewer should be given to existing districts with any expansion limited to infill and possible municipal expansion only if the capacity is available and only if the proposed development is consistent with the Town's planning objectives, zoning, sound land use principals and environmental controls.

7. Agriculture

- Insure that zoning regulations do not inhibit the operation of existing agricultural operations.

- Promote agriculture-based tourism in New Windsor. This may include "pick-your-own" or "cut-your-own" type operations that would add to the local economy while keeping farming activities in the public eye.

- Allow for increased flexibility in permitting alternative uses for existing agricultural facilities or buildings in order to assure economic viability.

Town of New Windsor, NY
Friday, May 9, 2014

Chapter 300. ZONING

[HISTORY: Adopted by the Town Board of the Town of New Windsor 10-3-2012 by L.L. No. 4-2012. *Editor's Note: This local law also repealed former Ch. 300, Zoning, adopted 5-21-1975 by L.L. No. 3-1975 (Ch. 48 of the 1972 Code), as amended.* **Amendments noted where applicable.]**

GENERAL REFERENCES

Airports and landing areas — See Ch. **84**.
Animals — See Ch. **96**.
Environmental quality review — See Ch. **130**.
Flood damage prevention — See Ch. **151**.
Freshwater wetlands — See Ch.**156**.
Junkyards — See Ch. **176**.
Mobile homes — Ch. **193**.
Sewers — See Ch. **240**.
Solid waste — See Ch. **246**.
Stormwater management — See Ch 249.
Subdivision of land — See Ch.**257**.
Wireline telecommunications systems — See Ch. **292**.

Article I. Title and Purpose

§ 300-1. Title.

A. The title of this chapter shall be "A Local Law Repealing and Reenacting the Zoning Law of the Town of New Windsor."
B. This chapter shall be known and may be cited as the "Zoning Law of the Town of New Windsor, New York."

§ 300-2. Purpose.

There is hereby established a new Zoning Law for the Town of New Windsor, which law is set forth in the text and map *Editor's Note: Said map is on file in the Town offices.* that constitute this chapter. Said law is adopted for the purposes set forth in §§ 261 and 278 of the Town Law, which, in the interest of the protection and promotion of the public health, safety and welfare, shall be deemed specifically to include the following, among others to:

A. Provide adequate development standards to ensure a balanced and orderly pattern of future growth and economic stability.

B. Ensure that future growth is coordinated with the Town's ability to provide adequate municipal services.
C. Promote a safe and efficient circulation network which will serve the various types and intensities of pedestrian and vehicular traffic generated by future development within the Town.
D. Protect the natural features of the Town, including but not limited to wetlands, lakes, reservoirs, streams and riverfront, from filling, erosion and pollution.
E. Provide for the present and future residents of the Town by encouraging the development of a balanced variety and quantity of sound housing opportunities for all segments of the population.
F. Ensure adequate land resources for housing, industry and commerce.
G. Provide for the gradual elimination of nonconforming uses.
H. Protect and enhance the community's appearance.
I. Ensure the efficient and adequate provision of public facilities and services.
J. Protect residential areas and provide privacy for families.
K. Encourage flexibility in the design and development of land in such a way as to promote the most appropriate use of lands, to facilitate the adequate and economical provision of streets and utilities and to preserve the natural and scenic qualities of open lands.
L. Make provisions for, in accordance with § 263 of the Town Law, as amended by Chapter 295 of the Laws of 1956 and as further amended by Chapter 742 of the Laws of 1979, the accommodation of solar energy systems and equipment and access to sunlight necessary therefor.

Article II. Zoning Districts and Zoning Map

§ 300-3. Districts established.

A. There are hereby established, and the Town of New Windsor is divided into, classes of districts listed below and their purpose described below:

Symbol	Title
R-1	Rural Residential
R-2	Open Space Residential
R-3	Suburban Residential (including two-family)
R-4	Suburban Residential (excluding two-family)
R-5	Multiple-Family Residential
NC	Neighborhood Commercial
LC	Limited Commercial
HC	Highway Commercial

Symbol	Title
OLI	Office and Light Industrial
PI	Planned Industrial
AP	Airport
CL-1	Cluster
SCO	Senior Citizen Overlay
WFO	Workforce Housing Overlay
WO	Watershed Overlay
MU	Municipal Use

(1) Rural Residential (R-1) purpose. The purpose of the R-1 District is to protect the environmentally sensitive steep or wet areas and aquifer recharge areas of the Town and to preserve the open rural character while providing a suitable low-density environment for single-family residences and limited nonresidential uses.

(2) Rural Residential (R-2) purpose. The purpose of the R-2 District is to protect the environmentally sensitive steep or wet areas and aquifer recharge areas of the Town and to preserve the open rural character while providing a suitable low- and medium-density environment for single-family residences and limited nonresidential uses.

(3) Suburban Residential (R-3) purpose. The purpose of the R-3 District is to provide a suitable environment for one- and two-family residences and compatible uses in developed portions of the Town.

(4) Suburban Residential (R-4) purpose. The purpose of the R-4 District is to provide a suitable environment for one-family residences and compatible uses in developed portions of the Town. Two-family and multiple-family residences are not a permitted use in the R-4 District.

(5) Multiple-Family Residential (R-5) purpose. The purpose of the R-5 District is to provide a suitable environment for one-family, two-family, and multiple-family residences and compatible uses in developed portions of the Town.

(6) Neighborhood Commercial (NC) purpose. The purpose of the NC District is to encourage commercial uses and offices intended to serve the immediate area or neighborhood, primarily with convenience goods and services.

(7) Limited Commercial (LC) purpose. The purpose of the LC District is to encourage a greater range and more intensive land uses than what is permitted in the Neighborhood Commercial Zone. This is intended to include retail stores and restaurants, service establishments, professional office buildings, hotels and motels, mini warehouses, and other similar uses.

(8) Highway Commercial (HC) purpose. The purpose of the HC District is to encourage a full range of commercial activity along major highways.

(9) Office and Light Industrial (OLI) purpose. The purpose of the OLI District is to promote the establishment of cultural, educational, office and light industrial uses.

(10) Planned Industrial (PI) purpose. The purpose of the PI District is to encourage a full range of non-nuisance environmentally sensitive industrial activities.

(11) Airport (AP) purpose. The purpose of the AP District is to promote the establishment of a well-designed commercial development in close proximity and in harmony with Stewart International Airport, and to provide flexibility in such design and development in order to best utilize the lands of the airport and the surrounding properties.

(12) Cluster (CL-1) purpose. The purpose of the CL-1 District is to encourage the efficient use of land, accommodate reduced infrastructure while preserving a range of housing types.

(13) Senior Citizen Overlay (SCO) purpose. The purpose of the CO District is to address the need for housing projects located and designed to meet the special needs and habits of older people, to be known as "senior citizen projects." Such housing projects will tend to contribute to the dignity, independence and meaningful activity of older people in retirement years. Housing projects for the Town's senior citizens, if not properly located, constructed, and maintained, may be detrimental to the general welfare, health and dignity of the residents.

(14) Watershed Protection Overlay (WO) purpose. The purpose of the Watershed Protection Overlay District is to promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town from any use of land or buildings which may reduce the quality of its water resources. The intent of the district is to limit the amount of impervious surface permitted within the district in order to control nonpoint source discharge and pollution. Cluster development may be required at the discretion of the Planning Board.

(15) Workforce Housing (WFO) purpose. The purpose of the WFO District is to address the need for housing developments located and designed to meet the needs of everyday working families and citizens of the Town of New Windsor, to be known as "workforce housing developments," as such housing developments tend to contribute to the dignity and independence of people at a greater range of income levels.

(16) Municipal Use (MU) purpose. The purpose of the MU District is to provide flexibility for the Town in its use of Town-owned land so that the Town can provide services to residents of the Town.

B. Protection of historical corridor district. Under the provisions of New York State General Municipal Law § 96-a, the Town of New Windsor hereby designates the following two corridors as being of special historical significance and creates an historical corridor district for zoning purposes. The Planning Board is hereby empowered to impose special conditions and restrictions for the protection, enhancement, perpetuation and use of the historical places in the two historical corridors, including regulations, special conditions and restrictions which it deems appropriate and reasonable for the control, use or appearance of private properties within public view in the historical corridor:

(1) New Windsor Cantonment Historical Corridor. This corridor shall run from the New York State Thruway overpass on Route 207, otherwise known as "Little Britain Road," in a southeasterly direction along Routes 207 and 300, otherwise known as "Temple Hill Road," to the intersection of Route 300 and Old Temple Hill Road. The extent of

the district shall be 400 feet on each side of the right-of-way line of the designated road. For proposed uses within this corridor, the Planning Board shall take into consideration visual impacts, including lighting and screening for uses within the line of site from historic resources.

(2) Knox Headquarters Historical Corridor. This corridor shall run from the intersection of Route 94, otherwise known as "Blooming Grove Turnpike," in an easterly direction along Forge Hill Road to the intersection of Forge Hill Road with Route 9W. The extent of the district shall be 400 feet on each side of the right-of-way line of the designated road.

C. Establishment of workforce housing. The Town Board has determined that there is a need for housing developments located and designed to meet the needs of everyday working families and citizens of the Town of New Windsor, to be known as "workforce housing developments," and believes that workforce housing should be encouraged by the Town of New Windsor. Such housing developments will tend to contribute to the dignity and independence of people at a greater range of income levels. Workforce housing developments, if not properly located, constructed, and maintained, may be detrimental to the general welfare, health and dignity of the residents. It is also deemed essential that the Town of New Windsor safeguard against the deterioration of a workforce housing development. For requirements relating to workforce housing, see § **300-20**.

D. Senior citizen housing. The Town Board has determined that there is a need for housing projects located and designed to meet the special needs and habits of older people, to be known as "senior citizen projects," and believes that senior (age-restricted) housing should be encouraged by the Town of New Windsor. Such housing projects will tend to contribute to the dignity, independence and meaningful activity of older people in retirement years. Housing projects for the Town's senior citizens, if not properly located, constructed, and maintained, may be detrimental to the general welfare, health and dignity of the residents. It is also deemed essential that the Town of New Windsor safeguard against the deterioration of a senior housing project. For requirements relating to senior citizen housing, see § **300-18**.

E. Conversion of municipal uses. Upon the Town's transfer of title to property that, at the time of transfer, is within the Municipal Use Zoning District, then the subsequent zoning district for said property will automatically convert to the same district that surrounds the property, and the Town's Chief Information Technology Officer shall prepare and file an amended zoning map updated to reflect the conversion.

§ 300-4. Zoning Map.

The boundaries of said districts are hereby established as shown on the Zoning Map of the Town of New Windsor, which is hereby adopted and made a part of this chapter. A copy of said map, indicating the latest amendments, shall be kept up-to-date in the office of the Town Clerk, with the assistance of the Code Enforcement Officer and the Town's information technology office, for the use and benefit of the public.

§ 300-5. District boundaries.

In determining the boundaries of districts shown on the map, the following rules shall apply:

A. Where district boundaries are indicated as approximately following the center lines of streets, highways, waterways or railroad rights-of-way or such lines extended, such center lines shall be construed to be such boundaries.
B. Where such boundaries are indicated as approximately following the property lines of parks or other publicly owned lands, such lands shall be construed to be such boundaries.
C. Unless otherwise shown, all district boundaries running parallel to streets shall be construed to be 200 feet back from the rights-of-way of said streets.
D. In all cases where a district boundary divides a lot in one ownership and more than 50% of the area of such lot lies in the less-restricted district, the regulations prescribed by this chapter for the less-restricted district shall apply to such portion of the more-restricted portion of said lot which lies within 100 feet of such district boundary, provided that for any proposed nonresidential use abutting an existing residential use, a buffer sufficient, in the Planning Board's opinion, to screen and protect the residential use is provided. For purposes of this section, the more-restricted district shall be deemed that district subject to regulations which prohibit the use intended to be made of said lot or which require higher standards with respect to coverage, yards, screening, landscaping and similar requirements.
E. In all cases where a district boundary line is located not farther than 15 feet away from a lot line of record, the entire lot shall be subject to the regulations of the district covering the majority of the lot.
F. In all other cases where dimensions are not shown on the map, the location of boundaries shown on the map shall be determined by the use of the scale appearing thereon.
G. Lot lines changes shall not affect or alter district boundaries.

§ 300-6. Effect of chapter; prohibited uses.

A. Following the effective date of this chapter:
   (1) No building shall be erected, moved, altered, rebuilt or enlarged, nor shall any land or building be used, designed, arranged to be used, or modified, for any purpose or in any manner except in conformity with all regulations, requirements and restrictions specified in this chapter for the district in which such building or land is located.
   (2) No yard or open space required in connection with any building or use shall be considered as providing a required open space for any other building on the same or any other lot.
   (3) No lot shall be formed from part of a lot already occupied by a building unless such building, all yards and open spaces connected therewith and the remaining lot comply with all requirements prescribed by this chapter for the district in which said lot is located. No permit shall be issued for the erection of a building on any new lot thus created unless such building and lot comply with all the provisions of this chapter.
B. Nothing contained in this chapter shall require any change in the plans, construction or designated use of a building complying with regulations in force prior to this chapter, if either of the following is found to exist:
   (1) A building permit or certificate of occupancy shall have been duly issued prior to the date of first publication of notice of the public hearing on this chapter.
   (2) The entire building shall have been completed in accordance with such plans as have been filed with the Town within one year from the effective date of this chapter.

C. Any use not permitted by this chapter shall be deemed to be prohibited. Any list of prohibited uses contained in any section of this chapter shall not be deemed to be an exhaustive list but has been included for the purposes of clarity and emphasis and to illustrate, by example, some of the uses frequently proposed that are deemed undesirable and incompatible and are thus prohibited.

Article III. Use Regulations

§ 300-7. Use regulations established.

The general regulations affecting the use of buildings, structures and land for each of the districts established by Article **II** are hereby established and set forth in this article.

§ 300-8. Table incorporated by reference.

The accompanying table titled the "Town of New Windsor Table of Use/Bulk Regulations" shall be deemed part of this section and is referred to herein as the "Table of Use/Bulk Regulations." *Editor's Note: The Table of Use/Bulk Regulations is included at the end of this chapter.*

Article IV. Bulk Regulations

§ 300-9. Bulk regulations established.

The general regulations affecting the bulk and arrangement of buildings and structures and the density of residential development and of materials and equipment occupying land in connection with nonbuilding uses thereof for each of the districts established by Article **II** are hereby established and set forth in this article.

§ 300-10. Table incorporated by reference.

The accompanying table titled the "Town of New Windsor Table of Use/Bulk Regulations" shall be deemed a part of this section and is referred to herein as the "Table of Use/Bulk Regulations." *Editor's Note: The Table of Use/Bulk Regulations is included at the end of this chapter.* A copy of the Table of Use/Bulk Regulations, indicating the latest amendments, shall be kept up-to-date in the office of the Town Clerk, with the assistance of the Code Enforcement Officer and the Town's information technology office, for the use and benefit of the public.

Article V. Supplementary Regulations

§ 300-11. Yards.

A. Accessory buildings.

(1) An accessory building may be located in any required side or rear yard, provided that:

(a) Such building shall not exceed 15 feet in height or the maximum height of the principal building, whichever is less.

(b) Such building shall be set back at least five feet from any lot line.

(2) An accessory building on that portion of a lot not included in any required yard shall not exceed the height of the principal building.

(3) No accessory building shall project nearer to the street on which the principal building fronts than such principal building. Should topographic conditions be such that practical difficulties would be caused by this requirement with respect to the location of garages, the Planning Board may authorize the erection of such garages under the following conditions:

(a) If the natural slope is from 10% to 20% within 25 feet of the street line, the Board may permit a garage not closer than 20 feet to the street line.

(b) Where such slope exceeds 20%, a garage may be permitted not closer than 10 feet to the street line.

B. Corner lots.

(1) Obstruction of vision at street intersections. At all street intersections in all districts, no obstructions of vision exceeding 30 inches in height above curb level shall be erected or maintained on any lot within the triangle formed by the street lines of such lot and a line drawn between points along such street lines 30 feet distant from their point of intersection.

(2) Rear and side yards. On a corner lot, front yards are required on both street frontages, and one yard other than the front yards shall be deemed to be a rear yard and the other or others side yards.

C. Exceptions to yard requirements.

(1) Permitted obstructions.

(a) Cornices or cantilevered roofs may project not more than three feet into a required yard. Belt courses, windowsills and other ornamental features may project not more than six inches into a required yard.

(b) Bay or bow windows cannot project more than 30 inches into a required yard.

(c) Fences or walls not over six feet in height may be erected anywhere on the lot except as follows: between the principal building and the street or streets on which it fronts, the maximum permissible height shall be four feet except as set forth in Subsection **B**, Corner lots. Fences or walls in excess of six feet shall be permitted where specifically required by the Town Planning Board for screening or other related purposes, as part of a site plan approval.

(d) Fences or walls with a height in excess of six feet shall conform to the requirements set forth herein for buildings, unless such fence or wall is required for screening or other related purpose as part of a site plan approval granted by the Town Planning Board.

(e) Paved terraces, steps, and walks not exceeding three feet above the average finished grade (measured along the front wall of the building which it serves), other than such as are needed to provide access to the buildings on the lot, shall not project to within 15 feet of a front lot line nor within 10 feet of any other lot line.

(f) Nonmobile residential recreational uses, including but not limited to jungle gyms, tennis courts or basketball courts (excluding stand-alone basketball hoops) shall not be located within a front yard. Such facilities may be located in a side or rear yard, provided they are at least five feet from a property line. Swimming pools shall be regulated as per § **300-19**.

(g) Stand-alone basketball hoops shall be located no closer than 10 feet to any property line.

(2) Entries and porticos. A roofed-over but unenclosed projection in the nature of an entry or portico, not more than eight feet wide and extending not more than six feet out from the front wall of the building, shall be exempt from front yard requirements when the building otherwise complies with all other yard restrictions of this chapter.

D. Unlicensed vehicles. The sale or storage of unlicensed vehicles or parts is prohibited in all districts except in enclosed structures or except in compliance with approval of the Planning Board, provided that one unlicensed vehicle belonging to the homeowner or resident may be stored outside or offered for sale for a period of not longer than one year on any property which is a one- or two-family dwelling, and provided that the vehicle is in condition for legal operation on the public highways. The standard for legal operation on public highways shall be the New York State Department of Motor Vehicle laws.

E. Roadside, yard, attic, garage, basement, tag, moving and estate sales. Roadside, yard, attic, garage, basement, tag, moving, estate and like sales shall not be permitted, or their contents displayed or stored, within 25 feet of the edge of the pavement or curb of highways, roads or rights-of-way in the Town of New Windsor, except farm produce, farm products or nursery stock. Such sales shall only be permitted on properties which are one- or two-family dwellings. Only merchandise, personal property, equipment or articles owned and used by the owner or occupant of the property in which such sales are conducted shall be permitted. Such sales shall not be permitted where a hazard to traffic is created on any public road, commercial parking lot or private driveway. Signs advertising such sales shall conform to the requirements of this Code; all such signs must be taken down within 24 hours of the date of the sale, and no sign shall be placed on utility poles or other public property. Such sales shall not be permitted to exceed two days in any calendar month.

F. Waste or discarded material storage.

(1) No waste, discarded items, debris, junk, secondhand material or unused equipment shall be stored or kept outside, including such items as may be intended for future reuse or resale or used previously in the business or on the premises, which taken all together exceeds in bulk three cubic yards, except those items stored in a metal dumpster container awaiting removal from the property. Items covered in this subsection shall include but not be limited to boxes, trash, cases, tiles, metals, plastics, wood, cloth, stone, cement pipes or otherwise.

(2) A maximum of six garbage cans shall be set outside for each scheduled pickup by the Highway Department or a private contractor. Any debris resulting from spillage by animals or otherwise shall be promptly picked up by the owner or occupant, and empty garbage cans shall be brought inside on the same day as pickup.

§ 300-12. Nonresidential buildings (excluding accessory structures).

A. Waiver of yards. No side yard or rear yard shall be required where such yard abuts an operating railroad right-of-way.

B. Courts.

(1) The minimum dimension of an inner court shall not be less than twice the height of all surrounding walls. However, in no case shall an inner court have a dimension of less than 30 feet. The height of walls surrounding an inner court shall be measured from the finished grade at the base thereof to the top of such wall, except that, in the case of roofs with a slope exceeding five inches vertical to 12 inches horizontal, the height shall be measured to the mean point between the top of said wall and the highest point of the roof.

(2) The minimum dimension of an outer court shall be 20 feet, and its depth shall not exceed its width.

C. Nonresidential buildings on lots abutting or within residential districts.

(1) Where a nonresidential building is proposed to be constructed or expanded on a lot that abuts any lot in a residential district or is within a residential district, then a buffer sufficient, in the Planning Board's opinion, to screen and protect the residential use shall be provided.

§ 300-13. Accessory uses.

The following are permitted accessory uses in all zones on the Table of Use/Bulk Regulations:
Editor's Note: The Table of Use/Bulk Regulations is included at the end of this chapter.

A. Swimming pools subject to § **300-19**.

B. Domestic animals as follows: not more than three cats and/or dogs over one year old. In no case shall the number of domestic animals total more than three in combination of species of cat or dog.

C. In the R-1, R-2, and R-3 Zones, up to two horses, plus their foals not over one year old, provided that the animal(s) is restrained such that said animal cannot enter any portion of the premises within 75 feet of any property line, shall be permitted on a lot of not less than 2.5 acres where appropriate facilities, to be determined by the Planning Board, exist. One additional horse shall be permitted for each additional acre above 2.5 acres.

§ 300-14. Shopping carts.

Shopping carts must be retained on the site of the store or complex. Cart collection areas shall be conveniently located throughout the parking area for the return of carts to established areas. Cart collection areas shall not conflict with required parking spaces.

§ 300-15. Landscaping, lighting and environmental control.

A. The use of living plant material as an adjunct to all uses subject to these regulations shall be mandatory. Landscape materials shall be utilized in a positive manner in all developments for architectural elements, space articulation, screening, privacy control, erosion control, acoustical control, atmospheric purification, traffic control, glare and reflection control, solar radiation control, wind control, precipitation control and temperature control.

B. Land area restricted from development coverage shall be preserved in natural landscape or shall be reestablished according to the following general standard: one deciduous or evergreen tree of 2 1/2 inches caliper per 2,000 square feet of area.

C. Developed area shall be landscaped according to the following general standard: one deciduous or evergreen tree per 5,000 square feet of area and one low-planting species per 10 linear feet of parcel perimeter.

D. Erosion and sedimentation controls shall be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, which controls shall be the minimum requirements.

E. For uses requiring site development plan review, the Planning Board may require a detailed landscaping plan.

§ 300-16. Clustered open space.

Open space land created as part of a subdivision, site plan or planned unit development and not dedicated fee simple to the Town of New Windsor for recreation purposes shall be in one of the following forms of ownership: a homeowners' association approved by the Town Attorney and Town Board and by the New York State Attorney General, or any other arrangements approved by the Town Attorney and Town Board as satisfying the intent of this chapter. Whenever a homeowners' association is proposed, the Town Board shall retain the right to review and approve the articles of incorporation and charter of said homeowners' association and to require whatever conditions it shall deem necessary to ensure that the intent and purpose of this chapter are carried out. In consideration of said approval, the Town Board shall, in part, require the cluster development to meet the following conditions:

A. The homeowners' association shall be established as an incorporated, nonprofit organization operating under recorded land agreements through which each lot owner, and any succeeding owner, is automatically a member and each lot is automatically subject to a charge for a proportionate share of the expenses for the organization's activities.

B. Title to all common property shall be placed in the homeowners' association, or definite and acceptable assurance shall be given that it automatically will be so placed within a reasonable period of time.

C. Each lot owner shall have equal voting rights in the association and shall have the right to the use and enjoyment of the common property.

D. Once established, all responsibility for operation and maintenance of the common land and facilities shall lie with the homeowners' association.

E. The preservation of all common areas shall be recorded directly on the subdivision plat or by reference on the plat to a dedication in a separately recorded document. Re-subdivision of such areas is prohibited. The dedication shall:

(1) Reserve the title of the common property for the homeowners' association free of any cloud of implied public dedication.

(2) Commit the developer to convey the areas to the homeowners' association at an approved time.

(3) Grant easements of enjoyment over the area to the lot owners.

(4) Give to the homeowners' association the right to borrow for improvements upon the security of the common areas.

(5) Give to the homeowners' association the right to suspend membership rights for nonpayment of assessments or infraction of published rules.

F. Covenants shall be established which limit all lots to one-family use, or as stipulated on the approved subdivision plat or site plan, and all common lands to open space uses. No structures may be erected on such common lands except as shown on a subdivision plat or site plan approved by the Planning Board.

G. Each deed to each lot sold shall include by reference all recorded declarations, such as covenants, dedications and other restrictions, including assessments and the provision for liens for nonpayment of such.

H. The homeowners' association shall be perpetual, shall purchase insurance, pay taxes and specify in its charter and bylaws an annual homeowner's fee and provision for assessments and shall establish that all such charges become a lien on each property in favor of said association. The homeowners' association shall have the right to proceed in accordance with all necessary legal action for the foreclosure and enforcement of liens, and it shall also have the right to commence action against any member for the collection of any unpaid assessment in any court of competent jurisdiction.

I. The developer shall assume all responsibilities as previously outlined for the homeowners' association until a majority of the dwelling sites are sold, at which time the homeowners' association shall be automatically established.

J. Prior to subdivision plat or site plan approval, the developer shall file with the Town Board a performance bond to insure the proper installation of all recreation and park improvements shown on the subdivision plat site plan and a maintenance bond to insure the proper maintenance of all common lands until the homeowners' association is established. The amount and period of said bonds shall be determined by the Planning Board, and the form, sufficiency, manner of execution and surety shall be approved by the Town Attorney and Town Board.

Article VI. Supplementary Use Regulations

§ 300-17. Purpose.

In addition to the use regulations set forth in Article **III**, the following specific regulations and standards for uses listed herein shall be the minimum requirements for the protection of the public health, welfare and safety.

§ 300-18. Senior citizen housing.

A. Purpose. The Town Board has determined that there is a need for housing projects located and designed to meet the special needs and habits of older people, to be known as "senior citizen projects," and believes that senior (age-restricted) housing should be encouraged by the Town of New Windsor. Such housing projects will tend to contribute to the dignity, independence and meaningful activity of older people in retirement years. Housing projects for the Town's senior citizens, if not properly located, constructed, and maintained, may be detrimental to the general welfare, health and dignity of the residents. It is also deemed essential that the Town of New Windsor safeguard against the deterioration of a senior housing project.

B. General. A senior citizen project may be allowed in the SCO Zoning District, following issuance of a special permit of the Town Board of the Town of New Windsor, and site plan review and approval of the Planning Board. The special permit may also provide within the project a reasonable number of senior-citizen-oriented commercial establishments (accessory uses), on the basis that the purpose of these establishments is to primarily serve the senior housing residents. The senior citizen housing project is conditional upon

obtaining a special permit from the Town Board in accordance with the procedure set forth and upon substantial compliance with the standards and regulations herein.

C. Intent and objectives. It is the intent of this section to encourage the development of market-priced, as well as affordable, multiple-dwelling units for senior citizens. The specific objectives of this section are:

(1) To encourage housing opportunities for senior citizens, including affordable housing for those senior citizens living on fixed or limited income, in order to give such residents the opportunity to remain in the community close to family and friends.

(2) Make quality affordable housing available to senior citizens, with the scope and design of the project intended to establish a worthwhile asset for this segment of the community and the community as a whole.

(3) To provide appropriate sites for the development of such housing in convenient locations.

(4) To provide, within the boundary of the project, appropriate social, recreational and other facilities, which will contribute to the independence and meaningful activity of senior citizens.

(5) To provide for the safety and convenience of residents through site design and housing unit design requirements which consider:

(a) The special physical and social needs of senior citizens; and

(b) The physical characteristics of the project site.

(6) To regulate the nature and density of senior citizen housing developments, their site layout and design and their relationship to adjoining uses so as to provide ample outdoor living and open space for residents, to preserve trees, and to minimize detrimental effects on the site and surrounding neighborhood and environment.

D. Site selection.

(1) Sites must be located in areas suitable for residential purposes, in predesignated overlay zones, and must be reasonably free of objectionable conditions such as industrial odors, noise, dust, air pollution, high traffic volumes, incompatible land uses, steep slopes, wetlands and other environmental or physical constraints.

(2) The site should be located within reasonable proximity to public transportation service, or, in the alternative, provisions shall be included in the design of the site for future routing of buses, and provisions for a shuttle bus or other transportation service at the site (i.e., shelters and pickup areas should be included within the plans. Such plans for any and all bus shelters and pickup areas shall specifically provide for both maintenance and ownership of said shelters or pickup areas as directed by the Planning Board.).

(3) The site shall be located such that access to the site can be obtained from a public street which meets current design standards of the Town with respect to roadway width and alignment and acceptable sight distances can be developed at the site entry/exit and at intersections in the vicinity of the site.

(4) Sites must be selected with due regard to providing residents with reasonable access to such conveniences and facilities as public transportation, hospitals and medical services, shopping, religious, cultural and recreational facilities.

(5) Municipal water and sewers must be provided at the site, as well as electric, cable and telephone.

(6) Sites shall afford a safe and convenient system of drives, service access and adequate internal and off-site sidewalks conveniently accessible to all occupants.

E. Permitted principal and accessory uses.

(1) Principal uses. The senior citizen housing special use permit will allow as a principal permitted use:

(a) Multifamily dwelling project, provided that such dwellings are arranged as individual dwelling units for the occupancy of senior households, as defined below. The senior citizen site plan may be a mix of various occupancy units [multiple-unit (three-dwelling units or greater), duplex and/or single units], provided that the units are arranged to function as an overall site plan project, and remain a single property without internal subdivision.

(b) Exception. Notwithstanding the other provisions of this section, one unit may be occupied by a project superintendent or manager and his/her family (not to exceed a total of five persons). If a project has 100 units or more, an on-site project superintendent or manager will be required. The superintendent or manager's unit will be included in the calculated number of units in a project. The project superintendent and family will not be subject to the occupancy restrictions listed elsewhere in this section.

(c) Exclusion. This chapter does not permit nursing homes, convalescent homes, private proprietary homes, homes for the aged, or other facility regulated and licensed by the New York State Department of Health under the Public Health Law of the State of New York.

(2) Accessory uses. The following accessory uses are permitted:

(a) Accessory uses, including buildings and facilities, which are reasonably necessary to meet the proper maintenance, administration, security, off-street parking, storage, fencing and utility system needs of the project and are subordinate to the residential character of the project.

(b) The following accessory uses are permitted and encouraged (and, in projects with 100 or more units, may be required by the Planning Board as a condition of site plan approval), provided that such facilities are approved by the Planning Board and managed as part of the building or complex of buildings and restricted in their use to residents of the building or building complex and further provided that there are no external advertising signs for such facilities:

[1] A dining room (with kitchen to be utilized by facility staff), meeting rooms, theaters, multipurpose rooms, lounges, library, lobby areas, or other similar common spaces.

[2] A beauty shop and/or barbershop, provided that the maximum floor area devoted to such use is no more than 400 square feet.

[3] A convenience shop for daily needs such as food items, prescription and nonprescription drugs, newspapers and small household items and similar items, provided that the maximum floor area devoted to such use is no more than 500 square feet.

[4] A coin-operated vending machine room, provided that the maximum floor area devoted to such use is no more than 150 square feet.

[5] Office space for a doctor, medical infirmary or clinic and/or social service delivery.

[6] Security office and/or on-site security patrols.
[7] Outdoor pool, game areas, sitting areas, walking trails or other outdoor recreation or leisure facilities.

(c) Exception. Notwithstanding the other provisions of this section, certain community recreation facilities and open space not restricted in use to residents of the project and accessory to a senior citizen housing project may be open to the public and separately owned and operated.

[1] Authorization for such an exception must be approved by the Town Board as part of the special permit. Details for operation of the facilities (including hours of operation, public and resident participation limitations, etc.) may be conditions of the special permit and shall be subject to the review and approval of the Planning Board, as part of site plan review.

[2] The following accessory uses are permitted as such community recreation facilities:

[a] Protected open space and parks.
[b] Golf course, together with related clubhouse, driving range, putting green and miniature golf facilities.
[c] Marina and related clubhouse.
[d] Gymnasium, sports dome or similar facility.
[e] Indoor and/or outdoor swimming pools.
[f] Tennis, paddleball and handball facilities.
[g] Other similar active or passive recreation facilities as may be deemed appropriate by the Town Board and Planning Board.

[3] Any such clubhouses, buildings or other such facilities provided as part of the community recreation facilities shall not count toward the required indoor community space of Subsection **I(1)(b)** of this section.

[4] Such community recreation facilities shall be subject to the following:

[a] The authority of a board or entity which shall be responsible for the operation and affairs of the property encompassing both the community recreation facility and the senior housing project and shall have the power to enforce obligations of the owners.
[b] A declaration to be recorded or an offering plan approved by the appropriate governmental authorities which preserves the senior residents' rights to use the facilities on terms no less favorable than the general public.
[c] Charges for the operation, care, upkeep, repair and maintenance of the common elements which serve both the senior housing project and community recreation facility.
[d] Any and all conditions of the special permit issued by the Town Board and any conditions of the site plan approval issued by the Planning Board.
[e] These restrictions, relative to the operation of the community recreation facilities, shall be memorialized in a covenant filed with the Orange County Clerk's office and Town Clerk's office, and shall be incorporated into all contracts for the operation of the community recreation facilities.

F. Occupancy and occupancy definitions for residential occupancy. Occupancy of dwelling units within a senior citizen project shall be for residential purposes only. Occupancy shall be limited to senior households as defined and described below:

(1) Senior household. For purposes of this section, a senior household shall consist of:

(a) One or more persons, all of whom are 55 years of age or older.

(b) A spouse (over or under the age of 55) of a qualified resident 55 years of age or older.

(c) One adult 18 years of age or older residing with a person who is 55 years of age or older, provided that said adult is essential to the long-term care of the senior citizen as certified by a physician duly licensed in New York State.

(d) A permanently disabled child or grandchild of a qualified resident may reside with the senior citizen, provided that the senior resident is a parent or grandparent of the child.

(2) For the purpose of this section, "affordable housing" shall mean residential units available for a sales price or rental fee that will be affordable to households earning 100% of the Orange County, New York, median family income as established by the United States Department of Housing and Urban Development; or, if no such statistics are available, then as that term may be defined by and for the County of Orange, Department of Planning.

(3) Guests. Temporary occupancy by guests of families who reside in a senior housing unit shall be permitted for a maximum of seven consecutive nights, provided that such occupancy does not exceed 30 total days in any calendar year, total for all guests (combined) at a particular dwelling unit. Guests staying for more than three consecutive nights will advise the project superintendent or manager of their occupancy. The project superintendent or manager shall maintain a log of all guests, and such log shall be available for review by the Code Enforcement Officer of the Town.

(4) Preferences. As permitted by law, first preference for a unit will be given to existing residents of the Town of New Windsor, second preference to the parents of residents of the Town of New Windsor and third preference to other residents of Orange County. A current waiting list shall be maintained by the project representatives. It is not the intent of this provision that any units be held for preference residents if none are on the current waiting list.

G. Lot and bulk requirements.

(1) The following lot and bulk requirements shall apply to projects for a senior citizen housing special use permit, although the Planning Board may upgrade the requirements so as to make the same compatible with the general neighborhood and in accordance with good planning:

(a) Minimum lot area. The minimum permitted lot area shall be five acres (net). In calculating the maximum number of dwelling units per acre, the net lot area (as defined in this chapter) shall be utilized, and any lands which are subject to easements, rights-of-way, encumbrances, NYSDEC or federal wetlands, etc., shall not be considered in the calculation of the total number of available acres. An exception to this restriction is as follows:

[1] For senior citizen housing projects, up to 5% of the property may be encumbered by public or utility easements or rights-of-way without deduction from lot area or subtraction from unit density calculation.

(b) Maximum residential density. The maximum permitted density shall be nine dwelling units per net acre. If the applicant desires a unit density in excess of nine units per net acre, this will be permitted, up to a maximum of 14 dwelling units per net acre, only if affordable housing is provided. In these instances, a minimum of one affordable housing unit shall be provided for each two dwelling units provided above nine per net acre (i.e., 50% of all units over nine per acre shall be affordable housing units).

(c) Maximum development coverage (impervious surface area). Maximum development coverage shall not exceed 75% of the gross lot area. Impervious surface area will include all buildings, structures, and parking area, walkways, and similar improvements.

(d) Minimum front yard. The minimum front yard setback shall be 75 feet measured from the property line. The Planning Board shall have the option of reducing the front yard to 50 feet, where the neighborhood and site conditions warrant the same, in the sole discretion of the Planning Board.

(e) Minimum side and rear yard. The minimum side yard and rear yard setbacks shall be 50 feet measured from the property line. If the property directly abuts a state or county highway, a Town roadway classified as a major road, or a single family residential lot, this setback shall be increased to 75 feet.

(f) Lot width. The minimum lot width shall be 50 feet.

(g) Maximum building height. The maximum building height shall be 50 feet and shall not exceed three stories.

(h) Setbacks as referenced herein do not apply to internal driveways, parking lots, or similar site improvements; however, these improvements are subject to the review of the Planning Board, which may require specific setbacks of improvements or addition of screening as may be warranted by the conditions of the project.

(i) In those districts where senior housing is permitted, the bulk/use table for each zone shall include a separate category entitled "Senior citizen housing" in the appropriate column of uses, which shall also include a footnote stating "Site plan approval by Planning Board required" and "Special permit by Town Board required."

(2) Exception. Notwithstanding the other provisions of this section, certain projects which are otherwise viable may be proposed on lots where the existing configuration of the property warrants decreased setbacks than those provided hereinabove. A waiver may be considered by the Planning Board for setback requirements and lot width, subject to the following:

(a) Authorization for such specific waivers shall have been considered by the Town Board and shall be included in the special permit issued by the Town Board.

(b) Waivers shall only be permitted for side yard and rear yard setbacks and lot width. The maximum waiver shall be a fifty-percent reduction from the requirement referenced in the Code.

(c) The applicant shall demonstrate the reasons why the project could not be reasonably developed in compliance with the setback values referenced in the

Code, and such a waiver is necessary and appropriate. Such factors as a length-to-width ratio of the lot being 5:1 or greater, and/or a limited access width to a public roadway shall be demonstrated.

(d) In considering the waiver, the Planning Board shall consider the impact of the requested waiver and require additional mitigation in the form of screening (fencing, landscaping, etc.) to minimize the impact on the adjoining properties.

(e) When considering such waivers, the Planning Board shall consider access requirements to the site and structures for all emergency services.

(3) Cash payment in lieu of affordable housing units. If the Town Board finds that the community would benefit greater with a cash payment in lieu of provision of affordable housing units, the Town Board may require a cash payment in lieu of the affordable units in accordance with Town Law § 261-b and in an amount established by the Town Board and published in the Standard Schedule of Fees. *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* The maximum density of the project shall still not exceed 14 dwelling units per acre. These funds shall be placed in a dedicated senior citizen fund to be used by the Town Board exclusively for amenities or other services targeted for senior citizens within this project or to benefit senior citizens in general within the Town. Cash payment shall be made prior to a stamp of site plan approval for the project.

H. Site regulations and miscellaneous requirements.

(1) The project design shall be functional and shall provide for the safety, health and general welfare of occupants of this age group.

(2) Access and internal roadways. All access and internal roadways shall be privately owned and maintained unless otherwise approved by the Town Board. All entrances and exits for ingress, egress, and interior circulation will be of a width and location suitable for emergency access to the site and senior housing.

(3) Parking and circulation. Parking spaces shall be provided at the ratio of 2.0 spaces per unit (minimum). The fractional spaces will be rounded to the next highest number. The parking spaces will be conveniently located, evenly distributed, arranged, striped and identified by signage. In general, all spaces shall be within 150 to 200 feet of the unit they are intended to serve. Additional spaces shall be provided at the clubhouse and recreational facilities. The Planning Board may require additional parking for other accessory facilities. No commercial vehicles will be permitted. (Such restriction shall not apply to management company or condo association vehicles utilized for operation of the site.) For purposes of this section, garage and driveway parking spaces will count in the parking calculation.

(4) Outdoor recreation. Usable outdoor recreation space will be provided in a type and quantity as required by the Planning Board. Such space shall consist of both active and passive recreation amenities, such as exercise and game areas, outdoor pool, patio areas, landscaped and shaded sitting areas, walking or jogging trails.

(5) Sidewalks. Each project will provide suitable sidewalks, which may include handrails when appropriate and required by code. Painted or stamped crosswalks will be provided where a sidewalk crosses an access drive.

(6) Landscaping. Each project will provide suitable landscaping in accordance with the standards set by the Planning Board and as required elsewhere in this Code for site plans. Landscaping shall be provided abundantly around active and passive recreational

areas and stormwater quality facilities. Landscaping shall provide visual interest in all four seasons.

(7) Building location; standards.

(a) Placement and orientation of buildings on the site shall be subject to the following requirements:

[1] The side of any principal building, if opposite the side of another principal building, shall be separated therefrom by a distance of not less than the height of the (higher) opposite bounding wall.

[2] In the case of front-to-front and rear-to-rear orientation, the spacing of the buildings shall be not less than 1 1/2 the height of the (higher) opposite bounding wall.

[3] If the rear of any principal building shall face the front of another principal building, it shall be distant therefrom not less than twice the height of the (higher) opposite bounding walls.

[4] Each principal building will be not less than 25 feet from any parking area, roadway, and/or curb. If such area includes a sidewalk, the setback shall be measured from the building side of the walk.

(b) In computation of spacing between buildings, the measurements shall be taken from the outside extremity of any decks, balconies and similar extensions to the structure.

(8) Basement units. Units provided in senior housing projects shall not be of a type or configuration which could be considered basement units, wherein any living quarters are substantially below grade (greater than 33% of lowest level); however, this restriction is not intended to prohibit basements, garages or storage areas as a part of the units otherwise provided with living quarters which are above grade.

(9) Identification signs will be permitted in a location or locations as approved by the Planning Board. Sign dimensions and other requirements shall comply with Article **VIII** of this chapter.

(10) Building identification signs and number/letter identification shall be provided in accordance with the applicable sections of the Code, and as recommended by the Code Enforcement Officer, to promote efficient and timely identification for residents, visitors and emergency personnel.

(11) Artificial lighting. All areas within the project shall be provided with suitable artificial lighting, sufficient for the convenience and safety of older persons. Lighting shall be designed so as not to extend onto adjoining properties or cause glare onto the same. In general, lighting levels at the property line shall be 0.5 footcandle or less, other than at project entrances, where increased levels will be considered or required.

(12) The location of buildings, the arrangement of dwelling units within the buildings and suitable materials and methods of construction shall be utilized to reduce the transmission of sound.

(13) Adequate facilities shall be provided for the removal of snow, trash and garbage and for general maintenance of the project. Trash and garbage facilities shall be enclosed in a permanently enclosed structure. The structure shall be aesthetically appealing and landscaped. Spacing and distribution of the facilities shall be convenient and recognize the age group being served.

(14) Miscellaneous.

(a) Utility service to the site shall be buried.
(b) Outdoor public address systems or other outdoor amplified noise shall be prohibited.
(c) The architectural style of the proposed project, exterior materials, finish and color shall be consistent with existing community and neighborhood character. Building facades shall be brick, wood, stone or a combination thereof. No metal siding shall be used and no concrete block shall be visible from any side of any building.
(d) The site layout and sequencing of the site construction and development shall be such that the site amenities and the indoor community space shall be complete and usable, and all applicable certificates of occupancy and/or compliance obtained, before 50% of the dwelling units are occupied. If the developer has not accomplished the same, he/she shall not request building permits (nor shall any be issued) for any work for the second 50% of the dwelling units.

(15) Applicants are advised that bonding requirements for key site improvements, including landscaping, as referenced in § **300-86** of the Town Code, are applicable.

I. General building and unit requirements.

(1) Buildings shall require the following facilities and services:
(a) Laundry. Laundry facilities (washers and dryers) adequate to serve the occupants of the project shall be provided and maintained. Facilities shall be provided either as common facilities or as individual facilities. Whichever type facilities are selected, all appliances shall be provided and maintained by the project applicant/developer.
[1] If common facilities are provided, the same shall be located in each building, in a convenient location, unless otherwise authorized by the Planning Board.
[2] If individual facilities are provided, washer and dryer units (or combination-type units) shall be provided in a utility closet in each unit of the project.
(b) Indoor community space. Indoor community space and related equipment shall be required to provide social and recreational opportunities for project occupants. Included may be such facilities as recreation/game rooms; art/craft room, workshop, indoor Jacuzzi/pool, meeting rooms, movie theater, computer/media center, exercise rooms or other space for leisure, active or passive recreation. Such space shall be provided based on a total indoor community space equal to 20 square feet of space per dwelling unit in the project, of which seven square feet (per dwelling unit) shall be a community/meeting room. The type and mixture of facilities shall be as required by the Planning Board. The applicant, as part of the site plan application, shall provide a narrative description and general arrangement plan for such facilities.
(c) Appropriate twenty-four-hour maintenance service provisions (at minimum, an on-call service contract shall be maintained).
(d) If there are 100 dwelling units or more, the Planning Board may require any or all of the permitted accessory uses set forth above under § **300-18E**.
(e) All windows and doors for common areas and community buildings shall be provided with screens for fresh air ventilation.

(2) Dwelling unit requirements.

(a) Unit size. The minimum permitted floor area shall be 400 square feet for efficiency units, 500 square feet for one-bedroom units and 650 square feet for two-bedroom units.

(b) Unit occupancy density. The maximum number of residents who may reside in a dwelling unit shall be two persons for efficiency and one-bedroom units, and three persons for two-bedroom units.

(c) Unit amenities.

[1] Kitchen and bathroom. All dwelling units shall be designed for independent living and shall contain full bathroom and kitchen facilities, including but not limited to a sink, refrigerator, stove, range or combined unit in the kitchen and a sink, toilet, bathtub and shower in the bathroom. The sizing of the kitchen facilities shall be consistent with the type of unit and occupancy.

[2] Handicapped adaptable. Twenty-five percent of all dwelling units shall be adaptable for use by nonambulatory persons.

[3] Handicapped accessible. Twenty-five percent of all dwelling units shall be handicapped accessible and, at minimum, contain:

[a] Doorways that are a minimum of three feet wide.

[b] Lever-type doors, handles and faucets.

[c] Nonskid floors.

[d] Ramps in addition to steps.

[e] Door thresholds that are flush with the floor.

[4] Safety and convenience features. For the safety and convenience of residents, all dwelling units shall, at minimum, contain the following features:

[a] Non-scalding faucets.

[b] Grab bars located around showers and tub areas.

[c] Smoke and carbon monoxide detectors.

[d] Air conditioning in each dwelling unit and also in the recreational or accessory buildings or rooms. An individually controlled thermostat shall be provided for the unit.

[e] Adequate heating system with a designed capacity to maintain 78° F. in all bathrooms and 75° F. in all habitable rooms and corridors when the outside temperature is 0° F. An individually controlled thermostat shall be provided for the system.

[f] Whenever natural ventilation is not adequate for comfort and health, mechanical ventilation should be provided. Kitchens and bathrooms not having windows on an exterior wall shall be provided with mechanical ventilation.

[g] Electric outlets located a minimum of 24 inches above the floor.

[h] Each dwelling unit shall have bath facilities, including as a minimum a lavatory, water closet, and bathtub or stall shower.

[i] The size of the bathroom and arrangement of the fixtures shall be adequate for the convenient use of the fixtures by older persons. The floor finish shall be impervious to water and shall have nonslip characteristics. The threshold shall be flush with the floor.

[j] All plumbing fixtures, accessories, and trim shall be selected for and provide the maximum features of design that contribute to the safety, convenience and aid to older persons.

[k] Shower stalls shall include a built-in seat or bench or room enough for a bath stool.

[l] A panic alarm/medical alert system in the bathroom, bedroom, and living area connected to a twenty-four-hour service available to residents upon request of such residents with the cost of such service to be borne by the residents who request it.

[m] Cooking appliances that do not utilize an open flame.

[n] Screens shall be provided for each window and door. Windows shall be able to be opened by the resident.

[o] A twenty-four-hour emergency phone number for private security posted in a conspicuous location.

[5] Storage. A minimum of 20 square feet of storage area shall be provided for each unit, within the same building as the dwelling unit. Such storage area shall be in addition to normal closet space.

[6] Noise. Measures will be taken to reduce the transmission of noise by use of suitable materials (i.e., carpeting and acoustic baffling), methods of construction, and arrangement of units within the buildings.

(3) All general building and dwelling unit requirements provided as part of the site plan approval and special permit shall be maintained throughout the life of the project, unless otherwise subsequently approved by the Planning Board.

J. Procedure for senior citizen housing special use permit and site plan approval.

(1) An initial application package for a senior citizen housing development shall include an application for a special use permit and an application for site plan approval. The initial application package shall be delivered to the Planning Board. The initial application package shall include, at minimum:

(a) A survey of the parcel prepared and certified by a licensed land surveyor, which shall also depict existing zoning, wetlands, topography and other such information;

(b) A site plan showing the buildings, garages, improvements, existing utilities, driveways, walkways and other appropriate information to outline the proposal;

(c) The site plan shall clearly define the number of proposed units and bedrooms per unit and number of affordable units;

(d) Other detailed plans, specifications data, and a narrative which defines the details and accessory uses proposed for the project, and other such information which the Town Board and/or Planning Board may deem necessary; and

(e) A completed long form environment assessment form.

(2) The Planning Board will review the initial application package to determine whether the application is sufficiently complete to commence preliminary review. Within 30 days of determining that the application is sufficiently complete to commence preliminary review, the Planning Board shall take the following steps:

(a) The Planning Board will refer the initial application package to the Town Board for its review and comment to the Planning Board regarding the special use permit. Within 45 days from the date of the next regular Planning Board meeting following

the submittal, at which all material shall have been received, the Town Board will comment on the suitability of the proposed location for senior citizen housing;

(b) The Planning Board may circulate a notice that it intends to serve as lead agency for a coordinated environmental review pursuant to the State Environmental Quality Review Act (SEQRA); and

(c) If the application is subject to the referral requirements of New York General Municipal Law § 239-l, -m, -n or -nn, then the Planning Board will coordinate a joint referral for both the special use permit and site plan approval.

(3) Within 62 days following either the adoption of a SEQRA negative declaration or a SEQRA findings statement, and following a public hearing on the special use permit application, and provided that the requirements of New York General Municipal Law § 239-l, -m, -n or -nn have been met if required, the Town Board may either grant or deny a special use permit for the project.

(4) In granting a special permit, the Town Board may impose such terms and conditions as the Town Board shall deem necessary to accomplish the reasonable application of the applicable standards as provided in this chapter, including but not limited to off-site improvements and requiring a performance bond, to guarantee completion of such required improvements.

(5) If the Town Board grants a special use permit, the Planning Board will then review and consider the site plan application. The Planning Board will apply the procedure and criteria set forth governing site plan approval under § **300-86** of the Code.

K. Approval and enforcement.

(1) A certificate of occupancy will be required for each dwelling unit, and said certificate shall be understood to only permit occupancy in conformance with this chapter, the special permit approval of the Town Board and the site plan approval of the Planning Board, and any conditions thereof.

(2) A certification of compliance will be filed annually with the Town for each dwelling unit. The owner, homeowners' association, or an authorized agent will file (in the office of the Town Building Inspector) a certification of compliance with the Code Enforcement Officer stating that the project, each dwelling unit, and the occupancy of each unit is in conformance with this chapter and the permit and approvals granted by the Town.

(3) Each project will have at least two responsible parties, to wit, the owner, owner's agent or site manager, who will each provide the Code Enforcement Officer with his or her telephone number in the event of an emergency.

(4) Any violation of the conditions of this section, site plan or special permit approval will constitute a zoning violation and will subject the project owner (landlord, in case of rentals), homeowners' association or board of managers (in case of condos or townhouse projects) to the remedies and fines set forth in § **300-81** of the Code or elsewhere in the Town of New Windsor code.

(5) Reference to this section and any conditions of approval shall be included in a deed as a covenant running with the land in perpetuity, and shall also be included in any lease or bylaws of any association, condominium or cooperative housing corporation, or any filing with the New York State Attorney General, unless directed otherwise by the Planning Board.

L. Fees. The applicant will pay an initial review fee in accordance with the Town's Schedule of Fees, *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* as adopted

and amended by the Town Board, for Town Board review and conceptual review of zoning compliance by the Engineer for the Planning Board. In the event the special permit is granted by the Town Board, and the applicant submits a site plan application to the Planning Board, then, prior to any appearance before the Planning Board, the applicant will pay all fees and escrows required by the Planning Board for site plan review.

§ 300-18.1. Totally affordable senior citizen housing.

A. Purpose. The Town Board has determined that there is a need for specially designed senior citizen projects which provide all units as affordable housing units. Totally affordable senior housing projects are intended to meet the purpose, intent and objectives of senior citizen projects, and must comply with all provisions and/or restrictions for senior citizen housing projects, unless specifically modified or waived under this section.

B. General.

(1) A totally affordable senior citizen housing project may be allowed in the SCO Overlay Zoning District, following issuance of a special permit of the Town Board of the Town of New Windsor and site plan review and approval of the Planning Board. The special permit from the Town Board must identify the project as a totally affordable senior citizen project and may also provide conditions as the Town Board deems appropriate for this type senior citizen housing project.

(2) Provided that a proposed development meets the requirements of both the Workforce Housing Overlay Zoning District and the Totally Affordable Senior Housing Overlay Zoning District and the regulations applicable to both, the Town Board may consider a special use permit application that would combine both workforce housing and totally affordable senior housing within one site plan, regardless of whether the developments shall occur on more than one lot, provided that the site is developed uniformly and with appropriate controls to ensure the ongoing maintenance of any shared features.

C. General requirements. Totally affordable senior citizen housing projects shall meet the following requirements:

(1) The site selection shall meet the requirements for senior citizen housing, with special attention to the site being within walking distance of shopping, restaurants and other such services.

(2) Totally affordable senior citizen housing projects shall consist of multifamily dwelling unit structures only. Duplex and single-unit structures are not permitted.

(3) Totally affordable senior citizen housing projects are not required to provide accessory uses, unless specific accessory uses are required by the special permit granted by the Town Board. Projects are encouraged to provide amenities as may be appropriate for the specific site and locality. Open space on the site shall, if required by the Planning Board, be provided for passive recreational use.

D. Occupancy and occupancy definitions.

(1) Residential occupancy. Occupancy of dwelling units within a totally affordable senior citizen project shall be for residential purposes only, and shall comply with all requirements for senior citizen housing projects in this Code.

(2) For purposes of this section, "totally affordable" shall mean a senior citizen housing project wherein 100% of the units within the project are available for a sales price or

rental fee that qualifies as defined under Subsection **F** of the senior citizen housing section *Editor's Note: See § 300-18F.* of the Code.

E. Lot and bulk requirements.

(1) The following lot and bulk requirements shall apply to projects for a totally affordable senior citizen housing special use permit:

(a) Minimum lot area. The minimum permitted lot area shall be two acres. In calculating the maximum number of dwelling units per acre, the gross lot area.

(b) Maximum residential density. The maximum permitted density shall be 18 totally affordable dwelling units per acre. Dwelling units shall be no greater than one bedroom. In all density calculations, any fractional number 5 or above will be rounded up to the nearest whole number, and less than 5 will be rounded down to the nearest whole number.

(c) Maximum development coverage (impervious surface area). Maximum development coverage shall not exceed 80% of the gross lot area. Impervious surface area will include all buildings, structures, and parking area, walkways, and similar improvements.

(d) Minimum front yard. The minimum front yard setback shall be 25 feet measured from the property line.

(e) Minimum side and rear yard. The minimum side yard and rear yard setbacks shall be 25 feet measured from the property line.

(f) Maximum building height. The maximum building height shall be 50 feet and shall not exceed three stories.

(g) Setbacks as referenced herein do not apply to internal driveways, parking lots, or similar site improvements; however, these improvements are subject to the review of the Planning Board, which may require specific setbacks of improvements or addition of screening as may be warranted by the conditions of the project.

(h) Parking: minimum 1.0 space per unit, inclusive of resident and guest parking. Parking shall meet all other dimensional and functional requirements for parking in the senior citizen housing and site plan sections of this chapter.

(i) Totally affordable senior citizen housing may be permitted in the Senior Citizen Overlay Zone; the bulk/use table for each zone shall include a separate category entitled "Totally affordable senior citizen housing" in the appropriate column of uses, which shall also include a footnote stating "Site plan approval by planning board required" and "Special permit by Town Board required."

F. Site regulations and miscellaneous requirements.

(1) The project design shall be functional and shall provide for the safety, health and general welfare of occupants of this age group.

(2) Access, internal roadways, parking, and circulation shall meet the requirements of senior citizen housing, other than as modified in this section.

(3) Passive outdoor recreation. Usable outdoor group open passive recreation space may be provided in a type and quantity as required by the Town Board as part of the special permit, with such layout as approved by the Planning Board. Such space shall consist of amenities such as patio areas, landscaped and shaded sitting areas, and walking paths.

(4) Sidewalks. Each project will provide suitable sidewalks, which may include handrails when appropriate and required by code. Painted or stamped crosswalks shall be provided where a sidewalk crosses an access drive.

(5) Landscaping. Each project will provide suitable landscaping in accordance with the standards set by the Planning Board and as required elsewhere in this Code for site plans. Applicants are advised that bonding requirements for key site improvements, including landscaping, as referenced in § **300-86** of the Town Code, are applicable.

G. Specific exemptions and modifications from senior citizen housing.

(1) Totally affordable senior citizen housing projects are not required to comply with the following provisions of the senior citizen housing code requirements:

(a) Indoor community space. Indoor community space and related equipment or facilities are not required for this type project (unless required by Town Board as a condition of special permit).

(b) Storage. No additional storage is required beyond that provided as closet space in the individual units (unless required by Town Board as a condition of special permit).

(c) Affordable senior citizen housing projects may not have setbacks further decreased beyond those values called for in this section; provisions of § **300-18G (2)** do not apply.

(2) Dwelling unit requirements.

(a) Unit size. The minimum permitted floor area shall be 400 square feet for efficiency units and 500 square feet for one-bedroom units. In no case shall unit size exceed one bedroom or 750 square feet in any unit.

(b) Unit occupancy density. The maximum number of residents who may reside in a dwelling unit shall be two persons.

(c) Unit amenities.

[1] Kitchen and bathroom. All dwelling units shall be designed for independent living and shall contain a full bathroom and, at minimum, a kitchen area to include a sink, refrigerator, stove/range unit. The sizing of the kitchen facilities shall be consistent with the type of unit and occupancy.

[2] All units shall be handicapped adaptable and accessible as specified in the senior citizen housing section of this chapter.

[3] All units shall include the safety and convenience features as outlined in the senior citizen housing section of this chapter.

H. Procedure for senior citizen housing special use permit. All applications for totally affordable SCH projects shall follow the same review and approval process as all senior citizen housing projects. The initial application made to the Town Board shall specifically identify the project as a totally affordable SCH project and shall furnish sufficient data to demonstrate qualifications for the same. To qualify for subsequent review and Planning Board approval as a totally affordable SCH project, the special permit granted by the Town Board must include approval as a totally affordable SCH project and assign any conditions of permit approval for the same. All paperwork documenting funding sources shall be provided to the Town Board with the application for a totally affordable SCH project.

I. Approval and enforcement.

(1) A certificate of occupancy will be required for each dwelling unit, and said certificate shall be understood to only permit occupancy in conformance with this chapter, the

special permit approval of the Town Board and the site plan approval of the Planning Board, and any conditions thereof.

(2) A certification of compliance will be filed annually with the Town for each dwelling unit. The owner, homeowners' association, or an authorized agent will file (in the office of the Town Building Inspector) a certification of compliance with the Code Enforcement Officer stating that the project, each dwelling unit, and the occupancy of each unit is in conformance with this chapter and the permit and approvals granted by the Town.

(3) Each project will have at least two responsible parties, to wit, the owner, owner's agent or site manager, who will each provide the Code Enforcement Officer with his or her telephone number in the event of an emergency.

(4) Any violation of the conditions of this section, site plan or special permit approval will constitute a zoning violation and will subject the project owner (landlord, in case of rentals), homeowners' association or board of managers (in case of condos or townhouse projects) to the remedies and fines set forth in § **300-81** of this chapter or elsewhere in the Town of New Windsor codes.

(5) This section and any conditions of approval will be included in a deed, any lease or bylaws of any association, condominium or cooperative housing corporation, or any filing with the New York State Attorney General, unless directed otherwise by the Planning Board.

J. Fees. The applicant will pay an initial review fee and application fees in accordance with the Town's Schedule of Fees *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* as adopted and amended by the Town Board. The applicant shall also pay all escrow fees required in connection with the review of the applications by the Town Board, the Planning Board and their professional consultants.

§ 300-18.2. Conversion of senior housing to market-rate multifamily housing.

A. Purpose. The Town Board of the Town of New Windsor recognizes that the overall residential real estate market has experienced a significant deterioration in market conditions as evidenced by declining sales activity, increasing unsold inventory levels and declining home prices. The effect of this slowdown, coupled with the extraordinary financial events of 2008, has resulted in an exaggerated decline in the market demand for market-rate age-restricted housing. Declining market prices have restricted the ability of seniors to sell their homes, and have thus prevented their ability to "downsize" and relocate into market-rate senior housing. The purpose of this chapter is to allow certain projects that have undergone extensive planning and design as of the adoption of this chapter to convert to market-rate unrestricted multifamily developments, subject to Planning Board site plan review and approval to ensure that the public health, safety and welfare are not adversely impacted as a result of the conversion to market-rate housing.

B. Applicability. The provisions of this section shall only apply to proposed developments that have applied for approval and received either a SEQRA determination of nonsignificance or approval for market-rate senior housing developments prior to the adoption of this chapter. The provisions of this section shall not apply to totally affordable senior housing.

C. Any proposed development that meets the applicability requirements of this section may be constructed as market-rate unrestricted multifamily developments without limitation as

to residency requirements for market-rate senior housing, provided that the following conditions are met:

(1) The proposed development receives site plan approval from the Planning Board. In reviewing the application, the Planning Board shall not apply any zoning district bulk area or use requirements that would otherwise apply to market-rate multifamily developments within the underlying zoning district. The site plan application shall include the following information:

(a) The plan showing the buildings, garages, improvements, utilities, driveways, walkways, accessory uses, wetlands, topography, applicable zoning, the number of proposed units and bedrooms per unit; All project approvals, including, but not limited to, SEQR findings, negative declaration, and/or resolution of final site plan approval;

(b) Other detailed plans and narrative of the project expressly listing any proposed changes other than as to the age restriction, and other such information which the Town Board and/or Planning Board may deem necessary; and

(c) An environmental assessment form evaluating the potential environmental impacts of the conversion of market-rate senior housing to market-rate multifamily housing.

(2) The Planning Board will apply the procedure and criteria set forth governing site plan approval under § **300-86** of this chapter. In granting site plan approval, the Planning Board may impose such terms and conditions as the Planning Board shall deem necessary to accomplish the applicable standards as provided in this chapter.

(3) Review fees and escrow. The applicant will pay an initial review fee in accordance with the Town's Schedule of Fees, *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* as adopted and amended by the Town Board, for Planning Board review, in addition to any escrow required by the Planning Board to pay for the cost of the Town's consultants' review.

(4) Municipal fees. Any fees previously imposed by the Town Board as part of the approval for market-rate senior housing or that may otherwise apply to residential development shall be paid by the applicant as a condition of site plan approval, or at such other time as may be determined by the Town Board.

§ 300-19. Recreational uses.

Recreational uses listed below, whether in private or public ownership and other than accessory to single-family residential use, shall be subject to the following regulations.

A. Outdoor swimming pools shall be classified and located as follows:

Type of Pool (class)	Maximum Area (square feet)	Minimum Setback From Any Property Line (feet)
A	Over 3,500	175
B	2,501 to 3,500	150
C	1,501 to 2,500	125
D	1,500 to 800	100

Type of Pool (class)	Maximum Area (square feet)	Minimum Setback From Any Property Line (feet)
E	800 or less	Refer to § **300-19F**

B. All outdoor recreational facilities shall comply with the following minimum setback requirements:

Type of Facility	Minimum Setback From Any Property Line (feet)
Handball courts	100
Basketball courts	60
Baseball diamond (not outfield)	100
Volleyball courts	60
Concession stands	100
Casino buildings	100
Concentrated picnic areas (tables, barbecue pits, etc.)	100
Outfield relative to baseball or softball	50
Paintball	500
Parking areas	25
Picnic grounds (not improved)	50
Games normally involving fewer than 10 people, such as horseshoe pits, nature trails, etc.	50
Golf course fairways	50
Soccer or football fields	50
Tennis courts	40

C. Lighting. If outdoor lighting is provided for any of the foregoing recreational facilities, including swimming pools, which permits the use of the facilities after 10:00 p.m., the applicable setback requirements for such facility shall be doubled. All lighting shall be located so as not to be visible at the source from any adjoining property. Floodlights on poles not less than 75 feet from any property line directed toward the center of property

and shielded from any nearby residential areas shall be deemed to comply with the latter regulations.

D. Noise. Public address systems or any other amplified noises are subject to Planning Board approval and in no case shall cause a nuisance or exceed the levels specified under § **300-71**. Public address systems or any other amplified noises are subject to separate permit of the Town Board.

E. Buildings. All structures shall be of a permanent nature.

F. Private swimming pools. Private swimming pools in residential zones are permitted subject to the following:

(1) Such pool shall not be located in any required front yard, and in no case closer than 10 feet to any property line.

(2) The entire portion of the premises upon which an in-ground pool is located shall be entirely enclosed with an opaque, chain-link wire or other sturdy fence not less than four feet in height.

(3) Every gate or other opening in the fence enclosing such pool shall be kept securely closed and locked at all times when said pool is not in use. Access shall be self-closing and self-latching to prevent accidental or unauthorized entry.

(4) Such pool shall not occupy more than 35% of the balance of the rear yard area, after deducting the area of all private garages and other accessory buildings or structures.

(5) If the water for such pool is supplied from the public water supply system, the inlet shall be above the overflow level of said pool.

(6) Such pool shall be constructed, operated and maintained in compliance with the applicable provisions of the New York State Sanitary Code relating to public swimming pools.

(7) No loudspeaker or amplifying device shall be permitted which can be heard beyond the bounds of the property or lot where said pool is located.

(8) No swimming pool shall be filled or used until the foregoing requirements shall have been certified as met by the Code Enforcement Officer.

§ 300-20. Workforce housing.

This section pertains to the provision of affordable, workforce housing for the residents of the Town of New Windsor.

A. Purposes. The Town Board has determined that there is a need for housing developments located and designed to meet the needs of everyday working families and citizens of the Town of New Windsor, to be known as "workforce housing developments," and believes that workforce housing should be encouraged by the Town of New Windsor. Such housing developments will tend to contribute to the dignity and independence of people at a greater range of income levels. Workforce housing developments, if not properly located, constructed, and maintained, may be detrimental to the general welfare, health and dignity of the residents. It is also deemed essential that the Town of New Windsor safeguard against the deterioration of a workforce housing development.

B. General.

(1) A workforce housing development may be allowed in the Workforce Housing Overlay (WHO) Zoning District, following issuance of a special permit of the Town Board of the Town of New Windsor, and site plan review and approval of the Planning Board. The special permit may also provide within the development a reasonable number of

accessory uses to primarily serve the development's residents. Workforce housing developments must obtain a special permit from the Town Board in accordance with the procedure set forth and upon compliance with the standards and regulations herein.

(2) Provided that a proposed development meets the requirements of both the Workforce Housing Overlay Zoning District and the Totally Affordable Senior Housing Overlay Zoning District and the regulations applicable to both, the Town Board may consider a special use permit application that would combine both workforce housing and totally affordable senior housing within one site plan, regardless of whether the developments shall occur on more than one lot, provided that the site is developed uniformly and with appropriate controls to ensure the ongoing maintenance of any shared features.

C. Intent and objectives. It is the intent of this section to encourage the development of moderately priced, affordable dwelling units for everyday working families and citizens of the Town of New Windsor. The specific objectives of this section are:

(1) To encourage affordable housing opportunities for working families and citizens in order to give such residents the opportunity to remain in the community close to their work, family and friends.

(2) Make quality affordable housing available with the scope and design of the development intended to establish a worthwhile asset for this segment of the community and the community as a whole.

(3) To provide appropriate sites for the development of such housing in convenient locations.

(4) To provide, within the boundary of the development, appropriate social, recreational and other facilities, which will contribute to the independence and meaningful activity of residents.

(5) To regulate the nature and density of workforce housing developments, their site layout and design and their relationship to adjoining uses so as to provide ample outdoor living and open space for residents, to preserve trees, and to minimize detrimental effects on the site and surrounding neighborhood and environment.

D. Site selection.

(1) Sites must be located in areas suitable for residential purposes and must be reasonably free of objectionable conditions such as industrial odors, noise, dust, air pollution, high traffic volumes, incompatible land uses, steep slopes, wetlands and other environmental or physical constraints.

(2) The site should be located within reasonable proximity to public transportation service, or, in the alternative, provisions shall be included in the design of the site for future routing of buses, and provisions for a shuttle bus or other transportation service at the site (i.e., shelters and pickup areas should be included within the plans. Such plans for any and all bus shelters and pickup areas shall specifically provide for both maintenance and ownership of said shelters or pickup areas as directed by the Planning Board.).

(3) The site shall be located such that access to the site can be obtained from a public street which meets current design standards of the Town with respect to roadway width and alignment and acceptable sight distances can be developed at the site entry/exit and at intersections in the vicinity of the site.

(4) Sites must be selected with due regard to providing residents with reasonable access to such conveniences and facilities as public transportation, hospitals and medical services, shopping, religious, cultural and recreational facilities.

(5) Municipal water and sewers must be provided at the site, as well as electric, cable and telephone.

(6) Sites shall afford a safe and convenient system of drives, service access and adequate internal and off-site sidewalks conveniently accessible to all occupants.

E. Permitted principal and accessory uses.

(1) Principal uses. The workforce housing development special use permit will allow as a principal permitted use:

(a) Multifamily dwelling development, provided that such dwellings are arranged as individual dwelling units for the occupancy of working family households, as defined below. The site plan may be a mix of various occupancy units [multiple-unit (three-dwelling units or greater), duplex and/or single units], provided that the units are arranged to function as an overall site plan development, and remain a single development, although the applicant may pursue a zero lot-line subdivision, provided that appropriate controls are created to ensure long-term maintenance and control of common areas.

(b) Exception. Notwithstanding the other provisions of this section, one unit may be occupied by a development superintendent or manager and his/her family (not to exceed a total of five persons). If a development has 100 units or more, an on-site development superintendent or manager will be required. The superintendent or manager's unit will be included in the calculated number of units in a development. The development superintendent and family will not be subject to the occupancy restrictions listed elsewhere in this section.

(2) Accessory uses. The following accessory uses are permitted:

(a) Accessory uses, including buildings and facilities, which are reasonably necessary to meet the proper maintenance, administration, security, off-street parking, storage, fencing and utility system needs of the development and are subordinate to the residential character of the development.

(b) The following accessory uses are permitted and encouraged (and in developments with 100 or more units, may be required by the Planning Board as a condition of site plan approval), provided that such facilities are approved by the Planning Board and managed as part of the building or complex of buildings and restricted in their use to residents of the building or building complex and further provided that there are no external advertising signs for such facilities:

[1] A coin-operated vending machine room, provided that the maximum floor area devoted to such use is no more than 150 square feet.

[2] Security office and/or on-site security patrols.

[3] Outdoor pool, game areas, sitting areas, walking trails or other outdoor recreation or leisure facilities.

(c) Exception. Notwithstanding the other provisions of this section, certain community recreation facilities and open space not restricted in use to residents of the development and accessory to a workforce housing development may be open to the public and separately owned and operated. Authorization for such an exception must be approved by the Town Board as part of the special permit.

Details for operation of the facilities (including hours of operation, public and resident participation limitations, etc.) may be conditions of the special permit and shall be subject to the review and approval of the Planning Board, as part of site plan review.

F. Occupancy and occupancy definitions for residential occupancy. Occupancy of dwelling units within a workforce housing development shall be for residential purposes only. Occupancy shall be limited to households as defined and described below:

(1) Workforce household. For purposes of this section, a workforce household shall consist of one or more persons, whose combined total income is at or below 130% of the median income of residents of Orange County, New York.

(2) Guests. Temporary occupancy by guests of families who reside in a workforce housing unit shall be permitted for a maximum of seven consecutive nights, provided that such occupancy does not exceed 30 total days in any calendar year, total for all guests (combined) at a particular dwelling unit. Guests staying for more than three consecutive nights will advise the development superintendent or manager of their occupancy. The development superintendent or manager shall maintain a log of all guests and such log shall be available for review by the Code Enforcement Officer of the Town.

(3) Preferences. As permitted by law, first preference for a unit will be given to existing residents of the Town of New Windsor.

G. Lot and bulk requirements.

(1) The following lot and bulk requirements shall apply to workforce housing developments for a special use permit, although the Planning Board may increase or add additional requirements so as to make the same compatible with the general neighborhood and in accordance with good planning:

(a) Minimum lot area. The minimum permitted lot area shall be five acres.

(b) Maximum residential density. The maximum permitted density shall be 10 dwelling units per acre.

(c) Maximum development coverage (impervious surface area). Maximum development coverage shall not exceed 75% of the gross lot area. Impervious surface area will include all buildings, structures, and parking area, walkways, and similar improvements.

(d) Minimum front yard. The minimum front yard setback shall be 75 feet measured from the property line. The Planning Board shall have the option of reducing the front yard to 50 feet, where the neighborhood and site conditions warrant the same, in the sole discretion of the Planning Board.

(e) Minimum side and rear yard. The minimum side yard and rear yard setbacks shall be 50 feet measured from the property line. If the property directly abuts a state or county highway, or a Town roadway classified as a major road, this setback shall be increased to 75 feet.

(f) Lot width. The minimum lot width shall be 50 feet.

(g) Maximum building height. The maximum building height shall be 50 feet and shall not exceed three stories.

(h) Setbacks as referenced herein do not apply to internal lot lines if the proposed development is to be a zero lot-line development, internal driveways, parking lots, or similar site improvements; however, these improvements are subject to the

review of the Planning Board, which may require specific setbacks of improvements or addition of screening as may be warranted by the conditions of the development and surrounding uses.

(i) Workforce housing developments are only permitted in the WHO zone, as determined on the attached map.

H. Site regulations and miscellaneous requirements.

(1) The development design shall be functional and shall provide for the safety, health and general welfare of occupants of this demographic group.

(2) Access and internal roadways. All access and internal roadways shall be privately owned and maintained unless otherwise approved by the Town Board. All entrances and exits for ingress, egress, and interior circulation will be of a width and location suitable for emergency access to the site and workforce housing.

(3) Parking and circulation. Parking spaces shall be provided at the ratio of 2.0 spaces per unit (minimum). The fractional spaces will be rounded to the next highest number. The parking spaces will be conveniently located, evenly distributed, arranged, striped and identified by signage. Additional spaces shall be provided at any clubhouse and recreational facilities. The Planning Board may require additional parking for other accessory facilities. No commercial vehicles will be permitted. (Such restriction shall not apply to management company or condo association vehicles utilized for operation of the site.) For purposes of this section, garage and driveway parking spaces will count in the parking calculation.

(4) Outdoor recreation. Usable outdoor recreation space will be provided in a type and quantity as required by the Planning Board. Such space shall consist of both active and passive recreation amenities, such as exercise and game areas, outdoor pool, patio areas, landscaped and shaded sitting areas, walking or jogging trails.

(5) Sidewalks. Each development will provide suitable sidewalks, which may include handrails when appropriate and required by code. The Planning Board may waive this requirement when, in its discretion, such sidewalks are not appropriate or required.

(6) Landscaping. Each development will provide suitable landscaping in accordance with the standards set by the Planning Board and as required elsewhere in this Code for site plans.

(7) Building location; standards.

(a) Placement and orientation of buildings on the site shall be subject to the following requirements:

[1] The side of any principal building, if opposite the side of another principal building, shall be separated therefrom by a distance of not less than the height of the (higher) opposite bounding wall.

[2] In the case of front-to-front and rear-to-rear orientation, the spacing of the buildings shall be not less than 1 1/2 the height of the (higher) opposite bounding wall. Each principal building will be not less than 25 feet from any parking area, roadway, and/or curb. If such area includes a sidewalk, the setback shall be measured from the building side of the walk. If the rear of any principal building shall face the front of another principal building, it shall be distant therefrom not less than twice the height of the (higher) opposite bounding walls.

(b) In computation of spacing between buildings, the measurements shall be taken from the outside extremity of any decks, balconies and similar extensions to the structure.

(8) Basement units. Units provided in workforce housing developments shall not be of a type or configuration which could be considered basement units, wherein any living quarters are substantially below grade (greater than 33% of lowest level); however, this restriction is not intended to prohibit basements, garages or storage areas as a part of the units otherwise provided with living quarters which are above grade.

(9) Identification signs will be permitted in a location or locations as approved by the Planning Board. Sign dimensions and other requirements shall comply with Article **VIII** of this chapter.

(10) Building identification signs and number/letter identification shall be provided in accordance with the applicable sections of the Code, and as recommended by the Office of the Fire Inspector, to promote efficient and timely identification for residents, visitors and emergency personnel.

(11) Artificial lighting. All areas within the development shall be provided with suitable artificial lighting, sufficient for the convenience and safety of residents. Lighting shall be designed so as not to extend onto adjoining properties or cause glare onto the same. In general, lighting levels at the property line shall be 0.5 footcandle or less, other than at development entrances, where increased levels will be considered or required.

(12) The location of buildings, the arrangement of dwelling units within the buildings and suitable materials and methods of construction shall be utilized to reduce the transmission of sound.

(13) Adequate facilities shall be provided for the removal of snow, trash and garbage and for general maintenance of the development. Trash and garbage facilities shall be enclosed in a permanently enclosed structure. The structure shall be aesthetically appealing and landscaped. Spacing and distribution of the facilities shall be convenient.

(14) Miscellaneous.

(a) Utility service to the site shall be buried.

(b) Outdoor public address systems or other outdoor amplified noise shall be prohibited.

(c) The architectural style of the proposed development, exterior materials, finish and color shall be consistent with existing community and neighborhood character.

(d) The site layout and sequencing of the site construction and development shall be such that the site amenities and the indoor community space shall be complete and usable, and all applicable certificates of occupancy and/or compliance obtained, before 50% of the dwelling units are occupied. If the developer has not accomplished the same, he/she shall not request building permits (nor shall any be issued) for any work for the second 50% of the dwelling units.

(15) Applicants are advised that bonding requirements for key site improvements, including landscaping, as referenced in § **300-86** of the Town Code, are applicable.

I. General building and unit requirements.

(1) Buildings shall require the following facilities and services:

(a) Laundry. Laundry facilities (washers and dryers) adequate to serve the occupants of the development shall be provided and maintained. Facilities shall be provided

either as common facilities or as individual facilities. If common facilities are selected, all appliances shall be provided and maintained by the development applicant/developer.

[1] If common facilities are provided, the same shall be located in each building, in a convenient location, unless otherwise authorized by the Planning Board.

[2] If individual facilities are provided, washer and dryer units (or combination-type units) shall be provided in a utility closet in each unit of the development.

(b) Indoor community space. Indoor community space and related equipment shall be required to provide social and recreational opportunities for development occupants. Included may be such facilities as recreation/game rooms; art/craft room, workshop, indoor Jacuzzi/pool, meeting rooms, movie theater, computer/media center, exercise rooms or other space for leisure, active or passive recreation. Such space shall be provided based on a total indoor community space equal to 20 square feet of space per dwelling unit in the development, of which seven square feet (per dwelling unit) shall be a community/meeting room. The type and mixture of facilities shall be as required by the Planning Board. The applicant, as part of the site plan application, shall provide a narrative description and general arrangement plan for such facilities.

(c) If there are 100 dwelling units or more, the Planning Board may require any or all of the permitted accessory uses set forth above under § **300-20E(2)(b)**.

(d) All windows and doors for common areas and community buildings shall be provided with screens for fresh air ventilation.

(2) Dwelling unit requirements.

(a) Unit size. The minimum permitted floor area shall be 450 to 500 square feet for efficiency/studio units, 600 to 725 square feet for one-bedroom units and 750 to 950 square feet for two-bedroom units. Units over two bedrooms shall be as set forth in the New York State Division of Housing and Community Renewal Design Handbook Section 4.03.03 as updated.

(b) Unit occupancy density. The maximum number of residents who may reside in a dwelling unit shall be 1.5 persons per bedroom.

(c) Unit amenities.

[1] Kitchen and bathroom. All dwelling units shall be designed for independent living and shall contain full bathroom and kitchen facilities, including but not limited to a sink, refrigerator, stove, range or combined unit in the kitchen and a sink, toilet, bathtub and shower in the bathroom. The sizing of the kitchen facilities shall be consistent with the type of unit and occupancy.

[2] Storage. A minimum of 20 square feet of storage area shall be provided for each unit, within the same building as the dwelling unit. Such storage area shall be in addition to normal closet space.

[3] Noise. Measures will be taken to reduce the transmission of noise by use of suitable materials (i.e., carpeting and acoustic baffling), methods of construction, and arrangement of units within the buildings.

(3) All general building and dwelling unit requirements provided as part of the site plan approval and special permit shall be maintained throughout the life of the development, unless otherwise subsequently approved by the Planning Board.

J. Procedure for workforce housing development special use permit and site plan approval.

(1) An initial application package for a workforce housing development shall include an application for a special use permit and an application for site plan approval. The initial application package shall be delivered to the Planning Board. The initial application package shall include, at minimum:
   (a) A survey of the parcel prepared and certified by a licensed land surveyor, which shall also depict existing zoning, wetlands, topography utilizing two-foot contours, and other such information;
   (b) A site plan showing the buildings, garages, improvements, existing utilities, driveways, walkways and other appropriate information to outline the proposal;
   (c) The site plan shall clearly define the number of proposed units and bedrooms per unit;
   (d) Other detailed plans, specifications data, and a narrative which defines the details and accessory uses proposed for the development, and other such information which the Town Board and/or Planning Board may deem necessary; and
   (e) A completed long form environment assessment form.

(2) The Planning Board will review the initial application package to determine whether the application is sufficiently complete to commence preliminary review. Within 30 days of determining that the application is sufficiently complete to commence preliminary review, the Planning Board shall take the following steps:
   (a) The Planning Board will refer the initial application package to the Town Board for its review and comment to the Planning Board regarding the special use permit. Within 45 days from the date of the next regular Planning Board meeting following the submittal, at which all material shall have been received, the Town Board will comment on the suitability of the proposed location for workforce housing;
   (b) The Planning Board may circulate a notice that it intends to serve as lead agency for a coordinated environmental review pursuant to the State Environmental Quality Review Act (SEQRA); and
   (c) If the application is subject to the referral requirements of New York General Municipal Law § 239-1, -m, -n or -nn, then the Planning Board will coordinate a joint referral for both the special use permit and site plan approval.

(3) Within 62 days following either the adoption of a SEQRA negative declaration or a SEQRA findings statement, and following a public hearing on the special use permit application, and provided that the requirements of New York General Municipal Law § 239-l, -m, -n or -nn have been met, the Town Board may either grant or deny a special use permit for the development.

(4) In granting a special permit, the Town Board may impose such terms and conditions as the Town Board shall deem necessary to accomplish the reasonable application of the applicable standards as provided in this chapter, including but not limited to off-site improvements and requiring a performance bond, to guarantee completion of such required improvements.

(5) If the Town Board grants a special use permit, the Planning Board will then review and consider the site plan application. The Planning Board will apply the procedure and criteria set forth governing site plan approval under § **300-86** of the Code.

K. Approval and enforcement.

(1) A certificate of occupancy will be required for each dwelling unit, and said certificate shall be understood to only permit occupancy in conformance with this chapter, the

special permit approval of the Town Board and the site plan approval of the Planning Board, and any conditions thereof.

(2) A certification of compliance will be filed annually with the Town for each dwelling unit. The owner, homeowners' association, or an authorized agent will file (in the office of the Town Building Inspector) a certification of compliance with the Code Enforcement Officer stating that the development, each dwelling unit, and the occupancy of each unit is in conformance with this chapter and the permit and approvals granted by the Town.

(3) Each development will have at least two responsible parties, to wit, the owner, owner's agent or site manager, who will each provide the Code Enforcement Officer with his or her telephone number in the event of an emergency.

(4) Any violation of the conditions of this section, site plan or special permit approval will constitute a zoning violation and will subject the development owner (landlord, in case of rentals), homeowners' association or board of managers (in case of condos or townhouse developments) to the remedies and fines set forth in § **300-81** of the Code or elsewhere in the Town of New Windsor codes.

(5) Reference to this section and any conditions of approval shall be included in a deed as a covenant running with the land in perpetuity, and shall also be included in any lease or bylaws of any association, condominium or cooperative housing corporation, or any filing with the New York State Attorney General, if required, unless directed otherwise by the Planning Board.

L. Fees. The applicant will pay an initial review fee and application fees in accordance with the Town's Schedule of Fees *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* as adopted and amended by the Town Board. The applicant shall also pay all escrow fees required in connection with the review of the applications by the Town Board, the Planning Board and their professional consultants.

§ 300-21. Watershed Protection Overlay District.

A. Purpose and intent of district.

(1) To promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town from any use of land or buildings which may reduce the quality of its water resources.

(2) The intent of the Watershed Protection Overlay (WPO) District is to limit the amount of impervious surface permitted within the district in order to control nonpoint source discharge and pollution. Cluster development within the WPO may be required at the discretion of the Planning Board.

B. Scope of authority. The Watershed Protection Overlay District is considered as overlaying other zoning districts. Uses not permitted in the portions of the districts so overlaid shall also be prohibited in this district.

C. Establishment and definition of district.

(1) The Watershed Protection Overlay District includes all lands delineated by the boundaries of the drainage areas of the Silver Stream Reservoir and Lake Washington and within 100 feet of watercourses and surface water bodies which contribute to a public water supply, and which create the catchment or drainage areas of such watercourses and bodies, as part of their natural drainage system. The map defining the Watershed Protection Overlay District boundaries, entitled "Public Water Supply

Watershed Boundary Maps, Town of New Windsor" drawn at a scale of one inch to 500 feet, are hereby adopted by the Town Board and are incorporated herein by reference. *Editor's Note: The maps are on file in the Town offices.*

(2) Where the bounds delineated are in doubt or in dispute, the burden of proof shall be upon the owner of the land in question to show where they should properly be located. If the property owner can prove, to the satisfaction of the Planning Board and the Town Engineer, that his property does not drain into waters supplying the watershed, then this district shall not apply. At the request of the owner, the Town may engage a geologist, hydrologist or other qualified professional to determine more accurately the location and extent of a watershed or recharge area, and may charge the owner for the cost of the investigation.

D. Prohibited uses. The following land uses, activities, devices, structures, and/or substances are prohibited within the Watershed Protection Overlay District:

(1) Dry-cleaning establishments.

(2) Junk and salvage yards, including recycling centers.

(3) Car washes, except when located on public water and sewer and where water is recycled.

(4) Boat and motor vehicle service, storage and repair establishments.

(5) Any industrial use that discharges processed wastewater into anything other than the public sewer.

(6) Commercial removal or relocation of earth materials, including but not limited to sand, gravel, topsoil, metallic ores, or bedrock, excluding such earthwork activities undertaken in accordance with a site plan approved by the Planning Board.

(7) Any animal feedlots or pastures less than five acres in size lying within 100 feet of the center line of all brooks, streams and rivers or within 100 feet of the normal high-water line of lakes, ponds, marshes, swamps and bogs.

(8) The storage of salt and road de-icing chemicals.

(9) The outdoor storage of fertilizers, herbicides, and pesticides and outdoor uncovered storage of manure.

(10) Burial in any cemetery or other place within 100 feet of the high-water mark of a course of public water supply or tributary thereto.

(11) The disposal of solid wastes other than brush or stumps.

(12) The disposal of leachable wastes.

(13) The dumping of snow contaminated by de-icing chemicals.

(14) The storage or disposal of hazardous materials, except for the storage of chemicals for use associated with the operation of public water supply facilities.

(15) The storage and/or sale of petroleum and other hydrocarbons other than that normally associated with residential use, except for the storage of fuel for use associated with the operation of public water supply facilities. Heating oil shall be stored within the buildings which it will heat. Underground storage of any petroleum product is expressly prohibited.

(16) Any discharge of water which has been used for washing, cooking or otherwise altered and devices for the collection, storage and disposal of said wastes, unless that water is of household origin and is processed, prior to discharge, through a treatment system that satisfies the minimum requirements of the New York State Department of Health.

(17) Sanitary systems, including privy, dry well, or other place for the collection, storage or disposal of human excrement that does not satisfy the minimum requirements of the New York State Department of Health, including any amendments imposed by the Orange County Department of Health.

(18) Storage or disposal of any human excrement or compost containing human excrement, or any municipal, commercial or industrial refuse or waste product or polluting liquid or any substance which in the opinion of the New York State DEC is of a nature that is poisonous or injurious either to human beings or animals, or other putrescible organic matter whatsoever, at any place from which such liquid or substance may flow or be washed or carried into said source of water supply or tributary thereto.

(19) Manufacturing or processing plant producing wastes which are toxic or injurious either to human beings or animals, unless the location thereof has been expressly approved by the Town Board by special use permit.

E. Special permit uses. The Planning Board, under the authority of § **300-87** of this chapter, may allow those businesses permitted in the underlying district and not specifically prohibited in § **300-3** of this chapter within the Watershed Protection Overlay District, upon issuance of a special permit in accordance with § **300-87** hereof and subject to any additional conditions the Board may impose. Any proposed improvement at a minimum shall meet the following criteria:

(1) Is consistent with the purpose and intent of this chapter.

(2) Is appropriate to the natural topography, soils, and other characteristics of the site to be developed.

(3) Will not have a significant adverse effect, during construction or thereafter, on the existing or potential quality or quantity of water that is available in the Water Supply Protection District; and

(4) Is designed to avoid substantial disturbance of the soils, topography, drainage, vegetation and other water-related natural characteristics of the site to be developed.

F. Application of fertilizers, pesticides and herbicides. For any use involving the application of fertilizers, pesticides, or herbicides, the applicant must prepare a report identifying and stating that all necessary precautions shall be taken to prevent hazardous concentrations of pesticides in the water and on the land within the district as a result of such application and submit it to the Planning Board. Such precautions include, but are not limited to, erosion-control techniques, the control of runoff water (or the use of pesticides having low solubility in water), the prevention of volatilization and redeposition of pesticides and the lateral displacement (i.e., wind drift) of pesticides. The application of fertilizers for nondomestic or nonagricultural uses will be approved only if the applicant can prove that such application shall be made in such manner as to minimize adverse impacts on surface and groundwater due to nutrient transport and deposition and sedimentation.

G. Existing development. Existing development may be continued and maintained subject to the provisions provided herein. The expansion of structures or modification of plans must meet the requirements of this chapter.

(1) A use shall be considered existing if vested under the Town of New Windsor Zoning Code as of the effective date of this chapter, based on at least one of the following criteria:

(a) Having an outstanding valid building permit in compliance with § **300-77**.

(b) Having a site specific or phased development plan that has received conditional final approval from the Planning Board in compliance with § **300-86**.

(2) Uses of land. This category consists of land uses existing at the time of adoption of this chapter. Such uses may be continued except as follows:

(a) When such use of land has been changed to an allowed use, it shall not thereafter revert to any prohibited use.

(b) Such use of land shall be changed only to an allowed use.

(c) When such use ceases for a period of two years, it shall not be reestablished.

(3) Reconstruction. Any existing building or built-upon area not in conformance with the restrictions of this chapter that has been damaged or removed may be repaired and/or reconstructed, provided:

(a) Repair or reconstruction is initiated within two years of such damage.

(b) The total amount of space devoted to impervious area may not be increased unless stormwater control that equals or exceeds the previous development is provided.

(c) Nonresidential reconstruction requires site plan approval from the Planning Board to ensure the maximum compliance practicable with this section.

H. Buffer area requirements. The following buffer requirements for all new development activities in the Watershed Protection Overlay District shall apply:

(1) A minimum one-hundred-foot undisturbed buffer is required along the shoreline of the Silver Stream Reservoir and Washington Lake; otherwise, a minimum fifty-foot undisturbed buffer is required. Buffers are measured horizontally from the high-water mark of impounded water bodies and/or from the top of bank of streams.

(2) No trees larger than three inches in caliper DBH are to be removed from the required buffer except for diseased trees. The Town of New Windsor may require enhancement of the existing vegetation through the use of supplemental plantings in the buffer area, if necessary, to ensure that the buffer area can properly and effectively perform its filtering and absorption functions.

(3) No permanent structures, impervious covers, septic tanks or any other disturbance of existing vegetation is permitted in the buffer except for:

(a) Structures such as flagpoles, signs, and security lights which would result in only diminutive increases in impervious area.

(b) Artificial stream bank or shoreline stabilization plans shall be submitted to and approved by the New Windsor Town Engineer.

(c) Public projects such as road crossings and greenways where no practical alternative exists.

§ 300-22. Sandpits, gravel pits, removal of topsoil and landfill or excavations.

Sandpits, gravel pits, removal of topsoil, mining and landfill operations require site plan approval and special use permit from the Planning Board. Special conditions for such activities shall be as set by the Planning Board, in addition to the following:

A. The proposed operation shall not adversely affect soil fertility, drainage and lateral support of abutting land or other properties, nor shall it contribute to soil erosion by water or wind.

B. There shall be no operation between 7:00 p.m. and 7:00 a.m. Monday through Friday, and 6:00 p.m. and 8:00 a.m. on Saturdays, nor on Sundays or legal holidays.
C. All such uses shall comply with Article X, Performance Standards.
D. Where any open excavation will have a depth of 10 feet or more and create a slope of more than 30°, there shall be a substantial fence, at least four feet high with suitable gates, where necessary, effectively blocking access to the area in which the excavation is located. Such fence shall be located 50 feet or more from the edge of the excavation. All operations shall be screened from nearby residential uses.
E. The slope of material in any excavation shall not exceed the normal angle of repose or 45°, whichever is less.
F. Those portions of access roads within the area of the permit and located within 500 feet of a lot line or an excavation operation shall be provided with a dustless surface.
G. The top of the natural slope in cut for any excavation, and any mechanical equipment, shall not be less than 50 feet from any lot line.
H. Before approval is granted, a plan for rehabilitation, showing the current field topography, including the location of watercourses, and a proposed restoration grading plat, indicating the general grades and slopes to which the disturbed area will be graded, shall be submitted and approved. Such approval shall be based upon a finding that all banks shall be left with a slope no greater than 45° and that, upon completion of operations, the land shall be left in a safe condition with all grading and drainage such that natural stormwater leaves the property at the original, natural drainage points and that the area drainage to any one such point is not increased and that the site shall be left in a condition suitable for a use permitted in the district. Where topsoil is removed, sufficient arable soil shall be set aside for respreading over all disturbed areas with a minimum depth of four inches. All disturbed areas shall be seeded with a permanent ground cover. Fill shall be of a suitable material approved by the Planning Board.

§ 300-23. Commercial dog or veterinary kennels (not including stables).

The harboring, boarding or training of animals, whether enclosed in a structure or on open land and whether or not accessory to other principal uses of the land, shall be conducted in accordance with the following general standards:

A. In issuing the special permit for animal kennels, the permit shall stipulate the maximum number and type of animals to be boarded, harbored or trained. That number shall not exceed 10,000 square feet per 100 pounds of animal body weight characteristic of the species so harbored. The square footage of the lot area is that area of the lot not including any required yards.
B. All facilities shall be maintained in enclosed structures which shall be of soundproof construction and so maintained as to produce no dust or odors at the property line. Exercise pens and runways shall not be maintained within 200 feet of any lot line, nor within 300 feet of the front yard line when such line abuts a residential use or district.
C. In considering the application for a special permit for animal kennel use, the Planning Board may consider the number, size, breed and temperament of animals to be sheltered and impose reasonable conditions to protect proximate uses, aesthetic impact and safety of

the animals sheltered in order to ensure the health, safety and general welfare of the community.

§ 300-24. Multiple-residence developments.

The following standards shall apply to multiple-residence developments, including condominiums, cooperatives and townhouses (for applicable regulations pertaining to senior citizen housing, refer to §§ **300-18** and **300-18.1** of this Code, and for workforce housing, refer to § **300-20** of this Code):

A. All multiple-residence developments shall be serviced by approved central sewage disposal facilities and a central water supply.

B. All internal roadways shall meet the Town's public road requirements. Access and egress from the proposed development shall be to a street classified as a collector or arterial street as determined by the Highway Superintendent and Planning Board Engineer. Such entrances and exits shall be at least 100 feet from any intersection and shall have at least 300 feet of sight distance in both directions.

C. No building shall be located within 100 feet of any pond, reservoir, lake or watercourse which is part of a water supply system.

D. Multiple-residence uses shall be buffered from surrounding conventional residence areas by landscaping and fencing areas occupying the required yards.

E. Multiple-dwelling structure design features.

(1) No multiple-residence building shall be longer than 160 feet.

(2) No roofline of any structure will exceed 80 feet without a break of at least 5% of the building width.

(3) No face of any multiple residence shall consist of less than two planes interrupted by a distance of at least 10% of the building width for each four units contained therein.

(4) No structure shall be closer to an adjacent building than the height of the higher building wall. The distance between buildings shall be such that the northernmost building shall receive sun at the lowest window elevation of a dwelling unit for 46 weeks each year (sun angle computation).

(5) Provisions shall be made for the enclosed storage of garbage.

(6) For each two-bedroom or larger unit provided, one child play space (seat, apparatus or play space) shall be provided.

(7) In addition to the standards for landscaping set forth in § **300-15**, the grounds and vicinity of buildings shall be provided with decorative landscape materials.

(8) Construction materials shall be of a color and texture characteristic of or appropriate blend with the adjacent residential development.

(9) Exterior lighting along walks and near buildings shall be provided utilizing architectural-grade equipment and shall provide an average of 1.0 footcandle and not be less than 0.5 footcandle (measured at ground level), unless other intensities are deemed appropriate by the Planning Board, measured at ground level.

(10) Dwelling units shall be so designed and arranged in buildings as to ensure a minimum of three hours of sunlight at one window of each unit per day. No units with full northern exposure shall be permitted.

(11) Walks shall be provided throughout the development area that will ensure that drives shall not be required for pedestrian circulation.

F. Underground installation of electric and other utility systems is required in all multiple-residence developments, including new or upgraded supply systems off site to provide feed/service to the project.

§ 300-25. Home occupations.

The home occupation (subject to special permit of the Planning Board) shall be permitted in accordance with the use tables, provided that:

A. Such occupation is incidental to the residential use of the premises and is carried on by the resident thereof. There shall be a conclusive presumption that such office or studio use is not incidental to the residential use of the premises if client, patient, student or customer contact usage of such office or studio by the resident professional exceeds eight hours per day.

B. Such home occupation must be carried on personally by a resident of the dwelling.

C. Studios where instruction is offered to a group in excess of four people at one time, or where concerts, recitals or exhibitions are held, are prohibited.

D. The keeping or boarding of domestic animals is not considered a home occupation, and such use shall require approval of the Planning Board in accordance with § **300-23**.

§ 300-26. Gasoline stations and repair garages.

A. By special permit of the Planning Board, gasoline stations and repair garages are permitted, provided that no plot line of any station shall be closer than 200 feet to a school, playground, church, hospital, library or institution for the elderly or children. No gasoline station shall be permitted within 1,000 feet of any other gasoline facility fronting in the same street. Subject to Planning Board approval, a gasoline station may include a convenience store which customarily sells retail products and food, including deli, bakery and franchise fast food, as an ancillary use.

B. Ingress and egress.

(1) Ingress and egress points for gasoline service facilities shall be located a minimum of 70 feet from the intersection of right-of-way lines on a Town road and shall comply with requirements with respect to state, county or Town roads.

(2) Entrance and exit driveways shall have a width of not less than 25 feet and not more than 40 feet, shall be located not nearer than 10 feet to any property line and shall be so laid out as to avoid the necessity of any vehicle backing out across any public right-of-way.

(3) Vehicle lifts or pits, dismantled or unlicensed automobiles and all parts or supplies shall be located within a building enclosed on all sides.

(4) All service or repair of motor vehicles shall be conducted in a building enclosed on all sides. This requirement shall not be construed to mean that the doors to any repair shop must be kept closed at all times, unless such condition is imposed by the Planning Board due to proximity to other sensitive uses.

(5) The storage of gasoline or flammable oils in bulk shall be located fully underground and not nearer than five feet to any property line other than the street line, provided that the vents are located in accordance with NFPA requirements.

(6) No gasoline pumps shall be located nearer than 20 feet to any street line.

(7) Sites shall be designed for proper movement of delivery vehicles.

§ 300-27. Adult entertainment.

A. Purpose and intent. It is the purpose of this section to promote the health, safety, morals and general welfare of the citizens, including children, of the Town of New Windsor and to establish reasonable and uniform regulations regarding the location and concentration of sexually oriented businesses within the Town. It is not the intent of this amendment to this chapter to restrict or deny access by adults to sexually oriented materials protected by the First Amendment.

B. Definitions of adult establishment or sexually oriented business. The words and phrases set forth below shall have the meanings respectively ascribed to them:

ADULT ARCADE

Any place in which the public is permitted or invited in which coin-operated or slug-operated motion-picture machines or other image-producing devices are maintained where images are displayed which depict sexual activities or anatomical areas.

ADULT BOOKSTORE

A commercial establishment having a substantial or significant portion of its stock-in-trade, including but not limited to books, magazines, videotapes, periodicals, devices, clothing, visual representations or writings, depicting or related to sexually explicit anatomical areas or to sexual activities.

ADULT ENTERTAINMENT ESTABLISHMENT

A bar (whether or not alcoholic beverages are served), juice bar, cabaret, eating or drinking place, theater or similar establishment which regularly features persons who appear in a state of nudity or seminudity or live performances which are characterized by the exposure or stimulation of anatomical areas or by sexual activities.

MASSAGE PARLOR

A commercial establishment providing unlicensed massage services to customers.

C. Businesses prohibited in certain areas. It shall be unlawful to establish or maintain any adult establishment or sexually oriented business, as defined above, within 1,000 feet of the property line of another such establishment, as defined, or a church, house of worship, school, day-care center, nursery school, historical structure, airport, residential zone or residential dwelling.

D. Zones where permitted. No adult arcade, adult bookstore, adult entertainment establishment or massage parlor shall be permitted within any zone in the Town of New Windsor other than the Limited Commercial (LC) Zone, and provided that any such establishment or business shall at all times be subject to the distance limitations set forth in this section.

E. Screening and concealment. Any activity defined in this section shall be screened or otherwise concealed from the public view of children passing by. No sexually explicit materials or activities shall be visible from the street.

F. Special permit. No adult arcade, adult bookstore, adult entertainment establishment or massage parlor shall be established until the issuance of a special permit by the Planning Board pursuant to § **300-87** of this chapter. The application for a special permit shall be in writing to the Planning Board and shall include a description of the premises for which the permit is sought, a statement of the use which is proposed, a site plan showing all uses and zones within 1,000 feet of the site and such additional information as may be required by

the Code or Planning Board. The Planning Board shall call a public hearing for the purpose of considering the special permit. The Planning Board may establish reasonable conditions in issuing the special permit and may require periodic renewals of the special permit. Existing businesses which are covered by the definitions in Subsection **B** of this section, which are existing as of the date of the adoption of this section, shall nonetheless be subject to reasonable restrictions under this section, provided that the Planning Board may modify the terms of the special permit in such instances.

G. Penalties for offenses. Any person convicted of violating this section shall be subject to § **300-81** of this Code.

§ 300-28. Telecommunications towers.

A. Purpose. The purpose of these supplemental regulations is to promote the health, safety and general welfare of the residents of the Town of New Windsor; to provide standards for the safe provision of telecommunications consistent with applicable federal and state regulations; to minimize the total number of telecommunications towers in the community by encouraging shared use of existing and future towers and the use of existing tall buildings and other high structures; and to minimize adverse visual effects from telecommunications towers by requiring careful siting, visual impact assessment and appropriate landscaping.

B. Definitions. As used in this section, the following terms shall have the meanings indicated:

TELECOMMUNICATIONS TOWER

Any structure, the total height of which, including underlying or support structures and buildings, is greater than 35 feet in height, which is capable of receiving or transmitting signals for the purpose of communications.

C. Application of special permit regulations.

(1) No telecommunications tower, except those towers and uses approved prior to the effective date of this section, shall be used unless it has received a special permit from the Planning Board. No telecommunications tower shall hereafter be erected, moved, reconstructed, changed or altered unless in conformity with these regulations. No existing structure shall be modified to serve as a telecommunications tower unless in conformity with these regulations.

(2) Applicants proposing to co-locate on a previously approved telecommunications tower do not require a special permit. They are, however, subject to site plan review by the Planning Board in accordance with § **300-86**.

(3) These regulations shall apply to all property within the following zones: AP, PI, OLI, HC, LC, and NC. Telecommunications towers shall be specifically excluded from all other zones.

(4) Applications for construction of new telecommunications towers shall comply with the Code of Federal Regulations pertaining to objects affecting navigable airspace as delineated within Federal Aviation Regulations (FAR) Part 77. Additionally, no application for construction of a new telecommunications tower will be approved if the proposed tower violates the criteria for obstructions to air navigation as established by FAR Part 77, Subpart C, Obstruction Standards.

D. Shared use of existing tall structures. At all times, shared use of existing tall structures (for example, municipal water towers, multistory buildings, church steeples and farm silos) and existing or approved towers shall be preferred to the construction of new towers.

(1) An applicant proposing to share use of an existing tall structure shall be required to submit:

(a) A completed application for a special permit.

(b) Documentation of intent from the owner of the existing facility to allow shared use.

(c) A site plan. The site plan shall show, at a minimum, all existing and proposed structures and improvements, including antennas, roads, buildings, guy wires and anchors, parking and landscaping, and shall include grading plans for new facilities and roads. Any modifications of the existing facility shall be indicated on the site plan.

(d) An engineer's report certifying that the proposed shared use will not diminish the structural integrity and safety of the existing tall structure and explaining what modifications, if any, will be required in order to certify to the above, including making the facility higher.

(e) A completed long environmental assessment form (EAF) and completed visual EAF addendum.

(f) A copy of its Federal Communications Commission (FCC) license.

(2) If an applicant proposing to share use of an existing tall structure submits complete and satisfactory documentation in accordance with Subsection **D(1)(a)** through **(f)** above, and if modifications indicated according to those subsections are deemed insignificant by the Planning Board, and after the Planning Board conducts a public hearing and complies with all State Environmental Quality Review Act (SEQRA) provisions, the Board shall grant a special permit without further review under this section. If the Board determines that any modifications indicated according to such subsections are significant, it may require further review according to all subsections below.

(3) The Planning Board may modify or waive the setback or lot area requirements in the event that they are not deemed necessary for safety or other valid planning purposes for the site.

E. New telecommunications towers. The Planning Board may consider a new telecommunications tower when the applicant demonstrates that shared use of existing tall structures and existing or approved towers is impractical. An applicant shall be required to present an adequate report inventorying all existing tall structures above 35 feet and existing or approved towers within a two-mile distance of the proposed site. The report shall demonstrate the need for the proposed facility and provide technical data regarding existing signal coverage. The report shall outline opportunities for shared use of these existing facilities as an alternative to a proposed new tower and shall show reasons why existing towers and structures are not usable. The report shall demonstrate good-faith efforts to secure shared use from the owner of each existing tall structure and existing or approved tower as well as documentation of the physical, technical and financial reasons why shared usage is not practical in each case. Written requests and responses for shared use shall be provided.

F. Shared usage of existing tower sites for placement of new towers. Where shared use of existing tall structures and existing or approved towers is found to be impractical, the applicant shall investigate shared usage of an existing tower site for its ability to accommodate a new tower and accessory uses. Any proposals for a new

telecommunications tower on an existing tower site shall be subject to the requirements below.

G. New towers at new locations. The Planning Board may consider a new telecommunications tower on a site not previously developed with an existing tower, when the applicant demonstrates that shared use of existing tall structures and existing or approved towers is impractical or that no existing facility could be modified or altered to be usable, and when the Board determines that shared use of an existing tower site for a new tower is undesirable. Any proposal for a new telecommunication tower shall be subject to the requirements of the subsections below.

H. Future shared use of new towers. The applicant shall design a proposed new telecommunications tower to accommodate future demand for reception and transmitting facilities. The applicant shall submit to the Board a letter of intent committing the owner of the proposed new tower, and successors in interest, to negotiate in good faith for shared use of the proposed tower by a reasonable number of other telecommunications providers in the future. This letter shall be filed with the Code Enforcement Officer prior to issuance of a building permit. Failure to abide by the conditions outlined in the letter may be grounds for relocation of the special permit. The letter shall commit the new tower owner and successors in interest to:

(1) Respond within 90 days to a request for information from a potential shared-use applicant.

(2) Negotiate in good faith concerning future requests for shared use of the new tower by other telecommunications providers.

(3) Allow shared use of the new tower if another telecommunications provider agrees in writing to pay charges. The charge may include but is not limited to a pro rata share of the cost of site selection, planning, project administration, land costs, site design, construction and maintenance financing, return on equity and depreciation and all of the costs of adapting the tower or equipment to accommodate a shared user without causing electromagnetic interference.

I. Site plan review; submission requirements.

(1) An applicant shall be required to submit a site plan in accordance with § **300-86**. The site plan shall show all existing and proposed structures and improvements, including but not limited to roads, buildings, tower(s), guy wires and anchors, antennas, parking and landscaping, and shall include grading plans for new facilities and roads.

(2) Supporting documentation. The applicant shall submit a complete long form EAF, a complete visual environmental assessment form and documentation on the proposed intent and capacity of use as well as a justification for the height of any tower and justification for any clearing required.

(3) Engineer's report for all structures. The applicant shall submit an engineer's report, acceptable in form and content to the Planning Board engineer, detailing the basis and requirements for the design of any structure or extension thereof.

(4) The Planning Board may require any additional information it deems necessary to consider the application.

J. Lot size and setbacks. All proposed telecommunication towers and accessory structures shall be located on a single parcel and shall be set back from abutting parcels and street lines a distance sufficient to substantially contain on site all ice-fall or debris from tower failure and preserve the privacy of any adjoining residential properties.

(1) Lot size of parcels containing a tower shall be determined by the amount of land required to meet the setback requirements. If the land is to be leased, the entire area required shall be leased from a single parcel unless the Planning Board determines that this provision may be modified or waived as part of the special permit.

(2) Telecommunications towers shall be located with a minimum setback from any property line equal to 1/2 of the height of the tower. Equipment or utility structures shall comply with the minimum setback requirements in the underlying zoning district.

K. Visual impact assessment. The Board shall require the applicant to undertake a visual impact assessment which shall include, as a minimum:

(1) A Zone of Visibility Map, to be provided in order to determine locations where the tower may be seen.

(2) Pictorial representations of "before" and "after" views from key viewpoints both inside and outside of the Town, including but not limited to state highways and other major roads, state and local parks, other public lands, preserves and historic sites normally open to the public, and from any other location where the site is visible to a large number of visitors or travelers. The Board shall determine the appropriate key sites at a regular meeting or work session conference with the applicant.

(3) Assessment of alternative tower designs and color schemes.

(4) Assessment of the visual impact of the tower, guy wires, accessory buildings and overhead utility lines from abutting properties and streets. For new towers the Planning Board may require testing via balloons or cranes or other devices, with photographs submitted to the Board.

L. New tower design. Alternative designs shall be considered for new towers, including lattice and single pole structures. The design of a proposed new tower shall comply with the following:

(1) Any new tower shall be designed to accommodate future shared use by other telecommunications providers to the extent practicable.

(2) A tower shall have a shape, contour and finish (either painted or unpainted) that minimizes its degree of visual impact. The Planning Board may require a tower to be in the shape of a tree, flagpole, church steeple, etc.

(3) The maximum height of any new tower shall not exceed that which shall permit operation without artificial lighting of any kind or nature, in accordance with municipal, state and/or federal law and/or regulation. The Board at its discretion may modify this requirement if the applicant can justify the need to exceed this height limitation.

(4) The Board may request a review of the application by a qualified professional engineer or landscape architect retained by the Planning Board in order to evaluate the need for, and the design of, any new tower. The reasonable cost of this review shall be borne by the applicant.

(5) All structures shall maximize the use of building materials, colors and textures designed to blend with the natural surroundings.

(6) No portion of any tower or structure shall be used for a sign or other advertising purpose, including but not limited to company name, phone numbers, banners and streamers.

M. Existing vegetation. Existing on-site vegetation shall be preserved to the maximum extent possible. No cutting of trees exceeding four inches in diameter (measured at the height of

four feet off the ground) shall take place prior to the approval of the special permit. The applicant shall also comply with § **300-86D**, Procedure.

N. Screening. Deciduous or evergreen tree plantings shall be required to screen portions of the tower and all structures from nearby residential property as well as from public sites known to include public sites and views. Where a site abuts a residential property or public property, including streets, ample screening shall be required.

O. Access. Adequate emergency and service access and maneuver area shall be provided, including access for a tower ladder fire truck. Maximum use of existing roads and private accessways shall be made. Road construction shall, at all times, minimize ground disturbance and vegetation cutting to within the toe of fill, the top of cuts, or no more than 10 feet beyond the edge of any pavement. Road grades shall closely follow natural contours to assure minimal visual disturbance and reduce soil erosion potential. An erosion-control plan shall be submitted to and approved by the Planning Board prior to any construction.

P. Parking. Parking shall be provided to assure adequate emergency and service access in accordance with this chapter.

Q. Fencing. The tower and all structures shall be adequately enclosed by a fence, the design of which shall be approved by the Planning Board. The minimum standard shall be a chain-link fence six feet or eight feet in height, with dark vinyl coating and privacy slats, as well as suitable gate access for emergency purposes.

R. Public safety. The applicant shall demonstrate that the proposed communications tower will not pose a threat to public health and safety as a result of falling or blowing ice and other debris and that public access to the same has been restricted in order to prevent climbing or other trespass on the structure itself.

S. Removal. In the event that a tower is not in use for a period of one year, the tower and all structures shall be removed and the site restored to its condition prior to the construction of the related facilities. In the event that the tower is not removed as required by this subsection, then, upon written notice to the applicant securing the approval from the Planning Board for the special permit for the erection of the public communications utility tower and to the owner, which shall be mailed by certified mail to the applicant's address on the application filed with the Planning Board or to such other address as the applicant may provide to the Planning Board from time to time, and also to the owner at the address of record in the Assessor's office, the applicant shall remove the tower and related facilities and restore the premises. In the event that the applicant fails to remove the tower following notice and demand that the applicant do so, the Town shall then have the right to proceed to secure such relief against the applicant to cause the removal and restoration as the Town may deem appropriate, including injunctive relief. Where appropriate, the Town may elect to proceed under Chapter **113**, Buildings, Unsafe, of the Town Code. In either event, all costs and expense incurred by the Town of New Windsor in connection with the proceedings to remove or secure, including the cost of actually removing the tower, shall be assessed against the land on which the tower is located.

T. Intermunicipal notification for new towers. In order to keep neighboring municipalities informed, and to facilitate the possibility of directing that an existing tall structure or existing telecommunications tower in a neighboring municipality be considered for shared use, and to assist in the continued development of county 911 services, the Board shall require that an applicant who proposes a new telecommunication tower shall notify, in

writing, the legislative body of each municipality that borders the Town of New Windsor, the Orange County Planning Department and the Director of Orange County Emergency Services. Notification shall include the exact location of the proposed tower and a general description of the project, including but not limited to the height of the tower and its capacity for future shared use. Documentation of this notification shall be submitted to the Board at the time of application.

U. Notification of nearby landowners. The applicant shall be required to mail notice of the public hearing directly to all landowners whose property is located within 500 feet of the property line of the parcel on which a new tower is proposed. Notice shall also be mailed to the administrator of the state or federal parklands from which the proposed tower would be visible if constructed. Notification, in all cases, shall be made by first-class mail in accordance with Planning Board procedures. Documentation of this notification shall be submitted to the Board prior to the public hearing.

§ 300-29. Bed-and-breakfast establishments.

It has been determined that bed-and-breakfast establishments will generally exist as one of two different types of establishments. For purposes of this chapter, bed-and-breakfast establishments will be categorized as either a bed-and-breakfast residence or a bed-and-breakfast inn. Generally, a bed-and-breakfast residence is smaller and requires owner occupancy, while a bed-and-breakfast inn is larger and may not be required to be owner occupied. The classification of the type of bed-and-breakfast establishment shall be determined by the Planning Board, based on the information provided to the Planning Board by the applicant and based on the specific requirements for the bed-and-breakfast establishment as listed herein below.

A. Bed-and-breakfast residences are permitted as accessory uses in residential districts subject to site plan approval and the following supplemental regulations:

(1) The owner-operator of the bed-and-breakfast residence shall be a principal owner-occupant of the single-family residential dwelling to which the guest rooms are accessory.

(2) Bed-and-breakfast residences shall be permitted accessories only to single-family detached dwellings.

(3) Bed-and-breakfast residences shall not be permitted where physical road access is only to a private road. The driveway serving the bed-and-breakfast residence shall have direct physical access to a public road.

(4) Full turnaround for the dwelling and the bed-and-breakfast residence shall be provided, except that the Planning Board may waive such turnaround requirement for lots having frontage on and access to a rural street.

(5) The establishment and operation of the bed-and-breakfast residence shall not alter the appearance of the residence as single-family detached dwelling.

(6) Not more than four bedrooms of the bed-and-breakfast residence shall be permitted to be used for transient residential purposes. Upon conversion of any portion of its floor area to a bed-and-breakfast residence establishment, the residential dwelling shall retain at least one bedroom for the exclusive use of the owner-occupants of the principal dwelling to which the bed-and-breakfast residence is accessory. The owner-occupants of the principal dwelling shall provide sufficient documentation to the

Planning Board to demonstrate that adequate space has been reserved for the occupancy of the principal dwelling by the entire family of the owner-occupants.

(7) Room rental shall be strictly for transient usage. A limit of 14 days' stay shall be permitted.

(8) The sanitary and water supply systems serving the dwelling shall be adequate to meet the needs of the principal dwelling and bed-and-breakfast residence use combined. Where requested, the applicant shall submit documentation demonstrating such capacity in a form acceptable to the Planning Board.

(9) Adequate waste enclosure shall be provided to contain the solid waste generated by the principal dwelling and the bed-and-breakfast residence use.

(10) Parking shall be provided to meet the residence requirement and one additional space per each bed-and-breakfast room.

(11) Hard-surfaced walkways and stairs equipped with low-level lighting shall be provided from the parking area to the bed-and-breakfast residence entrance.

(12) If any outside recreation or any other exterior improvements exist or are planned to be constructed or used for the bed-and-breakfast residence use, the same shall be part of the site plan submitted for approval.

(13) Prior to the use of any portion of the residence as a bed-and-breakfast, a licensed professional shall make an inspection and the results shall be submitted to the Town Code Enforcement Officer. The Code Enforcement Officer (or his duly authorized representative) shall have the option of performing a site review of the area proposed for use as a bed-and-breakfast and shall determine if there are any code-related or other conditions which may prohibit such use.

B. Bed-and-breakfast inn establishments are permitted as special permit uses in those zones indicated on the Table of Use/Bulk Regulations. *Editor's Note: The Table of Use/Bulk Regulations is included at the end of this chapter.* Bed-and-breakfast inns are subject to site plan approval and compliance with the following supplemental regulations:

(1) The bed-and-breakfast inn is not required to be the principal residence of the owner-operator, although the same shall be permitted as part of an approved special permit use, at the owner-operator's option. However, in the event that such bed-and-breakfast inn does not serve as the principal residence of its owner-operator, the Planning Board shall require that adequate supervision be provided on site for such bed-and-breakfast inn use. The bed-and-breakfast inn shall provide a reception/office area, which area is not required to be a room that is dedicated solely to that purpose, provided that such area is not within the confines of a guest room.

(2) The number of guest rooms permitted for rental for transient residential purposes in a bed-and-breakfast inn shall be limited to 14.

(3) Bed-and-breakfast inns shall not be permitted in cases where physical road access is only to a private road. The driveway serving the bed-and-breakfast inn shall have direct physical access to a public road.

(4) Full turnaround for the bed-and-breakfast inn shall be provided.

(5) Room rental shall be strictly for transient usage. Limit of 14 days shall be permitted.

(6) The sanitary and water supply system serving the use shall be adequate to meet its projected needs. As part of the application, sufficient information shall be furnished to demonstrate such capacity, in such form as acceptable to the Planning Board.

(7) The site shall include adequate waste enclosure to contain all the solid waste generated by the bed-and-breakfast inn use.

(8) Parking shall be provided to meet the residence requirement (where applicable), as well as one space per each (equivalent) full-time employee, plus 1.25 spaces per each bed-and-breakfast guest room or suite. Full interior turnaround shall be required for bed-and-breakfast inn parking.

(9) Hard-surfaced walkways equipped with low-level lighting shall be provided from the parking area to the bed-and-breakfast inn entrance. As well, where required by the Planning Board, additional lighting for the parking area(s) shall be provided.

(10) If any outside recreation or any other exterior improvements exist or are planned to be constructed or used for the bed-and-breakfast inn use, the same shall be part of the site plan submitted for approval.

(11) Prior to the use of any portion of the residence as a bed-and-breakfast, a licensed professional shall make an inspection and the results shall be submitted to the Town Code Enforcement Officer. The Code Enforcement Officer (or his duly authorized representative) shall have the option of performing a site review of the area proposed for use as a bed-and-breakfast and shall determine if there are any code-related or other conditions which may prohibit such use.

Article VII. Planned Unit Development

§ 300-30. Planned unit development intent.

It is the intent of these planned unit development (PUD) regulations to provide flexible land use and design through the use of performance criteria on designated areas of land programmed for more intense and sophisticated uses of land within the Town and to incorporate a variety of residential use types with nonresidential uses containing privately owned sites and common property as a planned unit. Such a planned development is to be designed and organized so as to permit the site to function without necessarily requiring the supportive services of adjacent neighborhoods. This article encourages innovations in residential development so that the growing demands for housing for young married couples, senior citizens, and existing residents, who no longer wish to maintain a large one-family house because the family unit has been reduced in size due to minor children becoming emancipated, may be met by a greater variety of housing types, design and planning of structures with the incidental benefit of more efficient land use in such developments.

§ 300-31. Objectives.

In order to carry out the intent of this article, a planned unit development shall achieve the following objectives:

A. A variety of housing types and ownership capabilities shall be provided, i.e., cooperatives, individual residences, condominiums with community facilities available to potential residents and rental apartments.

B. Usable open space, recreational facilities and reservation for educational facilities shall be provided in accordance with Planning Board requirements.

C. Accessory facilities may be located within the site where appropriate.

D. Outstanding topographical, geological and water resource features of the site shall be preserved to the maximum.

E. A creative and staged development of land shall be followed which allows for an orderly transition of land from vacant to occupied use.

§ 300-32. General design requirements and standards.

A. Minimum area. The minimum area necessary to qualify for a planned unit development shall not be less than 50 contiguous acres of land; provided, however, that the owner of less than that amount can simultaneously apply for the residential provisions of a PUD where the land is adjacent to a proposed or constructed PUD.

B. Ownership. The tract of land may be owned, leased or controlled by a single person, corporation or association of individuals or corporations. An application may be filed by the owner, jointly by the owners of all property to be included or by a person, persons, corporation or corporations with an option to buy said property. In the case of multiple ownership, a plan once approved shall be binding on all owners.

C. Location of planned unit developments. Planned unit developments are special permit uses in all districts within the Town. Planned unit developments shall be served by public water and sewer service and shall meet the criteria for special permit approval set forth in Article **XIV**.

D. Permitted uses. All uses within an area designated as a planned unit development are determined by the provisions of this article, subject to requirements of this chapter relating to computation of dwelling units. Such uses as may be approved are:

(1) Residential uses. Residential uses may be of any variety and ownership, subject to Planning Board approval and the imposition of conditions to ensure the ongoing maintenance and care of common areas and obligations of the development.

(2) Accessory commercial, service and nonresidential uses. Accessory commercial, service and other nonresidential uses may be permitted or required in planned unit developments. Nonresidential developments shall be restricted to uses of a professional office and neighborhood commercial nature where such PUD is located in a residential use district. Nonresidential uses may be permitted in PUDs situate in an OLI District. Residential uses are permitted throughout the PUD.

E. Residential development. Planned unit developments situated in residential districts shall be permitted the number of dwellings as follows:

(1) The gross area of the land to be included in the PUD shall be calculated, and any land under water or otherwise precluded from development, such as easements, existing development, etc., shall be subtracted.

(2) The adjusted gross area of land from Subsection **E(1)** above shall be divided by the minimum area for single-family dwellings as set forth in the applicable district(s) to determine the basic number of units permitted.

(3) For planned unit developments incorporating planned residence development (multifamily), the following unit equivalency may be permitted, subject to the overall limitations set forth in Subsection **D**:

Bedroom Count	Equivalent Dwellings
0 (efficiency)	0.25

Bedroom Count	Equivalent Dwellings
1	0.33
2	0.50
3 or more	1.00

(4) The Town Board may approve the transfer of dwelling unit credit to the PUD from noncontiguous lands in the same ownership within the Town of New Windsor, provided that such lands are placed in permanent open space uses and represent substantial open space resources for the community. Such credit may be calculated in the same manner as in Subsection **E(1)** above.

§ 300-33. Common property.

Common property in the PUD is a parcel or parcels of land and a privately owned road or roads, together with the improvements thereon, the use and enjoyment of which are shared by the owners and occupants of the individual building sites. When common property exists, the ownership of such common property may be either public or private, at the option of the Town Board. When common property exists in private ownership, the owners shall grant such easements over, under and through such property to the Town as are required for public purposes. Also, satisfactory arrangements must be made for the improvement, operation and maintenance of such common property and facilities, including private streets, drives, service parking and recreational areas, pursuant to § **300-16**.

§ 300-34. Design standards.

Unless otherwise indicated in the resolution of special permit approval of the planned development, compliance with the following standards shall be required:

A. Lot area and yard requirements. No minimum lot size, frontage or yard requirements within a planned unit development shall be required except those dictated by health, fire, safety, function and buffer considerations.

B. Height limitations. No maximum limits on building height shall be required, except as provided in § **300-10** of this chapter.

C. Streets. The arrangement, character, extent, width, grade and location of all streets shall be considered in relation to existing and planned streets and topography and to public convenience and safety and in their appropriate relation to the proposed uses of the land to be served by said streets. Whether private or public, said streets shall conform to all other street and road specifications of the Town.

D. Access. All uses shall have access to a public or private street except residences, which need not front on a street but must have access thereto via a court, walkway or other area dedicated to public use or owned and maintained by a permanent resident nonprofit civic association or corporation.

E. Building area. The location and arrangement of all structures shall be in harmony with the purposes of this special use. The location and arrangement of structures shall not be detrimental to existing or prospective adjacent development or to the existing or prospective development of the Town.

F. Boundary setbacks, buffer areas and transitional uses. Along the boundaries of a planned unit development, provision shall be made for a combination of uses and buffer areas which constitute a transitional separation between surrounding existing and prospective uses and the proposed development. All uses and structures in the planned unit development shall be required to provide a setback and/or buffer area from any zone district boundary or designated street line of any adjoining street at least equal to the least restrictive setback or buffer area required for any such uses or structures in the zoning districts in which they are permitted. If the existing use adjoining a planned unit development is industrial, the screening as required in this chapter shall be provided at the perimeter of the district where the proposed planned unit development is to be constructed, to screen such residential development from glare, uses or other influences having a potentially adverse impact on the planned unit development. Within the planned unit development, compatibly designed and transitional buffer areas and screening between uses and structures shall be provided.

G. Off-street parking and loading requirements. The minimum off-street parking and loading requirements for any uses or structures in a planned unit development shall be at least equal to the minimal requirements stipulated for such uses or structures in this chapter.

H. Special considerations. Multiple-residence structures shall conform to the design and density requirements of § **300-24**.

I. Additional site development standards. In addition to the standards set forth in this article, the applicant shall also comply with the appropriate design, site development plan and performance standards of this chapter and of Chapter **257**, Subdivision of Land. Where a conflict between this article and any of the above exists, the former shall govern.

§ 300-35. Application procedure and approval process.

A. General. Whenever any planned unit development is proposed, before any permits for the erection of a permanent building in such development shall be granted and before any subdivision plat or part thereof may be filed in the office of the County Clerk, the developer or his authorized agent shall apply for and procure approval of such planned unit development in accordance with procedures set forth in this section.

B. Application to the Town Board for concept approval. The owner or prospective purchaser must make application to the Town Board for concept approval or rejection prior to the filing of a preliminary plan with the Planning Board. Application for concept approval shall be in a form sufficient to enable the Town Board to evaluate the planned unit development for compliance with the standards set forth for special permit approval in § **300-87** and shall include a written report as set forth in Subsection **B(1)** below. The Town Board shall refer the application for concept approval to the Planning Board for its review and report. The Town Board, upon concept approval, shall forward the approved application with any conditions to the Planning Board for consideration in the production of the preliminary plan. Concept approval shall continue in force so long as preliminary plan approval is diligently pursued by the applicant. Preliminary plan review by the Planning Board shall be undertaken by the applicant within six months of concept approval unless such period is extended by the Town Board for an additional ninety-day period.

(1) Report requirements. A written description of the area surrounding the planned unit district shall be submitted, demonstrating the relationship of the proposed site to adjoining uses, including:

(a) An explanation of the character of the planned district.
(b) Evidence that the proposal is compatible with the goals of the Town Comprehensive Plan.
(c) A market feasibility study and other possible study techniques showing the demand for the principal proposed uses within the proposed site.
(d) A cost benefit analysis or other similar study to review the relative estimated municipal costs, services and ratables which might be anticipated for the development.
(e) General statements as to how common open space is to be owned and maintained.
(f) A proposed time schedule for development and, if staged, a general indication of how the staging is to proceed.
(g) The present ownership of all lands included within the proposed planned unit development.
(h) A circulation study both within the planned unit development and as it may affect the surrounding areas, including estimates of total automotive trips generated, peak-hour demand, present and anticipated traffic volumes, existing street capacities and other elements which may influence and be influenced by the proposed planned unit development.
(i) Evidence to demonstrate the applicant's competence to carry out the plan and his awareness of the scope of such a project, both physical and financial.

(2) Report by Orange County Planning Board. Simultaneously with the application for concept approval, the Town Board shall submit a duplicate set of plans and reports to the Orange County Planning Board for its consideration pursuant to the General Municipal Law § 239-n.

C. Application for preliminary plan approval.

(1) The developer shall submit a preliminary plan of the proposal to the Planning Board. The preliminary plan shall be approximately to scale, though it need not be so precise as to consist of finished engineering drawings, and it shall clearly show the following information:
(a) The location of various uses and their area.
(b) The general outlines of the main interior roadway systems and all existing rights-of-way and easements, whether public or private.
(c) Delineation of the various residential uses, indicating for each such area its general extent, size and composition in terms of the total number of dwelling units and approximate percentage allocation by dwelling unit types (for example, single-family detached, duplex, townhouses, condominiums, and garden apartments), plus a calculation of the permitted dwellings and equivalency for planned residence use.
(d) The interior open space system.
(e) The overall drainage system.
(f) Existing and proposed contours at intervals of not more than 10 feet.
(g) A location map generally showing land use and ownership of abutting lands.
(h) A general statement as to how common open space is to be owned and maintained and a commitment that the Town shall be granted easement over all common open spaces and roads.

(i) If the project is to be staged by the owner, a general indication of how staging is to proceed.

(2) The Planning Board shall review this preliminary plan and its related documents and shall, within 45 days thereafter, render either a favorable or unfavorable report to the Town Board.

D. Application for planned unit development special permit.

(1) Upon receipt of a favorable or unfavorable report from the Planning Board, the Town Board shall set a date for a public hearing for the purpose of considering special permit approval for the applicant's plan in accordance with the procedures established under §§ 264 and 265 of the Town Law of the State of New York, said public hearing to be conducted within 62 days of the receipt of the report or decision of the Planning Board.

(2) The Town Board shall refer the application, when applicable, to the County Planning Department as required by §§ 239-1 and 239-m of the General Municipal Law, and the Town Board shall also refer the application to the Town Engineer if this has not been done by the Planning Board.

(3) The Town Board shall give the County Planning Department, where such review is required, at least 30 days to render its report, and the Town Board shall render its decision within 62 days after the public hearing.

E. Site plan approval process.

(1) Application for site plan approval. Application for site plan approval shall be referred to the Planning Board, in accordance with § **300-86D**, within 90 days of special permit approval or as stipulated by the Town Board in its resolution of approval.

(2) Requests for changes in the preliminary plan. If in the course of site development plan review it becomes apparent that certain elements as have been approved by the Town Board are not feasible, the Planning Board may resubmit to the Town Board its recommendations and the reasons for requesting the changes and, upon approval of the Town Board, a change to the preliminary plan may be made.

(3) Action on the final detailed site plan application.

(a) Within 62 days of receipt of the complete application for final site plan approval, the Planning Board shall hold a public hearing in accordance with § 276 of the Town Law and render a decision to the applicant and so notify the Town Board within 62 days from the public hearing.

(b) Upon approving an application, and the applicant fulfilling all of the conditions and the posting of all required bonds, the Planning Board shall endorse its approval on a copy of the final site plan and shall forward the same to the Code Enforcement Officer who shall, upon payment of the requisite fee, issue a building permit to the applicant.

(4) Staging. If the applicant wishes to stage his development and he has so indicated as per Subsection **C(1)(i)**, he may submit only those stages he wishes to develop for site plan approval in accordance with his staging plans. In such application, he must submit the full plans required above for site plan approval and subsequently file the staging plans.

§ 300-36. Financial responsibility.

No building permit shall be issued for construction within a planned unit development until the required improvements are installed or until a certified check and performance bond in a

form acceptable to the Town Attorney are posted in accordance with the procedures specified in § 277 of the Town Law relating to subdivisions.

§ 300-37. Site plan approval.

The site plan approval shall be governed by the provision of § **300-86E**.

Article VIII. Signs

§ 300-38. Compliance required.

No sign (deemed to include any billboards, advertising displays, structures or similar devices) shall be erected, moved, enlarged or reconstructed except as expressly permitted in this article.

§ 300-39. Applications.

Applications to erect a sign within the Town shall be made to the Code Enforcement Officer upon a form provided by the Code Enforcement Officer and shall be accompanied by such information as may be required to assure compliance with all applicable federal, state and local laws and regulations. This information shall include but not be limited to the following:

A. The name and address of the owner of the premises on which the sign is to be located.

B. A clear and legible drawing, with a description and nominal dimension, showing the location of the sign which is the subject of the permit. Typical drawings may be as follows:

(1) For signs mounted on building facades: building elevation showing sign location, copy, dimensions and mounting details.

(2) For freestanding identification or directory signs: a site plan showing approximate sign locations and setbacks, elevation, copy and dimensions of the sign and details of the post and base assembly.

§ 300-40. Issuance of permit.

A. The Code Enforcement Officer shall issue a permit for the erection, alteration or relocation of all signs within the Town, with the exception of exempt signs as defined herein, when the permit application is properly made and all appropriate fees have been paid.

B. No permit for a sign issued hereunder shall be deemed to constitute permission or authorization to maintain an unlawful sign, nor shall any permit issued hereunder constitute a defense in an action to abate an unlawful sign. For purposes of determining the expiration date of any permit, the date of issuance of the permit shall be deemed the time at which the sign is erected or installed.

§ 300-41. Permit fee.

Application for permits shall be filed with the Code Enforcement Officer, together with the required permit fee. The amount of the fee shall be in accordance with the Standard Schedule of Fees of the Town of New Windsor. *Editor's Note: Said schedule is on file in the Town offices.* (*See Ch. 137, Fees.*)

§ 300-42. Appeal of permit denial.

When a sign permit application is denied by the Code Enforcement Officer, he shall give written notice of the denial to the applicant, together with a brief written statement of the reason or reasons for denial. Any appeal shall be taken to the Zoning Board of Appeals and shall be made to the Board in accordance with § **300-85**.

§ 300-43. Permit exceptions.

The following operations shall not be considered as creating a sign insofar as requiring the issuance of a sign permit, but the signs must be in conformance with all other codes, electrical laws and regulations of the Town:

A. The changing of the advertising copy or message on an existing approved painted or printed sign, marquee, changeable copy sign or a similar approved sign, whether electrical, illuminated, electronic changing message center or nonilluminated painted message, which are all specifically designed for the use of replaceable copy.

B. The painting, repainting, cleaning or other normal maintenance and repair of a sign not involving structural changes. Replacement of the plastic face will be included as an exempt operation, provided that it is due to a change caused by breakage and/or deterioration of the face but not for the substitution of a new or different advertiser.

C. Changes in the content of show window displays and permitted temporary signs with a valid permit.

§ 300-44. Required signs.

A. Each residential and/or commercial building, structure or development in the Town shall be required to install satisfactory identification indicating the house (or building) number and, as applicable, name of the occupant or the location. This requirement shall be deemed necessary for health, safety and general welfare should an emergency incident occur. Required signs shall comply with the applicable provisions of this Code and shall be subject to the guidelines of the Town Emergency 911 Coordinator.

B. All commercial parks and/or multifamily developments shall provide, where required by the Code Enforcement Officer, or as required by the Planning Board, a directory and directional sign intended to assist (guide) emergency response units to locations within the development. Such signs shall be subject to review of the Town Emergency 911 Coordinator and the officer and/or board requiring the installation.

C. Fire prevention signage.

(1) Required signs shall also be provided and conform to the specific requirements of § **142-6** of Chapter **142**, Fire Prevention, of this Code.

(2) For firefighting purposes, all existing fire walls that are not identifiable by the extension of the fire wall through the roof must be marked by a sign on the exterior wall of the building at each end of the fire wall, in order to be seen by firelighters. The sign is to read "fire wall here" and is to be clearly visible and unobstructed from view on the outside of the building. The sign shall be six inches in width and two feet in length. The sign is to be affixed to the exterior building wall under the soffit of the building.

D. Installation of required signs under this section shall be exempt from permitting requirements.

§ 300-45. Permitted accessory signs.

A. Nonresidential zoning districts (AP, NC, HC, LC OLI, and PI).

(1) Freestanding signs.

(a) For any nonresidential business site, permitted by right, by special permit or by variance, one freestanding, indirectly illuminated sign supported by an ornamental post or base set in the ground behind the property line or sidewalk line so as to be free of pedestrian traffic, not obstruct sight distance or otherwise pose a hazard or be a nuisance shall be permitted.

(b) Such sign shall not exceed 64 square feet, total all faces, nor be more than 15 feet above ground level, measured from the top of the sign to the average ground level at the sign base.

(c) Such sign shall not be illuminated in a manner so as to create a hazard or nuisance to traffic or adjoining properties.

(d) If the site has two main vehicular entrances, the Planning Board may approve, at its discretion, one additional full-size freestanding sign at the second entrance, but in no case shall the signs be spaced closer than 300 feet (measured along the road frontage).

(2) Facade signs.

(a) For any nonresidential business site, in addition to any permitted freestanding signs, one sign for each permitted business may be located on the building facade, with the sign face not to exceed 3.5 feet (height) and 12 feet (width), or 42 square feet of total surface area, whichever is greater.

(b) If the building face (at the location where the facade sign is to be mounted) is greater than 300 feet from the street (property) line which it fronts, the maximum permitted height of the facade sign can be increased to 4.5 feet.

(c) If a permitted business or establishment has more than one main building entrance, one additional full-size facade sign will be permitted, but in no case shall the additional sign be located on the same building face as the other permitted sign.

(3) Temporary signs.

(a) Temporary signs, not to exceed 64 square feet, total all faces (unless otherwise specifically noted), may be displayed for not more than 45 consecutive days in any consecutive twelve-month period, except as permitted under Subsection **A(3)(c)** and **(d)** below.

(b) One real-estate-type temporary sign shall be permitted for any structure for sale, lease or for rent, provided that such sign is located entirely on the property to which the sign applies, with such sign not to exceed six square feet, total all faces, and not to exceed six feet in height. Such use shall cease within 30 days after sale or rental is consummated.

(c) One temporary subdivision or site plan development sign in connection with the marketing of lots or structures in a subdivision or site plan application shall be permitted, subject to the following conditions:

[1] Such permits may be issued for a period not to exceed one year for each permit, upon written application at least 30 days prior to its expiration.

[2] Legend. The sign may contain advertising in connection with the name of the subdivision, development, firm, building contractor or real estate sales firm

and may refer to materials, appliances, supplies and building trades used in the construction of the dwelling units or services provided by the developer.

[3] No such sign shall be permitted to remain in one subdivision for the purpose of advertising the sale of lots or structures in another subdivision.

[4] Such signs are not to exceed 64 square feet, total all faces, nor be more than 15 feet above ground level, measured from the top of the sign to the average ground level at the sign base.

[5] The temporary development sign use shall cease within 30 days after the sale of the last subdivision lot or rental/sale of the last site plan structure/occupancy.

(d) Temporary signs shall be placed on the property so as not to obstruct any pedestrian traffic, not obstruct sight distance nor otherwise pose a hazard or be a nuisance.

(e) If illuminated, temporary signs shall be internally illuminated or, if directly illuminated, shielded to prevent glare or a nuisance and shall not include any flashing-type lights.

(4) Portable signs.

(a) A new business, or a business in a new location, awaiting installation of a permanent sign may utilize a portable sign for a period of not more than 60 consecutive days or within 30 days from installation of a permanent sign, whichever occurs first. One thirty-day extension will be permissible, if approved by the Code Enforcement Officer.

(b) A portable sign is hereby defined as a sign, whether on its own trailer, wheels or otherwise, designed to be movable and not structurally attached to the ground, a building, a structure or another sign.

(c) Portable signs shall be placed on the property so as not to obstruct any pedestrian traffic, not obstruct sight distance nor otherwise pose a hazard or be a nuisance.

(d) If illuminated, portable signs shall be internally illuminated and shall not include any flashing-type lights.

(e) Portable signs are not permitted other than for that use noted under Subsection **A (4)(a)** above.

B. Residential zoning districts (R-1, R-2, R-3, R-4, R-5 and the CL-1 Zones).

(1) Freestanding signs.

(a) For any nonresidential business site or multiple-residence development permitted by right, by special permit or by variance, one freestanding, illuminated sign supported by an ornamental post or base set in the ground behind the property line or sidewalk line, so as to be free of pedestrian traffic, not obstruct sight distance, or otherwise pose a hazard or be a nuisance, shall be permitted.

(b) For uses other than multiple-residence developments, such signs shall not exceed 20 square feet, total all faces, nor be more than six feet above ground level, measured from the top of the sign to the average ground level at the sign base. For multiple-residence developments, such signs shall not exceed 40 square feet, total all faces, nor be more than six feet above average ground level.

(c) Such signs shall not be illuminated in a manner so as to create glare, a hazard or a nuisance to traffic or adjoining properties.

(d) Accessory to permitted residences, one nonilluminated occupation or professional sign shall be permitted with an area not to exceed six square feet, total all faces, and not to exceed six feet above ground level.

(e) If a multiple-residence development has more than one main vehicular entrance, the Planning Board may approve, at its discretion, additional full-size freestanding signs at the additional entrances, but in no case shall the signs be spaced closer than 300 feet (measured along the road frontage).

(2) Facade signs. For any nonresidential business site, in addition to any permitted freestanding signs, one sign for each permitted business may be located on the building facade, with the sign face not to exceed four square feet.

(3) Temporary signs.

(a) Temporary signs, other than real-estate-type signs and development signs, are not permitted in residential zoning districts.

(b) Real estate signs shall comply with Subsection **A(3)(c)** above.

(c) Development signs shall comply with Subsection **A(3)(d)** above.

(4) Portable signs. Portable signs are not permitted in residential zoning districts.

§ 300-46. Prohibited signs.

The following types of signs or artificial lighting is prohibited:

A. Billboards. (See definition in § **300-89**.)

B. Flashing signs, including any sign or device on which the artificial light is not maintained stationary and constant in intensity and color at all times when in use, or signs including materials which move or appear to move.

C. Signs which project over a public street or right-of-way.

D. Signs which compete for attention with or may be mistaken for a traffic signal or signs which purport to be or are an imitation of or resemble an official traffic sign or signal or which bear the words "stop," "go slow," "caution," "warning" or similar words.

E. The outlining by direct illumination of all or any part of a building, such as a gable, roof, side, wall or corner, except for temporary holiday lighting.

F. Signs made of cardboard, paper, canvas or similar impermanent materials.

G. Swinging signs.

H. A-frame or sandwich board, sidewalk or curb signs, except as set forth in § **300-50Q** of this article.

I. Signs which bear or contain statements, words or pictures of an obscene, pornographic or immoral character or which contain advertising matter which is untruthful.

§ 300-47. Abandoned signs.

Such business signs that advertise an activity, business, product or service which is no longer conducted or available on the premises on which the sign is located shall be prohibited.

§ 300-48. Parking of advertising vehicles prohibited.

No person shall park any vehicle or trailer on a public right-of-way, public property or on private property so as to be visible from a public right-of-way if said vehicle or trailer has attached thereto, or located thereon, any sign or advertising device for the basic purpose of providing advertisement of products or directing people to a business or activity located on

the same premises. This section is not intended to prohibit any form of vehicular signage, such as a sign attached to a bus or lettered on a motor vehicle, provided that such vehicles have current year registrations.

§ 300-49. Public areas.

No sign shall be permitted which is placed on public property or over or across any street or public thoroughfare, except as may otherwise expressly be authorized by this article.

§ 300-50. Exempt signs.

The following signs are exempt from the permit requirements set forth by this article, except that, where noted, size, quantity and other indicated limitations shall apply as indicated for the specific type of sign, and maintenance of all signs as described elsewhere in this article shall be required:

A. One construction sign per construction project, not exceeding 10 square feet in area in residential zones and 30 square feet in area in nonresidential zones, provided that such signs shall be erected no more than 30 days prior to the beginning of construction for which a valid building permit has been issued, shall be confined to the site of construction and shall be removed no later than 30 days after completion of construction and/or prior to occupancy.

B. Nonelectrical, nonilluminated, directional or instructional signs as reasonably necessary to provide direction or instruction and located entirely on the property to which they pertain, signs identifying restrooms, public telephones or walkways or signs providing direction, such as parking lot entrance and exit signs and those of similar nature, except that, where the project is subject to site plan review, at the discretion of the Code Enforcement Officer, these signs may require application to the Planning Board for approval.

C. Flags, emblems or insignia-type signs of any nation, state or political subdivision or corporate flag. The maximum permitted height for these type signs shall be 25 feet in residential zones and 35 feet in nonresidential zones. No more than three such signs (flags, emblems or insignia) in total shall be installed (displayed), unless the additional signs are approved by the Planning Board as an element of a site plan.

D. Governmental signs for control of traffic and other regulatory purposes, street signs, danger signs, railroad crossing signs and signs of public service companies indicating danger and aids to service or safety which are erected by or on the order of a public officer in the performance of his public duty.

E. Temporary holiday decoration signs of a primarily decorative nature, clearly incidental and customary and commonly associated with a national, local or religious holiday.

F. House numbers and nameplates (nonilluminated) for each residential dwelling unit, not to exceed two square feet, total all faces, indicating the name of the occupant and/or the location.

G. Interior signs located within a building or stadium or within an enclosed lobby or court of any building and signs for and located within the inner or outer lobby, court or entrance of any theater.

H. Memorial signs, tablets or plaques or names of buildings and dates of erection when cut into any masonry surface, inlaid or otherwise directly fastened to the building so as to be part of the building or when constructed of bronze or other noncombustible material.

I. Notice bulletin boards not over 20 nominal square feet in area for medical, public, charitable, civil or religious institutions, where the same are located on the premises of said institutions.

J. "No Trespassing" or "No Dumping" signs (or similar such signs) not to exceed 1 1/2 square feet in area per sign, spaced evenly along the property, spaced no closer than 250 linear feet, measured along the property line; however, in each case, one such sign will be permitted on each side of the property, regardless of spacing (separation).

K. Public notices. Official notices posted by public officers or employees in the performance of their duties.

L. Public signs (temporary or permanent) required or specifically authorized by any law, statute or ordinance, which signs may be of any type, number, area, height above grade, location, illumination or animation required by the law, statute or ordinance under which the signs are erected.

M. Religious symbols, commemorative plaques of recognized historical agencies or identification emblems of religious orders or historical agencies, provided that no such symbol, plaque or identification emblem shall exceed four square feet in area, and provided further that all such symbols, plaques and identification emblems shall be placed flat against a building.

N. Warning signs, alerting the public to the existence of danger but containing no advertising material, of a size as may be necessary, to be removed upon subsidence of danger.

O. At gasoline stations and repair garages:

(1) Integral graphics or attached price signs on gasoline pumps, and graphics or company identification on island canopies; however, the size or shape of the canopy shall not be modified to expand the same for purposes of additional signage use. This does not exempt canopies from the required reviews and approvals of the Code Enforcement Officer and Planning Board.

(2) Two price, product or promotional signs, each not exceeding 12 square feet (total all faces) or six square feet per side, if located on the pump island, or set not closer than 10 feet from the edge of the roadway pavement, nor exceeding eight feet above grade, nor situated so as to impair visibility for pedestrians or motorists.

P. Signs of a temporary nature erected as participation in approved public parades, public events or public celebrations. Such signs shall not be erected or otherwise displayed for more than a total of 10 days, nor three days after the event. Such signs shall not obstruct vehicular or pedestrian sight distance or movement nor otherwise create a nuisance.

Q. Banners and related signs. In nonresidential districts, banners, flags, streamers, pennants and the like will be permitted as a special business opening promotion for a total period of 30 days on a one-time basis only. In residential districts in connection with an open house or model home demonstration for a new project, such banners, flags, streamers, pennants and the like shall be permitted for a total period of 15 days on a one-time basis per project or section of a project.

§ 300-51. Construction specifications.

All signs shall comply with the provisions of the New York State Uniform Fire Prevention and Building Code and the National Electrical Code, year of latest revision, and the additional construction standards hereinafter set forth in this section.

A. Obstruction to exits. No signs shall be erected, constructed or maintained so as to obstruct any fire escape, required exit, window or door opening used as a means of egress.

B. Obstruction to ventilation. No sign shall be attached in any form, shape or manner which will interfere with any opening required for ventilation, except that such signs may be erected in front of and may cover a transom when not in violation of the provisions of the Uniform Fire Prevention and Building Code.

C. Clearance from high-voltage power lines. Signs shall be located in such a way that they maintain horizontal and vertical clearance of all overhead electrical conductors in accordance with National Electrical Code specifications, depending on voltages concerned. However, in no case shall a sign be installed closer than 24 inches horizontally or vertically to any conductor or public utility guy wire.

D. Drainage. The roofs of all marquees shall be properly guttered and drained.

§ 300-52. Freestanding signs.

All freestanding sign structures or poles shall be self-supporting structures erected on or permanently attached to concrete foundations.

A. Wind loads. All signs except those attached flat against the wall of a building shall be constructed to withstand wind loads as follows. (Note: The wind loads quoted below are normal averages and must be adjusted for areas subjected to unusually high-velocity winds, for signs of extraordinary height or for certain wind tunneling effects created by large buildings).

(1) For solid signs: 30 pounds per square foot of the total face area of the letters and other sign surfaces.

§ 300-53. Sign anchoring.

No sign shall be suspended by chains or other devices that will allow the sign to swing due to wind action. Signs shall be anchored to prevent any lateral movement that would cause wear on supporting members or connections.

§ 300-54. Removal and disposition of signs.

A. Maintenance and repair. Every sign, including but not limited to those signs for which permits or for which no permits or permit fees are required, shall be maintained in a safe, presentable and good structural, material condition at all times, including the replacement of defective parts, painting, repainting, cleaning and other acts required for the maintenance of said sign. The Code Enforcement Officer shall require compliance with all standards of this article. If the sign is not made to comply with adequate safety standards, the Code Enforcement Officer shall require its removal in accordance with this section.

B. Abandoned signs. Except as otherwise provided in this article, any sign which is located on property which becomes vacant and unoccupied for a period of three months or any sign which pertains to a time, event or purpose which no longer applies shall be deemed to have been abandoned. Permanent signs applicable to a business temporarily suspended because of a change of ownership or management of such business shall not be deemed abandoned unless the property remains vacant for a period of six months or more. An abandoned sign is prohibited and shall be removed by the owner of the premises.

C. Dangerous or defective signs. No person shall maintain or permit to be maintained on any premises owned or controlled by him any sign which is in a dangerous or defective condition. Any such sign shall be removed or repaired by the owner of the premises.

D. Unlawful signs. No person shall erect, or permit to be erected on any premises owned or controlled by him, any sign which does not comply with the provisions of this article.

E. Street improvement projects. Any sign projecting over a public right-of-way at the time of the effective date of this article (which sign was subject to removal or relocation at the owner's expense pursuant to a permit or other local law of the Town) shall be removed by the owner or altered at the owner's expense to comply with the regulations of this article if, as the result of or after completion of a street improvement project, said sign does not or would not comply with the provisions of this article.

§ 300-55. Removal of signs by Town.

A. The Code Enforcement Officer shall cause to be removed any sign that endangers the public safety, such as an abandoned, dangerous or materially, electrically or structurally defective sign or a sign for which no permit has been issued.

B. The Code Enforcement Officer shall prepare a notice which shall describe the sign and specify the violation involved and shall state that if the sign is not removed or the violation is not corrected within 30 days, the sign shall be removed in accordance with the provisions of this section. All notices mailed by the Code Enforcement Officer shall be sent by certified mail, return receipt requested. Any time periods provided in this section shall be deemed to commence on the date of the mailing of the certified mail.

(1) For all signs, the notice shall be mailed to the owner of the property on which the sign is located as shown on the last equalized assessment roll. Any person having an interest in the property on which the sign is located may appeal the determination of the Code Enforcement Officer ordering removal or compliance by filing a written notice of appeal with the Zoning Board of Appeals within 30 days after receipt of the notice.

(2) In case of nuisance signs, which are clearly of a temporary and insubstantial value, including but not limited to paper, cloth, flags or cardboard signs affixed to telephone poles or stuck in the ground, the Code Enforcement Officer may remove such signs on the spot or direct the immediate removal of such signs without notice.

C. In cases of emergency, the Code Enforcement Officer may cause the immediate removal of a dangerous or defective sign without notice.

D. Any sign removed by the Code Enforcement Officer shall become the property of the Town and may be disposed of in any manner deemed appropriate by the Town. The cost of removal of the sign by the Town shall be considered a debt owed to the Town by the owner of the property and/or sign and may be recovered in an appropriate court action by the Town or by assessment against the property. The cost of removal shall include any and all incidental expense incurred by the Town in connection with sign removal.

§ 300-56. Legal nonconforming signs.

A. Notification of nonconformance. After the enactment of this article, the Code Enforcement Officer shall, as soon as practical, survey the Town for signs which do not conform to the requirements of this article. Upon determination that a sign is nonconforming, the Code

Enforcement Officer shall use reasonable efforts to so notify, either personally or in writing, the owner of the property on which the sign is located of the following:

(1) The sign's nonconformity.

(2) Whether the sign is eligible for characterization either as legal nonconforming or unlawful.

B. Signs eligible for characterization as legal nonconforming. Any sign located within the Town limits on the date of adoption of this article or located in an area annexed to the Town thereafter which does not conform to the provisions of this article is eligible for characterization as a legal nonconforming sign and is permitted, provided that it also meets the following requirements:

(1) The sign was covered by the sign permit or variance on the date of adoption of this article, if one was required under applicable law.

(2) If no sign permit was required under applicable laws for the sign in question, the sign was, in all respects, in compliance with applicable law on the date of adoption of this article.

C. Loss of legal nonconforming status.

(1) A legal nonconforming designation may be lost in the event that:

(a) The sign is altered in any way in structure or copy (except for changeable copy signs or normal maintenance replacement due to damage, provided that the replaced portion is a duplicate of the original) which tends to or makes the sign less in compliance with the requirements of this article than it was before the alteration.

(b) The sign is relocated to a position making it less in compliance with the requirements of this article.

(c) The sign is replaced.

(2) On the happening of any of Subsection **C(1)(a)**, **(b)** or **(c)**, the sign shall be immediately brought into compliance with this article, with a new permit secured therefor, or shall be removed.

D. Legal nonconforming sign maintenance and repair. Nothing in this section shall relieve the owner or user of a legal nonconforming sign, or the owner of the property on which the legal nonconforming sign is located, from complying with the provisions of this article regarding the safety, maintenance and repair of signs; provided, however, that any repainting, cleaning and other normal maintenance or repair of the sign or sign structure shall not modify the sign structure or copy in any way which makes it more nonconforming or the sign may lose its legal nonconforming status.

§ 300-57. Special exceptions.

A. The intent of this section is to allow certain provisions of this article to be modified, where such modification will encourage excellence in the planning and design of signs. Nothing in this section, however, is intended to permit the erection or maintenance of signs which are prohibited by this article.

B. In the event that any party wishes to construct or install a sign or signs other than as permitted in this article, that party shall be entitled to a hearing before the Zoning Board of Appeals. Governing rules for appeals and variances required by the Zoning Board of Appeals shall apply.

§ 300-58. Penalties for offenses.

Failure to comply with any provision of this article shall be punishable as provided in § **300-81** of this chapter. Noncompliance shall be deemed to have commenced the day after the final date of compliance set forth in an order from the Code Enforcement Officer.

Article IX. Off-Street Parking

§ 300-59. General requirements.

Off-street parking spaces, open or enclosed, are permitted as accessory to any use subject to the following provisions:

A. Schedule of parking requirements. Accessory off-street parking spaces, open or enclosed, shall be provided for any use as specified in § **300-60**. Any land which is developed as a unit under single ownership and control shall be considered a single lot for the purpose of these parking regulations. Reasonable and appropriate off-street parking requirements for structures and uses which do not fall within the categories listed shall be determined by the Planning Board upon consideration of all factors entering into the parking needs of each such use.

B. Areas computed as parking spaces. Areas which may be computed as open or enclosed off-street parking spaces shall include any private garage, carport or other area available for parking, other than a street or driveway. However, a driveway within a required front yard for a one-family or two-family residence may count as one parking space, other than on that portion of a corner lot which is subject to the provisions of § **300-11B(1)**.

C. Size of spaces. Each parking space (stall) for automobiles shall have a minimum width of nine feet and a minimum length of 19 feet. Adequate aisle space shall be provided for standing area and maneuvering. Minimum aisle space shall be as follows: for ninety-degree angle parking, 25 feet; for sixty-degree angle parking, 18 feet; and for forty-five-degree angle parking, 15 feet. Additional requirements may be made of the applicant regarding reserved handicapped spaces and directions for vehicular circulation patterns. Painted delineation of spaces is required unless waived by the Planning Board.

D. Access. Unobstructed access to and from a street with an internal turnaround area shall be provided. Such access shall consist of at least two ten-foot lanes for parking areas with 20 spaces or more. No entrance or exit for any off-street parking area of five or more spaces shall be located within 75 feet of any street intersection.

E. Drainage and surfacing. All open parking areas shall be properly drained and all such areas shall be provided with a dustless surface, except for parking spaces accessory to a one-family or two-family residence.

F. Joint facilities. Required parking spaces, open or enclosed, may be provided in spaces designed to serve jointly two or more establishments whether or not located on the same lot, provided that the number of required spaces in such joint facilities shall be not less than the total required for all such establishments.

G. Combined spaces. When any lot contains two or more uses having different parking requirements, the parking requirements for each use shall apply to the extent of that use. Where it can be conclusively demonstrated that one or more such uses will be generating a demand for parking spaces primarily during periods when the other use or uses is not or

are not in operation, the Planning Board may reduce the total parking spaces required for that use to the least requirement.

H. Location and ownership.

(1) Required accessory parking spaces, open or enclosed, shall be provided upon the same lot as the use or uses to which they are accessory or may be provided elsewhere, provided that all spaces are located within 500 feet walking distance of such lot. The Planning Board may approve spaces located a distance greater than 500 feet, provided that alternative transportation or shuttle services are provided to the location of the use or uses, as a condition of the site plan. Such spaces may be required to be in the same ownership as the use to which they are accessory and may be subject to deed restrictions, approved by the Planning Board, binding the owner and his heirs and assigns to maintain the required number of spaces available either throughout the existence of the use to which they are accessory or until such spaces are provided elsewhere.

(2) In all cases, parking spaces shall conform to all the regulations of the district in which the parking spaces are located, and in no event shall such parking spaces be located in any residential district unless the use to which the spaces are accessory is permitted in a residential district, or upon the approval of the Planning Board.

I. On lots divided by district boundaries. When a parking lot is located partly in one district and partly in another district, the regulations for the district requiring the greater number of parking spaces shall apply to the entire lot. Parking spaces on such lot may be located without regard to district lines, provided that no such parking spaces shall be located in any residence district, unless the use to which they are accessory is permitted in such district, or upon approval by the Planning Board.

§ 300-60. Minimum off-street parking requirements.

A. Regardless of zoning district, there shall be provided on the same site (or adjoining the site where permitted by the Planning Board) with any use off-street parking to meet or exceed the minimum requirements.

B. Where any site or building shall include mixed uses of those listed, the parking shall be based on a sum of the parking required for each of the individual uses, as acceptable to the Planning Board.

C. For any permitted use not specifically listed, there shall be provided reasonable and appropriate parking areas based on the highest anticipated parking required to meet maximum employee parking plus visitor and customer parking, as determined by the Planning Board.

D. Minimum parking requirements are as follows:

(1) Single-family and two-family dwellings (including apartments): two spaces per dwelling. Garage (indoor) spaces are included in the count.

(2) Multiple dwellings, including workforce housing: 2.5 spaces per dwelling unit. Garage (indoor) spaces and driveway spaces to the units are included in the count. Additional spaces for accessory buildings such as clubhouses or other recreational facilities shall be required.

(3) Senior citizen housing: 2.5 spaces per dwelling unit. Garage (indoor) spaces are included in the count. Additional spaces for accessory buildings such as clubhouses or other recreational facilities shall be required.

(4) Bed-and-breakfast inns: parking spaces for the residential use plus 1.25 spaces per rental room.
(5) Reserved.
(6) Home occupation: a minimum of four, including the two required for the residential use, or more as determined by the Planning Board in connection with the special permit. Garage (indoor) spaces are included in the count for the residential use. Access to the home professional office spaces cannot be obstructed by any other spaces.
(7) Mobile homes: two spaces per unit.
(8) Recreation areas with no buildings: four spaces per acre, or as deemed appropriate by the Planning Board based on the proposed use.
(9) Recreation areas with buildings: four spaces per acre of outdoor use, plus spaces as determined by the parking requirements for the building use, including but not limited to retail stores, restaurants and eating and drinking establishments (if permitted).
(10) Fraternal, social and annual membership clubs: one space for each 300 square feet of total floor area, plus additional spaces as determined by the Planning Board for other accessory or principal uses.
(11) Hunting preserves (as approved by the New York State Department of Environmental Conservation): as deemed appropriate by the Planning Board based on the proposed use.
(12) Boat docks, marinas and related clubhouses: one for each two slips, plus the use of the building or clubhouse.
(13) Buildings or open stands for the display of agricultural products: one for each 300 square feet of total floor area.
(14) Hospitals, sanatoriums, and philanthropic and eleemosynary institutions: one space for each two beds, plus five spaces for each operating room and clinic suite.
(15) Medical and dental clinics: one space per 175 square feet of total floor area.
(16) Convalescence facility and nursing homes: one space per each four beds, plus one space per employee.
(17) Undertaking establishments and funeral homes: 30 spaces per parlor or chapel.
(18) Cemeteries: off-street standing area to accommodate 50 automobiles.
(19) Railroad, public utility, radio and television transmission antennas and essential services: minimum one space, or one space per 300 square feet of total floor area or one space per employee, as determined by the Planning Board.
(20) Churches and other places of worship: one space per each three-person seating capacity.
(21) Schools (non-adult): one for each 12 seats for students or one for each four seats in auditoriums, whichever is greater.
(22) Day-care centers: one space per employee, plus one space per five children. A turnaround shall be provided so that no vehicle is required to exit the facility by backing onto a public road.
(23) Schools of special or private instruction: one space per each student, plus one space per employee, or one space per 200 square feet of total floor area, as determined by the Planning Board.
(24) Dormitory: one space per resident.
(25) Retail stores: one space per 200 square feet of total floor area.

(26) Wholesale establishments or warehouses: one space for each two employees in the maximum work shift or one space for every 1,000 square feet of total floor area, or as deemed appropriate by the Planning Board based on the proposed use.
(27) Shopping malls (exceeding 50,000 square feet of gross area): four spaces per 1,000 square feet of total floor area.
(28) Service establishments and personal service establishments and shops: one space per 150 square feet of total floor area.
(29) Theaters and cinemas: one space per four seats.
(30) Banks: one space per 250 square feet of total floor area and a minimum of five cars stacking per drive-through lane.
(31) Offices: one space per 200 square feet of total floor area.
(32) Office complex (exceeding 20,000 square feet of total floor area per building): four spaces per 1,000 square feet of total floor area.
(33) Laboratory or research offices: one space for each two employees in maximum work shift or one for each 400 square feet of total floor area, whichever is greater.
(34) Restaurants, eating and drinking establishments and catering facilities: one space for each three-person seating capacity.
(35) Motor vehicle sales: one space per 1,000 square feet of total floor area.
(36) Vehicle service repair establishment and gasoline service stations: four spaces per service bay (400 square feet area of vehicle repair), plus one space for each 300 square feet of floor area outside of service area.
(37) Automobile car wash facility: four spaces plus minimum stacking room for seven vehicles, as approved by the Planning Board.
(38) Laundromats: one space per each four machines installed.
(39) Dry-cleaning and laundry establishments: four spaces or one space per 1,000 square feet of total floor area, whichever is greater.
(40) Commercial dog or veterinary clinics and kennels: one space per 175 square feet of total floor area.
(41) Hotels and motels: one space per rental room, plus additional spaces for conference rooms, restaurants, etc., based on one space per three-person seating capacity.
(42) Bowling alleys: five spaces per lane.
(43) Mini warehouses: five spaces for the office and management area, plus additional convenience spaces distributed on site as deemed appropriate by the Planning Board. Parking spaces cannot be used for vehicle, boat, RV or other storage.
(44) Light manufacturing and assembly: one per each two employees in maximum work shift or one per 400 square feet of total floor area, as deemed appropriate by the Planning Board.
(45) Libraries, museums and galleries: one space per 300 square feet of total floor area.

E. Fractional spaces shall be rounded to the next highest number.
F. The Planning Board, in its sole discretion, may modify the requirements of this subsection, upon:
(1) Good cause shown;
(2) A showing that such modified parking requirements will meet the needs of the proposed use; and
(3) Upon a showing and determination that such modification will not adversely affect the public health, safety, or welfare.

G. Shared parking.
(1) The Planning Board, in its sole discretion, may allow the use of shared parking amongst adjoining lots upon:
(a) Good cause shown;
(b) A showing that such modified parking requirements will meet the needs of the proposed use; and
(c) Upon a showing and determination that such modification will not adversely affect the public health, safety, or welfare.
(2) The use of shared parking may be conditioned upon the establishment of permanent cross-easements to ensure that future parking requirements are met despite any changes in ownership amongst the lot owners.

H. Land-banked parking. Land banking allows for designating a portion of land on a site that would be required for parking to be held and preserved as open space, rather than constructed as parking. The Planning Board may permit land banking of up to 25% of the required parking spaces through the site plan review process, subject to the following.
(1) Sufficient evidence is provided by the applicant that supports the reduced parking needs;
(2) The area proposed for land banking of parking spaces must be an area suitable for parking at a future time;
(3) Landscaping of the land-banked area must be in full compliance of the zoning regulations and, at a minimum, landscaped with turf or left in its natural state. As a result of the site plan review process, the Planning Board may require additional landscaping of the land-banked area;
(4) The land-banked area cannot be used for any other use and must be part of the same lot and all under the same ownership;
(5) As part of the site plan review process, the applicant must show the area to be banked on the site plan and marked as "Land-Banked Future Parking"; and
(6) The Code Enforcement Officer, on the basis of increased parking demand for the use, may require the conversion of all or part of the land-banked area to off-street parking spaces.

§ 300-61. Parking spaces adjacent to lots in any residence district.

A. Wherever a parking area of over five spaces abuts or is within 15 feet of the side or rear lot lines of a lot in any residence district, said parking lot shall be screened from such adjoining lot by a substantial wall, fence or thick hedge, approved by the Planning Board. Generally, such screen shall be not less than five nor more than eight feet in height.

B. Whenever a parking area of over five spaces is located across the street from other land in any residence district, it shall be screened from the view of such land by a thick hedge, wall or fence approved by the Planning Board, located along a line drawn parallel to the street and a distance of five feet therefrom, such screening to be interrupted only at points of ingress and egress. In general, no such screening shall be less than three feet nor more than eight feet in height. Such fencing shall supersede the requirements of § **300-11C(1)(d)**. The open area between such screening and the street shall be landscaped in harmony with the landscaping prevailing on neighboring properties fronting on the same street.

Two identification and directional signs located on the street side of such screening shall be permitted; however, they shall not exceed an area of three square feet each.

§ 300-62. Driveways.

No driveway shall provide access to a lot located in another district, which lot is used for any use, except residential, prohibited in the district in which such driveway is located.

§ 300-63. Commercial vehicles.

A. One commercial vehicle not exceeding 25 feet in length may be parked on an occupied lot in any residence district, but not within the required yards of such lot. For purposes of this section, trucks or sport utility vehicles not exceeding 10,000 pounds shall not be deemed commercial vehicles.

B. Commercial farm vehicles are permitted as accessory to a commercial farm use in any residence district.

§ 300-64. Trailers and boats.

A. The storage or parking and use of a trailer by any person or persons is hereby prohibited in all districts, except that:

(1) One camping trailer or motor home may be stored, but not used for any purpose, on an occupied lot in any residential district.

(2) Where a building permit has been issued for the construction or alteration of a building, the Code Enforcement Officer may issue a temporary permit for one trailer for a period not to exceed six months. Said temporary permit may be extended for one additional period of six months if the Code Enforcement Officer finds that construction has been diligently pursued and that justifiable circumstances require such an extension.

B. Not more than one boat per dwelling unit may be stored on an occupied lot in any residential district.

§ 300-65. Unregistered vans; storage vehicles; donation boxes.

A. The storage, parking or use for storage purposes or otherwise of an unlicensed or unregistered van, truck box, trailer box, trailer, truck, bus or other vehicle of any size, with or without wheels, is hereby prohibited in all districts. The storage, parking or use of any such object as of the effective date of this section shall not be deemed to be of such substantial nature as to warrant a preexisting use status for the object or the activity.

B. Boxes. The use of dropoff or donation boxes shall be allowed in nonresidential districts subject to approval by the Building Department and upon the following conditions:

(1) The lot owner provides written permission for the location of the box.

(2) The location of the box cannot consume or obscure off-street parking, and in no event can the location of the box reduce the amount of off-street parking to an amount less than that required.

(3) The box and its surroundings must be maintained and kept clear of debris, refuse or abandoned property.

(4) The box shall be removed if not in use.

(5) If the box is located on a lot that has received site plan approval from the Planning Board, then the Building Inspector may refer the proposal to locate a box on such lot to the Planning Board for its review and comment, and the Planning Board may, in its sole discretion, require an amendment to the approved site plan.

C. The prohibitions and restrictions set forth in § **246-3C** shall also apply.

Article X. Performance Standards

§ 300-66. Conformance required.

Every use subject to performance standards shall conform to the restrictions set forth below.

§ 300-67. Hazardous materials.

All hazardous materials, except customary household items, including explosives and components are prohibited from being stored or kept overnight in residential areas. The use of such materials in other zones is covered by the New York State Uniform Fire Prevention and Building Code. For a definition of "hazardous materials," see the North American Emergency Response Guidebook, as amended.

§ 300-68. Electrical transmission and distribution.

The criteria for regulation of electrical transmission and distribution are governed by the New York State Public Service Law, Article **VII**.

§ 300-69. Air pollution.

No emission of fly ash, dust, fumes, vapors, gases or other forms of air pollution shall be permitted which can cause damage, injury or contamination to health, animals, vegetation or property, or which can cause soiling of paint on structures, equipment and vehicles.

§ 300-70. Liquid and solid wastes.

No discharge shall be permitted at any point into any private sewage disposal system, or into the street or the ground, of any materials in such a way or of such nature or temperature as can contaminate any water supply or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the State Department of Health or the County Health Department. No accumulation of solid wastes conducive to the breeding of rodents or insects shall be permitted. Discharges to public sewage disposal systems shall conform to the sewer regulations of the Town of New Windsor.

§ 300-71. Noise and illumination control.

A. Purpose. It is hereby declared to be the policy of the Town of New Windsor to safeguard the right of its residents within the privacy of their residences and yards to be free from intrusive, unwanted sounds and lights. To resolve problems of noise and light which are disturbing to others, it is the policy of the Town of New Windsor and the purpose of this

section to establish standards, variance procedures, enforcement procedures and penalties.

B. Definitions. As used in this section, the following terms and phrases shall have the following meanings:

DECIBEL [dB OR dB(A)]

A unit for measuring the volume of sound, equal to 20 times the logarithm to the base 10 of the ratio of the sound pressure of the measured sound to a standard pressure of 20 micro-Newtons per square meter.

ILLUMINATION

The lighting or floodlighting outside the confines of a structure, by means of electricity or the combustion of gases or liquids, of an area, object or structure.

SOUND LEVEL

The sound-pressure level measured in decibels with a sound-level meter set to A-weighting, expressed in dB(A).

SOUND-LEVEL METER

An instrument for the measurement of sound levels which conforms to Type 1 or Type 2 standards under ANSI Specification S 1.4-1971 or the latest approved revision.

SOUND-REPRODUCTION DEVICE

Any electronic or electrical device that is used for the production of sound, including but not limited to any loudspeaker, radio, television, tape recorder or player, phonograph or any other sound-amplifying equipment.

UNREASONABLY INTRUSIVE

Any sound or light which either annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of a reasonable person of normal sensitivities under the circumstances.

C. Prohibited activities, noise and illumination.

(1) No person shall perform the following acts so as to produce sound or noise at a sound level exceeding the limitations set forth in Subsection **D**: operate any machinery (including construction machinery), equipment, pump, fan, air-conditioning apparatus, motorized lawn or gardening equipment, sound-reproduction device or any other device.

(2) No person shall install any source of illumination or permit any source of illumination to be installed on his property in such a manner that direct rays are cast upon any residential property other than the lot on which such illumination is installed or otherwise violate the standards for illumination set forth in Subsection **G**.

(3) No person shall cause or permit the engine of a motor vehicle, other than an authorized emergency or public utility motor vehicle, to idle for longer than five minutes while the motor vehicle is stationary on private property unless the engine is used to operate a loading, unloading or operating device.

(4) No person shall perform any act which produces unreasonably intrusive sound or noise. Operation of any sound-producing or sound-reproduction device, including but not limited to stereos, radios, CD players and televisions, between the hours of 9:00 p.m. and 8:00 a.m. in such manner as to be plainly audible on adjacent properties, including apartments and co-op or condo units, at a distance of 50 feet shall be prima facie evidence of a violation of this subsection.

(5) No burglar alarm or fire alarm shall be permitted to shriek for more than one hour without being silenced. In the event that a burglar alarm or fire alarm shrieks for more than one hour, any law enforcement or code enforcement officer shall take whatever measures are reasonably necessary to disengage the alarm. Any charges incurred by reason of the silencing or disengaging of the alarm by a commercial vendor shall be billed to the occupant or owner. In the event that the bill is not paid, the bill shall be assessed against the real property tax of the premises. Sound from an exterior burglar alarm of any building or motor vehicle shall terminate within 15 minutes after it has been activated.

(6) No person shall sound any horn or signaling device on any automobile, motorcycle or other vehicle on any street or public place except as a danger warning, nor sound any such device for an unnecessary and unreasonable period of time, nor use any such device when traffic is for any reason held up.

D. Maximum sound levels; measurement standards.

(1) Except for noise emanating from the operation of motor vehicles on public highways and private roads, the permissible intensity of noise for the foregoing between the hours of 8:00 a.m. to 10:00 p.m. and 10:00 p.m. to 8:00 a.m., respectively, whether such noise is intermittent, impulsive, sporadic or continuous, is as follows [the maximum sound-pressure level, i.e., A-scale reading of standard calibrated sound meter, instrument calibration frequency of 1,000 cycles per second (hertz)]:

(a) In the residential zoning districts of the Town:

[1] From 8:00 a.m. to 9:00 p.m.: 65 decibels.

[2] From 9:00 p.m. to 8:00 a.m.: 56 decibels.

(b) In the nonresidential zoning districts of the Town:

[1] From 8:00 a.m. to 10:00 p.m.: 80 decibels.

[2] From 10:00 p.m. to 8:00 a.m.: 70 decibels.

(2) The measurement of any sound or noise shall be made with a sound-level meter using the A-weighted scale and slow response, except for sounds or noises which occur in single or multiple bursts with a duration of less than one second, for which fast response shall be used. The sound level determination or measurement shall be conducted not nearer to the sound source than the closest property line of the parcel on which such noise is generated, except where otherwise specified.

E. Noise from motor vehicles.

(1) Noise emanating from the operation of motor vehicles on public highways is regulated by the New York State Vehicle and Traffic Law. The maximum noise levels set forth in the Vehicle and Traffic Law for the operation of motor vehicles on public highways, as they may be amended from time to time, are hereby designated to be the maximum permissible noise levels for the operation of motor vehicles on all private roads in the Town of New Windsor. When operated on other property, motor vehicles must conform to the standards set forth in Subsection **D**.

(2) The operation of commercial vehicles for the pickup of garbage and refuse, such use being deemed an unreasonably intrusive operation, is hereby restricted to the hours of operation from 6:00 a.m. to 5:00 p.m.

F. Measurement of sound-pressure levels as evidence. Upon the trial of any persons charged with creating unreasonably loud, disturbing and unnecessary noise in violation of this chapter, the court may admit, in addition to the reasonable standard, evidence of sound-

pressure levels in decibels as shown by a standard calibrated sound meter. For the purpose of this section, evidence that noise exceeding the maximum sound-pressure levels in decibels, as provided in Subsection **D** hereof, may be admitted as prima facie evidence that the noise was in violation of this chapter.

G. Illumination standards.

(1) The area of brilliance, character, color, degree, density, intensity, location and of illumination shall be the minimum necessary to provide for the security of the property and the safety and welfare of the public.

(2) All sources of illumination on nonpublic property, including the lighting of signs, shall be shielded or directed in such a manner that the direct rays adjacent are not cast upon any property used for residential purposes, other than the lot on which such illumination is situated.

(3) Illumination shall be steady in nature, not flashing, moving or changing in brilliance, color or intensity, excluding the lighting of signs conveying public domain information, such as time and temperature.

(4) The duration, period or time of illumination of nonresidential premises shall be the minimum necessary to provide for the security of the property and the safety and welfare of the public. For nonresidential premises open to the public, illumination shall be extinguished, except that necessary for the security of the property and safety of persons thereon, one hour after the premises is closed to the public.

(5) Illumination connected or used with a sign or otherwise which competes for attention with or may be mistaken for a traffic signal or creates a distractive hazard to traffic by glare or movement is prohibited.

(6) Illumination for all multifamily and nonresidential uses shall be subject to Planning Board site plan approval.

H. Exceptions.

(1) Nothing in this section shall be construed to prevent the production of music and light in connection with any military or civic parade, holiday festival or decoration, funeral procession or religious service.

(2) This section shall not be construed to prohibit the use of any organ, bell, chimes or any other similar instrument or device by any church, synagogue or school on or within its own premises in connection with religious rites or ceremonies of such church or synagogue or in connection with a school education program.

(3) For sound-reproduction devices used in connection with weddings, customary social gatherings or religious or civil ceremonies on any property used for residential purposes, sound levels in excess of those permitted in Subsection **D** are permitted, provided that such sound levels cease by 12:30 a.m.

(4) Sounds created by customary operation of domestic tools shall be permitted, such as operation of lawn mowers, leaf blowers or chain saws, delivery of residential heating oil and engine tune-up activities, during the period from 8:00 a.m. to 9:00 p.m.

(5) The following are also exempted from the limitations of this section:

(a) Sounds and light created by agricultural activities.

(b) Sounds created by construction activities during the period 7:00 a.m. to 7:00 p.m. weekdays and 8:00 a.m. to 6:00 p.m. Saturdays. No construction sounds are permitted on Sundays and legal holidays.

(c) Sounds and light created by any governmental agency by the use of public warning devices.

(d) Sounds created by public utilities in carrying out the operations of their franchise.

(e) Sounds and light connected with sporting events or celebrations of any school activity or other sanctioned activities, such as the New Windsor Little League, or occurring on municipal athletic fields or parks, and sounds connected with special events or sports programs sponsored or permitted by the Town Recreation Department.

(f) Safety signs, public road signs, streetlights and traffic direction signs and signals.

(6) Sounds and light created by aircraft are regulated by the Federal Aviation Act and the regulations promulgated thereunder and are exempted from the provisions of this section.

I. Variances. Where there are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of this section, the Town Zoning Board of Appeals shall have the power to grant a variance duly petitioned for by owners of properties in violation of this section in order to vary or modify the application of any of the regulations of this section, so that the spirit of this section shall be observed, the public health, safety and welfare secured and substantial justice done.

(1) No variation or adjustment in the strict application of any regulations or provisions of this section shall be granted by the Town Zoning Board of Appeals unless it finds that:

(a) The applicant has demonstrated good and sufficient cause for the granting of a variance. Such demonstration shall be founded upon a fair consideration of the circumstances present pertinent to the petition, including but not limited to:

[1] The social utility of the use or activity for which a variance is sought.

[2] The nature and degree of observed variance from prescribed standards that results from such use or activity.

[3] The impact of such use or activity on other residents and properties, especially neighboring properties.

[4] The nature and cost of available measures that may be taken to mitigate the impact of such use or activity.

(b) There are unique or special circumstances or conditions, fully described in the findings of the Town Zoning Board of Appeals, applying to the activity or to the use of land, property or facilities for which the variance is sought which warrant the granting of the variance on the grounds of practical difficulty or unnecessary hardship.

(c) The granting of a variance is necessary to enable the applicant to conduct the activity or use for which a variance is sought without unreasonable burden or restriction and the variance as granted by the Town Zoning Board of Appeals is the minimum adjustment that will accomplish such purpose.

(d) The granting of the variance will be in harmony with the general purposes and intent of this chapter, will not be injurious to the community or any neighborhood or otherwise detrimental to the public health, safety or welfare and will not be in conflict with other laws or ordinances.

(2) The Town Zoning Board of Appeals, in passing upon a petition for a variance under this section, may limit the effective period of any variance granted and may impose upon

the grant or operation of any variance such conditions in furtherance of the public interest as the Town Zoning Board of Appeals finds necessary or appropriate.

(3) The Town Zoning Board of Appeals shall retain continuing jurisdiction over and with respect to any variance granted under this section, and it shall have the fullest powers and authority allowed by law to review, rehear, modify, reverse or annul, for good cause shown, any order, resolution, decision or determination made with respect to a petition for or the granting of a variance under this section. No such review, reconsideration or action shall be taken except upon and after notice and hearing.

J. Relationship to other provisions. The provisions of this section shall in no case remove or render less restrictive limitations on noise generation, illumination or other conditions imposed for specific properties by actions of the Town of New Windsor Zoning Board of Appeals or by actions of the Town of New Windsor Planning Board or required under other applicable laws or regulations.

K. Enforcement. The provisions of this section shall be enforced by the Police Department, the Town Code Enforcement Officer and other officials designated by the Town Board.

L. Penalties for offenses. Any person who violates any provision of this section shall be subject to § **300-81** of this chapter.

§ 300-72. Odors.

No emission of obnoxious odors, gases and other odorous material shall be permitted which is destructive or offensive at or beyond the property line. Any process the site plan for which has been approved by the Planning Board, or for which a special permit has been issued, which may involve the creation or emission of any odors shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail.

Article XI. Nonconforming Uses and Buildings

§ 300-73. Nonconforming uses.

A. A nonconforming use is any use, whether of a building or tract of land or both, existing on the effective date of this chapter which does not conform to the use regulations of the district in which it is located.

B. The following provisions shall apply to all nonresidence uses existing on the effective date of this chapter which do not conform to the requirements set forth in this chapter and to uses that become nonconforming by reason of any subsequent amendment to this chapter.

(1) Nonconforming uses (nonresidence). Any nonconforming uses of buildings or open land, except those specified in § **300-75** herein, may be continued indefinitely, but:

(a) Shall not be changed to another nonconforming use without a special permit from the Planning Board, and then only to a use which, in the opinion of said Board, is of the same or a more restricted nature.

(b) Shall not be reestablished if such use has been discontinued for any reason for a period of two years or more or has been changed to or replaced by a conforming use. Intent to resume a nonconforming use shall not confer the right to do so.

(2) Except as provided in Subsection **B(3)** below, no building which houses a nonconforming use shall be:

(a) Moved to another location where such use would be nonconforming.

(b) Restored for other than a conforming use after damage, from any cause, of 100% of the replacement cost of such building, exclusive of foundations. Any such damaged building may be restored, but not enlarged, if application for a building permit is made within six months and the nonconforming use is reinstated within one year of such damage. If the restoration of such building is not completed within the provisions of § 300-771, the nonconforming use of such building shall be deemed to have been discontinued, unless such nonconforming use is carried on without interruption in the undamaged portion of such building.

(3) Extensions or remodeling of structures used for nonconforming uses. Notwithstanding any other provision of this chapter, a structure devoted to such nonconforming use may be extended to an extent not exceeding 30% of the building ground floor area or structure's footprint area existing at the time of the enactment of this chapter or any amendment thereto, and provided further that the Planning Board shall find that:

(a) Practical difficulties prevail in operating the premises or structures in the presently existing nonconforming manner and that the proposed extension or remodeling would constitute reasonable adjustment of the existing nonconforming use or remodeling will reduce the nonconforming use.

(b) The proposed extension will not have a deleterious effect on the neighborhood of the existing nonconforming use. In determining deleterious effect, the Planning Board shall take into consideration, among other things, traffic safety, nuisance characteristics, manner of operation, total ground area covered by the structure and the appearance and condition of the premises.

(c) The proposed extension or remodeling will not be more incompatible with or adversely alter the model and character of the neighborhood and neighborhood structures, nor prejudice the value of adjoining properties.

(d) Adequate or on-site parking and loading space will be provided for all potential users.

(e) The proposed extension or remodeling will not unduly restrict fire and police protection of the premises and of surrounding properties.

(f) No prior extensions have been granted which result in the cumulative extension exceeding 30%.

(4) Nothing in this section shall be deemed to prevent normal maintenance and repair of any building or the carrying out, upon the issuance of a building permit, of major structural alterations or demolitions necessary in the interest of public safety. In granting such a permit, the Code Enforcement Officer shall state the precise reason why such alterations were deemed necessary.

C. Nonconforming residence use. Any residence use existing on the date of this chapter which does not conform to the use regulations set forth in this chapter or which becomes a nonconforming use by reason of any subsequent amendment shall be treated within the provisions of this chapter as if it were a use permitted by right and shall be exempt from the provisions above. Residential buildings not conforming to district regulations for lot area, width or depth; yards, height or lot coverage; or minimum livable floor area per dwelling unit shall, however, be subject to the provisions of §§ **300-74** and **300-75**.

§ 300-74. Nonconforming buildings.

A. A nonconforming building is any building which contains a use permitted in the district in which it is located but does not conform to the district regulations for lot area, width or depth; front, side or rear yards; maximum height; lot coverage; or minimum livable floor area per dwelling unit.

B. Normal maintenance and repair, structural alteration, moving, reconstruction or enlargement of a nonconforming building is permitted, provided that such action does not increase the degree of, or create any new, nonconformity with regard to the regulations pertaining to such buildings.

§ 300-75. Nonconforming lots of record.

A. A residential plot separated by other land not in the same ownership and nonconforming as to bulk on the date of enactment or the effective date of subsequent amendments to this chapter, whether or not located in and part of a subdivision, and approved by the Planning Board of the Town of New Windsor and filed in the office of the Orange County Clerk, which does not have a total plot area specified for residential use in § **300-10**, may be used for any use permitted by right in the zoning district in which the plot is located, provided that such use complies with the bulk and area and yard regulations as specified in the highest residential district having the same or less plot width. Where such residential district requires certain utilities, the provision of such shall be prerequisite to its residential use.

B. Two or more nonconforming subdivision lots, not in separate ownership, in a subdivision approved by the Planning Board prior to the effective date of this chapter shall have three years from the date of final approval by the Planning Board to obtain a building permit under the provisions of Subsection **A**. Any nonconforming plot in a subdivision finally approved by the Planning Board more than three years prior to the effective date of this chapter shall not be eligible to receive a building permit, and said subdivision, part or plot thereof shall be resubmitted to the Planning Board in accordance with the applicable provisions of this chapter.

C. Any plot in a subdivision approved by the Planning Board after the effective date of this chapter which conforms to the bulk, width and depth requirements of this chapter but which is made nonconforming as to bulk, width or depth by any future amendment of this chapter shall have three years from the effective date of the future amendment, or three years from the date of final approval, whichever is sooner, to obtain a building permit under Subsection **A**. Any subdivision plot for which a permit is applied for after the time periods specified herein shall conform to all the bulk regulations of this chapter, and Subsection **A** shall be inapplicable to such a plot.

D. Any separate plot nonconforming as to bulk which becomes subsequently attached to other adjoining land in the same ownership shall be entitled to the benefit of the provisions of Subsection **A** only if the total contiguous plot remains nonconforming as to bulk after the plots become attached.

E. A nonconforming residential lot, as described in Subsection **A**, which does not comply with the bulk, area and yard regulations as specified in the highest residential district having the same or less plot width may, nevertheless, be developed with a one-family residence only, provided that:

(1) Such lot shall contain not less than 5,000 square feet.
(2) Such lot is served by both municipal sewer and water.
(3) The proposed house shall contain not less than 1,000 square feet of livable floor area and have a building height not exceeding 30 feet.
(4) The front yard shall be at least 35 feet unless a smaller front yard is reasonable to conform to the building lines of adjacent lots.
(5) The rear yard shall be at least 40 feet.
(6) The lot shall have at least 50 feet of street frontage.
(7) Lots of widths of 50 feet and less than 80 feet may be developed with side yards on each side of at least 12 feet.
(8) Lots of widths of 80 feet and less than 100 feet may be developed with side yards on each side of at least 13 feet.

F. It is the finding of the Town Board that the development of nonconforming lots not meeting the above criteria will blight the proper and orderly development and general welfare of the community.

§ 300-76. Elimination of certain nonconformities.

A. Each of the nonconforming uses specified herein is deemed sufficiently objectionable, undesirable and out of character in the district in which such use is located as to depreciate the value of other property and uses permitted in the district and to blight the proper and orderly development and general welfare of such district and the community to the point that each of such nonconforming uses shall be terminated on or before the expiration of the specified period of time after the effective date of this chapter, which period of time is specified for the purpose of permitting the amortization of the remaining value, if any, of such use:
(1) In any district, any nonconforming use of open land, including such uses as a parking lot, trailer, junkyard or open storage yard for materials or equipment, may be continued for one year after the effective date of this chapter, provided that after the expiration of that period such nonconforming use shall be terminated.
(2) In any residence district, any billboard and any sign not of a type permitted, or of a permitted type but greater than the maximum permitted size, may be continued for one year following the effective date of this chapter, provided that after the expiration of that period such nonconforming use shall be terminated.
(3) In any nonresidential district, any billboard and any sign not of the permitted type but greater than the maximum permitted size may be continued for two years following the effective date of this chapter or the date on which such sign was previously nonconforming by virtue of prior zoning regulations, provided that after the expiration of that period such nonconforming sign shall be made conforming.

B. An owner of premises containing any of the uses set forth in this section shall have the right to make application to the Zoning Board of Appeals for an extension of the amortization period. An extension period may be granted if the owner establishes that the amortization period set forth above is unreasonable. The Zoning Board shall have the power to grant a reasonable extension long enough to provide the owner with an opportunity to recoup his investment, although the extension need not be long enough to enable the owner to recover 100% of his investment, especially with respect to soft or incidental costs.

Article XII. Enforcement

§ 300-77. Building permits.

A. No building or structure for which a building permit is required by state or local law or regulation shall be erected, constructed or restored or structurally altered without a building permit duly issued upon application to the Code Enforcement Officer. No building permit shall be issued unless the proposed construction or use is in full conformity with all the provisions of this chapter, following full disclosure of the intended use. Every building permit shall be signed by the applicant, as well as the property owner if the property owner is not the applicant, and the signed application shall be evidence of the truthfulness of the information contained in the building permit. Any building permit issued under false pretenses by the applicant or in violation of the provisions of this chapter shall be subject to a stop-work order or an order to remedy violation issued by the Code Enforcement Officer. Any work undertaken or use which is not in conformity with this section shall be unlawful and discontinued until brought into compliance with this section. Service of process of a stop-work order or order to remedy violation shall be effective if served personally on the applicant, owner or agent at the work site or if sent to the applicant or owner by certified mail, return receipt requested, as well as by regular mail, or if sent by fax, provided that the fax number is printed on the letterhead of the addressee, applicant or owner in the ordinary course of its business.

B. Every application for a building permit shall contain the following information and be accompanied by the required fee and by a plot plan drawn to scale and signed by the person responsible for such drawing. If no such plot plan is available, a survey, prepared by a licensed engineer or land surveyor, is required. Fees shall be in accordance with the Standard Schedule of Fees of the Town of New Windsor as may be adopted from time to time by resolution of the Town Board. *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)*

(1) The actual shape, dimensions, radii, angles and area of the lot on which the building is proposed to be erected, or of the lot on which it is situated if an existing building.

(2) The section, plate, block and lot numbers as they appear on the latest tax records.

(3) The exact size and location on the lot of the proposed building or buildings or alteration of an existing building and of other existing buildings on the same lot.

(4) The dimensions of all yards in relation to the subject building and the distances between such building and any other existing buildings on the same lot.

(5) The existing and intended use of all buildings, existing or proposed, the use of land and the number of dwelling units the building is designed to accommodate.

(6) Such topographic or other information with regard to the building, the lot or neighboring lots as may be necessary to determine that the proposed construction will conform to the provisions of this chapter.

C. No building permit shall be issued for the construction or alteration of any building upon a lot without access to a street or highway as stipulated in § 280-a of the Town Law. Such access shall consist of not less than a twenty-foot-wide permanent legal right-of-way, improved to the satisfaction of the Planning Board, to a public street.

D. No building permit shall be issued for a lot in a subdivision requiring approval by the Planning Board unless the subdivision map has been properly filed in the office of the County Clerk.

E. No building permit shall be issued for any building where the site plan of such building is subject to approval by the Planning Board, except in conformity with the plans approved by said Board.

F. No building permit shall be issued for a building to be used for any special permit use in any district where such use is subject to approval by the Planning Board unless and until such approval has been duly granted by the Planning Board.

G. The building permit application and all supporting documentation shall be made in triplicate. Upon the issuance of a building permit, the Code Enforcement Officer shall return one copy of all filed documents to the applicant.

H. The Code Enforcement Officer shall, within 10 days after the filing of a complete and properly prepared application, either issue or deny a building permit. If a building permit is denied, the Code Enforcement Officer shall, within five days of such motion, state in writing to the applicant the reasons for such denial.

I. Every building permit shall expire if the work authorized has not commenced within six months after the date of issuance or has not been completed within 18 months from such date for construction costing less than $1,000,000 or has not been completed within 30 months from such date for construction costing in excess of such amount. If no zoning amendments or other codes or regulations affecting subject property have been enacted in the interim, the Code Enforcement Officer may authorize in writing the extension of either of the above periods for an additional six months, following which no further work is to be undertaken without a new building permit.

J. As soon as the foundation of a building or of any addition to an existing building is completed, and before first-story framing or wall construction is begun, there shall be filed with the Code Enforcement Officer an accurate survey, signed by the person responsible for said survey, showing the exact location of such foundation with respect to the street and property lines of the lot.

K. No building permit shall be issued for any lot where the taxes for the roadway which is to be offered for dedication to the Town of New Windsor are unpaid, or for any lot in a subdivision in which any performance guarantee is insufficient, expired or otherwise in default.

L. The Code Enforcement Officer may withhold a certificate of occupancy for any structure where the public improvements have not been completed to the satisfaction of the Town, or the performance guarantees for such improvements is insufficient, expired or otherwise in default, or there is a noncompliance with any stormwater requirements.

§ 300-78. Additional requirements for building permits.

A. It is necessary that all building permits issued within the Town of New Windsor have provided to the site of the construction proper and safe access for both construction vehicles and equipment, as well as emergency vehicles. To ensure this condition, the applicant/developer shall maintain access which will, at minimum, consist of a firm and unyielding gravel base to the site of the construction, capable of providing access to such vehicles as referenced herein.

B. For proposed Town roadways, the access shall be constructed in accordance with the street specifications of the Town. Prior to the issuance of a building permit, the applicant/developer shall have completed an acceptable proof roll, as further described in the street specifications, and shall have installed the full subbase course and all related utility work necessary for the placement and acceptance of the roadway subbase course. Prior to the issuance of a certificate of occupancy, the applicant/developer shall have completed the first course of asphalt pavement for the roadway.

C. For proposed private roadways, the access shall be constructed in accordance with the requirements for private roads as referenced in the street specifications. The applicant/developer shall have completed the base and choker courses of roadway structure for the full width prescribed.

§ 300-79. Certificate of occupancy.

A. The following shall be unlawful until a certificate of occupancy shall have been applied for and issued by the Code Enforcement Officer:

(1) Occupancy and use of a building erected, reconstructed, restored, structurally altered or moved, or any change in the use of an existing building.

(2) Occupancy, use or any change in the use of any land.

(3) Any change in the use of a nonconforming use.

B. No certificate of occupancy shall be issued for any special permit of a building or land requiring approval by the Planning Board for any land or use requiring site plan approval by the Planning Board unless and until such special permit use or site plan approval has been duly granted. Every certificate of occupancy for which special permit or site plan approval has been granted, or in connection with which a variance has been granted by the Zoning Board of Appeals, shall contain a detailed statement of any condition to which the same is subject.

C. Application for a certificate of occupancy for a new building, or for an existing building which has been altered, shall be made on forms furnished by the Code Enforcement Officer, after erection of such building or part thereof has been completed in conformity with the provisions of this chapter. In the case of a new building, such application shall be accompanied by a survey prepared by a licensed land surveyor showing the location of all buildings as built. Such certificate shall be issued within 10 days after receipt of the properly completed application, but only provided that the application states that all requirements of all other applicable codes or local laws in effect are complied with.

D. If the proposed use is in conformity with the provisions of this chapter and of all other applicable codes and local laws, a certificate of occupancy for the use of vacant land or for a change of use of a nonconforming use shall be issued by the Code Enforcement Officer within 10 days after receipt of a properly completed application. If a certificate of occupancy is denied, the Code Enforcement Officer shall state the reasons in writing to the applicant.

E. Remedies for violations after issuance of certificate of occupancy.

(1) After issuance of a valid certificate of occupancy, if there occur violations of state or local law or site plan approval or ZBA variance requirements for a period of five days, the Code Enforcement Officer may issue an order to remedy violation which shall set forth the section of the code which is being violated and which, if not corrected within the time specified, shall cause the Code Enforcement Officer to issue an appearance

ticket in the Town of New Windsor Justice Court. In addition to that remedy, or alternatively, the Code Enforcement Officer may institute a proceeding in Supreme Court under Town Law § 268, Subdivision 2, or, where appropriate, the Code Enforcement Officer may apply to the Supreme Court under the provisions of Executive Law § 382.

(2) The services of any qualified experts employed by the Town to advise in establishing a violation shall be paid for by the violator, if a violation is proved, and otherwise by the Town. No new certificate of occupancy shall be issued unless such charges have been paid to the Town.

F. A certificate of occupancy shall be deemed to authorize, and is required for, both initial occupancy and the continuance and use of the building or land to which it applies.

G. Upon written request by the owner, and upon payment of the fee as set by the Town Board, the Code Enforcement Officer shall, after inspection, issue a certificate of occupancy for any building or use thereof or of land existing at the time of the adoption of this chapter, certifying such use (including the number of employees) and whether or not the same and the building conform to the provisions of this chapter.

H. A record of all certificates of occupancy shall be kept in the office of the Code Enforcement Officer, and copies shall be furnished on request to any agency of the Town or to any persons having a proprietary or tenancy interest in the building or land affected.

§ 300-80. Duties of Code Enforcement Officer.

A. The Building Inspector is hereby designated the Code Enforcement Officer. The Code Enforcement Officer shall have all of the powers and duties relating to the administration and enforcement of the New York State Uniform Fire Prevention and Building Code pursuant to Article 18 of the Executive Law of the State of New York, as the same may be amended from time to time, together with such rules and regulations as may be promulgated by the New York State Secretary of State pursuant thereto. Additionally, the Assistant Building Inspector, Zoning Inspector, Assistant Zoning Inspector, Fire Inspector, Assistant Fire Inspector shall perform Code Enforcement duties under the coordination and supervision of the Code Enforcement Officer.

B. The Code Enforcement Officer shall also have all of the powers and duties of the Sanitary Superintendent or the Sanitation Inspector relating to the administration and enforcement of Chapter **240**, Sewers, Articles **I**, **V** and **VI**, of the New Windsor Town Code.

§ 300-81. Penalties for offenses.

A. A violation of this article, and any failure to comply with an order to remedy after due service, and any violation of any requirement of this chapter or any statement, plan, application, permit or certificate approved or issued under the provisions of this chapter shall be considered an offense punishable by a fine of not more than $350 or imprisonment for a period not to exceed six months, or both, for conviction of a first offense; and, upon conviction of a second offense both of which were committed within a period of five years, punishable by a fine of not less than $350 nor more than $700 or imprisonment for a period not to exceed six months, or both; and, upon conviction for a third or subsequent offense all of which were committed within a period of five years,

punishable by a fine of not less than $700 nor more than $1,000 or imprisonment for a period not to exceed six months, or both.

B. If applicable, additional or alternative penalties may be as prescribed in New York State Executive Law § 382.

C. Each week's continued violation under this section shall constitute a separate additional violation.

D. Any unpaid fire inspection fees from inspections authorized by § **300-80** and the enforcement of § 381 of the New York State Uniform Fire Prevention and Building Code Act shall be collected by assessment and levy upon the lot(s) or parcel(s) of land whereupon such inspection(s) was/were performed and the fees so assessed shall constitute a lien and charge upon the real property on which they are levied until paid or otherwise satisfied or discharged and shall be collected in the same manner and at the same time as other Town charges.

Article XIII. Planning Board and Zoning Board of Appeals

§ 300-82. Planning Board.

A. There is hereby created a Planning Board under New York State Town Law § 271. The Planning Board shall consist of five members who must be residents of the Town of New Windsor, and annual compensation shall be set by the Town Board each year.

§ 300-83. Membership of Zoning Board of Appeals.

Establishment and membership of the Zoning Board of Appeals shall be as follows:

A. There shall be a Zoning Board of Appeals consisting of five members pursuant to the provisions of § 267 of the Town Law.

B. Every member of the Zoning Board of Appeals, at the time of his appointment and throughout his term of office, shall be a resident of the Town of New Windsor.

§ 300-83.1. Alternate members of Planning Board and Zoning Board of Appeals.

A. This section shall apply to the appointment, terms, functions and powers of alternate members appointed to serve on the Planning Board or Zoning Board in the Town of New Windsor.

B. Definitions. As used in this section, the following terms shall have the meanings indicated:

ALTERNATE MEMBER

An individual appointed by the Town Board of the Town of New Windsor to serve on the Town Planning Board/Zoning Board of Appeals when a regular member is unable to participate on an application or matter before the respective board, as provided herein.

MEMBER

An individual appointed by the Town Board of the Town of New Windsor to serve on the Town Planning Board/Zoning Board of Appeals pursuant to the provisions of the local law which first established such Planning Board/Zoning Board of Appeals.

PLANNING BOARD

The Planning Board of the Town of New Windsor as established by the Town Board of the Town of New Windsor pursuant to the provisions of § 271 of the Town Law.

ZONING BOARD OF APPEALS

The Zoning Board of Appeals of the Town of New Windsor as established by the Town Board of the Town of New Windsor pursuant to the provisions of § 267 of the Town Law.

C. Authorization and effect. The Town of New Windsor hereby enacts this section to provide a process for appointing alternate members of its Planning Board/Zoning Board of Appeals. These individuals would serve when members are absent or unable to participate on an application or matter before the respective board.

(1) Two alternate members for the Planning Board and two alternate members for the Zoning Board of Appeals shall be appointed by the Town Board of the Town of New Windsor for a term of five years.

(2) The Chairperson of the Planning Board/Zoning Board of Appeals may designate an alternate member to substitute for a member when such member is unable to participate on an application or matter before the Board. When so designated, the alternate member shall possess all the powers and responsibilities of such member of the Board. Such designation shall be entered into the minutes of the initial Planning Board/Zoning Board of Appeals meeting at which the substitution is made.

(3) All provisions of state law relating to Planning Board/Zoning Board of Appeals member eligibility, vacancy in office and service on other boards, as well as any provisions of a local law relating to training, continuing education, compensation and attendance, shall also apply to alternate members.

D. Statutory authority. This section is enacted pursuant to the Municipal Home Rule Law. This section shall supersede the provisions of Town Law to the extent it is inconsistent with the same, and to the extent permitted by the New York State Constitution, the Municipal Home Rule Law, or any other applicable statute.

§ 300-84. Powers and duties of Zoning Board of Appeals.

The Zoning Board of Appeals shall have all the powers and duties prescribed by law and by this chapter, which are more particularly specified as follows, provided that none of the following provisions shall be deemed to limit any power of the Board that is conferred by law:

A. Interpretation. On appeal from an order, requirement, decision or determination made by an administrative official, or on request by an official, board or agency of the Town, to decide any of the following questions:

(1) Determination of the meaning of any portion of the text of this chapter or of any condition or requirement specified or made under the provisions of this chapter.

(2) Determination of the exact location of any district boundary shown on the Zoning Map.

B. Variances. To authorize, upon appeal in specific cases, such use variances and area variances, as defined in § 267 of the Town Law, as will not be contrary to the public interest where, owing to exceptional and extraordinary circumstances, there are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of this chapter, subject to terms and conditions to be fixed by the Zoning Board of Appeals; provided, however, that no such use variance or area variance shall be granted unless the requirements of § 267-b of the Town Law have been met.

(1) The needs or desires of a particular owner or tenant or of a particular prospective owner or tenant shall not, either alone or in conjunction with other factors, afford any basis for the granting of a variance. The fact that the improvements already existing at the time of the application are old, obsolete, outmoded or in disrepair or the fact that the property is then unimproved shall not be deemed to make the plight of the property unique or to contribute thereto.

(2) Where said Board finds the zoning classification of a particular property to be conducive to the deprivation of the reasonable use of the land or buildings and where said Board finds the same condition to apply generally to other lands or buildings in the same neighborhood or zoning district, said Board shall call this condition to the attention of the Planning Board and Town Board.

(3) In all cases where the Zoning Board of Appeals grants a variance from the strict application of the requirements of this chapter, it shall be the duty of such Board to attach such conditions and safeguards as may be required so that the result of its action may be as nearly as possible in accordance with the spirit and intent of this chapter.

C. Temporary certificate of occupancy.

(1) To authorize, upon denial by the Code Enforcement Officer of a certificate of occupancy, the issuance of a temporary certificate of occupancy by the Code Enforcement Officer for a period not to exceed 90 days, for the completion of any alterations that are required under the provision of any law or ordinance or for the completion of a part of an uncompleted building, provided that the Board finds that:

(a) The denial of a certificate of occupancy prior to completion of said alterations or of the building would cause unnecessary hardship.

(b) The safety of the occupants of the building and of adjacent buildings and land would be adequately assured under such terms and conditions as said Board may prescribe.

(2) Such temporary certificate shall not be construed as in any way altering the respective rights, duties or obligations of the owner or of the Town respective to the use or occupancy of the land or building or any other matter covered by this chapter.

§ 300-85. Procedures of Zoning Board of Appeals.

The powers and duties of the Zoning Board of Appeals shall be exercised in accordance with the following procedures:

A. The Zoning Board of Appeals shall not decide upon any appeal for a variance or interpretation of this chapter without first holding a public hearing, notice of which hearing and of the substance of the appeal or application shall be given by publication in the official newspaper of the Town (at the applicant's expense) at least 10 days before the date of such hearing. In addition to such published notice, the applicant shall perform the following procedure:

(1) All applicants shall obtain a certified list of names and addresses of property owners which lie within 500 feet of any lot line of the property for which relief is sought that are required by this chapter or Chapter **257**, Subdivision of Land, to be notified of a specific action.

(2) The applicant shall pay to the Town of New Windsor the appropriate fee for obtaining the aforesaid list of names and addresses from the Assessor.

(3) The applicant shall prepare the legal notice to be mailed to the property owners and shall present the legal notice to the proper Clerk of the Board for approval prior to mailing in accordance with the procedures set forth above.

(4) The applicant shall place the name and address on an appropriate-size mailing envelope, said address to be in the same form as on the Assessor's records. In the event that two or more parcels have identical ownership, only one notice shall be required to be mailed.

(5) The applicant shall place the legal notice in the envelope and affix the proper postage for first-class mail on the envelope and seal the same.

(6) The sealed, addressed, stamped envelopes shall be brought to the Town Hall and delivered to the appropriate Clerk that is responsible for the specific board requiring the notice.

(7) The Clerk shall verify the names and addresses and compare the same to the certified mailing list supplied by the Assessor and shall thereafter deposit said envelopes in a United States postal depository within the Town of New Windsor. The Clerk shall execute an affidavit of mailing setting forth that said Clerk has compared all the envelopes addressed to the certified list supplied by the Assessor and also finds that the appropriate number of envelopes have been prepared. The affidavit shall also set forth that the Clerk has personally deposited the envelopes in a United States postal depository within the Town of New Windsor and set forth the date upon which said deposit was made.

(8) In the event that the property in question is located within 500 feet of cooperative residential or commercial site ("co-op") or residential or commercial condominium site, the applicant shall notify the board of managers of said condominium or the board of directors of the co-op site, whichever applies, rather than mailing notices to all individual owners of said co-op or condominium units, and this procedure shall be deemed sufficient notice to all property owners within the co-op or condominium site.

(9) Provided that due notice shall have been published and that there shall have been substantial compliance with the remaining provisions of this section, the failure to give notice in exact conformance herewith shall not be deemed to invalidate action taken by the Zoning Board of Appeals in connection with the granting of any appeal or variance.

B. All appeals and applications made to the Zoning Board of Appeals shall be in writing and shall be accompanied by a fee of not less than the actual and necessary costs of advertising and holding a public hearing. The basic fee shall be as determined in the Standard Schedule of Fees of the Town of New Windsor *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* as may be adopted from time to time by resolution of the Town Board. No fees shall be refundable.

C. Each appeal or application shall fully set forth the circumstances of the case, shall refer to the specific provision of the chapter involved and shall exactly set forth, as the case may be, the interpretation that is claimed, the details of the variance that is applied for and the grounds on which it is claimed that the same should be granted.

D. Should any appeal involve either of the two following conditions, the Secretary of the Zoning Board of Appeals shall transmit to the designated office or official a copy of the official notice of the public hearing not later than 10 days prior to the date of the hearing:

(1) Any change in the boundaries of any district, which change would occur within a distance of 500 feet of the boundary of any village or town, shall be submitted to the Village or Town Clerk.

(2) If the land involved in an appeal lies within 500 feet of any of the following areas, such application, accompanied by the notice of the public hearing, shall be forwarded to the Orange County Planning Department for review in accordance with the provisions of Article 12-B, §§ 239-1 and 239-m, of the General Municipal Law of the State of New York, at least 10 days prior to the public hearing:

(a) Municipal boundary.

(b) Existing or proposed county or state park or other recreation area.

(c) Right-of-way of any existing or proposed county or state parkway, thruway, expressway, road or highway.

(d) Existing or proposed right-of-way of any stream or drainage channel owned by the county or for which the county has established channel lines.

(e) Existing or proposed boundary of any county- or state-owned land on which a public building or institution is situated.

E. Prior to the date of any public hearing, the Secretary of the Zoning Board of Appeals shall transmit to the Secretary of the Planning Board a copy of any appeal or application, together with a copy of the notice of such hearing. The Planning Board may submit to the Zoning Board of Appeals an advisory opinion on said appeal or application at any time prior to the rendering of a decision by the Board of Appeals.

F. All the provisions of this chapter relating to the Zoning Board of Appeals shall be strictly construed. Said Board, as a body of limited jurisdiction, shall act in full conformity with all provisions of law and of this chapter in compliance with all limitations contained therein.

G. Unless a building permit is obtained within 12 months of the date of the granting of the application, the application shall become null and void.

H. Records of decisions.

(1) Every decision of the Zoning Board of Appeals shall be recorded in accordance with standard forms adopted by the Board, shall fully set forth the circumstances of the case and shall contain a full record of the findings on which the decision is based. Every decision of said Board shall be by resolution, and each such resolution shall be filed in the office of the Town Clerk by case number under one of the following headings, together with all documents pertaining thereto:

(a) Interpretation.

(b) Variances.

(2) Regarding its decision in each case, the Zoning Board of Appeals shall notify the Town of New Windsor Code Enforcement Officer, Town Board, Town Planning Board and any designated official of any affected municipality or agency given notice of hearing as set forth in Subsection **D**.

I. When an appeal to the Zoning Board of Appeals has been duly processed and denied upon a vote by at least four members of the Board, said appeal shall not be eligible for reconsideration or rehearing for a six-month period following such denial, except that an application based on new facts or new considerations substantially different from those in the denied application may be eligible for reconsideration or rehearing within six months of the date of the denial of the original appeal.

Article XIV. Site Plans and Special Use Permits

§ 300-86. Site plan review.

A. General applicability.

(1) In all cases where this chapter requires approval of site plans, no building permit shall be issued by the Code Enforcement Officer except upon authorization of and in conformity with the plans approved by the Planning Board.

(2) Except as otherwise required herein, no site plan approval shall be required for one- or two-family detached residences on a single lot or for additions, alterations or structures accessory thereto. All other principal uses and all conditional and accessory uses shall require site development plan approval prior to the issuance of a building permit.

(3) A change of use shall require site plan approval where, in the judgment of the Building Inspector, there will be an increase in parking, traffic, water consumption, sewage effluent or other regulated activity.

(4) The Planning Board, in its sole discretion, may waive site plan approval for any modification to a previously approved site plan that the Planning Board deems to be minor in nature; such minor modifications shall be deemed field changes subject only to review and approval by the Code Enforcement Officer.

(5) No certificate of occupancy shall be issued unless all requirements of the site plan approval have been fully met.

(6) No lot or parcel of land shall be used except in conformity with an approved site development plan, when required.

B. Objectives. In considering and acting upon site plans, the Board shall take into consideration the public health, safety and welfare, the comfort and convenience of the public in general and of the residents of the proposed development and the immediate neighborhood in particular and may prescribe such appropriate conditions and safeguards as may be required in order that the result of its action shall, to the maximum extent possible, further the expressed intent of this chapter and the accomplishment of the following objectives in particular:

(1) Traffic access. All proposed traffic access and ways are adequate but not excessive in number; adequate in width, grade, alignment and visibility; not located too near street corners or other places of public assembly; and other similar safety considerations.

(2) Circulation and parking. Adequate off-street parking and loading spaces are provided to prevent the parking on public streets of vehicles of any persons connected with or visiting the use and the interior circulation system is adequate to provide safe accessibility to all required off-street parking lots.

(3) Landscaping and screening. All playground, parking and service areas are reasonably screened at all seasons of the year from the view of adjacent residential lots and streets and the general landscaping of the site is in character with that generally prevailing in the neighborhood. Existing trees over eight inches in diameter measured three feet above the base of the trunk shall be retained to the maximum extent possible.

(4) Restrictive covenants and easements, including conservation easements. Restrictive covenants and easements, in form and content acceptable to the Planning Board

attorney and the Town Attorney, may be imposed on the site plan and required to be recorded by the Planning Board prior to approval. Restrictive covenants and easements shall be subject to enforcement by the Town of New Windsor and other parties in interest.

(5) Stormwater detention basins, retention basins, and water quality ponds.

(a) The site plan shall comply with both Chapter **249**, Stormwater Management, of the Town of New Windsor Code and the New York State Department of Environmental Conservation regulations providing for control of stormwater. For site plans, the ownership and maintenance responsibility for stormwater detention basins, retention basins, and water quality ponds shall be made an obligation of the owner of the site. The improvement shall be located on the same lot as the other site plan improvements. It is not permissible to create a separate lot for the stormwater improvements.

(b) The following basin design criteria shall be incorporated into all basins and ponds:

[1] Landscaping is required where buffers or screening is necessary, staggered white pine plantings and berms being deemed preferable for these situations.

[2] Maximum side slopes shall be 1:3 (vertical: horizontal).

[3] Fences may be required at the discretion of the Planning Board.

[4] The basin and outlet control facilities shall be designed and sized to result in a zero net increase in runoff from the site. In addition, concentration of discharges shall be avoided. The Planning Board shall have the option of modifying these requirements where adequate downstream excess stormwater capacity is demonstrated.

[5] All facilities shall be evaluated and designed based on five-year, ten-year and twenty-five-year storm frequency, unless otherwise required by NYSDEC regulation, and unless the site is greater than 320 acres. Sites greater than 320 acres shall be based on the aforementioned criteria, plus the fifty-year storm frequency.

(6) The Planning Board may require fencing and retaining walls, and if required or provided, shall be of a design deemed acceptable for both aesthetics and structural stability by the Planning Board.

C. Effect of site plan approval.

(1) No building permit shall be issued for any structure covered by this section until an approved site plan or an approved amendment of any such plan has been secured by the applicant from the Planning Board and presented to the Code Enforcement Officer.

(2) No certificate of occupancy shall be issued for any structure or use of land covered by this section unless the structure is completed or the land is developed or used in accordance with an approved site plan or an approved amendment of any such plan.

(3) The Code Enforcement Officer is hereby authorized to enforce all conditions of site plan approval.

D. Procedure.

(1) Pre-submission conference. Prior to the submission of a site plan, the applicant shall meet in person with the Board. The purpose of such conference shall be to discuss proposed uses or development in order to determine which of the site plan elements

listed in Subsection **D** shall be submitted to the Board in order for said Board to determine conformity with the provisions and intent of this chapter.

(2) Within six months following the pre-submission conference, the site plan and application materials, together with the required fee from the Standard Schedule of Fees *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* of the Town of New Windsor, shall be submitted to the Secretary of the Planning Board in triplicate, and copies of all materials shall be distributed to the Code Enforcement Officer and Planning Board Engineer. Materials must be submitted to the Planning Board Secretary in proper form and number according to the schedule of meetings, workshops and submission deadlines as may be adopted by the Planning Board.

(3) The Code Enforcement Officer and Planning Board Engineer shall report to the Planning Board whether the plan meets the requirements of all zoning law provisions and shall also make recommendations for modifications to the plan in order that the plan or amendment thereof shall be consistent with these regulations.

(4) The Planning Board may require, on its own motion, that the applicant prepare alternative site plans or layouts, or prepare such studies or technical reports, where the submitted site plan does not meet the requirements or standards of these regulations. The Board may require that the applicant retain the services of independent consultants or specialists to prepare the alternative plans, layouts, studies or reports in support of his application. Any expenses incurred in the preparation of these materials shall be fully the responsibility of the applicant.

(5) In certain cases where circumstances require during the review of an application, the Planning Board may retain its own special professional consultants to review plans or technical documents. Fees incurred for these consultants will be the responsibility of the applicant, and charged against the escrow deposit made for the application.

(6) A public hearing for site plan approval may be required by the Planning Board at its discretion. Upon receipt of such documents in proper form, the Planning Board shall fix the date for a public hearing on the proposed use. The applicant shall send notice of the public hearing stating the date, place and substance of the hearing to all owners of property abutting the proposed use and directly across any adjoining street as the names of said owners appear on the last complete assessment roll of the Town. The notice shall be in accordance with the notice provisions under § **300-85A**.

(7) The Board shall act to approve or disapprove any such site plan within 62 days after the meeting at which the same is submitted or within 62 days after the public hearing, if a public hearing is required, or the completion of the SEQRA process, whichever is later. Failure to act within 62 days following the closure of the public hearing or the completion of SEQRA, whichever is later, shall be deemed approval. Disapproval shall include written findings upon any site plan element found contrary to the provisions or intent of this chapter.

(8) Amendments to a site plan shall be acted upon in the same manner as all site plan applications, per the procedure outlined in this section. If any amendment of a site plan is approved by the Board, all requirements or provisions of the original site plan shall remain in full force in effect, even if not specifically noted or referenced on the amendment of site plan, unless such provision or provisions are specifically modified or eliminated by the Board as part of the amendment.

(9) Waiver of required information. Upon findings by the Planning Board that, due to special conditions peculiar to a site, certain of the information normally required as part of the site plan is inappropriate or unnecessary or that strict compliance with said requirements may cause extraordinary and unnecessary hardships, the Board may vary or waive the provision of such information, provided that such variance or waiver will not have detrimental effects on the public health, safety or general welfare or have the effect of nullifying the intent and purpose of the site plan submission, Comprehensive Plan or this chapter.

(10) Application for building permit. Within one year of the date of stamped site plan approval by the Planning Board, the applicant shall apply for a building permit or the approval of the site plan shall expire. However, the Planning Board may extend the time for application for a building permit a period not to exceed one additional year if, in its opinion, such action is warranted by the particular circumstances thereof.

(11) Unless work is commenced and diligently prosecuted within one year, or within such time expressly stated by the Planning Board at the date of granting approval, said approval shall become null and void.

(12) The Planning Board may require, as a condition of approval, that a performance bond or maintenance bond, or both, be posted with the Town in a manner set forth in Chapter **257**, Subdivision of Land, to guarantee the installation of key site improvements and the upkeep of landscaping, screening and safety devices and to ensure the general cleanliness and proper housekeeping of the grounds and environs of the area approved pursuant to these regulations. Such performance bonds shall be maintained valid until all work is complete and accepted by the Town. Unless otherwise extended by the Planning Board, all work shall be completed within two years from the date of building permit. Maintenance bonds shall remain valid for a period of three years from the date of the certificate of occupancy of the completed site plan. All bond estimates shall be in a form and amount acceptable to the Planning Board engineer.

(13) When any development of land is proposed to be made, and before any application for a building permit is made and before the erection of any structure within such proposed site plan shall commence, or any grading, clearing, construction, topographical alteration or any other improvements undertaken therein, the applicant or his duly authorized agent shall obtain the final approval of such proposed site plan in accordance with the procedures set forth in these regulations or shall obtain the specific approval for such grading, clearing, topographical alteration or other site improvements from the Planning Board.

(14) Wherever in this Subsection **D**, Procedure, the term "pre-submission conference" is utilized, the same shall be understood to also include technical work sessions held with the Planning Board Engineer and other Town representatives as scheduled by the Board.

E. Site plan elements. The applicant shall cause a site plan map to be prepared by a professional engineer, surveyor, architect or other design professional authorized under the New York State Education Law to prepare such a plan. The site plan shall include those of the elements listed herein which are appropriate to the proposed development or use as indicated by the Planning Board and its consultants in the pre-submission conference. During the pre-submission conference, the Board or its consultants shall consider the

necessity of the preparation of separate plan sheets for certain elements of the plan, such as a general layout sheet showing existing and proposed uses on the site; a site grading and drainage sheet showing existing and proposed contours, as well as existing and proposed storm drainage improvements; and a lighting and landscaping sheet showing existing and proposed lighting sources and landscaping elements, or similar type plans. Unless otherwise acceptable to the Planning Board Engineer, all site plans shall be drawn to a scale of one inch equaling 30 feet or 40 feet.

(1) Legal data.

(a) Section, block and lot numbers of the property, taken from the latest tax records.

(b) Name(s) and address(es) of the owner(s) of record and the applicant, if different.

(c) Name and address of person, firm or organization preparing the map.

(d) Date, North point and written and graphic scales.

(e) Sufficient description or information to define precisely the boundaries of the property. All distances shall be in feet and tenths of a foot. All angles shall be given to the nearest 10 seconds or closer. The error of closure shall not exceed one in 10,000. All plans shall identify the source of the boundary data (name of licensed surveyor who prepared the base plan and the date of the survey).

(f) Locations, names and existing widths of adjacent streets and curblines.

(g) Locations and owners of all adjoining lands as shown on the latest tax records.

(h) Location, width and purpose of all existing and proposed easements, setbacks, reservations and areas dedicated to public use within or adjoining the property.

(i) Complete outline of existing deed restrictions or covenants applying to the property.

(j) Existing zoning, school and special district boundaries.

(k) An area location map, at a scale of no smaller than one inch equals 1,000 feet, showing adjoining public roads, railroads, major watercourses, schools, firehouses and any other landmarks to establish the location of the property.

(l) A table showing the relationship between the existing and proposed uses of the property and the bulk requirements for the intended use in the zone in which the property is situated in relation to the bulk requirements. Required and permitted values and specific proposed values shall be provided.

(2) Natural features.

(a) Existing contours with intervals of two feet or less, referred to a datum satisfactory to the Board. Elevation values shall be labeled on all contours.

(b) Approximate boundaries of any areas subject to flooding or stormwater overflows.

(c) Location of existing watercourses, federal and state regulated wetlands and wetland buffers, marshes, wooded areas, rock outcrops, isolated trees with a diameter of eight inches or more measured three feet above the base of the trunk and other significant existing features.

(3) Existing structures and utilities.

(a) Location of uses and outlines of structures drawn to scale and within 100 feet of the lot line.

(b) Paved areas, sidewalks and vehicular access between the site and public streets.

(c) Locations, dimensions, grades and flow direction of existing sewers, culverts and waterlines, as well as other underground and aboveground utilities within and adjacent to the property.

(d) Other existing developments, including fences, landscaping and screening.

(4) Proposed development.

(a) Location of proposed buildings or structural improvements.

(b) Location and design of all uses not requiring structures, such as off-street parking and loading areas.

(c) Location, direction, power and time of use for any proposed outdoor lighting or public address systems. Where deemed appropriate by the Planning Board, the applicant shall have prepared lighting intensity plans with isolux curves to depict the location of all lighting fixtures and the intensity of lighting in footcandles.

(d) Location, plans, elevations, details and the lighting provisions of any outdoor signs.

(e) Location and arrangement of proposed means of access, ingress and egress, including sidewalks, driveways or other paved areas, and profiles indicating grading and cross sections showing the width of the roadway, the location and width of sidewalks and the location and size of water and sewer lines.

(f) Proposed grading, screening and other landscaping, including types and locations of proposed street trees, shrubs and other vegetation.

(g) Location of all proposed waterlines, valves and hydrants, and of all sewer lines or alternate means of water supply and sewage disposal and treatment.

(h) Outline of any proposed easements, deed restrictions or covenants.

(i) Contemplated public improvements on or adjoining the property.

(j) If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.

(5) Information concerning the provisions of solar access to the building or buildings to be constructed on the site in accordance with the following criteria:

(a) Site selection. In order to maximize solar access, the development should place highest densities on south-facing slopes. Lower densities should be sited on north-facing slopes.

(b) Street layout. Streets should be oriented on an east/west axis to the greatest possible extent. Orientation can vary up to 10° to the northwest and 25° to the southwest.

(c) Lot layout. Lots should be oriented north and south to the greatest extent possible.

(d) Building siting.

[1] The long axis of buildings on the site should be oriented east and west to the greatest possible extent. Building orientation may vary up to 10° to the northwest and 25° to the southwest of the east/west axis.

[2] Buildings should be sited as close to the north lot line or lines as possible to increase yard space to the south for better owner control of shading.

[3] Adjustments to front, side and rear lot lines, acceptable to the Planning Board, should be used when good solar access is not possible for single-family detached units on a particular site due to topography, property orientation or other salient factors.

[4] Tall buildings should be sited to the north of shorter buildings. Tall buildings shall be buffered from adjacent developments in the same manner.

(e) In selecting trees for landscaping, the mature height and canopy size should be considered to prevent shading of south walls of proposed buildings.

(f) Aesthetics. If solar access systems are proposed for new construction, the applicant shall submit elevation drawings indicating the location, size and type of units proposed. The location, plan and elevation of all proposed round-mounted solar collectors shall also be submitted for review. In all cases, efforts shall be made to retain the existing aesthetic character of the neighborhood while providing the best possible location for such collector units on the site.

(6) Any other information deemed by the Board necessary to attain conformity of the site plan with the intent and regulations of this chapter.

(7) Electronic documents. Site plans and final as-built drawings shall be provided to the Chief Information Officer (CIO) of the Town of New Windsor in digital form acceptable to the CIO. PDF formatted electronic documents shall be acceptable only for pre-approval submissions.

F. Expiration of site plan approval and application abandonment.

(1) Following the approval of a site plan by the Planning Board, the applicant shall have 360 days from the date of the adoption of the Board resolution approving the plan to satisfy all conditions and to secure the stamp and signature of the Planning Board Chairperson. In the event that the applicant does not satisfy the conditions and secure the stamp and signature within the three-hundred-sixty-day period, except as hereinafter set forth, the approval shall automatically expire. The applicant may apply to the Board for further extension(s) of the approval in order to satisfy all conditions of approval and to secure the stamp and signature of the Planning Board Chairperson. Any application for an extension must be in writing and set forth the basis for the request and must be received and approved by the Board during the time period within which the approval is still valid and in force. The Planning Board may, at its option, grant all permissible extensions at the time of the approval.

(2) The applicant shall have not more than 180 days from the date of the Planning Board Chairperson's signature on the site plan to secure a building permit for the construction of improvements on the site. In the event that the applicant fails to secure a building permit within the one-hundred-eighty-day period, the site plan approval shall expire. The applicant may apply in writing to the Board for a further extension which may be granted, if, in the Planning Board's opinion, such extension is warranted by the particular circumstances. The application must include the basis for the request. Any application for an extension must be received and approved by the Board during the time period within which the approval is still valid and in force.

(3) If no action has been taken on the application for one year and the application has not been an item on a regular agenda of the Planning Board during that one-year period, the Planning Board shall notify the applicant by ordinary first-class mail at the last known address of the applicant that unless some action is taken on the application within 60 days of the date of the notice, the application will be treated as abandoned, the application will be deemed disapproved and the file closed.

§ 300-87. Issuance of special use permits.

A. Upon application and after public notice and hearing, the Planning Board, or the Town Board, whichever has the authority to issue the particular special use permit, may authorize the issuance by the Code Enforcement Officer of permits for any of the special permit uses for which this chapter requires such permits, in the district in which such use

is proposed to be located. In approving any such use, the issuing Board shall take into consideration the public health, safety and welfare and the comfort and convenience of the public in general and of the residents of the immediate neighborhood in particular and may prescribe appropriate conditions and safeguards as may be required in order that the result of its action shall, to the maximum extent possible, further the expressed intent of this chapter and the accomplishment of the following objectives in particular:

(1) That all proposed structures, equipment or material shall be readily accessible for fire and police protection.

(2) That the proposed use shall be of such location, size and character that, in general, it will be in harmony with the appropriate and orderly development of the district in which it is proposed to be situated and will not be detrimental to the orderly development of adjacent properties in accordance with the zoning classification of such properties.

(3) That, in addition to the above, in the case of any use located in or directly adjacent to a residential district:

(a) The location and size of such use, the nature and intensity of operations involved in or in connection therewith, its site layout and its relation to access streets shall be such that both pedestrian and vehicular traffic to and from the use and the assembly of persons in connection therewith will not be hazardous or inconvenient to nor conflict with the normal traffic of the neighborhood.

(b) The location and height of buildings, the location, nature and height of walls and fences and the nature and extent of landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings.

B. Each application for a special use permit shall be accompanied by a proposed plan showing the size and location of the lot and the location of all buildings and proposed facilities, including access drives, parking areas and all streets within 200 feet of the lot.

C. Any use for which a special use permit may be granted shall be deemed to be a conforming use in the district in which such use is located, provided that such permit shall affect only the lot or portion thereof for which such permit shall have been granted.

D. The issuing board may require reasonable conditions and may also require that special use permits be periodically renewed. Such renewal shall be granted following due public notice, in accordance with the notice provisions under § **300-85A**, and public hearing, and renewal may be withheld only upon a determination by the issuing board that such conditions as prescribed by the issuing board with the issuance of the original permit are no longer complied with. In such cases, a period of 60 days shall be granted to the applicant to come into full compliance prior to the revocation of the special permit.

E. The fee for special permits under this section shall be in accordance with the Standard Schedule of Fees *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* of the Town of New Windsor as may be adopted from time to time by the Town Board.

Article XV. Amendments

§ 300-88. Procedure.

This chapter or any part thereof may be amended, supplemented or repealed from time to time by the Town Board on its own motion or upon recommendation by the Planning Board. Prior to public hearing, every such proposed amendment shall be referred by the Town Board to the Planning Board for a report. The Town Board shall not take action on any such amendment without such report from the Planning Board unless the Planning Board fails for any reason to render such report within 45 days following the date of referral. Any property owner may submit a petition to the Town Board requesting a zoning change, setting forth the reason for the requested change and paying the prescribed fee(s). The Town Board may require restrictive covenants in recordable form from a petitioner in connection with any zone change. (Note: See New York State Town Law § 265.)

A. Report of the Planning Board. In making such report on a proposed amendment, the Planning Board shall make inquiry and determination concerning the items specified below:

(1) Concerning a proposed amendment to or change in the text of this chapter:

(a) Whether such change is consistent with the aims and principles embodied in the chapter as to the particular districts concerned.

(b) Which areas, land uses, buildings and establishments in the Town will be directly affected by such change and in what way they will be affected.

(c) The indirect implications of such change in its effect on other regulations.

(d) Whether such proposed amendment is consistent with the aims of the Comprehensive Plan of the Town.

(2) Concerning a proposed amendment involving a change in the Zoning Map:

(a) Whether the uses permitted by the proposed change would be appropriate in the area concerned.

(b) Whether adequate public school facilities and other public facilities and services, including roads, exist or can be created to serve the needs of any additional residences or other uses likely to be constructed as a result of such change.

(c) Whether the proposed change is in accord with any existing or proposed plans in the vicinity.

(d) The effect of the proposed amendment upon the growth of the Town as envisaged by the Comprehensive Plan.

(e) Whether the proposed amendment is likely to result in an increase or decrease in the total residential capacity of the Town and the probable effect thereof.

B. Each petition for a zoning amendment shall be accompanied by a fee in accordance with the Standard Schedule of Fees *Editor's Note: Said schedule is on file in the Town offices. (See Ch. 137, Fees.)* of the Town of New Windsor as may be adopted from time to time by the Town Board. No fee shall be required for a petition filed in favor of or against a pending application.

C. By resolution adopted at a meeting of the Town Board, the Town Board shall fix the time and place of a public hearing on the proposed amendment and cause notice thereof to be given in accordance with provisions of § 264 of Article 16 of the Town Law. All notices of public hearings shall specify the nature of any proposed amendment, the land or district affected, and the date, the time and the place where the public hearing will be held. At least 10 days' notice of the time and place of such hearing shall be published in the official newspaper.

D. If any proposed amendment consists of or includes either of the following two conditions, the Town Clerk shall transmit to the Town Supervisor a copy of the official notice of the public hearing not later than 10 days prior to the date of the hearing:
(1) Any change in the boundaries of any district, which change would occur within a distance of 500 feet of the boundary of any village or town or a state or county road.
(2) Any change in the regulations prescribed for any district, any portion of which is located within 500 feet of the boundaries listed in Subsection **D(1)** above.

E. If any proposed amendment consists of or includes any of the following conditions, the Attorney for the Town shall refer the proposed amendment to the Orange County Planning Board:
(1) Any change in the district classification of, or the regulations applying to, real property abutting or within 500 feet of:
(a) The boundary of any village or town.
(b) The boundary of any existing or proposed state or county park or other recreation area.
(c) The right-of-way of any state parkway, thruway, expressway or other controlled-access highway or county road or parkway.
(d) The right-of-way of any stream or drainage channel owned by the county or for which the county has established channel lines.
(e) The boundary of any county- or state-owned land on which a public building or institution is located.

F. In the case of a protest against any amendment, such amendment shall not become effective except in accordance with the provisions of § 265 of Article 16 of the Town Law.

G. In all cases where the Town Board shall approve an amendment to this chapter, said Board shall find that, for reasons fully set forth in said findings, such amendment is in conformity with the Comprehensive Plan for the community's development.

H. Upon approval of a change to the Zoning Map, the Engineer for the Town shall be responsible for making the change to the Official Town Zoning Map *Editor's Note: The Zoning Map is on file in the Town offices.* and distributing copies to each department in the Town of New Windsor and for furnishing no fewer than 20 revised maps to the Town Clerk for sale. The Town Clerk shall maintain every map as revised in accordance with New York State Town Law § 265.

I. All amendments to this chapter shall be subject to the provisions of the New York State Environmental Quality Review Act.

Article XVI. Definitions

§ 300-89. Word usage; definitions.

A. Word usage. Words used in the present tense include the future; the singular number includes the plural, and the plural the singular; the word "person" includes a corporation as well as an individual; the word "lot" includes the word "plot." The term "occupied" or "used" as applied to any building shall be construed as though followed by the words "or intended, arranged or designed to be occupied or used."

B. Unless otherwise expressly stated, the following terms shall, for the purpose of this chapter, have the meanings herein indicated:

ACCESSORY

A building or use clearly incidental or subordinate to, and customary in connection with, the principal building or use on the same lot.

ACCOMMODATION UNIT

Each bed, bunk, cot or other arrangement for sleeping by a single person or family.

AGRICULTURE or HORTICULTURE

The cultivation of soil for food products or other useful or valuable growths in the field or garden, exclusive of facilities for display of products and marketing on the premises, whether wholesale or resale. "Agriculture" shall be deemed to also include poultry or livestock production or breeding and the raising of cattle for the purpose of milk production.

ALTERATION

A change or rearrangement in the structural parts of a building, or an enlargement, whether by extending a side or by increasing the height of such building.

ANIMAL KENNEL

Any building, structure or premises in which animals are kept, boarded or trained.

BASEMENT

A story in a building, the structural ceiling level of which is four feet or more above the average level of the finished grade where such grade abuts the exterior wall of such building which fronts on any street, and the floor level of which is below the finished grade at any point on the periphery of the building.

BEDROOM

The term "bedroom" refers to each additional room or 200 square feet of floor area in excess of space permanently allocated for kitchen, dining area, living area, bath facilities and storage spaces of less than 30 square feet in each such permanent storage space.

BILLBOARD

A sign, including the type commonly known as a "billboard," which directs attention to a business, commodity, service, entertainment or attraction sold, offered or existing elsewhere than upon the same lot where such sign is displayed or only incidentally upon such lot.

BUILDING

Any combination of materials forming any construction, except where entirely underground, so as to permit the use of the ground above the same as if no building was present; the term "building" shall include the term "structure" as well as the following:

(1) Signs.

(2) Fences.

(3) Walls, other than retaining walls projecting above the ground not more than three feet at the higher ground level and not more than 6 1/2 feet at the lower ground level.

(4) Radio and television receiving and transmitting towers and antennas, except for such antennas installed on the roof of a building and extending not more than 20 feet above the highest level of the roof of such building.

(5) Porches, outdoor bins and other similar structures.

CELLAR

Any space in a building, the structural ceiling level of which is less than four feet above the average finished grade where such grade abuts that exterior wall of such building which fronts on any street. A cellar shall not be considered in determining the permissible number of stories.

CLUBHOUSE

A building, structure, lot or land area used as a private club or social organization with annual membership dues or associated with a site plan development.

CODE ENFORCEMENT OFFICER

A Town of New Windsor employee holding the position of Building Inspector. Additionally, the Assistant Building Inspector, Zoning Inspector, Assistant Zoning Inspector, Fire Inspector, Assistant Fire Inspector shall perform Code Enforcement duties under the coordination and supervision of the Code Enforcement Officer.

COMMERCIAL RECREATION FACILITY

Any recreational facility in private ownership requiring compensation or admission fees for the use thereof, other than accessory to single-family residential uses.

CONVALESCENCE FACILITY

A building facility utilized for the purpose of aiding or assisting the recovery of health and/or rehabilitation following sickness.

COURT, INNER AND OUTER

Any unobstructed open area bounded on three or more sides by the walls of a building or buildings, not including any such area with no windows opening upon it except windows on a stairway. An inner court does not extend to a street or yard; an outer court extends to a street or yard.

COVERAGE, BUILDING

The percentage of the area of a lot covered by a building or buildings.

COVERAGE, DEVELOPMENT

The percentage of a lot covered by buildings, parking areas, accessory structures and any impervious materials.

CURB LEVEL

The established elevation of the street grade at a point that is opposite the center of the wall nearest to and facing the street line.

DAY-CARE CENTER

See "school of private instruction."

DOMESTIC ANIMALS

Various species of animals such as cats, dogs, hamsters and the like which normally and conventionally board in residential dwellings. See also Town Code Chapter **96**.

DOMICILE

The legal residence of a person; the fixed, permanent and principal home for legal purposes.

DWELLING, ONE-FAMILY

A detached building containing one dwelling unit only.

DWELLING, TOWNHOUSE

A one-family dwelling with two common or party walls separating it from adjacent units on both sides.

DWELLING, TWO-FAMILY

A detached building containing two dwelling units only.

DWELLING UNIT

A building or entirely self-contained portion thereof containing complete housekeeping facilities for only one family, including any domestic servants employed on the premises, having no enclosed space (other than vestibules, entrance or other hallways or porches) or cooking or sanitary facilities in common with any other dwelling unit. A house trailer, a boarding- or rooming house, convalescent home, fraternity or sorority house, hotel, inn and a lodging, nursing or other similar home or other similar structure shall not be deemed to constitute a dwelling unit.

ESSENTIAL SERVICE

The erection, construction, alteration or maintenance, by public utilities or municipal or other governmental agencies, of underground, surface or overhead gas, electrical, steam or water transmission systems, including poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, police call boxes, traffic signals, light stations, telephone lines, hydrants and other similar equipment and accessories herewith reasonably necessary for the furnishing of adequate service by such public utilities or municipal or other governmental agencies or for the public health, safety or general welfare.

FAMILY

One or more persons occupying a dwelling unit as a single, nonprofit housekeeping unit, who are living together as a bona fide stable and committed living unit, being a traditional family unit or the functional equivalent thereof, exhibiting the generic character of a traditional family.

FLOOR AREA

The sum of the gross horizontal areas of the several floors of the building or buildings on a lot measured from the exterior faces of exterior walls or from the center line of party walls separating two buildings, excluding cellar and basement areas used only for storage or for the operation and maintenance of the building.

FLOOR AREA, LIVABLE

All spaces within the exterior walls of a dwelling unit exclusive of garages, breezeways, unheated porches, cellars, heater rooms and basements having a window area of less than 10% of the square-foot area of the room. Usable floor area shall include all spaces not otherwise excluded above, such as principal rooms, utility rooms, bathrooms, all closets and hallways opening directly into any room within the dwelling unit and all attic space having a clear height of six feet from finished floor level to the pitch of roof rafters, with a clear height of seven feet six inches from finished floor level to ceiling level over 50% of the area of such attic space.

FLOOR AREA RATIO

The floor area in square feet of all buildings on a lot divided by the area of such lot in square feet.

GARAGE, PRIVATE

An enclosed space for the storage of one or more motor vehicles, provided that no business, occupation or service is conducted for profit therein nor space therein for more than one car is leased to a nonresident of the premises.

GARAGE, REPAIR

Any garage, other than a private garage, available to the public, operated for gain and which is used for the storage, repair, rental, greasing, washing, servicing, adjusting or equipping of automobiles or other motor vehicles.

GASOLINE SERVICE STATION

A building or other structure or a tract of land used or heretofore used primarily for the servicing of motor vehicles. It shall signify a retail place of business engaged primarily in the sale of motor fuels, and also in supplying goods and services generally required in the operation and maintenance of motor vehicles, including the sale of petroleum products; sale and servicing of tires, batteries, automotive accessories and replacement items; washing and lubrication services; and the performance of routine automotive maintenance and repairs.

HEIGHT

The vertical distance measured from the average elevation of the finished grade along the side of the structure fronting on the nearest street to the highest point of such structure, excluding a chimney.

HOME OCCUPATION

Any occupation customarily conducted within a dwelling used for living purposes, which home occupation does not change the character of the structure as a residence. The home occupation must be incidental and secondary to the use of the dwelling for residential purposes. The activity shall not occupy more than 1/2 of the ground floor area of the dwelling or its equivalent elsewhere in the dwelling if so used. The home occupation must be carried on within the dwelling, including the basement or garage, and not in any accessory structure. The parking and storage of commercial vehicle requirements set forth in the Code shall be complied with. No more than two customer motor vehicles shall be parked on the premises or on the adjacent roadways at any one time. No exterior storage of materials and no exterior display or sign, other than a double-faced sign, 12 inches by 18 inches, shall be permitted; and no other exterior indication of the home occupation shall be permitted. No machinery or equipment not customarily in a dwelling shall be permitted, and no offensive odor, noise, vibration, smoke, dust, heat, light or glare shall be produced. There shall be no partner or associate in the practice of such home occupation, and it shall employ no more than one person and create no public nuisance. Home occupations shall not include, among others, the following: medical and dental clinics, restaurants or on-premises consumption food services, kennels or animal hospitals. The building shall conform to the New York State Uniform Fire Prevention and Building Code requirements.

HOSPITAL

A building used for the diagnosis, treatment or other care of human ailments, unless otherwise specified. A hospital shall be deemed to include a sanatorium, clinic, convalescent home, nursing home, rest home or other building with an equivalent appellation.

HOTEL

A building or buildings containing accommodation units for housing transient guests for compensation.

JUNKYARD

Any area of land, including buildings thereon, which is used primarily for the collecting, storage and/or sale of wastepaper, rags, scrap metal or discarded material, or for the collecting, dismantling, storage or salvaging of machinery or vehicles not in running condition and for the sale of parts thereof. Two or more motor vehicles stored outside without current license plates for a period of 30 days shall constitute a junkyard.

LABORATORY

A building used for experimentation in pure or applied research, design, development and production of prototype machines or of new products, and uses accessory thereto, wherein products are not manufactured primarily for wholesale or retail sale, wherein commercial servicing or repair of commercial products is not performed and wherein there is no display of any material or products. A laboratory shall meet the same performance standards as nonnuisance industry.

LIVESTOCK

Animals, including but not limited to domestic animals, such as sheep, horses, cattle and goats.

LOT

Any parcel of land, not necessarily coincident with a lot or lots shown on a map of record, which is occupied or which is to be occupied by a building and its accessory buildings, if any, or by a group of buildings accessory thereto, if any, together with the required open spaces appurtenant to such building or group of buildings.

LOT AREA (GROSS)

The total horizontal area included within the property lines of a lot, as calculated by a professional land surveyor licensed in the State of New York. Values listed within the Table of Use/Bulk Regulations *Editor's Note: The Table of Use/Bulk Regulations is included at the end of this chapter.* are intended to reflect gross lot area requirements. [Also see "lot area (net)" for additional zoning requirements.]

LOT AREA (NET)

The total horizontal area included within the property lines of a lot (as calculated by a professional land surveyor licensed in the State of New York), but specifically excluding areas of the lot covered by easements, rights-of-way, encumbrances, designated New York State freshwater wetlands (not including buffer areas), federal wetlands, or areas otherwise precluded from development. For zoning and subdivision compliance, all lots shall be required to have a minimum net lot area with a value equal to or exceeding 60% of the required gross lot area.

LOT, CORNER

A lot at the junction of and abutting on two or more intersecting streets where the interior angle of intersection does not exceed 135°. A lot abutting a curved street shall be deemed a corner lot if the tangents to the curve at the points of intersection of the side lot lines with the street lines intersect at an interior angle of less than 135°.

LOT LINE

Any boundary of a lot other than a street line.

LOT LINE, REAR

The lot line generally opposite to the street line. If the rear lot line is less than 10 feet in length or if the lot comes to a point in the rear, the rear lot line shall be deemed to be

a line parallel to the front lot line not less than 10 feet long lying farthest from the front lot line.

LOT WIDTH

The average distance between side lot lines measured at the front yard setback line and measured at right angles to the side lot lines or along a parallel to the street. Said measurement shall be made along the public road, private road or shared commercial access right-of-way, whichever is applicable.

MAIN FLOOR

The largest area found by the projection of a horizontal plane through the livable floor area which is enclosed by the exterior walls of the building.

MANUFACTURING

Any process whereby the nature, size or shape of articles of raw materials is changed, or where articles are assembled or packaged in quantity.

MANUFACTURING, LIGHT

Any process whereby the nature, size or shape of articles of raw materials is changed, or where articles are assembled such that no chemical or compressive processes are required and whose finished size does not exceed 40 cubic feet or weigh in excess of 2,000 pounds per unit.

MEDICAL AND DENTAL CLINIC

Any facility in which two or more physicians and/or dentists practice cooperatively for the diagnosis and treatment of patients.

MEDICAL OFFICE

A category of licensed medical professionals, including but not limited to medical doctors, dentists, opticians, optometrists, chiropractors, podiatrists, veterinarians and psychiatrists.

MEMBERSHIP CLUB

An organization composed of people who voluntarily meet on a regular basis for a mutual purpose other than educational, religious, charitable, or financial pursuits.

MINI WAREHOUSE

A building separated into relatively small, lockable individual units, typically with a garage-door-style opening, that provides storage. Units are typically rented month to month.

MOTOR VEHICLE

A self-propelled device which includes automobiles, trucks, motor homes, motorcycles, all-terrain vehicles (ATVs), boats, jet skis, motorized jet skis and tractors.

MULTIPLE DWELLING

A building or portion thereof containing three or more dwelling units.

NONCONFORMING BUILDING

A structure lawfully existing at the effective date of this chapter, or any amendment thereto affecting such structure, which does not conform to the building regulations of this chapter for the district in which it is situated, irrespective of the use to which such structure is put.

NONCONFORMING USE

Any use of a building or structure, lot or land, or part thereof, lawfully existing at the effective date of this chapter, or any amendment thereto affecting such use, which does not conform to the use regulations of this chapter for the district in which it is located.

OCCUPANT

Person in possession or in control of premises or using the premises.

OFFICIAL MAP

The Official Map, *Editor's Note: The Official Map is on file in the Town offices.* adopted and established by the Town Board, of that part of the Town outside of the limits of any incorporated village, showing the streets, highways, parks and drainage systems laid out on such map, including any references to more detailed maps and studies. The Official Map is final and conclusive with respect to the location and width of streets, highways, drainage systems and parks shown thereon, and the Official Map is hereby declared to be established to conserve and protect the public health, safety and general welfare.

OWNER

Person having title to premises.

OWNERSHIP, SAME

Includes all vested or contingent interests of any person or his agent, representative, successor or assignee, irrespective of whether or not such interest is recorded, in the following circumstances:

(1) Direct ownership by such person, or his or her child, parent, sibling or spouse of a sibling, heir or next of kin or agent, corporation, firm, entity, partnership or unincorporated association.

(2) Property owned by different corporations, firms, partnerships, entities or unincorporated associations, in which such a person is a stockholder, a partner or associate or his or her child, parent, sibling or spouse of a sibling, heir or next of kin, or owns a ten-percent or greater interest in each corporation, firm, partnership, entity or unincorporated association.

(3) When such person or his estate, successors or assigns, or any person or entity included in Subsections (1) and (2) of this definition, may be materially or substantively affected by the relief sought or by any determination made in any proceeding sought before any board, body, commission or agency of the Town of New Windsor, whether or not such person is a party to such application or proceeding and whether or not such person appears on the record of such proceeding.

PARKING AREA

A lot or part thereof used for the storage or parking of motor vehicles, with or without the payment of rent or charges in money and/or other consideration.

PARKING SPACE

A stall or berth which is arranged and intended for the parking of one motor vehicle in a garage or parking area.

PERSON

Any individual, firm, company, association, society, corporation or group.

PERSONAL SERVICE ESTABLISHMENT

Personal service uses which involve touching or near touching of the body, such as barbershops, beauty shops, tailor shops, tattoo establishments, masseurs and physical therapy; as well as uses involving the mind such as psychologist, counselor, social worker and diet counselor.

PREMISES

A lot, plot or parcel of land, including the building or structures on it.

PRINCIPAL BUILDING

A building in which is conducted the main or principal use of the lot on which said building is located. Where more than one use is on a lot, the lower or more intense use of the lot shall be considered the principal use.

PUBLIC WATER and PUBLIC SEWER

Sewage disposal and water supply systems owned, operated and maintained by the Town.

QUARRY AND EXCAVATION OPERATIONS

Any place where stone, sand, gravel, minerals or other natural material, except topsoil, is removed for the purpose of sale or any other commercial purpose other than such as may be incidental to excavating or regrading in connection with or in anticipation of building development or landscaping on the site.

RECREATIONAL FACILITIES

Places for leisure activities open to the public, including but not limited to golf courses, tennis courts, ice-skating rinks, swimming pools, lakes, beaches, play fields, ski areas, amusement parks, drive-in theaters, museum villages, golf driving ranges, racetracks, gymnasiums, martial art studios and sport complexes.

RESIDENT

A person who dwells or lives in premises for a prolonged and continuous period of time; not necessarily the person's place of domicile, although it may be. A person may have more than one residence, but only one domicile.

RETAIL SALES

The sale of consumer goods primarily in an indoor over-the-counter location, not including used car sales.

SCHOOL OF PRIVATE INSTRUCTION

Any nonpublic school conducting a regularly scheduled curriculum or program of scheduled activities, including but not limited to technical, vocational or computer schools, martial arts studios, aerobics classes, gymnastics classes, weight control centers and duly licensed nursery schools and duly licensed day-care centers.

SCHOOL OF SPECIAL INSTRUCTION

Any nonpublic school conducting a regularly scheduled comprehensive curriculum of study and operated by non-stock corporations under the Education Law of the State of New York.

SERVICE ESTABLISHMENT

A place of business offering consumer services, including but not limited to day-care centers, dry cleaners, art studio, schools of instruction, teaching music and dancing, computer services, martial arts, diet centers, secretarial schools, equipment operation schools, funeral parlors, theaters, bicycle and specialty shops, but excluding motor vehicle service and repair, and car washes.

SIGN

Any structure or part thereof, or any device attached to a building or painted or represented thereon, which shall display or include any letter, word, model, banner, pennant, insignia, device, trade flag or representation which is in the nature of or which is used as an announcement, direction or advertisement for commercial purposes or otherwise. A sign includes a billboard and a neon tube, string of lights or

similar device outlining or hung upon any part of a building or lot, but does not include the flag or insignia of any nation or group of nations, or of any governmental agency, educational, charitable, philanthropic, civic, professional, religious or like campaign, drive, movement or event. Excluded from this definition are signs which are solely devoted to prohibiting trespassing, hunting or fishing.

SIGN AREA

Includes all faces of a sign measured as follows:

(1) When such sign is on a plate or framed or outlined, all of the area of such plate or the area enclosed by such frame or outline shall be included.

(2) When a sign consists only of letters, designs or figures engraved, painted, projected or in any manner affixed on a wall, the total sign area of such sign shall be measured by taking the limits or corner extremities of the letters or other elements and measuring the area contained within such limits or corners.

SIGN, TEMPORARY

A sign that is:

(1) Intended for a temporary period of posting on public or private property;

(2) Typically constructed from nondurable materials, including paper, cardboard, cloth, plastic, and, or wallboard; and

(3) Does not constitute a structure subject to the Town's Building Code or Zoning Law provisions.

SIGN WALL AREA

The area of a building wall fronting on a street not including doors and windows.

SOLID WASTE

Useless, unwanted or discarded material with insufficient liquid content to be free flowing.

(1) **AGRICULTURAL** — Solid waste that results from the raising and slaughtering of animals and the processing of animal products and orchard and field crops.

(2) **COMMERCIAL** — Waste generated by stores, offices and other activities that do not actually turn out a product.

(3) **INDUSTRIAL** — Waste that results from industrial processes and manufacturing.

(4) **INSTITUTIONAL** — Waste originating from educational, health care and research facilities.

(5) **MUNICIPAL** — Residential and commercial solid waste generated within a community.

(6) **PESTICIDE** — The residue from the manufacturing, handling or use of chemicals intended for killing plant and animal pests.

(7) **RESIDENTIAL** — Waste that normally originates in a residential environment (sometimes called "domestic solid waste").

STORY

That part of any building, exclusive of cellars but inclusive of basements, comprised between the level of one finished floor and the level of the next higher finished floor, or if there is no higher finished floor, then that part of the building comprised between the level of the highest finished floor and the top of the roof beams.

STREET

A street, improved to the satisfaction of the Planning Board, which is one of the following: an existing Town, county or state highway or street; a street shown on an

approved subdivision final plat; a street shown on a map filed with the County Clerk (in accordance with § 280-a of the Town Law) prior to Planning Board authorization to review subdivisions; or a street shown on the Official Map of the Town.

STREET LINE

The line between the street and a lot, or a line established by the Official Map as the street right-of-way, whether or not in public ownership.

STRUCTURAL ALTERATION

Any change in the supporting members of a building, such as beams, columns or girders.

STRUCTURE

A combination of materials which form a construction that is safe and stable and includes, among other things, stadiums, platforms, radio towers, sheds, storage bins, billboards, display signs, fence(s), fence lines, rock wall(s), retaining wall(s), stairway (s), dikes, landscaping ties/ornamentals and/or appurtances, tree(s), poles and container(s) and clothes drying lines.

SWIMMING POOL, PRIVATE

Any constructed body of water or structure to contain water, and any accessory buildings or equipment pertaining thereto, used or intended to be used for swimming or bathing by any family or persons residing on the premises and their guests. It shall not be operated for gain and shall be located on a lot only as an accessory use to the dwelling thereon, to a membership club or to a motel or hotel.

SWIMMING POOL, PUBLIC

Any constructed body of water or structure to contain water, and any accessory buildings or equipment pertaining thereto, which are operated for profit or gain and are used or intended to be used for swimming or bathing by persons who pay admission on a daily, weekly or other basis, including season tickets.

TENANT

A person who is the temporary occupant and has the use of premises owned by another for the duration and term of the tenancy, which is usually but not necessarily fixed by lease.

TOPOGRAPHICAL ALTERATION

Any change in the configuration of a surface area, including its relief, relative elevations and position of natural or man-made features, except those changes incidental to or normally part of agricultural operations or home gardening. In all cases, the removal of trees over eight inches in diameter measured three feet above the ground shall be considered a topographical alteration.

TOWN ATTORNEY

The duly designated attorney or legal advisor of the Town of New Windsor.

TRAILER

Any vehicle mounted on wheels, movable either by its own power or by being drawn by another vehicle, and equipped to be used for living or sleeping quarters or so as to permit cooking. The term "trailer" shall include vehicles if mounted on temporary or permanent foundations with the wheels removed.

USABLE OPEN SPACE

An unenclosed portion of the ground of a lot which is not devoted to driveways or parking spaces, which is free of structures of any kind, of which not more than 25% is roofed for shelter purposes only, the minimum dimension of which is 40 feet, and

which is available and accessible to all occupants of the buildings on said lot for purposes of active or passive outdoor recreation.

USE

The specific purpose for which land or a building is used or a building is used or occupied or maintained.

YARD, FRONT

An unoccupied ground area fully open to the sky between the street line, or the street line established by the Official Map of the Town or an approved subdivision plat, and a line drawn parallel thereto.

YARD LINE

A line drawn parallel to a street or lot line at a distance there from equal to the representative yard dimension required by this chapter.

YARD, REAR

An unoccupied ground area fully open to the sky between the rear lot line and a line drawn parallel thereto.

YARD, SIDE

An unoccupied ground area fully open to the sky between any property line, other than a street or rear lot line, and a line drawn parallel thereto between the front and rear yards.

Article XVII. Interpretation

§ 300-90. Interpretation and application of provisions.

In their interpretation and application, the provisions of this chapter shall be held to be the minimum standards adopted for the promotion of the public health, safety, comfort, convenience and general welfare. Except where specifically provided to the contrary, it is not intended by this chapter to repeal, abrogate, annul or in any way to impair or interfere with any rules, regulations or permits previously adopted or issued or which shall be adopted or issued pursuant to law relating to the use of buildings, structures, shelter or premises, nor is it intended by this chapter to interfere with or abrogate or annul any easements, covenants or other agreements between parties; provided, however, that where this chapter imposes a greater restriction upon the use of a building or premises, or requires larger open spaces than are imposed or required by any other statute, local law, rule, regulation or permit, or by any easement or agreement, the provisions of this chapter shall control.

EMPIRE GEO SERVICES, INC.

A SUBSIDIARY OF SJB SERVICES, INC.

April 15, 2014
Project No. BE-14-047

Mr. Mark D. Molnar, P.E.
Wendel
140 John James Audubon Parkway, Suite 201
Amherst, New York 14228

Re: Draft - Preliminary Geotechnical Evaluation Report for
Proposed Site Development Project
International Boulevard
New Windsor, Orange County, New York

Dear Mr. Molnar:

Empire Geo-Services, Inc. (Empire) is pleased to submit this Draft-Preliminary Geotechnical Evaluation Report to Wendel for the above referenced project. A pdf file copy of this draft report is being submitted via e-mail for your review and comment.

Following your review of this draft report, Empire will address any comments you may have, and incorporate revisions into the final Preliminary Geotechnical Evaluation Report, as appropriate. Accordingly, please contact me, should you have any questions or comments regarding this draft report or if you would like to discuss any project development issues.

Sincerely,

EMPIRE GEO-SERVICES, INC.

John J. Danzer, P.E.
Senior Geotechnical Engineer

Enc.: Draft – Preliminary Geotechnical Evaluation Report - Electronic pdf copy / via e-mail

cc: Mr. Orest Ciolko, P.E. - Wendel / via e-mail
Mr. Craig Alexander, P.E. – Wendel / via e-mail

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American Council of Engineering Companies of New York

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Draft - Preliminary Geotechnical Evaluation Report for Proposed Site Development Project International Boulevard New Windsor, Orange County, New York

Prepared For:

Wendel
140 John James Audubon Parkway, Suite 201
Amherst, New York 14228

Prepared By:

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Project No. BE-14-047
April 2014

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1.00 INTRODUCTION

1.10 GENERAL

This report summarizes the results of a preliminary subsurface exploration program and geotechnical engineering evaluation completed by Empire Geo-Services, Inc. (Empire) for a proposed development project being considered on a portion of an approximately 146 acre parcel located off International Boulevard in New Windsor, Orange County, New York. The approximate location of the project site is shown on Figure 1.

Wendel retained Empire to complete this work, which was done in accordance with our proposal dated March 20, 2014. This work was completed to evaluate the geotechnical characteristics of the site, with regard to foundation support of the proposed buildings being considered for development on the site, and to provide preliminary geotechnical design and construction considerations / recommendations to assist the design team with planning and preliminary design.

The preliminary subsurface exploration program completed by Empire consisted of a total of twelve (12) test borings advanced across the site, of which two (2) borings were advanced into apparent bedrock at depths ranging between 60 and 75 feet at these locations, with the remaining ten (10) borings being advanced to depths of ranging between about 20 feet and 70 feet. In addition groundwater observation wells were installed and monitored in two (2) of the completed test borings. SJB Services, Inc. (SJB), our affiliated subsurface exploration drilling company, completed the test borings and groundwater observation well installations for the subsurface exploration program.

On this basis, Empire prepared this report, which summarizes the subsurface conditions encountered by the test borings and groundwater observation wells and presents preliminary geotechnical engineering considerations and recommendations to assist in planning and preliminary design of the site development. Specifically our preliminary evaluation addresses the soil, bedrock and groundwater conditions present on the site, with regard to their impacts on foundations, slab-on-grade floor construction, pavement and site work construction.

1.20 SITE DESCRIPTION AND PROPOSED DEVELOPMENT PROJECT

The site of the proposed development project is located to the southwest of Stewart International Airport in the Town of New Windsor, Orange County, New

York within a former US Military Academy Outpost. The proposed development site is bounded within the area of International Boulevard to the north; Breunig Way, Sue Kelly Avenue, and Avenue of Americas to the east; Bill Larkin Drive to the south; and Bill Larkin Drive, Airport Center Drive and Aviation Avenue to the west.

The site was occupied by several buildings associated with the military outpost, as shown on Figure 2. Many of these buildings have been demolished, however, some buildings still remain, as shown on Figure 3. At the locations of the buildings which have been demolished, remnants of the foundations are still present.

The site can be described as having two distinct topographic features. These include a lower glacial outwash plateau area within the eastern portion of the site, with ground surface elevations (El.) ranging between about El. 435 feet along the east side to El. 440 to 445 feet to the west. Further to the west the topography of the site consists of a more steeply sloped glacial drumlin, with ground surface elevations ranging from about El. 440 to 445 feet at the slope toe, up to about El. 450 to 490 feet along the western limits of the project site, with grades continuing to rise further to the west. Ground surface contours are shown Figure 2, however, based the ground surface elevations obtained at the test boring locations it appears there are some variations from those depicted on the aerial photograph used to prepare this figure.

The proposed development project is currently planned to include an entertainment and hotel complex consisting of the following adjoining structures from northwest to southeast:

- A 1 to 2 story event center at the northwestern end of the facility;
- A 1 to 2 story hotel amenities area;
- A 15 to 16 story high rise hotel building;
- A 2 story casino area, with one level of underground parking space; and
- A 4 to 5 story parking garage structure at the southeastern end of the facility.

In addition the project will also include construction of access drives and parking areas to the north and northeast of the complex, as well as to the southeast and south of the parking garage structure, Access entrances to the complex are planned from International Boulevard and Breunig Way.

Figure 4 presents a preliminary conceptual plan of the site development, however, it is understood this plan may change as the project is evaluated and further developed. Accordingly, at this time the final building configurations and structure loads, as well as the floor elevations and site grading have not been established.

2.00 SUBSURFACE EXPLORATION

The preliminary subsurface exploration program completed to characterize the subsurface conditions at the site consisted of a total of twelve (12) test borings, designated as B-1 through B-12. In addition, groundwater observation wells were installed in two (2) of the test borings (B-7 and B-11). The test borings and groundwater observation well installations were completed by SJB between March 27th, 2014 and April 7th, 2014. The approximate locations of the test borings with respect to an aerial photograph of the site are shown on Figure 5.

The proposed test boring locations were initially established on a preliminary proposed site development plan prepared by Wendel. Using this plan, SJB then staked the boring locations in the field using tape and wheel measurements and visual observations referenced to existing site features. Some of the borings had to be relocated due to steeply sloping terrain, existing and former building locations and utilities present on the site. The locations depicted on Figure 5 should be considered approximate at this time based on the methodologies used.

The relative ground surface elevations at the test boring locations were measured and recorded by SJB using survey level techniques. The elevations were referenced to a bolt (temporary benchmark established by SJB) on the bottom flange of a fire hydrant, which is located along the west side of Breunig Way, approximately 200 feet ± south of the intersection of International Boulevard and Breunig Way. The approximate location of the benchmark is shown on Figure 5. The temporary benchmark was assigned an assumed arbitrary elevation El. datum of 100.00 feet, by SJB.

An estimated conversion of the test boring elevations obtained by SJB, based on the temporary assumed benchmark described above, to the USGS elevation datum (i.e. El. 435 feet + present on the site), is presented and described on Table 1. This conversion however should be considered approximate.

It is understood that the project surveyor, will obtain the "as-drilled" test boring locations and ground surface elevations which will be provided for inclusion in the final version of this Preliminary Geotechnical Evaluation Report.

Accordingly, USGS elevations presented in this "Draft Report" should be considered approximate and are subject to revision based on the actual survey of the "as-drilled" test boring locations.

Test borings B-4, and B-6 through B-11were located in the lower flatter plateau area of the site, while test borings B-1, B-2, B-3, B-5 and B-12 were located in the more steeply sloped drumlin area of the site. Test borings B-4 and B-9 were advanced through the overburden soils and into apparent bedrock encountered at depths of about 60 feet and 75 feet, respectively, at these locations. Test borings B-1, B-3, B-10 and B-12 were advanced in soil until auger refusal was met at depths of 20.4 feet, 65.5 feet, 29.5 feet and 57.5 feet, respectively. The auger refusal material was cored in boring B-3 and was found to consist of cobble/boulder material. The nature of the auger refusal material encountered in borings B-1, B-10 and B-12 was not determined. The remaining test borings were advanced in soil to depths ranging between 30 and 40 feet, and terminated.

The test borings were made using a Diedrich model D-50 rubber track all terrain vehicle mounted drill rig and a Central Mine Equipment (CME) model 850 steel track all terrain vehicle mounted drill rig. The test borings were generally advanced in the soils using hollow stem auger and split spoon sampling techniques. However in a few cases, open hole, with tri-cone washing, was used to advance the borings through some very compact zones, as noted on the test boring logs.

Split spoon samples and Standard Penetration Tests (SPTs) were taken continuously from the ground surface to a depth of 12 feet and then in intervals of five feet or less below the zone of continuous sampling until boring completion or auger refusal was met. The split spoon sampling and SPTs were completed in general accordance with *ASTM D 1586 - "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils"*.

After reaching auger refusal at test boring locations B-3, B-4 and B-9 the refusal material encountered was cored using a NQ size double tube core barrel in accordance with *ASTM D 2113 – "Standard Practice for Rock core Drilling and Sampling of Rock for Site Investigation"*. Ten (10) feet and eight (8) feet of bedrock was cored in borings B-4 and B-9, respectively. As stated above, the refusal material cored in boring B-3 was found to consist of cobble/boulder material.

Groundwater observation wells were installed in test borings B-7 and B-11 to help assess groundwater levels on the site. The wells were installed with hollow stem

auger drilling techniques in general accordance with *ASTM D5092 Standard Practice for Design and Installation of Ground Water Monitoring Wells in Aquifers.* The well installation consisted of a 2-inch diameter PVC well screen and riser pipe with sand filter, bentonite seal and soil backfill. A protective stick-up surface casing and surrounding concrete seal were installed at the surface to finish the well installation. Well installation diagrams, showing the details of the observation well construction, are presented following the respective test boring logs B-7 and B-11 in Appendix A.

A geotechnical engineer prepared the test boring logs based on visual observation of the recovered soil samples and rock core, along with review of the driller's field notes. The soil samples were described based on a visual/manual estimation of the grain size distribution, along with characteristics such as color, relative density, consistency, moisture, etc. In addition the Unified Soil Classification System (USCS) group symbols were also established and are presented on the logs for the soil types encountered. The recovered rock core samples were also described, including characteristics such as color, rock type, hardness, weathering, bedding thickness, core recovery and rock quality designation (RQD). The test boring logs are presented in Appendix A, along with general information and a key of terms and symbols used to prepare the logs.

3.00 SUBSURFACE CONDITIONS

3.10 GENERAL SUMMARY OF SUBSURFACE CONDITIONS

A. Plateau Area:

The general stratigraphy encountered in test borings B-4, and B-6 through B-11 located in the lower flatter plateau area of the site (i.e. area below about El. 445 feet) consisted of upper loose to firm fluvial sand and silt soil glacial outwash deposits, which overly deeper zones of gravel, cobbles and boulders and firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. These deeper more dense soils appear to form the valley wall of the glacial till drumlin, beneath the upper loose to firm fluvial deposits. The exception being at boring B-11, where the upper loose to firm fluvial sand and silt soil deposits were absent indicating the denser glacial till drumlin deposits are within close proximity to the surface in this area. Within borings B-4 and B-9, Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 378.7 feet ±) and 75.5 feet (El. 359.3 feet ±), respectively.

B. Drumlin Area:

The general stratigraphy encountered in test borings B-1, B-2, B-3, B-5 and B-12 located within the more steeply sloped and higher glacial till drumlin area of the site (i.e. area above about El. 445 feet) consisted of zones of gravel, cobles and boulders and generally firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. However within test boring B-12, the upper glacial till deposits (i.e. above about El. 423.2 feet ±) contain some looser zones, which were not evident in the other borings made in the drumlin area. The depth and elevation of bedrock was not determined in the test borings made within the exposed drumlin area.

The soil, bedrock and groundwater conditions encountered are described further in the following sections and in more detail on the test boring logs presented in Appendix A.

3.20 SURFACE MATERIALS AND FILL SOILS

Topsoil was encountered at the surface of test boring locations B-7 through B-12 and ranged in thickness between approximately 1-inch and 5-inches at these locations. A distinct topsoil layer was not noted by the driller at the remaining test boring locations. In addition to the topsoil, foundation and slab remnants of previously demolished structures are also present at the surface at various locations within the site.

Apparent man placed fill soils were encountered in test borings B-3, B-4, B-5, B-8, B-9, B-11 and B-12. The apparent fill composition consists of brown, brown-gray, brown-black sand and silt soils with inclusions of gravel, rock fragments, organics and root matter. The varying composition and density of the apparent fill indicates it was most likely placed in a non-engineered manner. The apparent fill soils were found to extend to depths of typically around 4 feet below the existing ground surface at these test boring locations. However, at test boring B-5 the fill extends to about 10 feet.

It should be expected that the fill soil depths between and away from the test boring locations most likely will vary. It can also be expected that fill soils will be present, and will extend to the bottom of previous excavations made for the existing and previous building structures (i.e. for the foundations), as well as for other possible structures and utilities, which are or were present on the site.

3.30 INDIGENOUS SOILS

The indigenous soils encountered are non-organic, and are not considered to be highly compressible, nor highly susceptible to shrinkage, swelling, or liquefaction in the case of a seismic event. The indigenous soils are generally of a very slight to mainly non-plastic nature. Deposits of cohesive clay type soils were generally absent within the test borings.

The indigenous soils encountered in the lower flatter plateau area of the site consisted of upper loose to firm fluvial sand and silt soil glacial outwash deposits, which overly deeper zones of gravel, cobbles and boulders and firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. Within the more steeply sloped and higher exposed glacial till drumlin area of the site, the indigenous soils consisted of zones of gravel, cobles and boulders and generally firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. At test boring B-12, however, some looser zones were present within the upper glacial till deposits (i.e. above about El. 423.2 feet ±).

The indigenous soil deposits are generally classified as ML, SM, SP, GM and GP group soils using the Unified Soil Classification System (USCS). The finer grained silt and fine sand deposits encountered are generally of a very slight to non-plastic nature.

Standard Penetration Test (SPT) "N" values obtained in the indigenous soils varied with location and depth, ranging from as low as 1 to "REF – sample spoon refusal" (i.e. 50 blows to advance the split spoon with 6-inches or less of penetration). The SPT "N" values indicate the relative density of the slight to non-plastic silt and fine soil fluvial deposits are typically loose to firm, while the relative density of glacial till deposits of sand, silt, gravel and rock fragment mixtures are typically firm to very compact.

Zones of cobbles and boulders and very compact soils (i.e. SPT "N" values of about 50 or greater and "REF") were encountered in the test borings at the following depths:

Boring No.	Zones (Depths) of Cobbles and Boulders and/or Very Compact Soils
B-1	9'-20.4' (Auger Refusal at 20.4')
B-2	6'-17'
B-3	0'-12' and 60'-65.5' (Auger Refusal at 65.5')
B-4	52.5'-60' (Bedrock at 60')
B-5	21'-26'
B-6	Not Encountered
B-7	Not Encountered
B-8	10'
B-9	32.5'-75.5'(Bedrock at 75.5')
B-10	27.5'(Auger Refusal at 29.5')
B-11	4'-21'
B-12	10' and 57.5'(Auger Refusal at 57.5')

The auger refusal material encountered in test boring B-3 at a depth of 57.5 feet was cored, and found to consist of coble/boulder material.

3.40 BEDROCK

Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 378.7 feet ±) and 75.5 feet (El. 359.3 feet ±), at test borings B-4 and B-9, respectively, which were made within the lower flatter plateau area of the site.

Bedrock core samples obtained from these borings after reaching auger refusal, consisted of gray, medium hard, weathered, thinly bedded to bedded, Shale and Silstone, with bedding planes up to 45 degrees from horizontal. Core recoveries ranged from 58% to 94%. Rock quality designation (RQD) values ranged between 11% and 20%, indicating the recovered rock cores have a very poor rock mass quality.

Geologic maps prepared by the New York State Geological Survey indicate the uppermost bedrock formation in this area is the middle Ordovician period, Normanskill Shale and Silstone formation of the Trenton Geologic Group

3.50 GROUNDWATER CONDITIONS

Water level measurements were made in the test borings during and at the completion of overburden drilling and sampling, as well as prior to and following

coring, as noted on the test boring logs. We note that water was added to the test borings to facilitate coring and in some cases to facilitate drilling through some very compact soil zones, as noted on the logs. Groundwater observation wells were installed in test borings B-7 and B-11, also to help assess groundwater levels on the site.

Table 2 presents a summary of the depths and elevations where groundwater was first encountered in the test borings, or prior to coring, as well as the water levels measured on April 8, 2014 in the groundwater observation wells installed at test borings B-7 and B-11.

Groundwater water was typically encountered in the test borings at elevations ranging between El. 423.5 feet and 430.8 feet. The exception being at boring B-12, where water was first encountered at El. 442.9 feet. Groundwater levels measured in the wells on April 8, 2014 were at a depth of 7.9 feet (El. 428.4 feet) in the well at boring B-7 and at a depth of 11.4 feet (El. 427.0 feet) in the well at boring B-11.

Based on these groundwater observations and measurements it appears that a generalized groundwater condition (i.e. "groundwater table") is present on the site around El. 423.5 to 431 feet. It is possible the higher groundwater level observed in boring B-12 may the result of some localized zones of perched or trapped groundwater which may be present within the upper drumlin soils.

4.00 PRELIMINARY GEOTECHNICAL EVALUATION AND RECOMMENDATIONS

4.10 GENERAL GEOTECHNICAL CONSIDERATIONS

The following general considerations and preliminary recommendations are provided to assist with planning and preliminary design of the proposed development project being considered on the site. Additional preliminary recommendations are presented in the subsequent sections of this report. Additional geotechnical investigations and evaluations will be necessary, as discussed below for final design once the final building development plans and loading conditions, along with final site grading and development plans, are established.

From a geotechnical standpoint, the proposed development project will be impacted by the topography of the site and the varying nature of the soil conditions present between the two general topographical areas present on the

site. Selection of the appropriate foundation system necessary to support the various building components and parking garage will be dependent on the final established building locations, the structure loads and the design grades of the foundation system in relation to the site topography and subsurface conditions present.

4.10.1 Foundation Support

The use of spread type foundations, in some cases, will be possible depending on the structure location, loads, and acceptable settlement. Based on our analyses, the allowable bearing capacity of spread foundations constructed over the lower flatter plateau area (i.e. within the site area below El. 445 feet) will be limited to around 2,000 to 3,000 pounds per square foot (psf), with a maximum permissible column foundation width of about 8 feet. Footings larger than about 8 feet in this area are estimated to undergo settlement in excess of 1-inch.

Higher allowable bearing capacities, however, will be possible for spread type foundations constructed over the more steeply sloped and higher glacial till drumlin area of the site (i.e. within the site area above about El. 445 feet). In this case allowable spread foundation bearing capacities in the range of 3,000 psf to 6,000 psf appear will be possible. Preliminary design recommendations for spread foundations are discussed further in Section 4.20 below.

Alternatively, depending on the structure loads and foundation locations it appears, particularly for the more heavily loaded high rise hotel and parking garage structures, that a deep foundation most likely may be necessary. In this case, it is preliminarily recommended that driven H-piles, which are driven to refusal on bedrock or to practical refusal in the deeper bouldery and/or very compact glacial till deposits, be considered. H-piles driven to refusal are expected to develop allowable axial compressive capacities in the range of 90 to 130 tons per pile, depending on the pile section used. Additional preliminary design recommendations for driven piles are discussed further in Section 4.30 below.

4.10.2 Groundwater Considerations

It will also be necessary to consider the groundwater conditions present on the site, with regard to the site preparation, structure/utility excavations, and permanent foundation/structure drainage. Based on the water levels observed during advancement of the preliminary test borings and in the groundwater observation wells, it appears that a generalized groundwater condition (i.e. "groundwater table") is present on the site around El. 423.5 to 431 feet. Localized

zones of perched or trapped groundwater also appear to be present within the upper drumlin soils.

The indigenous finer grained silt and fine sand deposits present in the lower plateau area are expected to undergo relatively rapid excavation bottom and sidewall instability, if not properly dewatered in advance of performing excavations below the permanent groundwater table The indigenous silty sand soils are also highly susceptible to erosion and water transport, if not properly separated from foundation drainage systems and porous trench bedding. Such migration of fines could result in eventual subsidence and settlement problems around the structures and beneath pavements.

It is recommended the building areas and structural foundation elements (i.e. spread foundations, pile caps, grade beams, elevator pit structures, etc.) be constructed as high as possible to eliminate intrusion into the permanent groundwater table. If any permanent depressed structures would extend below the permanent groundwater table, we would recommend they be designed to resist hydrostatic pressures / uplift acting on the structure and be fully waterproofed. Depressed structures such as below grade parking, loading docks, elevator pits, earth retaining walls, etc. which are situated above the permanent groundwater table, can be designed with conventional foundation wall and underslab drainage

Construction dewatering will need to be implemented as necessary for surface water control and for all excavations, which will encounter groundwater conditions. It is anticipated that conventional sump and pump methods of dewatering, along with the placement of a crushed stone working mat/drainage layer and underdrains, in the bottom of the excavations can be used to control localized perched groundwater conditions, where the excavations are above the permanent groundwater table.

For excavations which may extend below the permanent groundwater level, more substantial methods of dewatering are expected to be necessary to adequately depress the groundwater conditions. Within the lower plateau area the use of a vacuum well point type dewatering system appears will be necessary to properly dewater the finer grained silt and sand deposit. In addition, the placement of a crushed stone working mat/drainage layer in the excavation bottom, to assist with the vacuum well point dewatering effort, appears would also be necessary to provide a suitable working surface. With regard to dewatering below the permanent groundwater table, particularly in the lower plateau area, we recommend a Dewatering Specialty Contractor be retained to design and construct appropriate dewatering systems.

4.10.3 Site Preparation Considerations

The site preparation work should be performed during seasonal dry periods to minimize potential degradation of the subgrade soils and potential undercuts which may be required to establish a stable base for construction. It should be understood that the indigenous subgrade soils that will be exposed are sensitive and will degrade and lose strength when they are wet and disturbed by construction equipment traffic. Accordingly, efforts should be made to maintain the subgrades in a dry and stable condition at all times, and not permit excessive or heavy construction traffic directly over these soils.

Measures to provide suitable site drainage should be implemented as necessary prior to commencing the site stripping and subgrade preparation work. Such measures, may include installation of drainage swales to intercept and divert surface runoff away from the construction areas, sloping of the subgrade and "sealing" of the surface with a smooth drum roller to promote runoff, and restricting construction equipment traffic from traveling directly over the subgrade surfaces, especially when they are wet. The placement of a suitable base material and underlying stabilization geotextile, beneath haul roads, and in construction staging areas, will help to protect the subgrades and minimize problems associated with subgrade degradation.

The site preparation work should include the removal and proper disposal of all existing structures, utilities, trees, stumps, vegetation, topsoil, organic soils, etc., and existing non-engineered man-placed fill materials present within the proposed building and parking structure pad areas and pavement areas. Following removal of the surface materials and excavation to the proposed subgrades, the exposed subgrades should be proof-rolled and evaluated under the guidance and direction of qualified geotechnical engineering personnel.

Undercuts, which may be required as the result of unsuitable or unstable soils present, should be performed based on guidance provided by the geotechnical engineer. Resulting undercuts should be backfilled with a suitable material as recommended by the geotechnical engineer.

The placement of an initial lifts of suitable oversized stone fill material (i.e. "surge stone", "shot rock", minus 6-inch crusher run stone, No.3 & No.4 Stone, etc.) encased in stabilization geotextile top and bottom, may be necessary in some cases to help stabilize the subgrades prior to the subgrade fill placement, particularly if the existing subgrades are in a soft/wet condition.

The subgrade fill should be placed to a stable condition and should not "pump" or show signs of movement or significant deflection (i.e. unstable conditions) as it is being constructed. Any unsuitable conditions should be undercut and removed. The fill subgrades should also be properly graded, drained and protected from moisture and frost. Placement of fill over wet, soft, snow covered or frozen subgrades should not be permitted.

Subgrade fill placement necessary to raise site grades should be performed sufficiently in advance of foundation, floor slab, pavement and utility construction. We recommend the subgrade fill placement, in areas requiring more than about 3 to 4 feet of fill, be completed at least 1 to 2 months in advance of the foundation, floor slab, utility and pavement construction, to allow for associated settlements to occur.

Preliminarily, general site grading cut and fill slopes appear should be established at slopes no steeper than about 2 horizontal to 1 vertical. This is contingent that no groundwater seepage is present.

The on-site soils should be able to be used for constructing the fills for establishing the building pad and pavement areas, provided they can be properly placed and compacted in a controlled manner and to a stable well engineered condition, in accordance with our recommendations. On-site soils which are used for filling within the building pad area and pavement areas should consist of current undisturbed indigenous soils which are free of all demolition debris, existing fill materials, organics, and any soft, wet or otherwise deleterious material. In addition, indigenous soils consisting of fine grained silt and fine sand should be segregated out and not used for subgrade fill within the building and pavement areas. It is recommended that subgrade fill placed directly beneath spread foundations consist of an imported Structural Fill material, as described below in Section 4.80.

It should be understood, that the on-site soils may be difficult to work with (i.e. dry for proper compaction), vs. an imported Suitable Granular Fill or Structural Fill material as described below, particularly during seasonally inclement or wet weather. Efforts should be made to maintain the fill subgrades in a dry and stable condition at all times, and limit construction traffic directly over these soils, particularly if they become wet. Subgrade fill should have a moisture content within –3 % to +1 % of the optimum moisture content (determined by ASTM D 1557) when it is placed and compacted. Soils having moisture contents exceeding this range may require drying efforts to be implemented by the contractor.

Subgrade fill placed to establish the building pad and pavement areas, using the on-site soil material and/or imported Structural Fill or Suitable Granular Fill, should be compacted to a minimum of 95 percent of the maximum dry density as measured by the modified Proctor moisture-density relationship (ASTM D 1557). The subgrade fill should be placed in horizontal lifts that do not exceed a maximum loose lift thickness of 6 to 9 inches. The loose lift thickness should be reduced in conjunction with the compaction equipment used so that the required density is attained. All fill placement and compaction should be closely monitored and tested on a "full-time" basis by qualified geotechnical engineering personnel.

4.20 PRELIMINARY RECOMMENDATIONS FOR SPREAD FOUNDATION DESIGN

The use of spread foundations will require excavation and removal of all existing structures, utilities and fill from beneath the foundations. Spread foundations should bear on suitable, relatively undisturbed indigenous soil bearing grades or they can bear on compacted Structural Fill, which is placed over suitable indigenous soil bearing subgrades.

Where compacted Structural Fill is placed beneath spread foundations, it should extend out horizontally beyond the foundation limits, a distance equal to at least 0.5 times the thickness of the Structural Fill layer beneath the foundation. This will need to be considered in preparing the foundation bearing grades, particularly where site grade fills are required. Recommendations for compacted Structural Fill material are described below in Section 4.80.

In all cases continuous foundations should be at least 2.0 feet in width and column/individual foundations should be at least 3.0 feet in width. Interior foundations should be embedded a minimum of 2.5 feet, below finished floor grade, for bearing capacity. Exterior foundations should be embedded a minimum of 4.0 feet below finished exterior grades for frost protection. All foundations, however, must bear on suitable bearing subgrades in accordance with the recommendations above.

It is estimated that spread foundations sized and properly constructed in accordance with our recommendations will undergo total settlement of less than 1-inch. The majority of the settlement should occur shortly after construction is complete and the foundation loads applied.

4.20.1 Spread Foundations in Lower Plateau Area:

Spread foundations constructed on suitable indigenous soil bearing grades or on Structural Fill placed over the suitable bearing grades in the lower plateau area (i.e. within the site area below El. 445 feet) can be sized based on the following maximum net allowable bearing pressures:

Spread Foundation Type and Width	Net Allowable Bearing Capacity
Continuous Wall Footings	2,000 pounds per square foot (psf)
Column Footing Less than 5.0 feet	2,000 psf
Column Footing Equal to or Greater than 5.0 feet and Equal to or Less than 8.0 feet*	3,000 psf

**It is recommended that spread foundations (column footings) in the lower plateau area be limited to a maximum size of around 8 feet in order to limit foundation settlement to around 1-inch or less.*

4.20.2 Spread Foundations in Higher Glacial Till Drumlin Area:

Spread foundations constructed on suitable indigenous soil bearing grades or on Structural Fill placed over the suitable bearing grades in the glacial till area (i.e. within the site area above El. 445 feet) can be sized based on the following maximum net allowable bearing pressures:

Spread Foundation Type and Width	Net Allowable Bearing Capacity
Continuous Wall Footings	3,000 psf
Column Footing Less than 5.0 feet	3,000 psf
Column Footing Equal to or Greater than 5.0 feet and Less than 8.0 feet	5.000 psf
Column Footing Equal to or Greater than 8.0 feet and Equal to or Less than 16.0 feet*	6,000 psf

*It is recommended that spread foundations (column footings) in the glacial till drumlin area be limited to a maximum size of 16 feet in order to limit foundation settlement to around 1-inch or less.

4.30 PRELIMINARY RECOMMENDATIONS FOR DRIVEN PILE FOUNDATION DESIGN

H-piles driven to absolute refusal on the Shale and Siltstone bedrock or to practical refusal in the deeper bouldery and/or very compact glacial till deposits, can be considered to support the more heavily loaded structures, particularly the high rise hotel and parking garage structures, where spread foundations may not be suitable.

Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 378.7 feet ±) and 75.5 feet (El. 359.3 feet ±), at test borings B-4 and B-9, respectively, which were made within the lower flatter plateau area of the site. Additional test borings will be necessary to further define the bedrock elevation within the upper drumlin area.

H-piles driven to refusal will derive their capacity predominately through end bearing. The H-piles should be equipped with a driving shoe to help limit potential damage when driving through or into cobble/boulder zones and very compact glacial till or into the Shale/Siltstone bedrock surface.

As stated above zones of apparent cobbles and boulders were encountered within the upper reaches of some of the test borings which may impact driven pile installation. Accordingly, procedures for driving through such zones (i.e. such as pre-drilling) will need to be considered.

Preliminarily it is anticipated an H-pile driven to practical refusal may be designed for an allowable axial capacity equal to about 25% of the pile yield strength or 12.5 kips per square inch (ksi), whichever is less, times the cross sectional area of the pipe. On this basis the following allowable pile capacities could be used for preliminary design.

Pile Section	Allowable Axial Compressive Capacity per H-Pile	Required Ultimate Test Capacity
HP 12 x 74	136 tons	272 tons
HP 12 x 53	96 tons	192 tons

The ultimate load test capacities presented above assume a Factor of Safety of 2.0 as required by the Building Code of New York State. These pile capacities do not consider section reduction as the result of potential corrosion, which should be evaluated as part of final geotechnical evaluation and design.

Driven piles should be spaced a minimum of 3 pile widths apart, or three feet, whichever is greater. At this spacing, no group reduction factor is considered necessary. Pile caps and grade beams for driven pile foundations should be embedded a minimum of 4 feet below final exterior grades for frost protection.

Absolute refusal would be defined when about 5 blows have been recorded for less than ¼ inch of pile penetration and the pile reaches the anticipated bedrock elevation. Practical refusal would be defined when about 20 blows or greater per 1 inch of penetration have been recorded for 3 consecutive inches. The final pile driving criteria, however, will need to be confirmed by the pile driving contractor through the use of the wave equation based on the actual pile, pile hammer and cushions that will be used as well as through dynamic load testing. Performance of a pile load testing program during the design phase may also be beneficial in evaluating pile installation conditions and performance, and to further assess the pile sections and allowable pile capacities which would be acceptable.

4.40 SLAB-ON-GRADE CONSTRUCTION

The ground floors of the building and parking garage structures can be constructed as slab-on-grade, provided suitable subgrade preparation is performed as outlined in Section 4.10.3. For preliminary design purposes, a minimum of 8-inches of Subbase Stone is recommended beneath the lightly loaded floor slabs (hotel and office floors, lightly loaded entertainment floors, etc.). A minimum 15-inch thick layer of Subbase Stone is recommended beneath more heavily loaded floor slabs (i.e. garage areas, storage areas, mechanical rooms, floors subject to vehicle loads, etc.). A suitable stabilization/separation geotextile, such as Mirafi 500X, should be placed over the existing soil or engineered fill soil subgrades prior to placement of the Subbase Stone layer.

Preliminarily, the slab-on-grade floor slabs may be designed using a modulus of subgrade reaction of 150 pounds per cubic inch (pci) at the top of the subbase layer. It is recommended that the slab-on-grade be constructed such that it is not structurally connected to, or resting directly on, perimeter walls or column footings in order to limit differential settlement effects.

4.50 SEISMIC DESIGN CONSIDERATIONS

Based on the subsurface conditions encountered in the test borings performed in the less favorable plateau area, the upper 100 feet of the site should be classified as Seismic Site Class "D" in accordance with the criteria presented on Table

1613.5.2 of the Building Code of New York State - December 2010 (NYS Building Code).

The soil conditions encountered are generally not considered to be susceptible to potential liquefaction in the case of a seismic event. The fluvial soil deposits in the plateau area, however, do contain some relatively minor localized zones of very loose silt and fine sand, which should be further evaluated with laboratory testing and analyses as part of a final geotechnical evaluation, to confirm they are not susceptible to potential liquefaction, particularly if spread type foundations would be situated over this area.

The spectral response accelerations in the project area were obtained by Empire using the United States Geological Survey (USGS) web site application (https://geohazards.usgs.gov/secure/designmaps/us/). These accelerations were then adjusted, as recommended by the USGS, to obtain the 2% probability in 50 years mapping accelerations, as presented in the NYS Building Code.

Using the site location at International Boulevard and Breunig Way in the Town of Windsor, the calculated spectral response accelerations for Site Class "B" soils are 0.216g for the short period (0.2 second) response (S_S) and 0.057g for the one second response These spectral response accelerations were then adjusted for the Seismic Site Class "D" soil profile determined for the project site. Accordingly, the adjusted spectral response accelerations for Site Class "D" are as follows:

- Short Period Response (S_{MS}) - 0.346g
- 1 Second Period Response (S_{M1}) - 0.137g

The corresponding five percent damped design spectral response accelerations (S_{DS} and S_{D1}) are as follows:

- S_{DS} - 0.231g
- S_{D1} - 0.091g

It is possible that a seismic shear wave velocity study of the site may refine and could possibly upgrade the seismic design site class to Site Class "C". This may be particularly beneficial with regard to the design of the high rise hotel and parking garage structures, considering the costs associated with seismic reinforcement of these structures. It should be understood however, that there is no guarantee that a seismic site class upgrade can be made if a seismic shear wave study is performed.

4.60 PAVEMENT DESIGN

It is estimated that the existing subgrade soils will have a typical CBR value of about 2 ±, or greater. This correlates to a soil resilient modulus of about 3,000 psi, which has been used for preliminary pavement design evaluations. Accordingly, preliminary pavement design recommendations are provided for two (2) flexible pavement structure types for use within the proposed development project.

These include the following:

- A heavy duty asphalt concrete pavement for the entrance, access drives and pavement areas, which will be subject to buses and delivery truck traffic, as well as automobile / SUV ingress/egress to the facility. (Heavy Duty Asphalt Concrete Pavement Structure); and
- A light duty asphalt concrete pavement for automobile / SUV only parking areas (Light Duty Asphalt Concrete Pavement Structure).

Heavy Duty Asphalt Concrete Pavement:

- 1.5 inches – Asphalt Top Course
- 2.5 inches – Asphalt Binder Course
- 3.0 inches – Asphalt Base Course
- 12 inches – Subbase Stone Course
- Stabilization/Separation Geotextile
- Prepared Subgrade

Light Duty Asphalt Concrete Pavement:

- 1.5 inches – Asphalt Top Course
- 2.5 inches – Asphalt Binder Course
- 12 inches – Subbase Stone Course
- Stabilization/Separation Geotextile
- Prepared Subgrade

Based on our analyses, the Heavy Duty and Light Duty pavement sections are expected to provide approximately 500,000 and 75,000 18-kip equivalent axle loads (EAL's), respectively, over their design life. If more specific traffic data and information is developed during design, these preliminary recommendations can be refined, as appropriate.

The installation of underdrains and/or edge drains is recommended to drain the pavement subbase course and subgrades in order to limit the potential for frost action and improve pavement structure performance and design life. Alternatively, the pavement subbase course can also be allowed to daylight/drain to an adjacent perimeter drainage swale.

Proper grading of the pavement structure subgrades is also recommended Accumulation of water on pavement subgrades should be avoided by grading the subgrade to a slope of at least 2 percent to allow drainage to the underdrains or drainage swale.

4.70 UNDERGROUND UTILITY CONSTRUCTION

The indigenous soils encountered should provide generally suitable subgrade conditions for underground utility construction, including storm and sanitary sewers, water lines, gas lines and buried electrical / communication conduits. Accordingly, standard bedding materials and thicknesses can generally be used to support this infrastructure. It is possible that in some localized cases, particularly in the lower plateau area, that subgrade undercuts and the placement of additional bedding material or subgrade stabilizing materials may be required to provide suitable and stable subgrades for the utility construction, if any wet or soft subgrade conditions are encountered. Therefore, some contingencies should be planned for, should such localized conditions be encountered.

4.80 STRUCTURAL FILL AND SUITABLE GRANULAR FILL MATERIALS

Structural Fill Material

Structural Fill (Subbase Stone), which is placed beneath spread foundations, and as the subbase course beneath floor slabs and asphalt pavement, should consist of crusher run stone or crushed gravel and sand material, which is free of clay, organics and friable or deleterious particles. As a minimum, the Structural Fill should meet the requirements of New York State Department of Transportation, Standard Specifications, Item 304.14 – Type 4 Subbase, with the condition that if a gravel and sand product is used (vs. a crusher run quarried stone), the gravel should be a crushed angular gravel material. The Structural Fill should have the following gradation requirements.

Sieve Size Distribution	Percent Finer by Weight
2 inch	100
¼ inch	30-65
No. 40	5-40
No. 200	0-10

Suitable Granular Fill

Suitable Granukar Fill should be well graded from coarse to fine and classified as GW, GP, GM, SW, SP and SM soils using the Unified Soil Classification System (ASTM D-2487). It should have no more than 85- percent by weight material passing the No. 4 sieve, no more than 20- percent by weight material passing the No. 200 sieve and should be generally free of particles greater than 4-inches. It should also be free of topsoil, asphalt, concrete rubble, wood, debris, clay and other deleterious materials.

Material meeting the requirements of New York State Department of Transportation, Standard Specifications, Item 203.07 – Select Granular Fill is acceptable for use as Suitable Granular Fill.

5.00 RECOMMENDATIONS FOR ADDITIONAL GEOTECHNICAL INVESTIGATIONS

Additional subsurface explorations should be completed for final design based on the final established building locations, the structure loads and the design grades of the foundation system(s) in relation to the site topography and currently known subsurface conditions present.

Preliminarily we would recommend that additional building area test borings be performed to provide an approximate frequency of about one (1) boring per about 7,500 to 10,000 square feet of building footprint, with no less than about 6 borings in the high rise hotel area and no less than about 8 borings in the parking garage structure area. The depth of the additional borings will need to consider the building structure location and existing site grades, loads, expected foundation type and bearing grade elevation. Where deep foundations will be required, most of the additional borings should extend to bedrock, with 10 feet of rock core to confirm the bedrock depth and conditions.

Additional borings along the proposed roadway and within surface parking lot areas should be made to provide a frequency of about one (1) boring per 250 to

400 linear feet of road and/or about one (1) boring per about 15,000 to 20,000 square feet of parking lot area. The roadway borings should extend at least 5 feet beneath the anticipated utility inverts and the parking lot area borings should extend to a depth of about 6 feet, below existing site grades.

In addition, we recommend the installation of at least two (2) more groundwater observation wells on the upslope side of the facility. These wells should extend to at least 15 to 20 feet, below the expected building pad elevation.

Empire can be consulted to assist in planning the locations and scope of the additional explorations and recommended laboratory testing, along with the additional geotechnical evaluations that may be necessary for final design, based on the final development plans.

6.00 CONCLUDING REMARKS

This report was prepared to assist in evaluating the geotechnical characteristics of the subsurface conditions present on a proposed development project site located off International Boulevard in New Windsor, New York, as described in Section 1.20 above. In addition this report provides preliminary geotechnical considerations and recommendations to assist with planning and preliminary design of the proposed project. The report has been prepared for the exclusive use of Wendel and related parties, for specific application to this site and this project only.

The considerations and preliminary recommendations presented were prepared based on Empire Geo-Services, Inc.'s understanding of the proposed site development, as described herein, and through the application of generally accepted soils and foundation engineering practices. No warranties, expressed or implied are made by the conclusions, opinions, recommendations or services provided.

This report was prepared for site characterization and preliminary site development planning purposes only. It should not be considered as providing complete or sufficient subsurface information for final building foundation design and construction. Additional subsurface explorations and geotechnical engineering evaluations will be necessary based on the actual planned site development, including the building sizes, location, and structural loads.

Additional information regarding the use and interpretation of this report is presented in Appendix B.

Sincerely,

EMPIRE GEO-SERVICES, INC.

John J. Danzer, P.E.
Senior Geotechnical Engineer

TABLES

April 9, 2014
Project No.: BE-14-047

TABLE 1
ESTIMATED USGS ELEVATIONS AT TEST BORING LOCATIONS

PROPOSED SITE DEVELOPMENT
INTERNATIONAL BOULEVARD AND BREUNIG WAY
NEW WINDSOR, NEW YORK

Boring Number	Measured Elevation (ft)	Estmated USGS Elevation
B-1	136.1	471.1
B-2	150.8	485.8
B-3	131.9	466.9
B-4	103.7	438.7
B-5	120.8	455.8
B-6	108.9	443.9
B-7	101.3	436.3
B-8	107.1	442.1
B-9	99.8	434.8
B-10	102.8	437.8
B-11	103.4	438.4
B-12	118.2	453.2

Notes:

1. Measured elevation at test boring is based on an assumed benchmark elevation of 100.00 feet assigned to a bottom flange bolt on the fire hydrant located along Breunig Way, about 200' south of the intersection of Breunig Way and International Blvd.

2. Estimated USGS elevation is based on the El. 435 contour line shown along Breunig Way which was estimated to be at approximately the same elevation of the assumed benchmark elevation of 100.00 feet. This conversion however should be considered approximate.

Empire Geo-Services, Inc.
5167 South Park Avenue
Hamburg, New York 14075

April 10, 2014
Project No.: BE-14-047

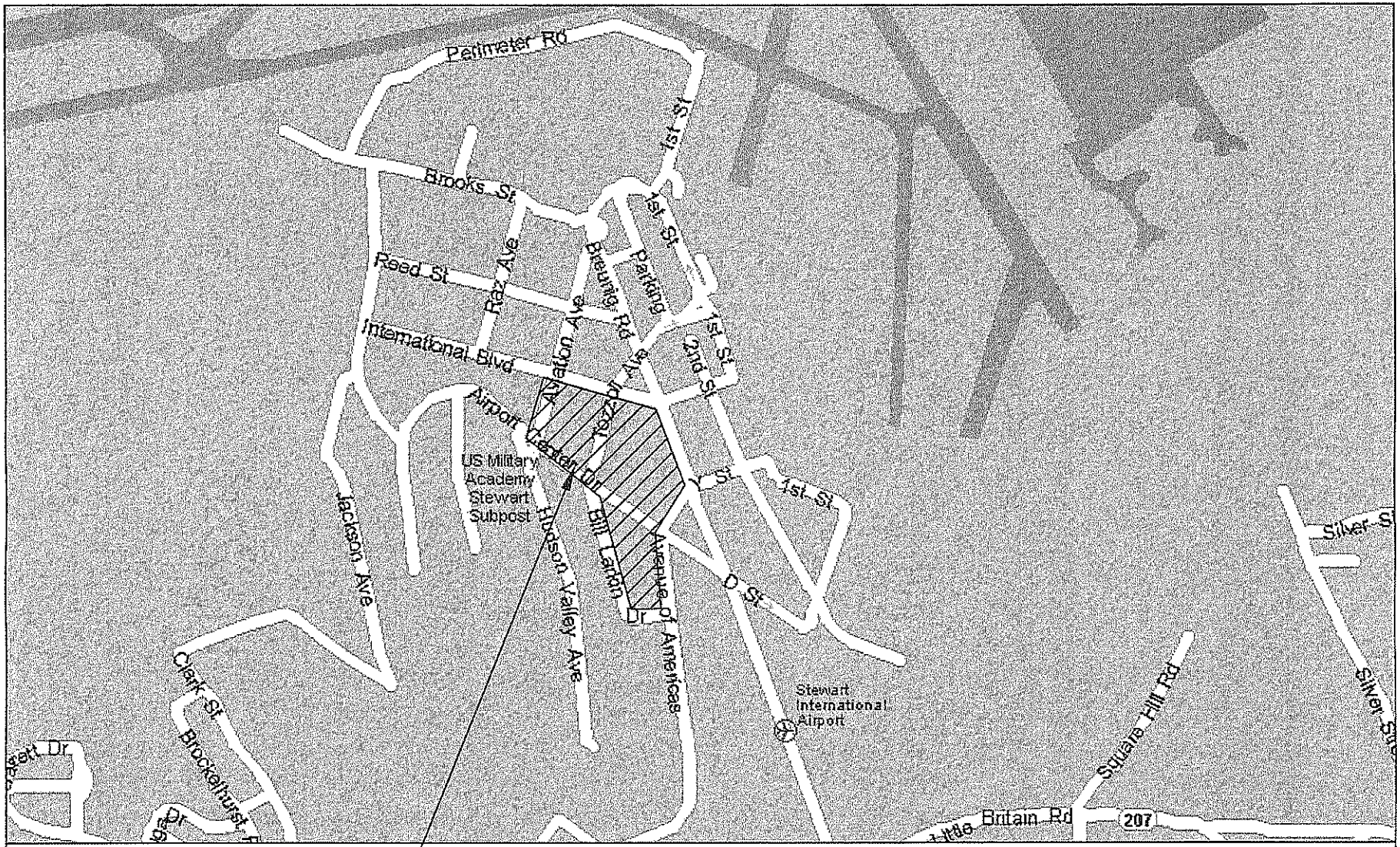
TABLE 2
SUMMARY OF GROUNDWATER LEVELS

PROPOSED DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD AND BREUNIG WAY
NEW WINDSOR, NEW YORK

Boring Number	Est. USGS Ground El.	Groundwater Depth	Est. Groundwater Elevation	Remarks
B-1	471.1			Not Encountered
B-2	485.8			Not Determined due to Water Added for Drilling
B-3	466.9	39.2	427.7	Water Level in Boring Prior to Coring
B-4	438.7	10.6	428.1	Depth Initially Encounterd
B-5	455.0	26.4	428.6	Depth Initially Encounterd
B-6	443.9	18.1	425.8	Depth Initially Encounterd
B-7	436.3	7.9	428.4	Water in Observation Well on 4/8/14
B-8	442.1	18.6	423.5	Depth Initially Encounterd
B-9	434.8	4.0	430.8	Water Level in Boring Prior to Coring
B-10	437.8	14.1	423.7	Depth Initially Encounterd
B-11	438.4	11.4	427.0	Water in Observation Well on 4/8/14
B-12	453.2	10.3	442.9	Depth Initially Encounterd

Empire Geo-Services, Inc.
5167 South Park Avenue
Hamburg, New York 14075

FIGURES



APPROXIMATE LOCATION OF PROJECT SITE

NOTE:
SITE LOCATION PLAN DEVELOPED FROM MICROSOFT STREETS & TRIPS 2006

EMPIREGEO SERVICES INC
a subsidiary of SJB Services, Inc.

PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR, ORANGE COUNTY, NEW YORK

SITE LOCATION PLAN

DR BY: WMA	SCALE: NTS	PROJ NO.: BE-14-047
CHKD BY: JJD	DATE: 04/15/14	FIGURE NO: 1

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

AERIAL PHOTOGRAPH OF PROJECT SITE SHOWING PREVIOUS BUILDING STRUCTURES

PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR
ORANGE COUNTY, NEW YORK

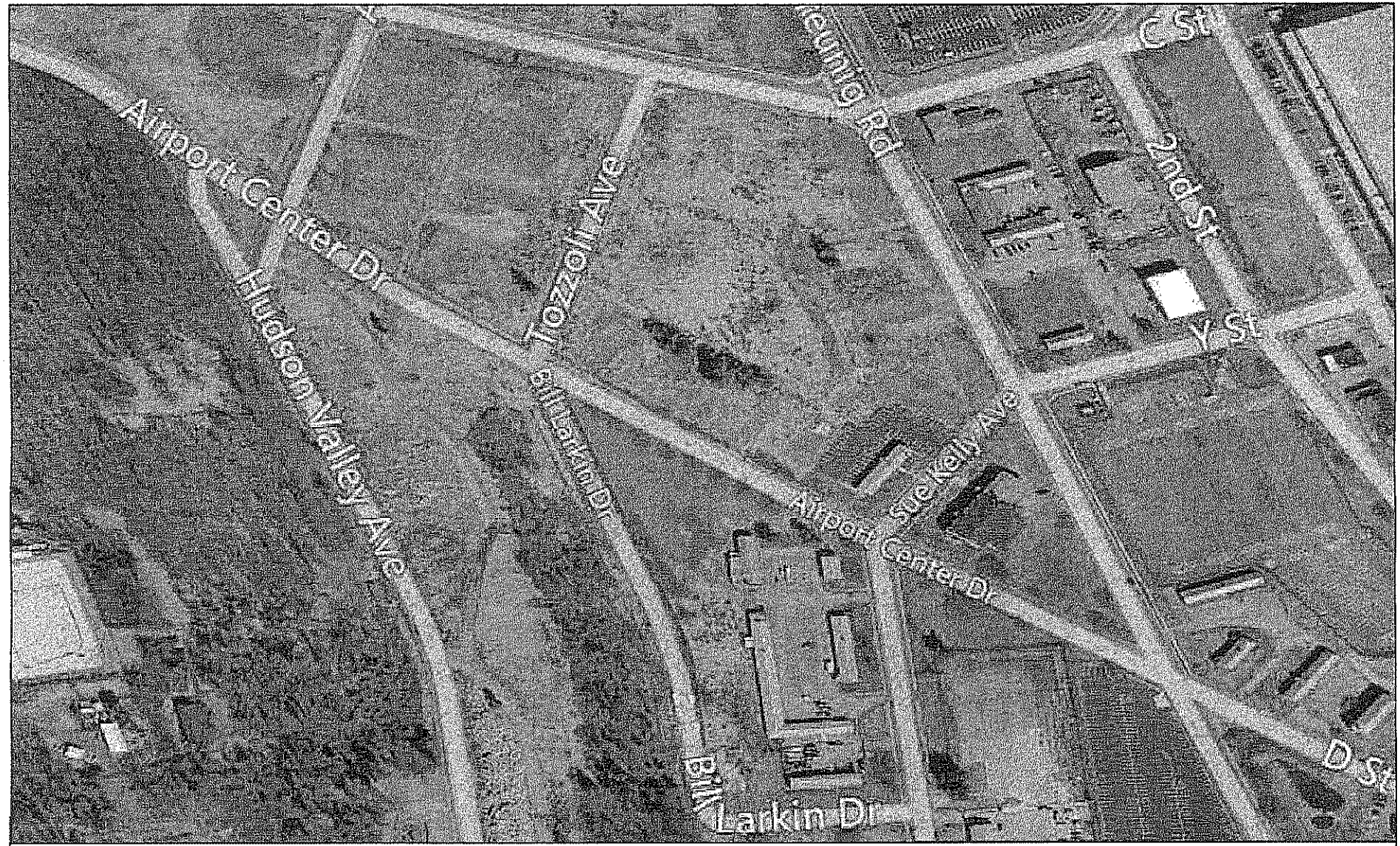
SCALE: 1" ~ 200'	PROJ NO.: BE-14-047
DATE: 04/15/14	FIGURE NO: 2
DR BY: WMA	CHKD BY: JJD

N

NOTE:

FIGURE DEVELOPED FROM AERIAL PROVIDED BY WENDEL COMPANIES

200 0 200
SCALE FEET



NOTE:

FIGURE DEVELOPED FROM
BING MAPS © 2014
MICROSOFT CORPORATION

200 0 200
SCALE FEET

EMPIRE GEO SERVICES INC
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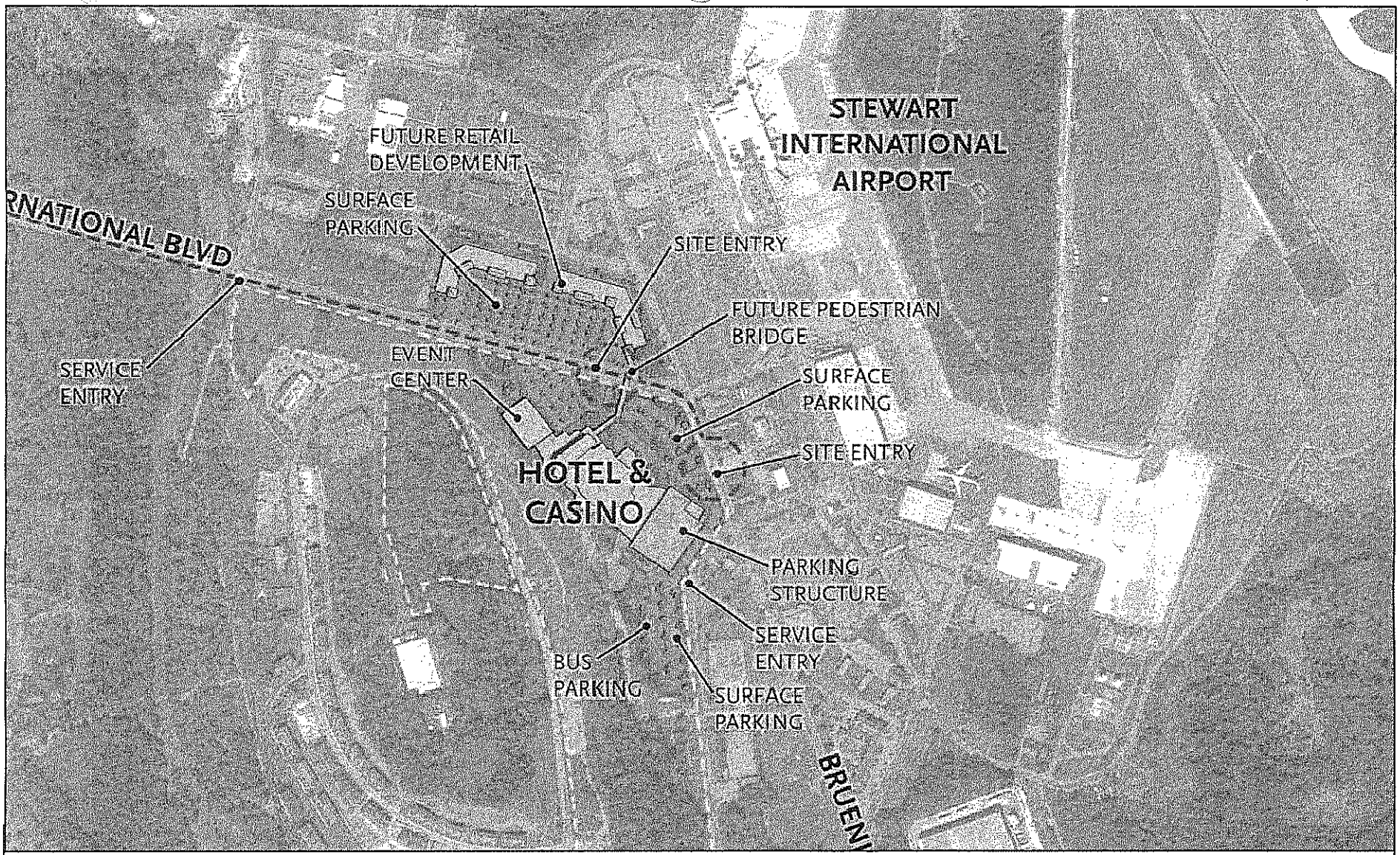
PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR, ORANGE COUNTY, NEW YORK

AERIAL PHOTOGRAPH OF
PROJECT SITE SHOWING
CURRENT SITE CONDITIONS

DR BY: WMA	SCALE: 1" ~ 200'	PROJ NO.: BE-14-047
CHKD BY: JJD	DATE: 04/15/14	FIGURE 3



NOTE:

FIGURE DEVELOPED FROM PRELIMINARY SITE PLAN PROVIDED BY WENDEL COMPANIES

N

EMPIREGEO SERVICES INC
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PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR, ORANGE COUNTY, NEW YORK

PRELIMINARY CONCEPTUAL SITE DEVELOPMENT PLAN

DR BY: WMA	SCALE: NTS	PROJ NO.: BE-14-047
CHKD BY: JJD	DATE: 04/15/14	FIGURE NO: 4

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

SUBSURFACE EXPLORATION PLAN

PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR
ORANGE COUNTY, NEW YORK

SCALE: 1" = 200'	PROJ NO.: BE-14-047
DATE: 04/15/14	FIGURE NO: 5
DR BY: WMA	CHKD BY: JJD

LEGEND:

B-1 ⊕ APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING.

B-7 ⊛ APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING COMPLETED WITH GROUNDWATER OBSERVATION WELL.

BM-1 ▲ BENCHMARK USED BY SJB SERVICES, INC. TO DETERMINE RELATIVE GROUND SURFACE ELEVATIONS AT TEST BORING LOCATIONS. BOLT ON BOTTOM FLANGE OF FIRE HYDRANT. ASSUMED ARBITRARY ELEVATION DATUM = 100.00 FEET.

NOTE:

FIGURE DEVELOPED FROM AERIAL PROVIDED BY WENDEL COMPANIES

200 0 200
SCALE FEET

APPENDIX A

PRELIMINARY TEST BORING LOGS AND GROUNDWATER OBSERVATION WELL INSTALLATIONS

DATE
START 4/1/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-1
SURF. ELEV 136.1' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	4			GLACIAL TILL	
		12	10		16	Brown SILT and fine Sand with little embedded	
	2	10	7			coarser sands, rock fragments (moist, firm, ML)	
		5	5		12	Similar	
5	3	5	4			Grades some Rock fragments, tr.clay (loose)	
		5	4		9		
	4	11	6			Grades (firm)	
		8	10		14		
	5	10	39			Glacial Till: Brown SILT and fine Sand, some	
10		50/0.3			REF	embedded coarser sands, Rock fragments	
	6	50/0.4				(damp, v.compact)	REF = Sample Spoon
					REF	Recovered Gray Rock fragments	Refusal
15							
	7	39	41			Glacial Till as described above	
		26	25		67		
20							No Recovery Sample #8
	8	50/0.4			REF		
						Boring Complete at 20.4'	No measurable groundwater in augers upon completion of sampling.
25							
30							
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/2/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-2
SURF. ELEV 150.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	6	9			GLACIAL TILL	
		12	9		21	Brown SILT and fine Sand with little embedded coarse	
	2	16	16			sands, gravel, rock fragments (moist, firm, ML)	Slight solvent odor noted
		12	14		28	Similar	in Samples #3 and #4.=
5	3	10	16			Similar (compact)	
		21	12		37		
	4	50/0.4			REF	Similar (damp, v.compact)	REF = Sample Spoon Refusal
	5	50/0.3			REF	Similar	
10							No recovery Sample #6
	6	50/0.1			REF		
							Difficult drilling. Hole Progressed with rollerbit/open hole below depth of 10.0'
15							
	7	15	23			Glacial Till: Brown Silt and fine Sand, some	
		30	24		53	embedded coarser sands, gravel, rock fragments	
						(moist, v.compact, ML)	
20							
	8	10	11			Glacial Till: Gray SILT and fine Sand, some	Till becomes "softer"
		13	16		24	embedded coarser sands, gravel, rock fragments	
						(v.moist, firm, ML)	
25							
	9	13	16			Rock fragments more prevalent	
		12	15		28	(v.moist to wet)	
30							
	10	13	15			Similar to Sample #8 (moist, compact)	
		19	22		34		
						Boring Complete at 32.0'	Water level at grade upon completion of sampling. However, water was used to facilitate drilling with rollerbit.
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/1/2014
FINISH 4/3/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-3
SURF. ELEV 131.9' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	4			Possible Fill: Brown SILT, fine Sand with embedded coarser sands, gravel (moist)	REF = Sample Spoon Refusal
		50/0.4			REF		
	2	50/0.4			REF	Recovered piece of coarse gravel	
							Driller Notes:
5	3	17	7			Glacial Till: Brown SILT and fine Sand with embedded coarser sands, gravel, rock fragments (moist, firm, ML)	hard drilling with cobbles/ boulders to depth of Approx. 12'
		5	11		12		
	4	9	10			Similar (v.compact)	
		50/0.4			REF		
	5	50/0.2			REF		Poor Recovery Sample #5
10							
	6	44	50/0.4		REF	Similar	
15							
	7	8	7			Glacial Till: Brown-Gray SILT and fine Sand with some embedded coarser sand, gravel, rock fragments (moist, firm)	
		11	13		18		
20							
	8	5	8			Similar	
		14	19		22		
25							
	9	7	9			Similar	
		13	15		22		
30							
	10	9	10			Similar	
		16	22		26		
35							
	11	8	10			Brown fine to medium SAND, little coarse sand, gravel, tr.silt (moist, firm, SP)	
		17	19		27		
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/3/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-3
SURF. ELEV 131.9' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	3	6			Brown fine SAND, some Silt (wet, firm, SM)	
		16	20		22		
45	13	5	12			Gray SILT, little v.fine sand (wet, firm, ML)	
		15	18		27		
50	14	2	6			Gray Silt	
		11	11		17		
55	15	4	27			Gray GRAVEL and Silty f-c Sand (wet, compact, GP)	Driller Notes: Running sands with augers at 55'
		17	16		44		REF = Sample Spoon Refusal
60	16	13	25			Glacial Till: Gray SILT and fine Sand with little embedded coarser sands, gravel, rock fragments (moist, v.compact, ML)	
		50/0.4			REF		Driller reports auger refusal at 65.5'
65							NQ '2' Size Rock Core
	17	50/0.0			REF	Bedrock apparently not encountered. Core recovery consists of apparent limestone cobble/boulder pieces and coarse gravel.	RUN #1: 65.5' - 70.5' REC = 42% RQD = 21%
70							
						Boring Complete at 70.5'	Water level at 39.2' in augers prior to coring.
75							Water level at 16.1' in augers upon completion of coring.
80							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/7/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-4
SURF. ELEV 103.7' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	5			Possible Fill: Brown SILT and fine Sand, little	
		5	6		10	embedded coarser sand, gravel (moist, loose, ML)	
	2	4	3			Becomes Clayey with tr.organics (v.moist)	
		3	3		6		
5	3	6	11			Brown fine SAND, some Silt, little coarser sand,	
		11	10		22	gravel (moist, firm, SM)	
	4	16	11			Grades to and Silt, tr.clay	
		9	11		20		
	5	10	8			Brown f-m SAND, some Silt, little gravel	
10		10	10		18	(moist, firm, SM)	Groundwater initially
	6	11	10			Brown f-c SAND, little gravel, silt	encountered at 10.6'
		10	10		20	(wet, firm, SM)	during drilling.
							Groundwater at 28.6'
							in augers upon
15							completion of sampling.
	7	1	3			Grades f-m Sand (loose)	
		4	6		7		
20							
	8	3	5			Gray fine SAND, little Silt	
		6	8		11	(wet, firm, SM)	
25							
	9	2	3			Gray SILT and v.fine Sand	
		4	4		7	(saturated, loose, ML)	
30							
	10	4	5			Gray SILT, tr.clay (saturated, firm, ML)	
		7	9		12		
35							
	11	2	7			similar	
		10	8		17		
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/7/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-4
SURF. ELEV 103.7' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	1	6			Gray SILT, tr.clay (saturated, firm, ML)	Boring initially terminated at 42.0' on 4/1/14.
		7	9		13		On 4/7/14, augered to depth of 45.0' and resumed sampling.
45	13	WOH	1			Gray Silt (saturated, v.loose, ML)	
		WOH	2		1		WOH = Weight of Hammer and Rods
50	14	5	4				Driller Notes: Cobbles and boulders below depth of 52.5'
		4	3		8		No Recovery Sample #14
55	15	22	14			Gray Silty f-c SAND, some gravel, Rock fragments (wet, firm, SM)	No Recovery Sample #16
		11	15		25		Auger Refusal at 60.0'
60	16	50/0.1					NQ '2' Size Rock Core
						Gray SHALE, medium hard, weathered, thin bedded to bedded at up to 45° from horizontal occasional fractures, slicken sides and calcite stringers.	RUN #1: 60.0' - 65.0' REC = 94% RQD = 20%
65							
						Especially weathered and broken in Core Run #2.	RUN #2: 65.0' - 70.0' REC = 58% RQD = 7%
70							
						Boring Complete at 70.0'	Water Level at 56.2' upon completion of coring.
75							
80							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/2/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-5
SURF. ELEV 120.8'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	5	6			Possible Fill: Brown SILT, some sand, rock	
		12	6		18	fragments, gravel (moist, firm)	
	2	6	4			Brown Silt, some f-m Sand, tr.organics (loose)	
		5	6		9		
5	3	5	4			Similar (root noted)	
		4	5		8		
	4	4	3			Grades Brown-Gray with Rock fragments	
		2	3		5		
	5	3	2			Similar, little organics (v.loose, v.moist)	
10		1	1		3		
	6	3	7			Glacial Till: Brown SILT and fine Sand with little	
		6	7		13	embedded coarser sands, gravel	
						(moist to v.moist, firm, ML)	
15							
	7	8	12			Similar, with Rock fragments (moist)	
		15	33		27		
20							
	8	13	17			Similar (damp, compact)	
		19	50/0.3		36		
25							REF = Sample Spoon Refusal
	9	50/0.2			REF		
							No Recovery Sample #9
30							
	10	22	8			Brown f-m SAND, tr.silt with silt seam	Groundwater initially
		13	12		21	(wet, firm, SP)	encountered at 26.4'
							during drilling.
							Water level at 31.3' in
35							augers upon completion
	11	14	17			Gray SILT, some v.fine Sand (saturated, firm, ML)	of sampling.
		12	16		29		
						Similar	
	12	13	11				
40		10	11		21	Boring Complete at 40.0'	

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI
DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/4/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-6
SURF. ELEV 108.9'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	6			Glacial Till: Brown SILT and fine Sand with little	
		6	8		12	embedded coarse sands, gravel, rock fragments	
	2	6	10			(moist, firm, ML)	
		9	10		19	Similar	
5	3	16	19			Similar (damp, compact)	
		24	21		43		
	4	21	29			Similar	
		26	27		55		
	5	11	13			Similar (firm)	
10		11	11		24		
	6	15	11			Similar (moist)	
		6	10		17		
15							
	7	7	7			Brown f-m SAND, tr.silt with silt seam	
		8	7		15	(wet, firm, SP)	
20							
	8	3	5			Grades Brown fine Sand	
		6	6		11		
25							
	9	5	6			Gray SILT, little v.fine Sand (wet, firm, , ML)	
		7	6		13		
	10	5	5			Grades Gray Silt and fine Sand (saturated, loose)	
30		4	5		9		
						Boring Complete at 30.0'	Groundwater initially ecountered at 18.1' during drilling. Water level at 19.6' in augers upon completion of sampling.
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/1/2014
FINISH 4/1/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-7
SURF. ELEV 101.3' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	11	8			TOPSOIL	
		10	11		18	Possible Fill: Brown-Gray Silty SAND and Gravel, little organics (moist)	
	2	8	7				
		6	10		13	Brown SILT and f-c Sand, little coarser Sand, gravel	
5	3	6	8			Rock fragments (moist, firm, ML)	
		7	4		15	Similar (v.moist)	
	4	4	5				
		2	2		7	Becomes Clayey (loose)	
	5	12	10			Brown-Gray fine SAND and Silt, little gravel	
10		8	8		18	(moist, firm, SM)	Groundwater initially encountered at 10.6' during drilling. Groundwater at 28.6' in augers upon completion of sampling.
	6	7	8			Brown fine SAND, tr.coarse sand, Silt	
		5	4		13	(wet, firm, SP)	
15							
	7	10	8			Grades Gray	
		4	3		12		
20							
	8	WOH	2			Gray SILT, some v.fine Sand	WOH = Weight of Hammer and Rods
		4	3		6	(saturated, loose, ML)	
25							
	9	3	3			Gray SILT, tr.clay (saturated, loose, ML)	
		3	3		6		
	10	2	3			Similar	
30		4	3		7		
						Boring Complete at 30.0'	Installed 2" PVC observation well in bore hole upon completion. See accompanying installation detail.
35							
40							

PRELIMINARY

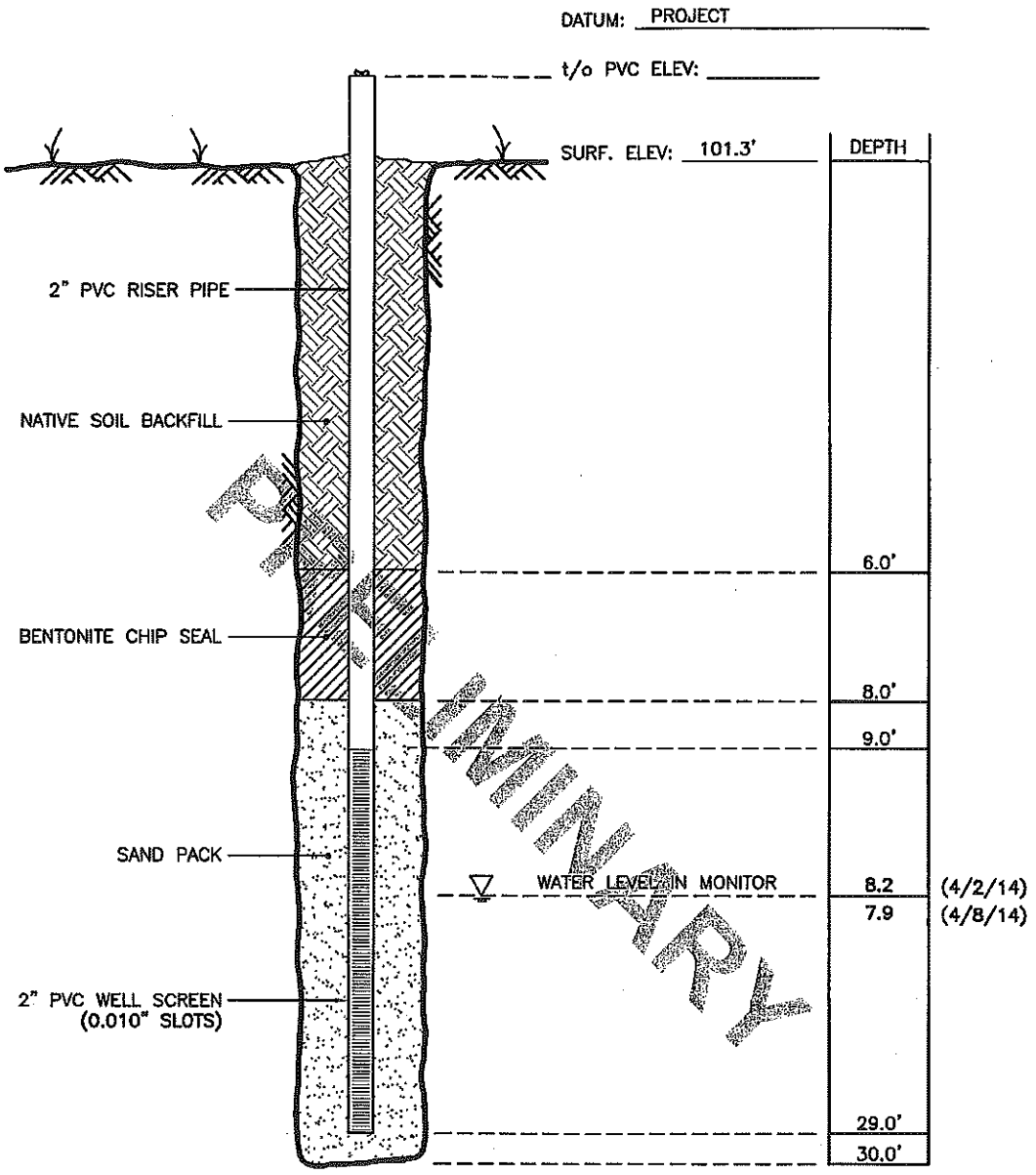
N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS



WELL No.
B-7

EMPIREGEO SERVICES INC
a subsidiary of SJB Services, Inc.

OBSERVATION WELL DETAILS

PROPOSED SITE DEVELOPMENT
INTERNATIONAL BOULEVARD
NEW WINDSOR, NEW YORK

SCALE:	Not to Scale
DATE:	4/14
DRAWN BY:	jsh
REV'D BY:	
DWG. FILE:	be14047
PROJ. No.:	BE-14-047
FIGURE No.:	

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-8
SURF. ELEV 107.1'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	5			0.1' Topsoil, then Possible Fill: Brown SILT, some fine	
		5	5		10	Sand, little rock fragments, tr.organics (moist, loose, ML	
	2	5	11			Grades little organics and clay (firm)	
		8	10		19		
5	3	2	5			Glacial Till: Brown SILT and fine Sand with little	
		9	13		14	embedded coarser sands, gravel, rock fragments	
	4	10	24			(damp, firm, ML)	
		15	15		39	Similar (compact)	
	5	13	12			Similar (moist)	
10		21	12		33		REF = Sample Spoon
	6	50/0.3			REF	Similar	Refusal
15							
	7	32	8			Brown SILT, tr.clay with f-m Sand seam (wet, firm, ML)	
		6	7		14		
20							Groundwater initially encountered at 18.6' during drilling. Water level at 22.1' in augers upon completion of sampling.
	8	29	13			Gray Silt (saturated, firm)	
		10	13		23		
25							
	9	9	8			Similar	
		9	11		17		
	10	10	8			Similar	
30		8	6		16		
						Boring Complete at 30.0'	
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 1 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 99.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	3			TOPSOIL	Driller Notes:
		6	50/0.4		9	Brown-Black f-c SAND, some-and Silt, little f-c Gravel	Approx. 2" Topsoil
	2	4	7			(moist, FILL)	
		8	6		15		
5	3	2	2			Olive-Gray Clayey SILT, some f-m Sand	
		2	3		4	(moist, medium, ML)	
	4	6	7			Olive-Gray f-m SAND and Silt (wet, firm, SM)	
		7	8		14		
	5	5	2				
10		3	4		5	Olive fine SAND and Silt, tr.clay (moist, v.loose, SM)	
	6	4	9				
		12	14		21	Becomes Brown, Contains little-some Silt (wet, firm)	
15							
	7	7	6			Gray SILT, tr.-little fine Sand (wet, firm, ML)	
		5	6		11		
20							
	8	4	3			(loose)	
		4	3		7		
25							
	9	WOH/1.5				Gray-Black fine SAND, little-some Silt	WOH = Weight of
			2		WOH	(wet, v.loose, SM)	Hammer and Rods
30						Gray SILT, tr.sand, occasional fine Sand lenses	
	10	WOH	1			(wet, loose, ML)	
		4	6		5		
35							
	11	19	28			Olive-Gray f-c GRAVEL and f-c Sand, little-some Silt	
		29	45		57	(moist-wet, v.compact, GM)	Driller Notes:
							Cobbles and Boulders
40							encountered at 32.5' to 42' ±

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 2 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 99.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.		SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
		12	24	38			Olive-Brown f-c SAND, some Silt, some f-c Gravel	
			37	44		75	(moist-wet, v.compact, SM)	
45		13	36	50/0.4		REF	Gray f-c SAND and Silt, some f-c Gravel (moist-wet, v.compact, SM)	REF = Sample Spoon Refusal
50		14	34	49	50/0.4		Gray f-m SAND and Silt, tr.gravel	
						REF	(moist, v.compact, SM)	
55		15	27	38				
			30	29		68		
60		16	10	15			(compact)	
			26	50/0.4		41		
65		17	13	21	50/0.4	REF	Gray f-c SAND and Silt, tr.gravel (moist, v.compact, SM)	Free Standing Water recorded at 18.2' at 0800 on 3/28/14 Augers at 70' BGS
70		18	23	37				
			35	50/0.4		72		Auger Refusal at 75.5'
75								NQ '2' Size Rock Core
		19	50/0.0			REF	Gray SHALE, medium hard, very weathered, thin bedded	RUN #1: 75.5' - 80.5' REC = 90% RQD = 18%
80								

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 3 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 99.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
						At 79.6' becomes gray SILTSTONE, medium hard, moderatley weathered, laminated to bedded, little fracturing. ¼" thick calcite seam noted at 82.0'	RUN #2: 80.5' - 83.5' REC = 83% RQD = 11%
85						Boring Complete at 83.5'	Free Standing Water before Coring at 4.0' Free Standing Water after Coring at 5.2'
90							
95							
100							
105							
110							
115							
120							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-10
SURF. ELEV 102.8'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	2			0.3' Topsoil, then Glacial Till: Brown SILT and fine	
		5	6		7	Sand with little embedded coarser sands, gravel,	
	2	5	7			rock fragments (moist, loose, ML)	
		6	5		13	Similar (firm)	
5	3	9	13			Similar	
		15	10		28		
	4	42	12			Similar	
		12	16		24		
	5	6	10			Similar, tr.clay, Mottling with Gray-Orange noted	
10		16	11		26		
	6	10	10				
		8	12		18	Brown f-m SAND, little Silt (wet, firm, SM-SP)	Groundwater initially encountered at 14.1' during drilling.
15							
	7	6	8			Brown SILT, little v.fine Sand (wet, firm, ML)	Water level at 16.8' upon completion of sampling.
		9	9		17		
						Grades Gray at 16.7'	
20							
	8	6	5			Gray SILT, tr.clay (saturated, firm)	REF = Sample Spoon Refusal
		7	6		12		
25							Driller Notes:
	9	3	6			Brown f-m SAND (wet, firm, SP)	top of cobbles at 27.5'
		6	8		12		
							No Recovery Sample #10
	10	50/0.1			REF		
30							
						Boring Complete at 29.6'	Driller Reports auger refusal at 29.5'
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-11
SURF. ELEV 103.4'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

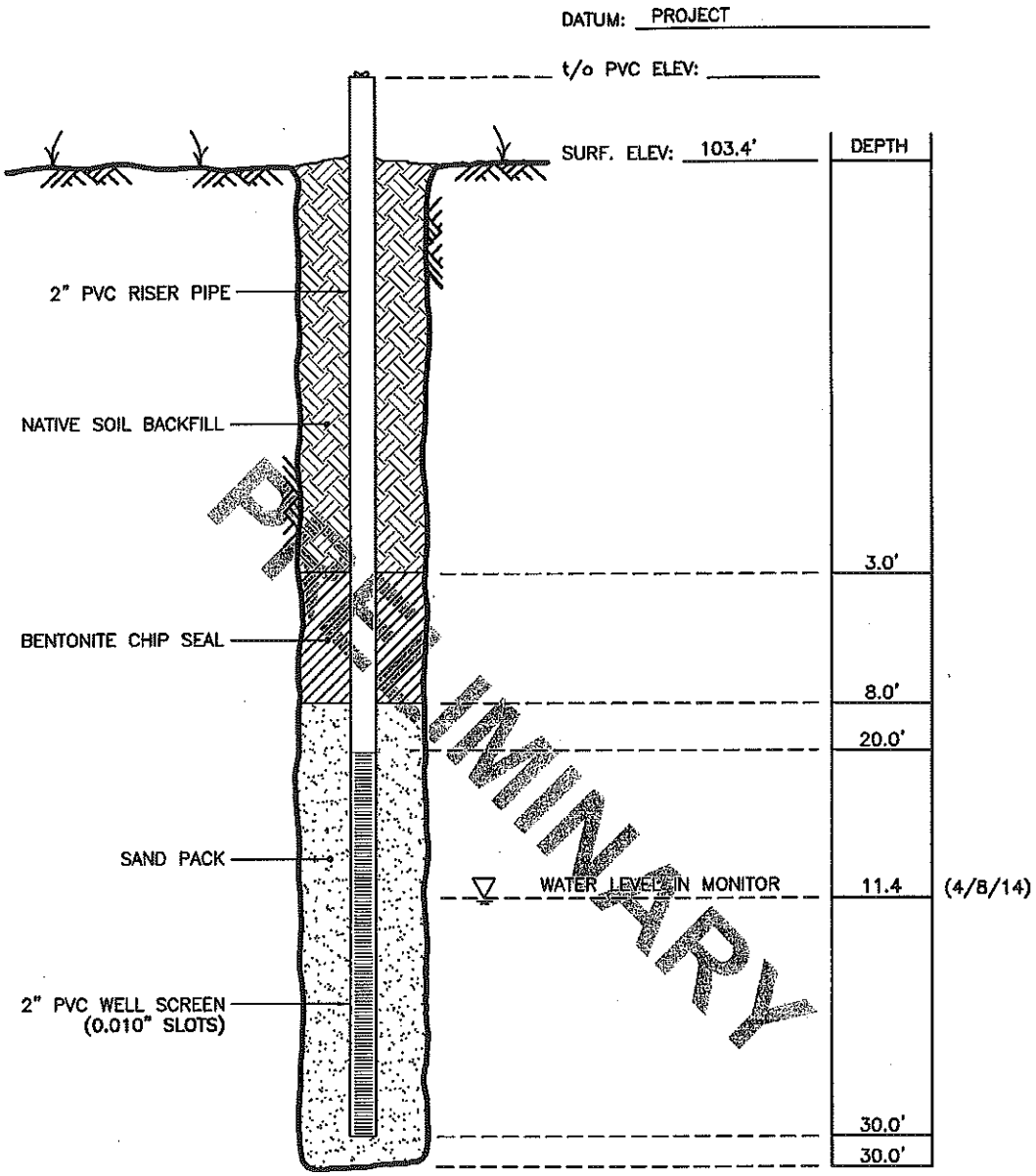
DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	0/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	4			0.4' Topsoil, then: Possible fill: Brown Sandy SILT,	
		3	5		7	tr.gravel, large root noted (moist, loose)	
	2	5	8				No Recovery Sample #2
		8	8		16		
5	3	16	47			Brown f-c SAND with Rock fragments	REF = Sample Spoon
		50/0.3			REF	(moist, v.compact, SM)	Refusal
	4	50/0.2			REF		
							No Recovery Sample #4
	5	50/0.1			REF		No Recovery Sample #5
10							
	6	19	27			Glacial Till: Brown SILT and fine Sand with little	Driller Notes:
		13	15		40	embedded coarser sands, gravel, rock fragments	Cobbles to depth of 10'
						(v.moist, compact; ML)	
15							
	7	22	36			Grades Brown-Gray (v.moist with wet seams,	
		20	24		56	v.compact)	
20							
	8	50/0.3			REF		No Recovery Sample #8
25							
	9	10	12			Glacial Till: Gray SILT and fine Sand with little	No measurable
		12	17		24	embedded coarser sand (moist, firm)	groundwater in augers
	10	6	8			Similar with occasional rock fragments	upon completion of
30		11	13		19		sampling.
						Boring Complete at 30.0'	Installed 2" PVC observation well in borehole upon completion. See accompanying installation detail.
35							
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW
CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI
DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS



WELL No.
B-11

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

OBSERVATION WELL DETAILS

PROPOSED SITE DEVELOPMENT
INTERNATIONAL BOULEVARD
NEW WINDSOR, NEW YORK

SCALE:	Not to Scale
DATE:	4/14
DRAWN BY:	jsh
REV'D BY:	
DWG. FILE:	be14047
PROJ. No.:	BE-14-047
FIGURE No.:	

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-12
SURF. ELEV 118.2'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	3			0.3' Topsoil, then Possible Fill: Brown Silty fine SAND,	
		4	5		7	little rock fragments, tr.organics (moist, loose, SM)	
	2	3	3			Grades Silt and fine Sand (v.moist)	
		3	22		6		
5	3	4	5			Glacial Till: Brown SILT and fine Sand with little	
		6	6		11	embedded coarser sands, gravel (moist, firm, ML)	
	4	8	8			Similar	
		21	14		29		
	5	12	7			Similar (v.moist)	
10		8	13		15		REF = Sample Spoon
	6	50/0.2			REF	Becomes more sandy (wet)	Refusal
							Groundwater initially encountered at 10.3' during drilling.
15							
	7	10	7			Similar with some rock fragments (moist)	Water level at 18.3' in augers upon completion of sampling.
		10	8		17		
20							
	8	5	4			Similar (v.moist, loose)	
		3	7		7		
25							
	9	8	7			Similar (wet, firm)	
		5	7		12		
30							
	10	11	14			Glacial Till: Gray Silt and fine Sand with some	
		10	10		24	embedded coarser sands, gravel, rock fragments	
						(moist, firm, ML)	
35							
	11	9	12			Similar	
		15	14		27		
40							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-12
SURF. ELEV 118.2'
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	7	35			Glacial Till: Gray SILT and fine Sand with some	
		19	14		54	embedded coarser sands, gravel, rock fragments	
						(damp, v.compact, ML)	
45							
	13	14	21			Similar	
		20	17		41		
50							
	14	8	15			Similar	
		18	28		33		
55							REF = Sample Spoon
	15	50/0.3			REF	Similar	Refusal
60						Boring Complete at 57.5'	Auger refusal at 57.5'
65							
70							
75							
80							

PRELIMINARY

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

APPENDIX B

GEOTECHNICAL REPORT LIMITATIONS

GEOTECHNICAL REPORT LIMITATIONS

Empire Geo-Services, Inc. (Empire) has endeavored to meet the generally accepted standard of care for the services completed, and in doing so is obliged to advise the geotechnical report user of our report limitations. Empire believes that providing information about the report preparation and limitations is essential to help the user reduce geotechnical-related delays, cost over-runs, and other problems that can develop during the design and construction process. Empire would be pleased to answer any questions regarding the following limitations and use of our report to assist the user in assessing risks and planning for site development and construction.

PROJECT SPECIFIC FACTORS: The conclusions and recommendations provided in our geotechnical report were prepared based on project specific factors described in the report, such as size, loading, and intended use of structures; general configuration of structures, roadways, and parking lots; existing and proposed site grading; and any other pertinent project information. Changes to the project details may alter the factors considered in development of the report conclusions and recommendations. *Accordingly, Empire cannot accept responsibility for problems which may develop if we are not consulted regarding any changes to the project specific factors that were assumed during the report preparation.*

SUBSURFACE CONDITIONS: The site exploration investigated subsurface conditions only at discrete test locations. Empire has used judgement to infer subsurface conditions between the discrete test locations, and on this basis the conclusions and recommendations in our geotechnical report were developed. It should be understood that the overall subsurface conditions inferred by Empire may vary from those revealed during construction, and these variations may impact on the assumptions made in developing the report conclusions and recommendations. *For this reason, Empire should be retained during construction to confirm that conditions are as expected, and to refine our conclusions and recommendations in the event that conditions are encountered that were not disclosed during the site exploration program.*

USE OF GEOTECHNICAL REPORT: Unless indicated otherwise, our geotechnical report has been prepared for the use of our client for specific application to the site and project conditions described in the report. *Without consulting with Empire, our geotechnical report should not be applied by any party to other sites or for any uses other than those originally intended.*

CHANGES IN SITE CONDITIONS: Surface and subsurface conditions are subject to change at a project site subsequent to preparation of the geotechnical report. Changes may include, but are not limited to, floods, earthquakes, groundwater fluctuations, and construction activities at the site and/or adjoining properties. *Empire should be informed of any such changes to determine if additional investigative and/or evaluation work is warranted.*

MISINTERPRETATION OF REPORT: The conclusions and recommendations contained in our geotechnical report are subject to misinterpretation. *To limit this possibility, Empire should review project plans and specifications relative to geotechnical issues to confirm that the recommendations contained in our report have been properly interpreted and applied.*

Subsurface exploration logs and other report data are also subject to misinterpretation by others if they are separated from the geotechnical report. This often occurs when copies of logs are given to contractors during the bid preparation process. *To minimize the potential for misinterpretation, the subsurface logs should not be separated from our geotechnical report and the use of excerpted or incomplete portions of the report should be avoided.*

OTHER LIMITATIONS: Geotechnical engineering is less exact than other design disciplines, as it is based partly on judgement and opinion. For this reason, our geotechnical report may include clauses that identify the limits of Empire's responsibility, or that may describe other limitations specific to a project. These clauses are intended to help all parties recognize their responsibilities and to assist them in assessing risks and decision making. Empire would be pleased to discuss these clauses and to answer any questions that may arise.

EMPIRE GEO SERVICES, INC.
A SUBSIDIARY OF SJB SERVICES, INC.

May 12, 2014
Project No. BE-14-047

Mr. Mark D. Molnar, P.E.
Wendel
140 John James Audubon Parkway, Suite 201
Amherst, New York 14228

Re: Preliminary Geotechnical Evaluation Report for
Proposed Site Development Project
International Boulevard
New Windsor, Orange County, New York

Dear Mr. Molnar:

Empire Geo-Services, Inc. (Empire) is pleased to submit two (2) copies this Preliminary Geotechnical Evaluation Report to Wendel, for the above referenced project. We have also forwarded, via e-mail, an electronic pdf file copy of this report for your use and distribution, as appropriate.

Please contact me, should you have any questions or comments regarding this preliminary report, or if you would like to discuss any project development issues. Thank you for considering Empire for this work and we look forward to continuing to work with you, through completion of this project.

Sincerely,

EMPIRE GEO-SERVICES, INC.

John J. Danzer, P.E.
Senior Geotechnical Engineer

Enc.: Preliminary Geotechnical Evaluation Report – 2 copies & electronic pdf copy / via e-mail

cc: Mr. Orest Ciolko, P.E. - Wendel / via e-mail
Mr. Craig Alexander, P.E. – Wendel / via e-mail

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Preliminary Geotechnical Evaluation Report for Proposed Site Development Project International Boulevard New Windsor, Orange County, New York

Prepared For:

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140 John James Audubon Parkway, Suite 201
Amherst, New York 14228

Prepared By:

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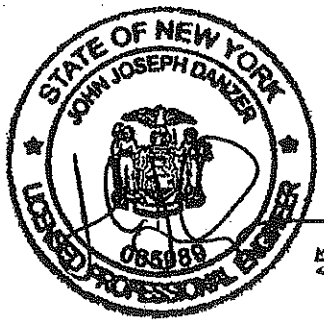

5/12/14

Project No. BE-14-047
May 2014

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1.00 INTRODUCTION

1.10 GENERAL

This report summarizes the results of a preliminary subsurface exploration program and geotechnical engineering evaluation completed by Empire Geo-Services, Inc. (Empire) for a proposed development project being considered on a portion of an approximately 146 acre parcel located off International Boulevard in New Windsor, Orange County, New York. The approximate location of the project site is shown on Figure 1.

Wendel retained Empire to complete this work, which was done in accordance with our proposal dated March 20, 2014. This work was completed to evaluate the geotechnical characteristics of the site, with regard to foundation support of the proposed buildings being considered for development on the site, and to provide preliminary geotechnical design and construction considerations / recommendations to assist the design team with planning and preliminary design.

The preliminary subsurface exploration program completed by Empire consisted of a total of twelve (12) test borings advanced across the site, of which two (2) borings were advanced into apparent bedrock at depths ranging between 60 and 75 feet at these locations, with the remaining ten (10) borings being advanced to depths ranging between about 20 feet and 70 feet. In addition groundwater observation wells were installed and monitored in two (2) of the completed test borings. SJB Services, Inc. (SJB), our affiliated subsurface exploration drilling company, completed the test borings and groundwater observation well installations for the subsurface exploration program.

On this basis, Empire prepared this report, which summarizes the subsurface conditions encountered by the test borings and groundwater observation wells and presents preliminary geotechnical engineering considerations and recommendations to assist in planning and preliminary design of the site development. Specifically our preliminary evaluation addresses the soil, bedrock and groundwater conditions present on the site, with regard to their impacts on foundations, slab-on-grade floor construction, pavement and site work construction.

1.20 SITE DESCRIPTION AND PROPOSED DEVELOPMENT PROJECT

The site of the proposed development project is located to the southwest of Stewart International Airport in the Town of New Windsor, Orange County, New

York within a former US Military Academy Outpost. The proposed development site is bounded within the area of International Boulevard to the north; Breunig Way, Sue Kelly Avenue, and Avenue of Americas to the east; Bill Larkin Drive to the south; and Bill Larkin Drive, Airport Center Drive and Aviation Avenue to the west.

The site was occupied by several buildings associated with the military outpost, as shown on Figure 2. Many of these buildings have been demolished, however, some buildings still remain, as shown on Figure 3. At the locations of the buildings which have been demolished, remnants of the foundations are still present.

The site can be described as having two distinct topographic features. These include a lower glacial outwash plateau area within the eastern portion of the site, with ground surface elevations (El.) ranging between about El. 420 to 421 feet along the east side and about El. 425 to 430 feet to the west. Further to the west the topography of the site consists of a more steeply sloped glacial drumlin, with ground surface elevations ranging from about El. 425 to 430 feet at the slope toe, up to about El. 445 to 485 feet along the western limits of the project site, with grades continuing to rise further to the west. The existing ground surface contours are shown Figure 4, which was developed from a site topographic survey map provided by Wendel.

The proposed development project is currently planned to include an entertainment and hotel complex consisting of the following adjoining structures from northwest to southeast:

- A 1 to 2 story event center at the northwestern end of the facility;
- A 1 to 2 story hotel amenities area;
- A 15 to 16 story high rise hotel building;
- A 2 story casino area, with one level of underground parking space; and
- A 4 to 5 story parking garage structure at the southeastern end of the facility.

In addition the project will also include construction of access drives and parking areas to the north and northeast of the complex, as well as to the southeast and south of the parking garage structure, Access entrances to the complex are planned from International Boulevard and Breunig Way.

Figure 4 shows a general plan of the proposed site development, however, it is understood this plan may change as the project is evaluated and further developed.

Accordingly, at this time the final building configurations and structure loads, as well as the floor elevations and site grading have not been established.

2.00 SUBSURFACE EXPLORATION

The preliminary subsurface exploration program completed to characterize the subsurface conditions at the site consisted of a total of twelve (12) test borings, designated as B-1 through B-12. In addition, groundwater observation wells were installed in two (2) of the test borings (B-7 and B-11). The test borings and groundwater observation well installations were completed by SJB between March 27th, 2014 and April 7th, 2014. The approximate locations of the test borings with respect to site topographic survey map and general plan of the proposed site development are shown on Figure 4.

The proposed test boring locations were initially established on a preliminary proposed site development plan prepared by Wendel. Using this plan, SJB then staked the boring locations in the field using tape and wheel measurements and visual observations referenced to existing site features. Some of the borings had to be relocated due to steeply sloping terrain, existing and former building locations and utilities present on the site. The "as-drilled" test boring locations and ground surface elevations at the test boring locations were obtained and recorded by the project surveyor and plotted on the site topographic survey map provided by Wendel, which was used to develop Figure 4.

Test borings B-4, and B-6 through B-11were located in the lower flatter plateau area of the site, while test borings B-1, B-2, B-3, B-5 and B-12 were located in the more steeply sloped drumlin area of the site. Test borings B-4 and B-9 were advanced through the overburden soils and into apparent bedrock encountered at depths of about 60 feet and 75 feet, respectively, at these locations. Test borings B-1, B-3, B-10 and B-12 were advanced in soil until auger refusal was met at depths of 20.4 feet, 65.5 feet, 29.5 feet and 57.5 feet, respectively. The auger refusal material was cored in boring B-3 and was found to consist of cobble/boulder material. The nature of the auger refusal material encountered in borings B-1, B-10 and B-12 was not determined. The remaining test borings were advanced in soil to depths ranging between 30 and 40 feet, and terminated.

The test borings were made using a Diedrich model D-50 rubber track all terrain vehicle mounted drill rig and a Central Mine Equipment (CME) model 850 steel track all terrain vehicle mounted drill rig. The test borings were generally advanced in the soils using hollow stem auger and split spoon sampling techniques. However in a few cases, open hole, with tri-cone washing, was used to

advance the borings through some very compact zones, as noted on the test boring logs.

Split spoon samples and Standard Penetration Tests (SPTs) were taken continuously from the ground surface to a depth of 12 feet and then in intervals of five feet or less below the zone of continuous sampling until boring completion or auger refusal was met. The split spoon sampling and SPTs were completed in general accordance with *ASTM D 1586 - "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils"*.

After reaching auger refusal at test boring locations B-3, B-4 and B-9 the refusal material encountered was cored using a NQ size double tube core barrel in accordance with *ASTM D 2113 – "Standard Practice for Rock core Drilling and Sampling of Rock for Site Investigation"*. Ten (10) feet and eight (8) feet of bedrock was cored in borings B-4 and B-9, respectively. As stated above, the refusal material cored in boring B-3 was found to consist of cobble/boulder material.

Groundwater observation wells were installed in test borings B-7 and B-11 to help assess groundwater levels on the site. The wells were installed with hollow stem auger drilling techniques in general accordance with *ASTM D5092 Standard Practice for Design and Installation of Ground Water Monitoring Wells in Aquifers*. The well installation consisted of a 2-inch diameter PVC well screen and riser pipe with sand filter, bentonite seal and soil backfill. A protective stick-up surface casing and surrounding concrete seal were installed at the surface to finish the well installation. Well installation diagrams, showing the details of the observation well construction, are presented following the respective test boring logs B-7 and B-11 in Appendix A.

A geotechnical engineer prepared the test boring logs based on visual observation of the recovered soil samples and rock core, along with review of the driller's field notes. The soil samples were described based on a visual/manual estimation of the grain size distribution, along with characteristics such as color, relative density, consistency, moisture, etc. In addition the Unified Soil Classification System (USCS) group symbols were also established and are presented on the logs for the soil types encountered. The recovered rock core samples were also described, including characteristics such as color, rock type, hardness, weathering, bedding thickness, core recovery and rock quality designation (RQD). The test boring logs are presented in Appendix A, along with general information and a key of terms and symbols used to prepare the logs.

3.00 SUBSURFACE CONDITIONS

3.10 GENERAL SUMMARY OF SUBSURFACE CONDITIONS

A. Plateau Area:

The general stratigraphy encountered in test borings B-4, and B-6 through B-11 located in the lower flatter plateau area of the site (i.e. area below about El. 430 feet) consisted of upper loose to firm fluvial sand and silt soil glacial outwash deposits, which overly deeper zones of gravel, cobbles and boulders and firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. These deeper more dense soils appear to form the valley wall of the glacial till drumlin, beneath the upper loose to firm fluvial deposits. The exception being at boring B-11, where the upper loose to firm fluvial sand and silt soil deposits were absent indicating the denser glacial till drumlin deposits are within close proximity to the surface in this area. Within borings B-4 and B-9, Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 365.0 feet ±) and 75.5 feet (El. 345.7 feet ±), respectively.

B. Drumlin Area:

The general stratigraphy encountered in test borings B-1, B-2, B-3, B-5 and B-12 located within the more steeply sloped and higher glacial till drumlin area of the site (i.e. area above about El. 430 feet) consisted of zones of gravel, cobles and boulders and generally firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. However within test boring B-12, the upper glacial till deposits (i.e. above about El. 409.4 feet ±) contain some looser zones, which were not evident in the other borings made in the drumlin area. The depth and elevation of bedrock was not determined in the test borings made within the exposed drumlin area.

The soil, bedrock and groundwater conditions encountered are described further in the following sections and in more detail on the test boring logs presented in Appendix A.

3.20 SURFACE MATERIALS AND FILL SOILS

Topsoil was encountered at the surface of test boring locations B-7 through B-12 and ranged in thickness between approximately 1-inch and 5-inches at these locations. A distinct topsoil layer was not noted by the driller at the remaining test boring locations. In addition to the topsoil, foundation and slab remnants of

previously demolished structures are also present at the surface at various locations within the site.

Apparent man placed fill soils were encountered in test borings B-3, B-4, B-5, B-8, B-9, B-11 and B-12. The apparent fill composition consists of brown, brown-gray, brown-black sand and silt soils with inclusions of gravel, rock fragments, organics and root matter. The varying composition and density of the apparent fill indicates it was most likely placed in a non-engineered manner. The apparent fill soils were found to extend to depths of typically around 4 feet below the existing ground surface at these test boring locations. However, at test boring B-5 the fill extends to about 10 feet.

It should be expected that the fill soil depths between and away from the test boring locations most likely will vary. It can also be expected that fill soils will be present, and will extend to the bottom of previous excavations made for the existing and previous building structures (i.e. for the foundations), as well as for other possible structures and utilities, which are or were present on the site.

3.30 INDIGENOUS SOILS

The indigenous soils encountered are non-organic, and are not considered to be highly compressible, nor highly susceptible to shrinkage, swelling, or liquefaction in the case of a seismic event. The indigenous soils are generally of a very slight to mainly non-plastic nature. Deposits of cohesive clay type soils were generally absent within the test borings.

The indigenous soils encountered in the lower flatter plateau area of the site consisted of upper loose to firm fluvial sand and silt soil glacial outwash deposits, which overly deeper zones of gravel, cobbles and boulders and firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. Within the more steeply sloped and higher exposed glacial till drumlin area of the site, the indigenous soils consisted of zones of gravel, cobles and boulders and generally firm to very compact glacial till deposits of sand, silt, gravel and rock fragment mixtures. At test boring B-12, however, some looser zones were present within the upper glacial till deposits (i.e. above about El. 409.4 feet ±).

The indigenous soil deposits are generally classified as ML, SM, SP, GM and GP group soils using the Unified Soil Classification System (USCS). The finer grained silt and fine sand deposits encountered are generally of a very slight to non-plastic nature.

Standard Penetration Test (SPT) "N" values obtained in the indigenous soils varied with location and depth, ranging from as low as 1 to "REF – sample spoon refusal" (i.e. 50 blows to advance the split spoon with 6-inches or less of penetration). The SPT "N" values indicate the relative density of the slight to non-plastic silt and fine soil fluvial deposits are typically loose to firm, while the relative density of glacial till deposits of sand, silt, gravel and rock fragment mixtures are typically firm to very compact.

Zones of cobbles and boulders and very compact soils (i.e. SPT "N" values of about 50 or greater and "REF") were encountered in the test borings at the following depths:

Boring No.	Zones (Depths) of Cobbles and Boulders and/or Very Compact Soils
B-1	9'-20.4' (Auger Refusal at 20.4')
B-2	6'-17'
B-3	0'-12' and 60'-65.5' (Auger Refusal at 65.5')
B-4	52.5'-60' (Bedrock at 60')
B-5	21'-26'
B-6	Not Encountered
B-7	Not Encountered
B-8	10'
B-9	32.5'-75.5'(Bedrock at 75.5')
B-10	27.5'(Auger Refusal at 29.5')
B-11	4'-21'
B-12	10' and 57.5'(Auger Refusal at 57.5')

The auger refusal material encountered in test boring B-3 at a depth of 57.5 feet was cored, and found to consist of coble/boulder material.

3.40 BEDROCK

Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 365.0 feet ±) and 75.5 feet (El. 345.7 feet ±), at test borings B-4 and B-9, respectively, which were made within the lower flatter plateau area of the site.

Bedrock core samples obtained from these borings after reaching auger refusal, consisted of gray, medium hard, weathered, thinly bedded to bedded, Shale and Silstone, with bedding planes up to 45 degrees from horizontal. Core recoveries ranged from 58% to 94%. Rock quality designation (RQD) values ranged

between 11% and 20%, indicating the recovered rock cores have a very poor rock mass quality.

Geologic maps prepared by the New York State Geological Survey indicate the uppermost bedrock formation in this area is the middle Ordovician period, Normanskill Shale and Siltstone formation of the Trenton Geologic Group

3.50 GROUNDWATER CONDITIONS

Water level measurements were made in the test borings during and at the completion of overburden drilling and sampling, as well as prior to and following coring, as noted on the test boring logs. We note that water was added to the test borings to facilitate coring and in some cases to facilitate drilling through some very compact soil zones, as noted on the logs. Groundwater observation wells were installed in test borings B-7 and B-11, also to help assess groundwater levels on the site.

Table 1 presents a summary of the depths and elevations where groundwater was first encountered in the test borings, or prior to coring, as well as the water levels measured on April 8, 2014 in the groundwater observation wells installed at test borings B-7 and B-11.

Groundwater water was typically encountered in the test borings at elevations ranging between El. 409.3 feet and 417.2 feet. The exception being at boring B-12, where water was first encountered at El. 429.1 feet. Groundwater levels measured in the wells on April 8, 2014 were at a depth of 7.9 feet (El. 415.0 feet) in the well at boring B-7 and at a depth of 11.4 feet (El. 413.2 feet) in the well at boring B-11.

Based on these groundwater observations and measurements it appears that a generalized groundwater condition (i.e. "groundwater table") is present on the site around El. 409 to 417.5 feet. It is possible the higher groundwater level observed in boring B-12 may the result of some localized zones of perched or trapped groundwater which may be present within the upper drumlin soils.

4.00 PRELIMINARY GEOTECHNICAL EVALUATION AND RECOMMENDATIONS

4.10 GENERAL GEOTECHNICAL CONSIDERATIONS

The following general considerations and preliminary recommendations are provided to assist with planning and preliminary design of the proposed development project being considered on the site. Additional preliminary recommendations are presented in the subsequent sections of this report. Additional geotechnical investigations and evaluations will be necessary, as discussed below for final design once the final building development plans and loading conditions, along with final site grading and development plans, are established.

From a geotechnical standpoint, the proposed development project will be impacted by the topography of the site and the varying nature of the soil conditions present between the two general topographical areas present on the site. Selection of the appropriate foundation system necessary to support the various building components and parking garage will be dependent on the final established building locations, the structure loads and the design grades of the foundation system in relation to the site topography and subsurface conditions present.

4.10.1 Foundation Support

The use of spread type foundations, in some cases, will be possible depending on the structure location, loads, and acceptable settlement. Based on our analyses, the allowable bearing capacity of spread foundations constructed over the lower flatter plateau area (i.e. within the site area below El. 430 feet) will be limited to around 2,000 to 3,000 pounds per square foot (psf), with a maximum permissible column foundation width of about 8 feet. Footings larger than about 8 feet in this area are estimated to undergo settlement in excess of 1-inch.

Higher allowable bearing capacities, however, will be possible for spread type foundations constructed over the more steeply sloped and higher glacial till drumlin area of the site (i.e. within the site area above about El. 430 feet). In this case allowable spread foundation bearing capacities in the range of 3,000 psf to 6,000 psf appear will be possible. Preliminary design recommendations for spread foundations are discussed further in Section 4.20 below.

Alternatively, depending on the structure loads and foundation locations, it appears a deep foundation system may be necessary, particularly for the more heavily loaded high rise hotel and parking garage structures. In this case, it is preliminarily recommended that driven H-piles, which are driven to refusal on bedrock or to practical refusal in the deeper bouldery and/or very compact glacial till deposits, be considered. H-piles driven to refusal are expected to develop allowable axial compressive capacities in the range of 90 to 130 tons per pile, depending on the pile section used. Additional preliminary design recommendations for driven piles are discussed further in Section 4.30 below.

4.10.2 Groundwater Considerations

It will also be necessary to consider the groundwater conditions present on the site, with regard to the site preparation, structure/utility excavations, and permanent foundation/structure drainage. Based on the water levels observed during advancement of the preliminary test borings and in the groundwater observation wells, it appears that a generalized groundwater condition (i.e. "groundwater table") is present on the site around El. 409 to 417.5 feet. Localized zones of perched or trapped groundwater also appear to be present within the upper drumlin soils.

The indigenous finer grained silt and fine sand deposits present in the lower plateau area are expected to undergo relatively rapid excavation bottom and sidewall instability, if not properly dewatered in advance of performing excavations below the permanent groundwater table The indigenous silty sand soils are also highly susceptible to erosion and water transport, if not properly separated from foundation drainage systems and porous trench bedding. Such migration of fines could result in eventual subsidence and settlement problems around the structures and beneath pavements.

It is recommended the building areas and structural foundation elements (i.e. spread foundations, pile caps, grade beams, elevator pit structures, etc.) be constructed as high as possible to eliminate intrusion into the permanent groundwater table. If any permanent depressed structures would extend below the permanent groundwater table, we would recommend they be designed to resist hydrostatic pressures / uplift acting on the structure and be fully waterproofed. Depressed structures such as below grade parking, loading docks, elevator pits, earth retaining walls, etc. which are situated above the permanent groundwater table, can be designed with conventional foundation wall and underslab drainage

Construction dewatering will need to be implemented as necessary for surface water control and for all excavations, which will encounter groundwater conditions. It is anticipated that conventional sump and pump methods of dewatering, along with the placement of a crushed stone working mat/drainage layer and underdrains, in the bottom of the excavations can be used to control localized perched groundwater conditions, where the excavations are above the permanent groundwater table.

For excavations which may extend below the permanent groundwater level, more substantial methods of dewatering are expected to be necessary to adequately depress the groundwater conditions. Within the lower plateau area the use of a vacuum well point type dewatering system appears will be necessary to properly dewater the finer grained silt and sand deposit. In addition, the placement of a crushed stone working mat/drainage layer in the excavation bottom, to assist with the vacuum well point dewatering effort, appears would also be necessary to provide a suitable working surface. With regard to dewatering below the permanent groundwater table, particularly in the lower plateau area, we recommend a Dewatering Specialty Contractor be retained to design and construct appropriate dewatering systems.

4.10.3 Site Preparation Considerations

The site preparation work should be performed during seasonal dry periods to minimize potential degradation of the subgrade soils and potential undercuts which may be required to establish a stable base for construction. It should be understood that the indigenous subgrade soils that will be exposed are sensitive and will degrade and lose strength when they are wet and disturbed by construction equipment traffic. Accordingly, efforts should be made to maintain the subgrades in a dry and stable condition at all times, and not permit excessive or heavy construction traffic directly over these soils.

Measures to provide suitable site drainage should be implemented as necessary prior to commencing the site stripping and subgrade preparation work. Such measures, may include installation of drainage swales to intercept and divert surface runoff away from the construction areas, sloping of the subgrade and "sealing" of the surface with a smooth drum roller to promote runoff, and restricting construction equipment traffic from traveling directly over the subgrade surfaces, especially when they are wet. The placement of a suitable base material and underlying stabilization geotextile, beneath haul roads, and in construction staging areas, will help to protect the subgrades and minimize problems associated with subgrade degradation.

The site preparation work should include the removal and proper disposal of all existing structures, utilities, trees, stumps, vegetation, topsoil, organic soils, etc., and existing non-engineered man-placed fill materials present within the proposed building and parking structure pad areas and pavement areas. Following removal of the surface materials and excavation to the proposed subgrades, the exposed subgrades should be proof-rolled and evaluated under the guidance and direction of qualified geotechnical engineering personnel.

Undercuts, which may be required as the result of unsuitable or unstable soils present, should be performed based on guidance provided by the geotechnical engineer. Resulting undercuts should be backfilled with a suitable material as recommended by the geotechnical engineer.

The placement of an initial lift of suitable larger size stone fill material (i.e. minus 6-inch crusher run stone, No.3 & No.4 Stone, etc.) encased in stabilization geotextile top and bottom, may be necessary in some cases to help stabilize the subgrades prior to the subgrade fill placement, particularly if the existing subgrades are in a soft/wet condition.

The subgrade fill should be placed to a stable condition and should not "pump" or show signs of movement or significant deflection (i.e. unstable conditions) as it is being constructed. Any unsuitable conditions should be undercut and removed. The fill subgrades should also be properly graded, drained and protected from moisture and frost. Placement of fill over wet, soft, snow covered or frozen subgrades should not be permitted.

Subgrade fill placement necessary to raise site grades should be performed sufficiently in advance of foundation, floor slab, pavement and utility construction. We recommend the subgrade fill placement, in areas requiring more than about 3 to 4 feet of fill, be completed at least 1 to 2 months in advance of the foundation, floor slab, utility and pavement construction, to allow for associated settlements to occur.

Preliminarily, general site grading cut and fill slopes appear should be established at slopes no steeper than about 2 horizontal to 1 vertical. This is contingent that no groundwater seepage is present.

The on-site soils should be able to be used for constructing the fills for establishing the building pad and pavement areas, provided they can be properly placed and compacted in a controlled manner and to a stable well engineered

condition, in accordance with our recommendations. On-site soils which are used for filling within the building pad area and pavement areas should consist of current undisturbed indigenous soils which are free of all demolition debris, existing fill materials, organics, and any soft, wet or otherwise deleterious material. In addition, indigenous soils consisting of fine grained silt and fine sand should be segregated out and not used for subgrade fill within the building and pavement areas. It is recommended that subgrade fill placed directly beneath spread foundations consist of an imported Structural Fill material, as described below in Section 4.90.

It should be understood, that the on-site soils may be difficult to work with (i.e. dry for proper compaction), vs. an imported Suitable Granular Fill or Structural Fill material as described below, particularly during seasonally inclement or wet weather. Efforts should be made to maintain the fill subgrades in a dry and stable condition at all times, and limit construction traffic directly over these soils, particularly if they become wet. Subgrade fill should have a moisture content within –3 % to +1 % of the optimum moisture content (determined by ASTM D 1557) when it is placed and compacted. Soils having moisture contents exceeding this range may require drying efforts to be implemented by the contractor.

Subgrade fill placed to establish the building pad and pavement areas, using the on-site soil material and/or imported Structural Fill or Suitable Granular Fill, should be compacted to a minimum of 95 percent of the maximum dry density as measured by the modified Proctor moisture-density relationship (ASTM D 1557). The subgrade fill should be placed in horizontal lifts that do not exceed a maximum loose lift thickness of 6 to 9 inches. The loose lift thickness should be reduced in conjunction with the compaction equipment used so that the required density is attained. All fill placement and compaction should be closely monitored and tested on a "full-time" basis by qualified geotechnical engineering personnel.

In conjunction with preparation of the building pad, a crushed stone working mat/drainage layer be should be considered to provide a suitable working surface for the foundation construction. The working mat/drainage layer will also help with construction dewatering efforts (i.e. control of potential localized perched groundwater seepage) and will also help protect the underlying subgrades. In addition the working mat/drainage layer can also be incorporated into a permanent underslab drainage layer beneath the ground floor system.

Depending on the subgrade and groundwater conditions, it is anticipated the crushed stone working mat/drainage layer may need to range between about 12-inches and 18-inches ±, thick. It may also be necessary to increase the thickness of

this layer in areas where construction traffic will be more concentrated such as for pile driving, foundation/pile cap excavation, spoil removal and placement of concrete and also where the subgrade soils consist predominately of fine sand and silt soil (i.e. within the plateau area).

The working mat/drainage layer material should consist of Structural Fill (Subbase Stone), as describe in Section 4.90. A stabilization / separation geotextile, such as Mirafi 500X or equivalent should be placed over the existing subgrades prior to placement of the working mat/drainage layer.

4.20 PRELIMINARY RECOMMENDATIONS FOR SPREAD FOUNDATION DESIGN

The use of spread foundations will require excavation and removal of all existing structures, utilities and fill from beneath the foundations. Spread foundations should bear on suitable, relatively undisturbed indigenous soil bearing grades or they can bear on compacted Structural Fill, which is placed over suitable indigenous soil bearing subgrades.

Where compacted Structural Fill is placed beneath spread foundations, it should extend out horizontally beyond the foundation limits, a distance equal to at least 0.5 times the thickness of the Structural Fill layer beneath the foundation. This will need to be considered in preparing the foundation bearing grades, particularly where site grade fills are required. Recommendations for compacted Structural Fill material are described below in Section 4.90.

In all cases continuous foundations should be at least 2.0 feet in width and column/individual foundations should be at least 3.0 feet in width. Interior foundations should be embedded a minimum of 2.5 feet, below finished floor grade, for bearing capacity. Exterior foundations should be embedded a minimum of 4.0 feet below finished exterior grades for frost protection. All foundations, however, must bear on suitable bearing subgrades in accordance with the recommendations above.

It is estimated that spread foundations sized and properly constructed in accordance with our recommendations will undergo total settlement of less than 1-inch. The majority of the settlement should occur shortly after construction is complete and the foundation loads applied.

4.20.1 Spread Foundations in Lower Plateau Area:

Spread foundations constructed on suitable indigenous soil bearing grades or on Structural Fill placed over the suitable bearing grades in the lower plateau area (i.e. within the site area below El. 430 feet) can be sized based on the following maximum net allowable bearing pressures:

Spread Foundation Type and Width	Net Allowable Bearing Capacity
Continuous Wall Footings	2,000 pounds per square foot (psf)
Column Footing Less than 5.0 feet	2,000 psf
Column Footing Equal to or Greater than 5.0 feet and Equal to or Less than 8.0 feet*	3,000 psf

**It is recommended that spread foundations (column footings) in the lower plateau area be limited to a maximum size of around 8 feet in order to limit foundation settlement to around 1-inch or less.*

4.20.2 Spread Foundations in Higher Glacial Till Drumlin Area:

Spread foundations constructed on suitable indigenous soil bearing grades or on Structural Fill placed over the suitable bearing grades in the glacial till area (i.e. within the site area above El. 430 feet) can be sized based on the following maximum net allowable bearing pressures:

Spread Foundation Type and Width	Net Allowable Bearing Capacity
Continuous Wall Footings	3,000 psf
Column Footing Less than 5.0 feet	3,000 psf
Column Footing Equal to or Greater than 5.0 feet and Less than 8.0 feet	5.000 psf
Column Footing Equal to or Greater than 8.0 feet and Equal to or Less than 16.0 feet*	6,000 psf

*It is recommended that spread foundations (column footings) in the glacial till drumlin area be limited to a maximum size of 16 feet in order to limit foundation settlement to around 1-inch or less.

4.30 PRELIMINARY RECOMMENDATIONS FOR DRIVEN PILE FOUNDATION DESIGN

H-piles driven to absolute refusal on the Shale and Siltstone bedrock or to practical refusal in the deeper bouldery and/or very compact glacial till deposits, can be considered to support the more heavily loaded structures, particularly the high rise hotel and parking garage structures, where spread foundations may not be suitable.

Shale and Siltstone bedrock was encountered at depths of 60 feet (El. 365.0 feet ±) and 75.5 feet (El. 345.7 feet ±), at test borings B-4 and B-9, respectively, which were made within the lower flatter plateau area of the site. Additional test borings will be necessary to further define the bedrock elevation within the upper drumlin area.

H-piles driven to refusal will derive their capacity predominately through end bearing. The H-piles should be equipped with a driving shoe to help limit potential damage when driving through or into cobble/boulder zones and very compact glacial till or into the Shale/Siltstone bedrock surface.

As stated above zones of apparent cobbles and boulders were encountered within the upper reaches of some of the test borings which may impact driven pile installation. Accordingly, procedures for driving through such zones (i.e. such as pre-drilling) will need to be considered.

Preliminarily it is anticipated an H-pile driven to practical refusal may be designed for an allowable axial capacity equal to about 25% of the pile yield strength or 12.5 kips per square inch (ksi), whichever is less, times the cross sectional area of the pipe. On this basis the following allowable pile capacities could be used for preliminary design.

Pile Section	Allowable Axial Compressive Capacity per H-Pile	Required Ultimate Test Capacity
HP 12 x 74	136 tons	272 tons
HP 12 x 53	96 tons	192 tons

The ultimate load test capacities presented above assume a Factor of Safety of 2.0 as required by the Building Code of New York State. These pile capacities do not consider section reduction as the result of potential corrosion, which should be evaluated as part of final geotechnical evaluation and design.

Driven piles should be spaced a minimum of 3 pile widths apart, or three feet, whichever is greater. At this spacing, no group reduction factor is considered necessary. Pile caps and grade beams for driven pile foundations should be embedded a minimum of 4 feet below final exterior grades for frost protection.

Absolute refusal would be defined when about 5 blows have been recorded for less than ¼ inch of pile penetration and the pile reaches the anticipated bedrock elevation. Practical refusal would be defined when about 20 blows or greater per 1 inch of penetration have been recorded for 3 consecutive inches. The final pile driving criteria, however, will need to be confirmed by the pile driving contractor through the use of the wave equation based on the actual pile, pile hammer and cushions that will be used as well as through dynamic load testing. Performance of a pile load testing program during the design phase may also be beneficial in evaluating pile installation conditions and performance, and to further assess the pile sections and allowable pile capacities which would be acceptable.

4.40 SLAB-ON-GRADE CONSTRUCTION

The ground floors of the building and parking garage structures can be constructed as slab-on-grade, provided suitable subgrade preparation is performed as outlined in Section 4.10.3. For preliminary design purposes, a minimum of 8-inches of Subbase Stone is recommended beneath the lightly loaded floor slabs (hotel and office floors, lightly loaded entertainment floors, etc.). A minimum 15-inch thick layer of Subbase Stone is recommended beneath more heavily loaded floor slabs (i.e. garage areas, storage areas, mechanical rooms, floors subject to vehicle loads, etc.). A suitable stabilization/separation geotextile, such as Mirafi 500X, should be placed over the existing soil or engineered fill soil subgrades prior to placement of the Subbase Stone layer.

Preliminarily, the slab-on-grade floor slabs may be designed using a modulus of subgrade reaction of 150 pounds per cubic inch (pci) at the top of the subbase layer. It is recommended that the slab-on-grade be constructed such that it is not structurally connected to, or resting directly on, perimeter walls or column footings in order to limit differential settlement effects.

4.50 DEPRESSED STRUCTURE AND EARTH RETAINING WALL DESIGN

As previously stated, it appears that a generalized groundwater condition (i.e. "groundwater table") is present on the site around El. 409 to 417.5 feet. It is also possible that some localized zones of perched or trapped groundwater may be present within the upper drumlin soils.

Accordingly, below grade structures, which would be situated below the generalized groundwater conditions, should be designed to resist full hydrostatic pressures acting on the structure walls and bottom slab, as well as be properly waterproofed.

Where depressed structures are situated above the design groundwater elevation, a foundation drainage system, as discussed below, can be incorporated, to relieve hydrostatic pressures from developing against the structure walls and bottom, due to the potential presence of upper perched groundwater zones. In this case it is recommended the below grade walls and floors be damp proofed where suitable foundation drainage is provided.

Below grade building and parking structure walls and other depressed structure walls (i.e. elevator pits, vaults, etc.), which are designed to be non-yielding, should be designed to resist "at rest" lateral earth pressures generated by the earth backfill and also for any temporary or permanent surcharge loads. Walls, which are allowed to yield (i.e. cantilevered earth retaining walls), can be designed on the basis of "active" lateral earth pressures.

The following soil parameters can be used for preliminary design of the earth retaining type walls. These parameters are based on the wall backfill consisting of Suitable Granular Fill or Structural Fill, as described below in Section 4.90. These parameters are also based on a maximum wall height of about 15 to 20 feet, and also assume a level grade at the top of the wall.

Recommended Soil Parameters for Depressed Structure Foundation Wall Design

- Coefficient of "At-Rest" Lateral Earth Pressure – 0.47
- Coefficient of "Active" Lateral Earth Pressure – 0.31
- Coefficient of "Passive" Lateral Earth Pressure – 3.25
- Angle of Internal Friction – 32 Degrees
- Moist Unit Weight of Soil – 135 pcf
- Submerged or Buoyant Unit Weight of Soil – 73 pcf
- Surcharge Load Lateral Coefficient – 0.50

Accordingly, the following Equivalent Fluid Unit Weights for Soil Lateral Earth Pressure are derived from the above lateral earth pressure coefficients and soil unit weights.

Lateral Earth Pressure Type	Equivalent Fluid Unit Weight for Moist Soil (Above Groundwater)	Equivalent Fluid Unit Weight for Submerged or Bouyant Soil (Below Groundwater)
"At-Rest" Earth Pressure	64 pcf	35 pcf
"Active" Earth Pressure	42 pcf	23 pcf
"Passive" Earth Pressure	435 pcf	238 pcf

If the structure is designed for full hydrostatic pressures, the hydrostatic pressure acting the wall must also be added to the submerged or buoyant soil equivalent fluid unit weight lateral earth pressures acting on the wall. In addition, the floor / bottom slab must be designed to resist the hydrostatic uplift pressure acting on it. In this case, the depressed structure should also be fully water proofed. For preliminary design purposes, we would recommend the groundwater conditions be assumed at El. 417 feet.

Foundation wall drains, to intercept perched groundwater and relieve potential hydrostatic pressures, should be provided where the below grade building and parking structure walls and other depressed structure walls/earth retaining walls are situated above the design groundwater elevation. The foundation drainage system must be properly designed, installed and maintained for long-term performance and should include such features as clean-outs, to properly maintain the system. The cleanouts should be spaced at maximum 100 feet intervals along straight runs, and at all corners or bends The foundation drainage system should drain to a sump and pump system. The foundation drain pipes should be set at a minimum depth of 1.0 foot below the structure floor grade or lowest adjacent grade.

The foundation drainage should include a drainage/separation geotextile (i.e. Mirafi 160N or suitable equivalent) installed around drainage stone, which surrounds a slotted under-drain pipe. The drainage stone should be sized in accordance with the pipe slotting or perforations. A crushed aggregate conforming to NYSDOT Standard Specifications Section 703-02, Size Designation No. 1 (½-inch washed gravel or stone) is generally acceptable for slotted HDPE or PVC under-drain pipe. The foundation drainage stone and surrounding geotextile, along the walls, should extend above the drainpipe a minimum of 2 feet.

A suitable geosynthetic drainage composite (i.e. "Grace Hydroduct", "Miradrain", "Delta MS" or other suitable equivalent) should be placed against the foundation wall, above the drainage system, to allow infiltration to the drainage system. The

drainage media against the wall should extend to about 1 to 2 feet below the finished grade surface, where it may be capped off with the foundation backfill material.

In addition, we recommend that permanent under-drains be provided beneath the depressed structure floor system. The under-drains should be spaced at intervals of about 30 to 40 feet or less. As discussed above in Section 4.10.3, the permanent under-slab drainage system (under-drains) can be incorporated into the working mat/drainage stone layer placed in the bottom of the building pad. We also recommend that the below grade structure be properly damped proofed and a suitable moisture barrier be placed beneath the below grade structure floors.

4.60 SEISMIC DESIGN CONSIDERATIONS

Based on the subsurface conditions encountered in the test borings performed in the less favorable plateau area, the upper 100 feet of the site should be classified as Seismic Site Class "D" in accordance with the criteria presented on Table 1613.5.2 of the Building Code of New York State - December 2010 (NYS Building Code).

The soil conditions encountered are generally not considered to be susceptible to potential liquefaction in the case of a seismic event. The fluvial soil deposits in the plateau area, however, do contain some relatively minor localized zones of very loose silt and fine sand, which should be further evaluated with laboratory testing and analyses as part of a final geotechnical evaluation, to confirm they are not susceptible to potential liquefaction, particularly if spread type foundations would be situated over this area.

The spectral response accelerations in the project area were obtained by Empire using the United States Geological Survey (USGS) web site application (https://geohazards.usgs.gov/secure/designmaps/us/). These accelerations were then adjusted, as recommended by the USGS, to obtain the 2% probability in 50 years mapping accelerations, as presented in the NYS Building Code.

Using the site location at International Boulevard and Breunig Way in the Town of Windsor, the calculated spectral response accelerations for Site Class "B" soils are 0.216g for the short period (0.2 second) response (S_S) and 0.057g for the one second response These spectral response accelerations were then adjusted for the Seismic Site Class "D" soil profile determined for the project site.

Accordingly, the adjusted spectral response accelerations for Site Class "D" are as follows:

- Short Period Response (S_{MS}) - 0.346g
- 1 Second Period Response (S_{M1}) - 0.137g

The corresponding five percent damped design spectral response accelerations (S_{DS} and S_{D1}) are as follows:

- S_{DS} - 0.231g
- S_{D1} - 0.091g

It is possible that a seismic shear wave velocity study of the site may refine and could possibly upgrade the seismic design site class to Site Class "C". This may be particularly beneficial with regard to the design of the high rise hotel and parking garage structures, considering the costs associated with seismic reinforcement of these structures. It should be understood however, that there is no guarantee that a seismic site class upgrade can be made if a seismic shear wave study is performed.

4.70 PAVEMENT DESIGN

It is estimated that the existing subgrade soils will have a typical CBR value of about 2 ±, or greater. This correlates to a soil resilient modulus of about 3,000 psi, which has been used for preliminary pavement design evaluations. Accordingly, preliminary pavement design recommendations are provided for two (2) flexible pavement structure types for use within the proposed development project.

These include the following:

- A heavy duty asphalt concrete pavement for the entrance, access drives and pavement areas, which will be subject to buses and delivery truck traffic, as well as automobile / SUV ingress/egress to the facility. (Heavy Duty Asphalt Concrete Pavement Structure); and
- A light duty asphalt concrete pavement for automobile / SUV only parking areas (Light Duty Asphalt Concrete Pavement Structure).

5.00 RECOMMENDATIONS FOR ADDITIONAL GEOTECHNICAL INVESTIGATIONS

Additional subsurface explorations should be completed for final design based on the final established building locations, the structure loads and the design grades of the foundation system(s) in relation to the site topography and currently known subsurface conditions present.

Preliminarily we would recommend that additional building area test borings be performed to provide an approximate frequency of about one (1) boring per about 7,500 to 10,000 square feet of building footprint, with no less than about 6 borings in the high rise hotel area and no less than about 8 borings in the parking garage structure area. The depth of the additional borings will need to consider the building structure location and existing site grades, loads, expected foundation type and bearing grade elevation. Where deep foundations will be required, most of the additional borings should extend to bedrock, with 10 feet of rock core to confirm the bedrock depth and conditions.

Additional borings along the proposed roadway and within surface parking lot areas should be made to provide a frequency of about one (1) boring per 250 to 400 linear feet of road and/or about one (1) boring per about 15,000 to 20,000 square feet of parking lot area. The roadway borings should extend at least 5 feet beneath the anticipated utility inverts and the parking lot area borings should extend to a depth of about 6 feet, below existing site grades.

In addition, we recommend the installation of at least two (2) more groundwater observation wells on the upslope side of the facility. These wells should extend to at least 15 to 20 feet, below the expected building pad elevation.

Empire can be consulted to assist in planning the locations and scope of the additional explorations and recommended laboratory testing, along with the additional geotechnical evaluations that may be necessary for final design, based on the final development plans.

6.00 CONCLUDING REMARKS

This report was prepared to assist in evaluating the geotechnical characteristics of the subsurface conditions present on a proposed development project site located off International Boulevard in New Windsor, New York, as described in Section 1.20 above. In addition this report provides preliminary geotechnical considerations and recommendations to assist with planning and preliminary

design of the proposed project. The report has been prepared for the exclusive use of Wendel and related parties, for specific application to this site and this project only.

The considerations and preliminary recommendations presented were prepared based on Empire Geo-Services, Inc.'s understanding of the proposed site development, as described herein, and through the application of generally accepted soils and foundation engineering practices. No warranties, expressed or implied are made by the conclusions, opinions, recommendations or services provided.

This report was prepared for site characterization and preliminary site development planning purposes only. It should not be considered as providing complete or sufficient subsurface information for final building foundation design and construction. Additional subsurface explorations and geotechnical engineering evaluations will be necessary based on the actual planned site development, including the building sizes, location, and structural loads.

Additional information regarding the use and interpretation of this report is presented in Appendix B.

Sincerely,

EMPIRE GEO-SERVICES, INC.

John J. Danzer, P.E.
Senior Geotechnical Engineer

TABLE

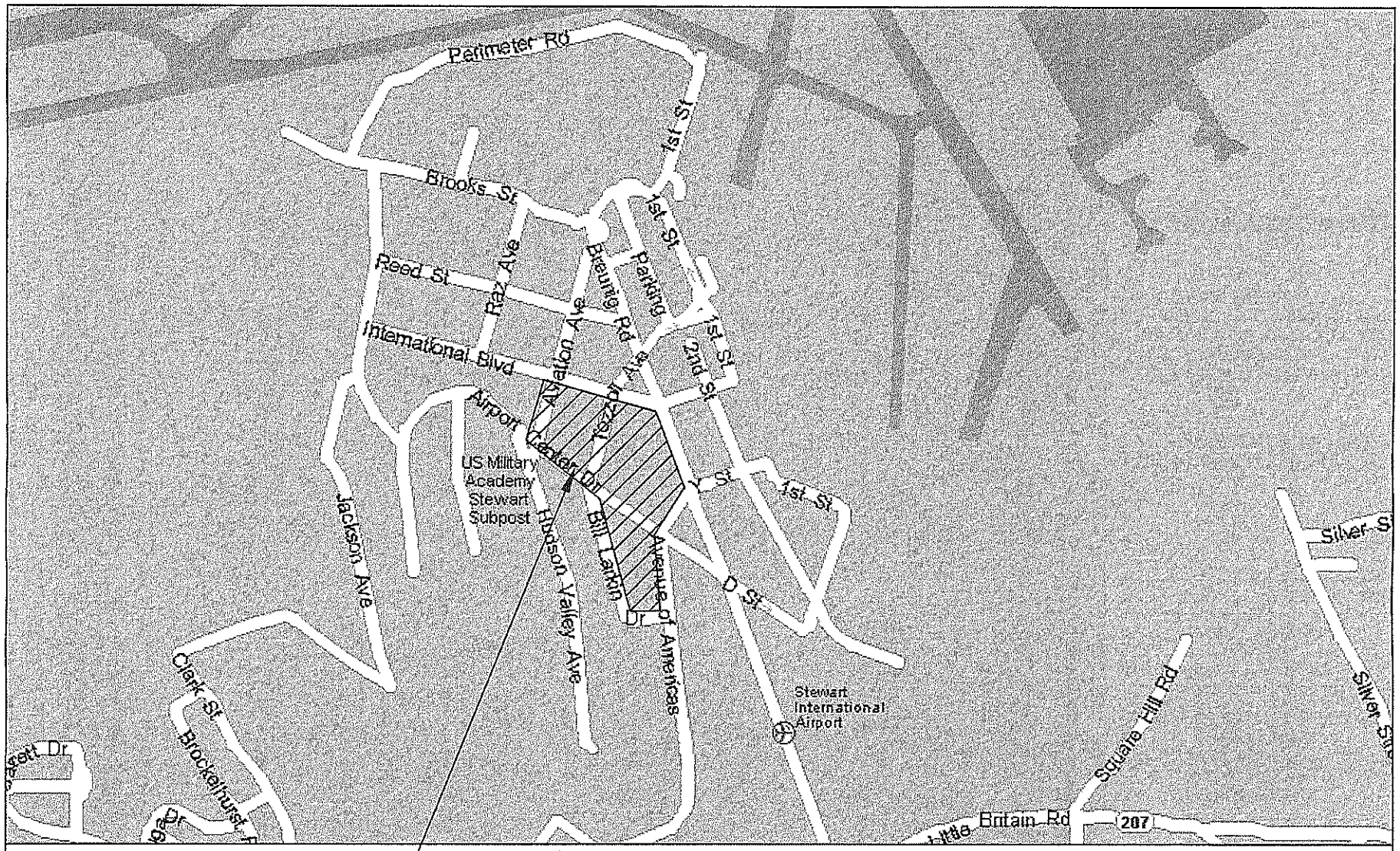
May 12, 2014
Project No.: BE-14-047

TABLE 1
SUMMARY OF GROUNDWATER LEVELS

PROPOSED DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD AND BREUNIG WAY
NEW WINDSOR, NEW YORK

Boring Number	Est. USGS Ground El.	Groundwater Depth	Est. Groundwater Elevation	Remarks
B-1	457.1			Not Encountered
B-2	468.1			Not Determined due to Water Added for Drilling
B-3	452.8	39.2	413.6	Water Level in Boring Prior to Coring
B-4	425.0	10.6	414.4	Depth Initially Encounterd
B-5	441.9	26.4	415.5	Depth Initially Encounterd
B-6	430.2	18.1	412.1	Depth Initially Encounterd
B-7	422.9	7.9	415.0	Water in Observation Well on 4/8/14
B-8	427.9	18.6	409.3	Depth Initially Encounterd
B-9	421.2	4.0	417.2	Water Level in Boring Prior to Coring
B-10	424.1	14.1	410.0	Depth Initially Encounterd
B-11	424.6	11.4	413.2	Water in Observation Well on 4/8/14
B-12	439.4	10.3	429.1	Depth Initially Encounterd

FIGURES



APPROXIMATE LOCATION OF PROJECT SITE

N

NOTE:
SITE LOCATION PLAN DEVELOPED
FROM MICROSOFT STREETS & TRIPS 2006

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR, ORANGE COUNTY, NEW YORK

SITE LOCATION PLAN

DR BY: WMA	SCALE: NTS	PROJ NO.: BE-14-047
CHKD BY: JJD	DATE: 04/15/14	FIGURE NO: 1

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

AERIAL PHOTOGRAPH OF PROJECT SITE SHOWING PREVIOUS BUILDING STRUCTURES

PROPOSED SITE
DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR
ORANGE COUNTY, NEW YORK

SCALE: 1" ~ 200'	PROJ NO.: BE-14-047
DATE: 05/12/14	FIGURE NO: 2
DR BY: WMA	CHKD BY: JJD

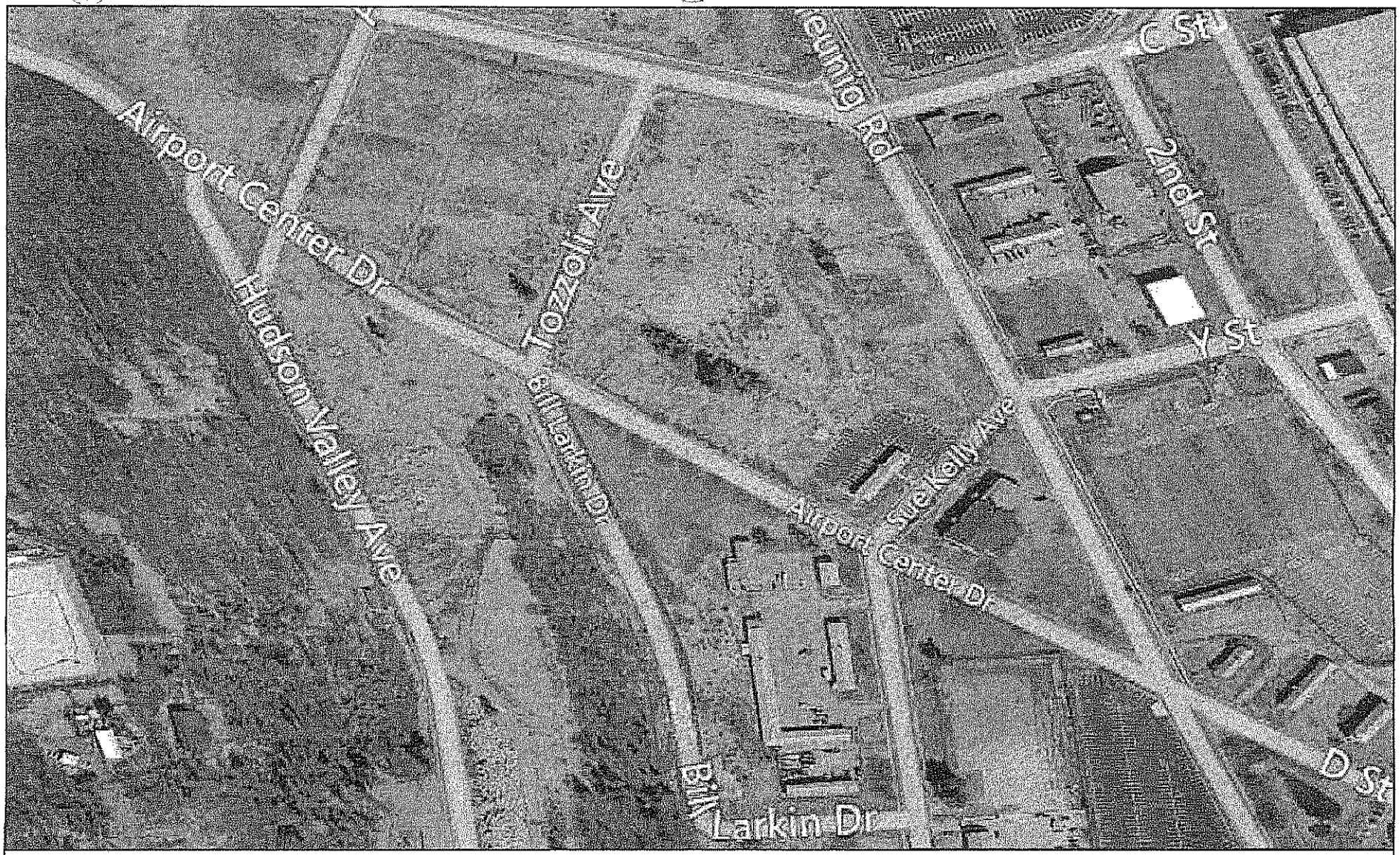
N

NOTES:

1.) FIGURE DEVELOPED FROM AERIAL MAP PROVIDED BY WENDEL COMPANIES

2.) ELEVATION CONTOURS SHOWN DO NOT FULLY REPRESENT CURRENT EXISTING SITE CONTOURS AND SURVEYED ELEVATION DATUM AS SHOWN ON FIGURE 4.

200 0 200
SCALE FEET



NOTE:

FIGURE DEVELOPED FROM
BING MAPS © 2014
MICROSOFT CORPORATION

200 0 200
SCALE FEET

EMPIRE GEO SERVICES INC
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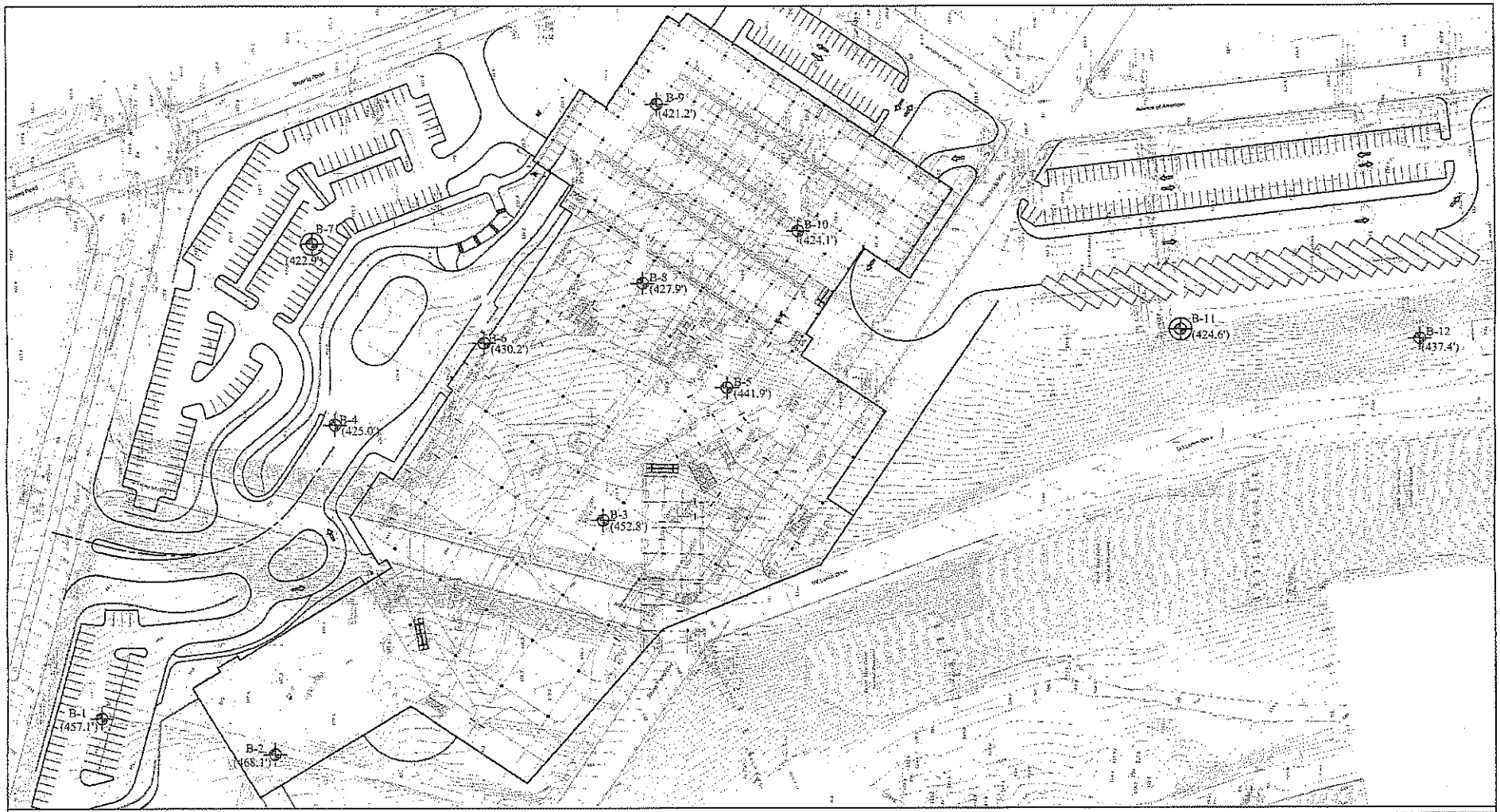
PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR, ORANGE COUNTY, NEW YORK

AERIAL PHOTOGRAPH OF
PROJECT SITE SHOWING
CURRENT SITE CONDITIONS

DR BY: WMA	SCALE: 1" ~ 200'	PROJ NO.: BE-14-047
CHKD BY: JJD	DATE: 04/15/14	FIGURE NO: 3



LEGEND:

B-1 (457.1') — APPROXIMATE LOCATION, DESIGNATION AND ELEVATION OF TEST BORING.

B-7 (422.9') — APPROXIMATE LOCATION, DESIGNATION AND ELEVATION OF TEST BORING COMPLETED WITH GROUNDWATER OBSERVATION WELL.

NOTE:

FIGURE DEVELOPED FROM TOPOGRAPHICAL SURVEY MAP PROVIDED BY WENDEL COMPANIES

N

100 0 100

SCALE FEET

EMPIRE GEO SERVICES INC
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PROPOSED SITE DEVELOPMENT PROJECT
INTERNATIONAL BOULEVARD
NEW WINDSOR
ORANGE COUNTY, NEW YORK

SUBSURFACE EXPLORATION PLAN	DR BY: WMA	SCALE: 1" ~ 100'	PROJ NO.: BE-14-047
	CHKD BY: JJD	DATE: 05/12/14	FIGURE NO: 4

APPENDIX A

PRELIMINARY TEST BORING LOGS AND GROUNDWATER OBSERVATION WELL INSTALLATIONS

DATE
START 4/1/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-1
SURF. ELEV 457.1' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	4			GLACIAL TILL	
		12	10		16	Brown SILT and fine Sand with little embedded	
	2	10	7			coarser sands, rock fragments (moist, firm, ML)	
		5	5		12	Similar	
5	3	5	4			Grades some Rock fragments, tr.clay (loose)	
		5	4		9		
	4	11	6			Grades (firm)	
		8	10		14		
	5	10	39			Glacial Till: Brown SILT and fine Sand, some	
10		50/0.3			REF	embedded coarser sands, Rock fragments	
	6	50/0.4				(damp, v.compact)	REF = Sample Spoon
					REF	Recovered Gray Rock fragments	Refusal
15							
	7	39	41			Glacial Till as described above	
		26	25		67		
20							No Recovery Sample #8
	8	50/0.4			REF		
						Boring Complete at 20.4'	No measurable groundwater in augers upon completion of sampling.
25							
30							
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/2/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-2
SURF. ELEV 468.1' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL. NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
						GLACIAL TILL	
	1	6	9				
		12	9		21	Brown SILT and fine Sand with little embedded coarse	
	2	16	16			sands, gravel, rock fragments (moist, firm, ML)	Slight solvent odor noted
		12	14		28	Similar	in Samples #3 and #4.=
5	3	10	16			Similar (compact)	
		21	12		37		
	4	50/0.4			REF	Similar (damp, v.compact)	REF = Sample Spoon Refusal
	5	50/0.3			REF	Similar	
10							No recovery Sample #6
	6	50/0.1			REF		
							Difficult drilling. Hole Progressed with rollerbit/open hole below depth of 10.0'
15							
	7	15	23			Glacial Till: Brown Silt and fine Sand, some	
		30	24		53	embedded coarser sands, gravel, rock fragments (moist, v.compact, ML)	
20							
	8	10	11			Glacial Till: Gray SILT and fine Sand, some	Till becomes "softer"
		13	16		24	embedded coarser sands, gravel, rock fragments (v.moist, firm, ML)	
25							
	9	13	16			Rock fragments more prevalent	
		12	15		28	(v.moist to wet)	
30							
	10	13	15			Similar to Sample #8 (moist, compact)	
		19	22		34		
						Boring Complete at 32.0'	Water level at grade upon completion of sampling. However, water was used to facilitate drilling with rollerbit.
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/1/2014
FINISH 4/3/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-3
SURF. ELEV 452.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	4			Possible Fill: Brown SILT, fine Sand with embedded coarser sands, gravel (moist)	REF = Sample Spoon Refusal
		50/0.4			REF		
	2	50/0.4			REF	Recovered piece of coarse gravel	
							Driller Notes:
5	3	17	7			Glacial Till: Brown SILT and fine Sand with embedded coarser sands, gravel, rock fragments (moist, firm, ML)	hard drilling with cobbles/ boulders to depth of Approx. 12'
		5	11		12		
	4	9	10			Similar (v.compact)	
		50/0.4			REF		
	5	50/0.2			REF		Poor Recovery Sample #5
10							
	6	44	50/0.4		REF	Similar	
15							
	7	8	7			Glacial Till: Brown-Gray SILT and fine Sand with some embedded coarser sand, gravel, rock fragments (moist, firm)	
		11	13		18		
20							
	8	5	8			Similar	
		14	19		22		
25							
	9	7	9			Similar	
		13	15		22		
30							
	10	9	10			Similar	
		16	22		26		
35							
	11	8	10			Brown fine to medium SAND, little coarse sand, gravel, tr.silt (moist, firm, SP)	
		17	19		27		
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/3/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-3
SURF. ELEV 452.8' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	3	6			Brown fine SAND, some Silt (wet, firm, SM)	
		16	20		22		
45	13	5	12			Gray SILT, little v.fine sand (wet, firm, ML)	
		15	18		27		
50	14	2	6			Gray Silt	
		11	11		17		
55	15	4	27			Gray GRAVEL and Silty f-c Sand (wet, compact, GP)	Driller Notes: Running sands with augers at 55'
		17	16		44		REF = Sample Spoon Refusal
60	16	13	25			Glacial Till: Gray SILT and fine Sand with little embedded coarser sands, gravel, rock fragments (moist, v.compact, ML)	
		50/0.4			REF		Driller reports auger refusal at 65.5'
65							NQ '2' Size Rock Core
	17	50/0.0			REF		
						Bedrock apparently not encountered. Core recovery consists of apparent limestone cobble/boulder pieces and coarse gravel.	RUN #1: 65.5' - 70.5' REC = 42% RQD = 21%
70							
						Boring Complete at 70.5'	Water level at 39.2' in augers prior to coring.
75							Water level at 16.1' in augers upon completion of coring.
80							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/7/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-4
SURF. ELEV 425.0' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	5			Possible Fill: Brown SILT and fine Sand, little	
		5	6		10	embedded coarser sand, gravel (moist, loose, ML)	
	2	4	3			Becomes Clayey with tr.organics (v.moist)	
		3	3		6		
5	3	6	11			Brown fine SAND, some Silt, little coarser sand,	
		11	10		22	gravel (moist, firm, SM)	
	4	16	11			Grades to and Silt, tr.clay	
		9	11		20		
	5	10	8			Brown f-m SAND, some Silt, little gravel	
10		10	10		18	(moist, firm, SM)	Groundwater initially
	6	11	10			Brown f-c SAND, little gravel, silt	encountered at 10.6'
		10	10		20	(wet, firm, SM)	during drilling.
							Groundwater at 28.6'
							in augers upon
15							completion of sampling.
	7	1	3			Grades f-m Sand (loose)	
		4	6		7		
20							
	8	3	5			Gray fine SAND, little Silt	
		6	8		11	(wet, firm, SM)	
25							
	9	2	3			Gray SILT and v.fine Sand	
		4	4		7	(saturated, loose, ML)	
30							
	10	4	5			Gray SILT, tr.clay (saturated, firm, ML)	
		7	9		12		
35							
	11	2	7			similar	
		10	8		17		
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/1/2014
FINISH 4/7/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-4
SURF. ELEV 425.0' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL. NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	1	6			Gray SILT, tr.clay (saturated, firm, ML)	Boring initially terminated at 42.0' on 4/1/14. On 4/7/14, augered to depth of 45.0' and resumed sampling.
		7	9		13		
45	13	WOH	1			Gray Silt (saturated, v.loose, ML)	WOH = Weight of Hammer and Rods
		WOH	2		1		
50	14	5	4				Driller Notes: Cobbles and boulders below depth of 52.5'
		4	3		8		No Recovery Sample #14
55	15	22	14			Gray Silty f-c SAND, some gravel, Rock fragments (wet, firm, SM)	No Recovery Sample #16
		11	15		25		Auger Refusal at 60.0'
60	16	50/0.1					NQ '2' Size Rock Core
65						Gray SHALE, medium hard, weathered, thin bedded to bedded at up to 45° from horizontal occasional fractures, slicken sides and calcite stringers.	RUN #1: 60.0' - 65.0' REC = 94% RQD = 20%
70						Especially weathered and broken in Core Run #2.	RUN #2: 65.0' - 70.0' REC = 58% RQD = 7%
75						Boring Complete at 70.0'	Water Level at 56.2' upon completion of coring.
80							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS; NX ROCK CORE

DATE
START 4/2/2014
FINISH 4/2/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-5
SURF. ELEV 441.9' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	5	6			Possible Fill: Brown SILT, some sand, rock	
		12	6		18	fragments, gravel (moist, firm)	
	2	6	4			Brown Silt, some f-m Sand, tr.organics (loose)	
		5	6		9		
5	3	5	4			Similar (root noted)	
		4	5		8		
	4	4	3			Grades Brown-Gray with Rock fragments	
		2	3		5		
	5	3	2			Similar, little organics (v.loose, v.moist)	
10		1	1		3		
	6	3	7			Glacial Till: Brown SILT and fine Sand with little	
		6	7		13	embedded coarser sands, gravel	
						(moist to v.moist, firm, ML)	
15							
	7	8	12			Similar, with Rock fragments (moist)	
		15	33		27		
20							
	8	13	17			Similar (damp, compact)	
		19	50/0.3		36		
25							REF = Sample Spoon Refusal
	9	50/0.2			REF		No Recovery Sample #9
30							
	10	22	8			Brown f-m SAND, tr.silt with silt seam	Groundwater initially encountered at 26.4' during drilling. Water level at 31.3' in augers upon completion of sampling.
		13	12		21	(wet, firm, SP)	
35							
	11	14	17			Gray SILT, some v.fine Sand (saturated, firm, ML)	
		12	16		29		
						Similar	
	12	13	11				
40		10	11		21	Boring Complete at 40.0'	

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI
DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/4/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-6
SURF. ELEV 430.2' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	6			Glacial Till: Brown SILT and fine Sand with little	
		6	8		12	embedded coarse sands, gravel, rock fragments	
	2	6	10			(moist, firm, ML)	
		9	10		19	Similar	
5	3	16	19			Similar (damp, compact)	
		24	21		43		
	4	21	29			Similar	
		26	27		55		
	5	11	13			Similar (firm)	
10		11	11		24		
	6	15	11			Similar (moist)	
		6	10		17		
15							
	7	7	7			Brown f-m SAND, tr.silt with silt seam	
		8	7		15	(wet, firm, SP)	
20							
	8	3	5			Grades Brown fine Sand	
		6	6		11		
25							
	9	5	6			Gray SILT, little v.fine Sand (wet, firm, , ML)	
		7	6		13		
	10	5	5			Grades Gray Silt and fine Sand (saturated, loose)	
30		4	5		9		
						Boring Complete at 30.0'	Groundwater initially ecountered at 18.1' during drilling. Water level at 19.6' in augers upon completion of sampling.
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/1/2014
FINISH 4/1/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-7
SURF. ELEV 422.9' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	11	8			TOPSOIL	
		10	11		18	Possible Fill: Brown-Gray Silty SAND and Gravel, little organics (moist)	
	2	8	7				
		6	10		13	Brown SILT and f-c Sand, little coarser Sand, gravel	
5	3	6	8			Rock fragments (moist, firm, ML)	
		7	4		15	Similar (v.moist)	
	4	4	5			Becomes Clayey (loose)	
		2	2		7		
	5	12	10			Brown-Gray fine SAND and Silt, little gravel	
10		8	8		18	(moist, firm, SM)	Groundwater initially encountered at 10.6' during drilling.
	6	7	8			Brown fine SAND, tr.coarse sand, Silt	Groundwater at 28.6' in augers upon completion of sampling.
		5	4		13	(wet, firm, SP)	
15							
	7	10	8			Grades Gray	
		4	3		12		
20							
	8	WOH	2			Gray SILT, some v.fine Sand	WOH = Weight of Hammer and Rods
		4	3		6	(saturated, loose, ML)	
25							
	9	3	3			Gray SILT, tr.clay (saturated, loose, ML)	
		3	3		6		
	10	2	3			Similar	
30		4	3		7		
						Boring Complete at 30.0'	Installed 2" PVC observation well in bore hole upon completion. See accompanying installation detail.
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

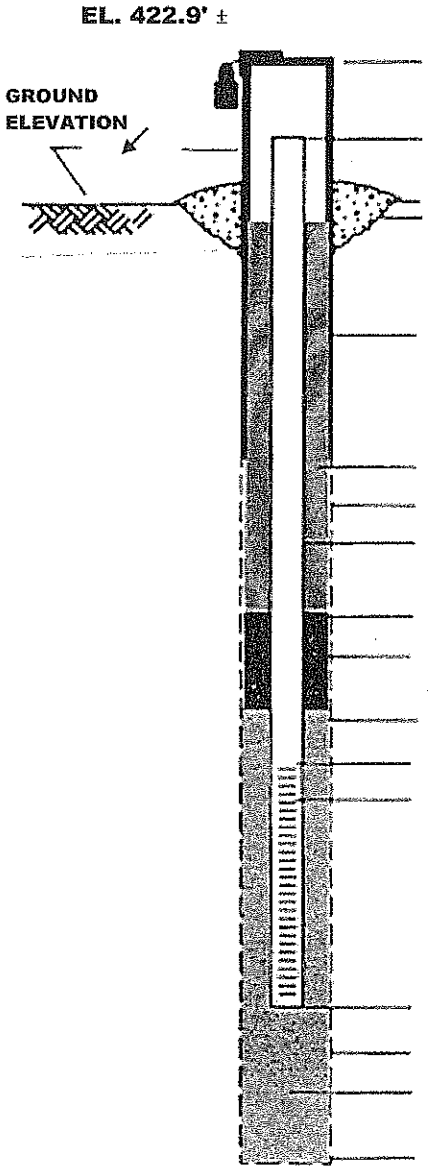
DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

MONITORING WELL COMPLETION RECORD

WELL NUMBER: B-7	
PROJECT: PROPOSED SITE DEVELOPMENT	**DRILLING METHOD:** HOLLOW STEM AUGERS
PROJECT NUMBER: BE-14-047	**GEOLOGIST:** N/A
DRILLER: G. SPIZZIRRI	**INSTALLATION DATE(S):** 4/1/14



TYPE OF SURFACE SEAL:	**CONCRETE**
TYPE OF SURFACE CASING:	**LOCKING STEEL PROTECTIVE CASING**
TYPE OF BACKFILL:	**AUGER CUTTINGS**
BOREHOLE DIAMETER:	**8" NOMINAL**
I.D. OF RISER PIPE:	**2"**
TYPE OF RISER PIPE:	**PVC**
DEPTH OF SEAL:	**6.0' EL. 416.9'±**
TYPE OF SEAL:	**BENTONITE CHIPS**
DEPTH OF SAND PACK:	**8.0' EL. 414.9' ±**
DEPTH TOP OF SCREEN:	**9.0' EL. 413.9' ±**
TYPE OF SCREEN:	**PVC**
SLOT SIZE X LENGTH:	**0.010" x 10.0'**
I.D. OF SCREEN:	**2"**
TYPE OF SAND PACK:	**MORIE FILTER SAND**
DEPTH BOTTOM OF SCREEN:	**29.0' EL. 393.9' ±**
DEPTH BOTTOM OF SAND PACK:	**30.0' EL. 392.9' ±**
TYPE OF BACKFILL BELOW OBSERVATION WELL:	**FILTER SAND**
ELEVATION/ DEPTH OF HOLE:	**30.0' EL. 392.9' ±**

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-8
SURF. ELEV 427.9' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	5			0.1' Topsoil, then Possible Fill: Brown SILT, some fine	
		5	5		10	Sand, little rock fragments, tr.organics (moist, loose, ML	
	2	5	11			Grades little organics and clay (firm)	
		8	10		19		
5	3	2	5			Glacial Till: Brown SILT and fine Sand with little	
		9	13		14	embedded coarser sands, gravel, rock fragments	
	4	10	24			(damp, firm, ML)	
		15	15		39	Similar (compact)	
	5	13	12			Similar (moist)	
10		21	12		33		REF = Sample Spoon
	6	50/0.3			REF	Similar	Refusal
15							
	7	32	8			Brown SILT, tr.clay with f-m Sand seam (wet, firm, ML)	
		6	7		14		
20							Groundwater initially encountered at 18.6' during drilling. Water level at 22.1' in augers upon completion of sampling.
	8	29	13			Gray Silt (saturated, firm)	
		10	13		23		
25							
	9	9	8			Similar	
		9	11		17		
	10	10	8			Similar	
30		8	6		16		
						Boring Complete at 30.0'	
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 1 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 421.2' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	3			TOPSOIL	Driller Notes:
		6	50/0.4		9	Brown-Black f-c SAND, some-and Silt, little f-c Gravel	Approx. 2" Topsoil
	2	4	7			(moist, FILL)	
		8	6		15		
5	3	2	2			Olive-Gray Clayey SILT, some f-m Sand	
		2	3		4	(moist, medium, ML)	
	4	6	7			Olive-Gray f-m SAND and Silt (wet, firm, SM)	
		7	8		14		
	5	5	2				
10		3	4		5	Olive fine SAND and Silt, tr.clay (moist, v.loose, SM)	
	6	4	9				
		12	14		21	Becomes Brown, Contains little-some Silt (wet, firm)	
15							
	7	7	6			Gray SILT, tr.-little fine Sand (wet, firm, ML)	
		5	6		11		
20							
	8	4	3			(loose)	
		4	3		7		
25							
	9	WOH/1.5				Gray-Black fine SAND, little-some Silt	WOH = Weight of
			2		WOH	(wet, v.loose, SM)	Hammer and Rods
30						Gray SILT, tr.sand, occasional fine Sand lenses	
	10	WOH	1			(wet, loose, ML)	
		4	6		5		
35							
	11	19	28			Olive-Gray f-c GRAVEL and f-c Sand, little-some Silt	
		29	45		57	(moist-wet, v.compact, GM)	Driller Notes:
							Cobbles and Boulders
40							encountered at 32.5' to 42' ±

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE
DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 2 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 421.2' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	24	38			Olive-Brown f-c SAND, some Silt, some f-c Gravel	
		37	44		75	(moist-wet, v.compact, SM)	
45						Gray f-c SAND and Silt, some f-c Gravel	
	13	36	50/0.4		REF	(moist-wet, v.compact, SM)	REF = Sample Spoon Refusal
50							
	14	34	49	50/0.4		Gray f-m SAND and Silt, tr.gravel	
					REF	(moist, v.compact, SM)	
55							
	15	27	38				
		30	29		68		
60							
	16	10	15			(compact)	
		26	50/0.4		41		
65							Free Standing Water recorded at 18.2' at 0800 on 3/28/14
	17	13	21	50/0.4	REF	Gray f-c SAND and Silt, tr.gravel	Augers at 70' BGS
70						(moist, v.compact, SM)	
	18	23	37				
		35	50/0.4		72		Auger Refusal at 75.5'
75							NQ '2' Size Rock Core
	19	50/0.0			REF	Gray SHALE, medium hard, very weathered, thin bedded	RUN #1: 75.5' - 80.5' REC = 90% RQD = 18%
80							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE
DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 3/27/2014
FINISH 4/1/2014
SHEET 3 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-9
SURF. ELEV 421.2' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
						At 79.6' becomes gray SILTSTONE, medium hard, moderatley weathered, laminated to bedded, little fracturing. ¼" thick calcite seam noted at 82.0'	RUN #2: 80.5' - 83.5' REC = 83% RQD = 11%
85						Boring Complete at 83.5'	Free Standing Water before Coring at 4.0'
90							Free Standing Water after Coring at 5.2'
95							
100							
105							
110							
115							
120							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW
CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE
DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-10
SURF. ELEV 424.1' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	2			0.3' Topsoil, then Glacial Till: Brown SILT and fine	
		5	6		7	Sand with little embedded coarser sands, gravel,	
	2	5	7			rock fragments (moist, loose, ML)	
		6	5		13	Similar (firm)	
5	3	9	13			Similar	
		15	10		28		
	4	42	12			Similar	
		12	16		24		
	5	6	10			Similar; tr.clay, Mottling with Gray-Orange noted	
10		16	11		26		
	6	10	10				
		8	12		18	Brown f-m SAND, little Silt (wet, firm, SM-SP)	Groundwater initially encountered at 14.1' during drilling.
15							
	7	6	8			Brown SILT, little v.fine Sand (wet, firm, ML)	Water level at 16.8' upon completion of sampling.
		9	9		17		
						Grades Gray at 16.7'	
20							
	8	6	5			Gray SILT, tr.clay (saturated, firm)	REF = Sample Spoon Refusal
		7	6		12		
25							Driller Notes:
	9	3	6			Brown f-m SAND (wet, firm, SP)	top of cobbles at 27.5'
		6	8		12		
	10	50/0.1			REF		No Recovery Sample #10
30							
						Boring Complete at 29.6'	Driller Reports auger refusal at 29.5'
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-11
SURF. ELEV 424.6' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	4			0.4' Topsoil, then: Possible fill: Brown Sandy SILT,	
		3	5		7	tr.gravel, large root noted (moist, loose)	
	2	5	8				No Recovery Sample #2
		8	8		16		
5	3	16	47			Brown f-c SAND with Rock fragments	REF = Sample Spoon
		50/0.3			REF	(moist, v.compact, SM)	Refusal
	4	50/0.2			REF		
							No Recovery Sample #4
	5	50/0.1			REF		No Recovery Sample #5
10							
	6	19	27			Glacial Till: Brown SILT and fine Sand with little	Driller Notes:
		13	15		40	embedded coarser sands, gravel, rock fragments	Cobbles to depth of 10'
						(v.moist, compact, ML)	
15							
	7	22	36			Grades Brown-Gray (v.moist with wet seams,	
		20	24		56	v.compact)	
20							
	8	50/0.3			REF		No Recovery Sample #8
25							
	9	10	12			Glacial Till: Gray SILT and fine Sand with little	No measurable
		12	17		24	embedded coarser sand (moist, firm)	groundwater in augers upon completion of
	10	6	8			Similar with occasional rock fragments	sampling.
30		11	13		19		
						Boring Complete at 30.0'	Installed 2" PVC observation well in borehole upon completion. See accompanying installation detail.
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: G. SPIZZIRRI

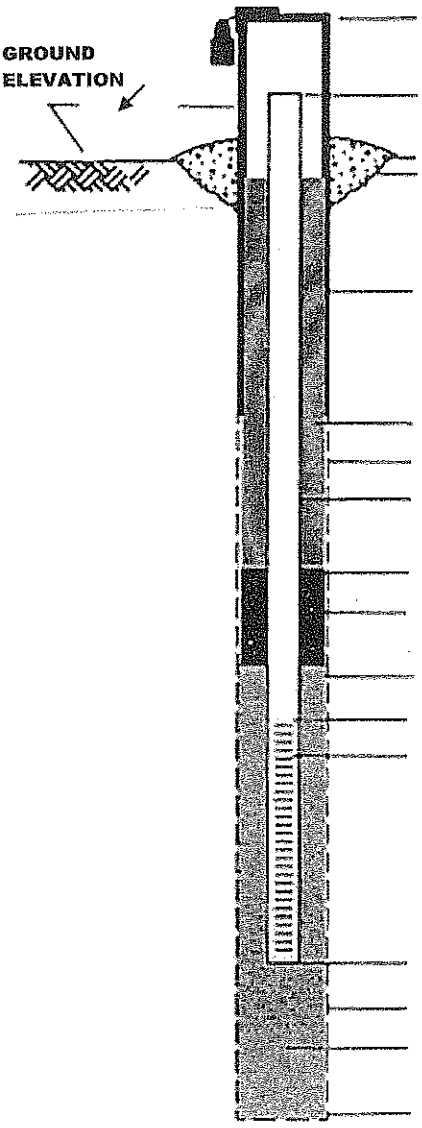
DRILL RIG TYPE : CME-850

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

MONITORING WELL COMPLETION RECORD

WELL NUMBER: B-11	
PROJECT: PROPOSED SITE DEVELOPMENT	**DRILLING METHOD:** HOLLOW STEM AUGERS
PROJECT NUMBER: BE-14-047	**GEOLOGIST:** N/A
DRILLER: G. SPIZZIRRI	**INSTALLATION DATE(S):** 4/3/14

EL. 424.6' ±



TYPE OF SURFACE SEAL:	**CONCRETE**
TYPE OF SURFACE CASING:	**LOCKING STEEL PROTECTIVE CASING**
TYPE OF BACKFILL:	**AUGER CUTTINGS**
BOREHOLE DIAMETER:	**8" NOMINAL**
I.D. OF RISER PIPE:	**2"**
TYPE OF RISER PIPE:	**PVC**
DEPTH OF SEAL:	**3.0' EL. 421.6'±**
TYPE OF SEAL:	**BENTONITE CHIPS**
DEPTH OF SAND PACK:	**8.0' EL. 416.6' ±**
DEPTH TOP OF SCREEN:	**20.0' EL. 404.6' ±**
TYPE OF SCREEN:	**PVC**
SLOT SIZE X LENGTH:	**0.010" x 10.0'**
I.D. OF SCREEN:	**2"**
TYPE OF SAND PACK:	**MORIE FILTER SAND**
DEPTH BOTTOM OF SCREEN:	**30.0' EL. 394.6' ±**
DEPTH BOTTOM OF SAND PACK:	**30.0' EL. 394.6' ±**
TYPE OF BACKFILL BELOW OBSERVATION WELL:	**NONE**
ELEVATION/ DEPTH OF HOLE:	**30.0' EL. 394.6' ±**

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 1 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-12
SURF. ELEV 439.4' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	3			0.3' Topsoil, then Possible Fill: Brown Silty fine SAND,	
		4	5		7	little rock fragments, tr.organics (moist, loose, SM)	
	2	3	3			Grades Silt and fine Sand (v.moist)	
		3	22		6		
5	3	4	5			Glacial Till: Brown SILT and fine Sand with little	
		6	6		11	embedded coarser sands, gravel (moist, firm, ML)	
	4	8	8			Similar	
		21	14		29		
	5	12	7			Similar (v.moist)	
10		8	13		15		REF = Sample Spoon
	6	50/0.2			REF	Becomes more sandy (wet)	Refusal
							Groundwater initially encountered at 10.3' during drilling.
15							
	7	10	7			Similar with some rock fragments (moist)	Water level at 18.3' in augers upon completion of sampling.
		10	8		17		
20							
	8	5	4			Similar (v.moist, loose)	
		3	7		7		
25							
	9	8	7			Similar (wet, firm)	
		5	7		12		
30							
	10	11	14			Glacial Till: Gray Silt and fine Sand with some	
		10	10		24	embedded coarser sands, gravel, rock fragments	
						(moist, firm, ML)	
35							
	11	9	12			Similar	
		15	14		27		
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE

DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 4/3/2014
FINISH 4/3/2014
SHEET 2 OF 2

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-12
SURF. ELEV 439.4' ±
G.W. DEPTH See Notes

PROJECT: SITE INVESTIGATION
PROJ. NO.: BE-14-047
LOCATION: INTERNATIONAL BLVD.
NEW WINDSOR, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	12	7	35			Glacial Till: Gray SILT and fine Sand with some	
		19	14		54	embedded coarser sands, gravel, rock fragments	
						(damp, v.compact, ML)	
45							
	13	14	21			Similar	
		20	17		41		
50							
	14	8	15			Similar	
		18	28		33		
55							REF = Sample Spoon
	15	50/0.3			REF	Similar	Refusal
60						Boring Complete at 57.5'	Auger refusal at 57.5'
65							
70							
75							
80							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geotechnical Engineer

DRILLER: B. DELUDE
DRILL RIG TYPE : DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

APPENDIX B

GEOTECHNICAL REPORT LIMITATIONS

GEOTECHNICAL REPORT LIMITATIONS

Empire Geo-Services, Inc. (Empire) has endeavored to meet the generally accepted standard of care for the services completed, and in doing so is obliged to advise the geotechnical report user of our report limitations. Empire believes that providing information about the report preparation and limitations is essential to help the user reduce geotechnical-related delays, cost over-runs, and other problems that can develop during the design and construction process. Empire would be pleased to answer any questions regarding the following limitations and use of our report to assist the user in assessing risks and planning for site development and construction.

PROJECT SPECIFIC FACTORS: The conclusions and recommendations provided in our geotechnical report were prepared based on project specific factors described in the report, such as size, loading, and intended use of structures; general configuration of structures, roadways, and parking lots; existing and proposed site grading; and any other pertinent project information. Changes to the project details may alter the factors considered in development of the report conclusions and recommendations. *Accordingly, Empire cannot accept responsibility for problems which may develop if we are not consulted regarding any changes to the project specific factors that were assumed during the report preparation.*

SUBSURFACE CONDITIONS: The site exploration investigated subsurface conditions only at discrete test locations. Empire has used judgement to infer subsurface conditions between the discrete test locations, and on this basis the conclusions and recommendations in our geotechnical report were developed. It should be understood that the overall subsurface conditions inferred by Empire may vary from those revealed during construction, and these variations may impact on the assumptions made in developing the report conclusions and recommendations. *For this reason, Empire should be retained during construction to confirm that conditions are as expected, and to refine our conclusions and recommendations in the event that conditions are encountered that were not disclosed during the site exploration program.*

USE OF GEOTECHNICAL REPORT: Unless indicated otherwise, our geotechnical report has been prepared for the use of our client for specific application to the site and project conditions described in the report. *Without consulting with Empire, our geotechnical report should not be applied by any party to other sites or for any uses other than those originally intended.*

CHANGES IN SITE CONDITIONS: Surface and subsurface conditions are subject to change at a project site subsequent to preparation of the geotechnical report. Changes may include, but are not limited to, floods, earthquakes, groundwater fluctuations, and construction activities at the site and/or adjoining properties. *Empire should be informed of any such changes to determine if additional investigative and/or evaluation work is warranted.*

MISINTERPRETATION OF REPORT: The conclusions and recommendations contained in our geotechnical report are subject to misinterpretation. *To limit this possibility, Empire should review project plans and specifications relative to geotechnical issues to confirm that the recommendations contained in our report have been properly interpreted and applied.*

Subsurface exploration logs and other report data are also subject to misinterpretation by others if they are separated from the geotechnical report. This often occurs when copies of logs are given to contractors during the bid preparation process. *To minimize the potential for misinterpretation, the subsurface logs should not be separated from our geotechnical report and the use of excerpted or incomplete portions of the report should be avoided.*

OTHER LIMITATIONS: Geotechnical engineering is less exact than other design disciplines, as it is based partly on judgement and opinion. For this reason, our geotechnical report may include clauses that identify the limits of Empire's responsibility, or that may describe other limitations specific to a project. These clauses are intended to help all parties recognize their responsibilities and to assist them in assessing risks and decision making. Empire would be pleased to discuss these clauses and to answer any questions that may arise.

New York State
Department of Environmental Conservation

Division of Lands & Forests

STEWART STATE FOREST
UNIT MANAGEMENT PLAN

FINAL

Towns of Montgomery, New Windsor and Hamptonburgh
and the Village of Maybrook

December 2006

Lead Agency:
NYS Department of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561

GEORGE E. PATAKI, *Governor*

DENISE M. SHEEHAN, *Commissioner*

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

DENISE M. SHEEHAN
COMMISSIONER

MEMORANDUM

TO: The Record

FROM: Denise M. Sheehan

SUBJECT: Stewart State Forests Unit Management Plan

DATE: DEC 19 2006

The unit management plan for the "Stewart State Forests" has been completed. The Plan is consistent with Department policy and procedure, involved public participation and is consistent with the Environmental Conservation Law, Rules and Regulations. The plan includes management objectives for a ten year period and is hereby approved and adopted.

Preface

STEWART STATE FOREST
UNIT MANAGEMENT PLAN

In August, 1998, Governor Pataki announced that at least 6200 acres of the forest lands west of Stewart International Airport would be transferred from the jurisdiction of the New York State Department of Transportation (DOT) to the New York State Department of Environmental Conservation (DEC or Department) to permanently preserve the lands. On March 4, 1999, the Governor announced the official transfer of 5264 acres from DOT to DEC. The land transferred to DEC is administered as a Reforestation Area called Stewart State Forest. On June 30, 2006, another approximately 1600 acres were transferred from DOT to Stewart State Forest, for a total of approximately 6700 acres.

In October, 1998, a Citizens Advisory Committee (CAC) was appointed by then DEC Commissioner John Cahill. The CAC prepared a series of recommendations which were submitted to Commissioner Cahill on November 4, 1999 (Appendix D). Two public meetings were held on December 9, 1999 at the Little Britain Elementary School in the Town of New Windsor to describe the Unit Management Planning process and provide the public an opportunity to meet and exchange ideas with DEC staff prior to the development of a Draft Unit Management Plan (UMP). (See Appendix D). On October 26, 2006, two public meetings were held at the Town of New Windsor Community Center to provide the public an opportunity to comment on the Draft Unit Management Plan leading to this final plan.

Most of the land in the current and future Stewart State Forest was formerly in farm and residential use. The Metropolitan Transportation Authority (MTA) acquired the land by eminent domain in the 1970s to "establish, construct, expand, rehabilitate, improve, maintain, reconstruct and operate" Stewart Airport (Chapter 472 of the 1971 Laws of the State of New York), then being converted from military to civilian use. In 1982, the land was transferred to DOT including about 800 acres leased for agriculture. Agriculture continues, and six farmers currently farm more than 400 acres. The U.S. Postal Service leases a building along State Route 207. Five adjacent historic buildings along routes 207 and 208 are owned by the Orange County Historical Society.

The land supports diverse wildlife, including increasingly rare grassland and shrub land bird species, amphibians and reptiles. The old roads and fields provide superior access for hiking, biking, horseback riding and carriage driving, bird watching, snowmobiling, cross-country skiing and snowshoeing, and casual recreation. Since 1974, when the property was designated a Cooperative Hunting Area, it has provided small and big game hunters access to the property. Several small ponds provide warm-water fishing throughout spring and summer.

Dog clubs hold a series of field trials on the ponds and nearby open fields in late spring and summer to train and evaluate sporting breeds, drawing participants from all over the northeast and the country.

The property is currently closed to motor vehicles, except for hunters during the October to December hunting season or by special permit.

The Wildlife Conservation Society's 2000 biological survey of the area as well as information provided by Breeding Bird Surveys and the Natural Heritage program have been instrumental in the DEC's unit management planning process.

This UMP will govern the management activities on the site for 10 years following its final adoption by the Department. Some of the information and issues presented in this Draft are:

- An inventory of the natural resources and human-made facilities on the property
- Establishment of a formal trail system
- Parking and access
- Use of the property by different groups
- Interpretation, including kiosks and a brochure
- Use of the property by people with disabilities
- Farming
- Maintenance of fields and brush land to maintain plant and animal species diversity
- Forest inventory and management
- Historic sites
- State Police facility
- Management to protect natural resources while developing the area's potential for passive recreation
- Insuring a viable and sustainable State Forest by considering the impacts of key inholdings or adjacent parcels
- Budget and staffing

The Department manages State lands for multiple uses to serve the People of New York State. This UMP is the first step in carrying out this policy. However, factors such as budget constraints, unforeseen changes in circumstances, staffing, and forest health problems may require deviation from the scheduled management activities.

The Department's ecosystem management goal is to maintain a balanced ecosystem while providing for diverse human use. The basic objective of this UMP allows for compatible human use of the Stewart State Forest so that these lands are passed on to future generations in better condition than when they were acquired.

The following DEC Region 3 staff members serve on the Unit Management Team for the Stewart State Forest. These members are assigned to the DEC's New Paltz office:

Team Members	Bureau
George Profous, Forester, Coordinator	Forestry
Jeffrey Wiegert, Robert Messenger	Forestry
Charles Antzak	Real Property
Len Bouren	Operations
Dan Walsh/Greg Tyrell/Kenneth Gierloff	Forest Ranger
Wayne Elliot/Leslie Surprenant	Fisheries
Ted Kerpez/Pat Vissering/Nathan Ermer	Wildlife
Peg Duke/Larry Biegel	Environmental Permits
Rick Martin/Neil Watt	Law Enforcement
William Rudge	Supervisor of Natural Resources

Support Staff	Bureau
Renee O'Connor	Administration
Gary Coutu	Real Property
Mike Carroll	Real Property
Gary Van Laer	Operations
Mike Callan	Forestry

Special Thanks to

Robert Herberger	Forestry
Fred Gerty	Forestry

For further information, please contact:

NYS Department of Environmental Conservation
Division of Lands and Forests
21 South Putt Corners Road
New Paltz, NY 12561-1696
Tel (845) 256-3000

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Stewart State Forest - Executive Summary

Introduction

Careful balancing is required by the DEC to successfully manage the 6,700+ acre Stewart State Forest with the competing priorities of protecting the land's natural resources and rural character and encouraging public access and recreational uses. The management of the property is guided by its classification as State Reforestation Area, and by the 1999 and 2006 orders for transfer of jurisdiction from the DOT to DEC. The Department was also guided by Citizen's Advisory Committee's recommendations (December, 1999) and two public meetings held shortly afterward, as well as comments received from two public meetings on October 26, 2006. The property is heavily used, including illegal motor vehicle trespass. DEC must take steps to control users and manage habitat through permits, physical improvements to the property and special regulations. These are discussed in this UMP. Recommendations addressing the major issues are summarized below.

This UMP will govern DEC's management activities on Stewart State Forest for ten years following its final adoption by the Department.

Major Issues

Recreational Uses

- The property will be open to all users throughout the year, except during the big game hunting season (approximately mid-November to mid-December), when access will be limited to licensed hunters and their companions.
- Improvements to the property will be made to enhance access, including posting trail and internal roadway signs, and parking areas.
- A loop system of trails based primarily on designated existing trails.
- Camping and fires will be prohibited except by permit.
- Dog trials will be allowed through the Temporary Revocable Permit (TRP) process. Limited mowing will be allowed to facilitate dog trials and other wildlife related recreational uses.
- All terrain vehicles (ATV's) will continue to be prohibited.
- Snowmobiles will continue to be permitted on designated trails.

Natural Resource Management

- Habitat will be managed to reduce exotic invasive species, promote native animal and plant species, maintain regionally rare grass and shrub land habitat and protect wetlands and vernal pools.
- Forest resources will be managed in a sustainable manner to enhance wildlife habitat, maintain biodiversity, and provide wood products.
- Steps are outlined to protect rare plants and animals on the property.
- The original land transferred to Stewart State Forest in 1999 is subject to the DOT Transfer of Jurisdiction which allows the property to be used to mitigate wetland impacts associated with the airport's development.

Public Access

- Existing gates will be maintained and new gates added to control motor vehicle access.
- Motorized access is limited to hunters during the October through December hunting season. Motorized access by other users is by permit only.
- Users with mobility impairments will be allowed motorized access by special permit on designated roads and access points.
- Six parking areas will be located on the periphery for a total of approximately 120 cars and 15 horse trailer spaces (snowmobile trailer spaces in winter).

Environmental Education and Interpretation

- Kiosks with interpretive materials will be developed and will include information about proper land use etiquette, brochures, maps, regulations and user information.
- The check station building on Weed Road will be improved to make room for limited interpretive displays, a small office and a bathroom. The post office building, if it becomes available, will also be considered for other DEC uses.

Farming

- Farming will continue at a scale similar to what has taken place in the past, as a tool to enhance biodiversity and foster the viability of farming at the local level. Currently, farming on the property takes place through TRPs by farmers who were cultivating fields at the time the property was transferred to DEC in 1999. Farming practices will be subject to DEC requirements for irrigation; wetlands; best management practices; plant, wildlife, and habitat concerns; soil disturbance, and access.

Public Safety

- No development or wildlife habitat alteration, which interferes with the safe operation of Stewart International Airport, will take place. The DEC will work closely with airport personnel to monitor the property.
- DEC will explore a Transfer of Jurisdiction to New York State Police of the small parcel of land east of Barron Road that State Police are presently using to detonate and burn explosives.

Land Acquisition

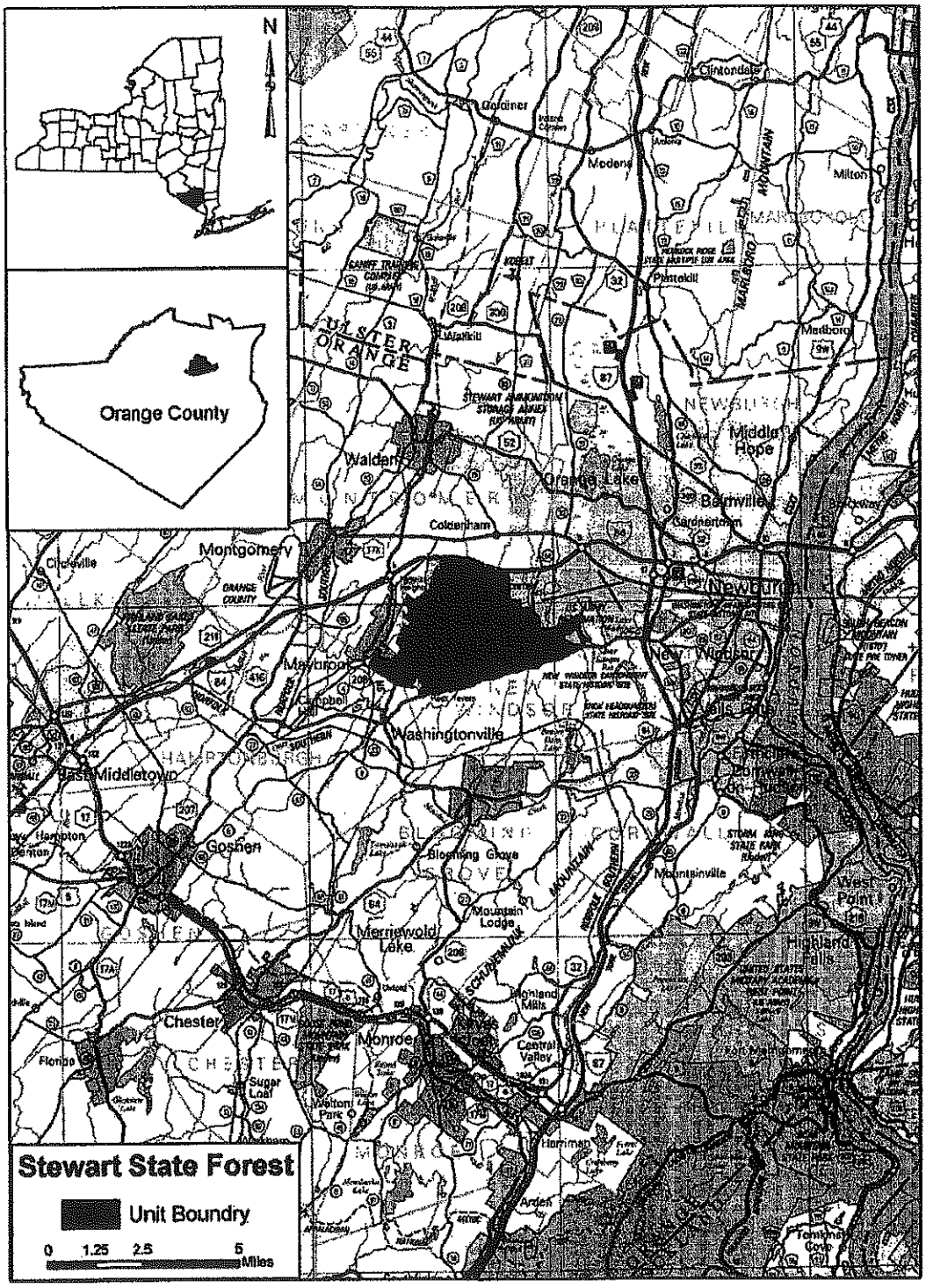
- Specific properties along South and North Baron Roads are of interest to the Department to ensure the integrity of Stewart State Forest. Any potential acquisition will be from willing sellers only. These properties are identified.

Funding/Staffing

- An annual maintenance budget is estimated at $197,950 dollars.
- Full Staffing requested is one Senior Forestry Technician, Grade 13 or above, and two Seasonal Assistant Forest Rangers (one May through December, one October through December).

- The total 10 year maintenance, capital improvements and personnel services budget is estimated at about 3 million dollars.

Stewart State Forest



I. INTRODUCTION

A. Location

The Stewart State Forest is located due west of Stewart International Airport, near Newburgh, Orange County, New York, in the Towns of Montgomery, New Windsor and Hamptonburgh and the Village of Maybrook. It is accessed from the south via State Routes 207 and 208 and Forrester Road and from the north by Ridge and Barron Roads, off Route 17K.

B. Definition of Land Classification

The Stewart lands are classified as State Forest. The State Forest classification was initiated by the New York State Reforestation Law of 1929 and the Hewitt Amendment of 1931, the legislation which authorized the Conservation Department (predecessor agency to the DEC) to acquire land by gift or purchase for Reforestation Areas. These State Forests, consisting of not less than 500 acres of contiguous lands, were to be forever devoted to "reforestation and the establishment and maintenance thereon of forests for watershed protection, the production of timber, and for recreation and kindred purposes." This program is presently authorized under Article 9, Title 5 of the NYS Environmental Conservation Law.

Today, there are nearly 710,000 acres of State Forests and Multiple Use Areas throughout the State. The use of these lands for a variety of purposes such as timber production, hiking, skiing, fishing, trapping and hunting is of tremendous importance economically, and to the health and well-being of the people of the State.

The Stewart State Forest consists of about 6,700 acres of gently rolling hills, wetlands, ponds, forests and fields. Manmade structures consisting of buildings, roads, trails, signs, gates and parking lots are located on this State Forest..

C. History of the State Forest and surrounding area

Pre-European History

Human occupancy of the Hudson Valley began at the end of the Pleistocene with the retreat of the Wisconsin Glacier. The first human populations in the valley, known as the Paleo-Indians, occupied a tundra environment to the south of the receding glacial margin from circa 10,500 BC to 8000 BC. Between 8000 BC and 1000 BC, known as the Archaic period, the sparse population (possibly due to a great reduction in the density of game that accompanied the shift from a spruce and tundra environment to a mixed deciduous/coniferous forest) slowly climbed with increasing use of coastal, riverine and plant resources. The Woodland period from 1000 BC to 1350 AD was characterized by increasing plant cultivation, including grain storage, although woodland hunting and gathering continued to provide a large part of the diet (NYSDOT, Stewart International Airport Properties Final Federal Environmental Impact Statement 1992)

At the time of European contact, the Native American groups who inhabited this portion of the Hudson Valley were Lenape or Delaware. The Lenape consisted of two related groups, the Munsee and Unami, who were characterized by distinct Algonquain dialects. The Munsee

occupied the territory that became northern New Jersey and southern New York. Among the Munsee-speaking groups, the Esopus occupied the area west of the Hudson River, between the Catskills and the highlands at West Point. Local subgroups included Waoranecks, the Warranwankongs, and the Wappingers (New York State DOT, 1992; Ruttenber and Clark 1981).

According to a summary on prehistoric occupation in Orange County produced by the Incorporated Orange County Chapter of the New York Archeological Association (1979), aboriginal sites were clustered on highlands bordering major streams and the margins of swamps, wetlands, and sinkholes. The heaviest prehistoric occupation in the county appears to have been during the Late Archaic period. There is also a good representation of Transitional Archaic sites. Woodland occupation in Orange County was relatively sparse and is restricted to upland rockshelters and flats along the Wallkill, Ramapo, Neversink, and Delaware rivers. No large Woodland base camps or villages have been located in the county.

European History

The first European settlers in this area were Dutch. Colonization increased after the territory came under English control in 1664. Orange County was established in 1683 as one of New York's original 12 counties. The original county boundaries included what is now the southern portion of Orange County and all of Rockland County (Ruttenber and Clark 1981).

Numerous land patents were issued in the late seventeenth and early eighteenth century, following the purchase of Native American lands. The early settlers in this area were dispossessed of their land in 1694, when Captain John Evans obtained a patent from Colonel Fletcher, Governor of the New York Colony. The Evans Pattent consisted of 650,000 acres along the west shore of the Hudson, approximately from New Paltz on the north, Stony Brook on the south, and the Shawangunk Mountains on the West (Headley 1908:34-35). In 1699, the Evans Patent was annulled and the territory conveyed in small tracts by numerous patents issued between 1701 and 1775 (Ruttenber and Clark 1981). The early inhabitants of Orange County were characterized by diverse ethnicity, including Dutch, English, French, German, Irish and Scot and supported themselves through subsistence farming.

The southeasterly corner of Stewart State Forest , part of the western half of the Town of New Windsor has been known for over a century as Little Britain. This name probably comes from Peter Mullinar who bought 200 acres of land in 1729 and probably came from Little Britain, or Bretagne Street, in London, after which he named his farm. The cemetery near Bull Road was once part of his farm and bears his name (Orange County Post, September 14, 1978).

Rock Tavern is named after an early landmark - a tavern built on a large rock and owned and operated by John Humphrey in 1740 - once located near the intersection of present day Forrester Road and Route 207. At this tavern, plans were made for the organization of the present Orange County. Today, the former site of this tavern is somewhere near realigned Rt. 207. The ruins of Morris Tavern are on the property between Forrester Road and the Rock Tavern Post Office.

In 1798, the county lines of New York State were revised and Orange County annexed the towns of Newburgh, New Windsor, Wallkill, Montgomery and Deerpark.

The Stewart properties fall within the towns of New Windsor, Hamptonburgh and Montgomery. New Windsor was established as a town in 1798, the township became part of Orange County (Ruttenber and Clark 1981). The northwestern part of the town is a marshy area known as the Great Swamp. Until the Revolutionary War, New Windsor was the center of trade through Orange County. Local industries included brick and glass works, in addition to the many grain mills. During the nineteenth century, New Windsor lost much of its commercial trade to Newburgh, which had the advantages of Hudson River frontage.

Montgomery Township was originally part of the Precinct of Shawangunk, established in 1714, although the area became part of Wallkill in 1743 until the formation of Hanover Precinct in 1772. In 1782, the Hanover Precinct was renamed Montgomery, which then became a township 1789. Subsequently, the creation of Crawford in 1823 and Hamptonburgh in 1830 reduced the area of Montgomery Township by almost one half. Woolens manufacturing was established in Montgomery in 1830 and became a primary industry by the late nineteenth century. Other local manufacturers included cutlery and bricks.

Hamptonburgh was formed in 1830 from parts of the townships of Goshen, Blooming Grove, New Windsor, Montgomery and Wallkill (Ruttenber and Clark 1981:653). The area was originally part of Wawayanda Patent of 1703.

By 1830, the Erie Canal had a large impact on commerce in Newburgh. In response, Newburgh officials approached the New York and Erie Railroad in 1835 to make Newburgh the eastern terminus of the railroad. Construction of the Newburgh to New York railroad, however, was not completed until 1869.

The City of Newburgh was incorporated in 1865. Most of the township's manufacturing took place in this area and included saw and grist mills, iron works, and clothing manufactures.

Although the early communities supported themselves by subsistence farming, by the nineteenth century, corn, wheat, oats, rye and buckwheat were important crops. Fruits were also extensively grown in the Hudson River region (Headley 1908:638-639). The fine grasslands of Orange County also nurtured an early emphasis on horse-breeding. Dairy farming was intensively practiced and many areas in Orange County produced cheese and butter. In 1842 the New York and Erie Railroad carried Orange County's first milk consignment to New York City. Soon, creameries were established at each station in the dairy region. However, shipping liquid milk proved to be more profitable, and by the 1880's the county contained 70 milk shipping stations, three condenseries, two cheese and one butter and cheese factory (Headley 1908:764).

The rural economy of the county continued into the twentieth century, as the county increasingly felt the influences of an ever expanding New York City metropolitan area. However, the commercial hub in the area shifted from New Britain toward Newburgh. White Cloud Farms, 1917-1957, is an example of the interesting changes which have occurred throughout the region over the past century. Starting as an apple orchard/farm, it became famous for its pottery and tiles, and among other famous projects made the mosaic street signs for the New York City Subway System (Visakay, 2006; Marshall, personal communication). The farm acreage became part of the land for the Stewart Airport expansion. The area of

Stewart State Forest continues to be a crossroads where major arteries like the New York State Thruway and Interstate 84, railroads, air traffic and the Hudson River intersect, providing a link to major metropolitan areas.

The Stewart Property Since 1970

The *Stewart State Forest* is a large block of rural landscape surrounded by largely developed suburban and urban areas of eastern Orange County. In 1969, the U.S. Air Force closed its airbase and declared the property surplus. In March of 1970 the Air Force transferred title of the 1,600 - acre airport to the state Metropolitan Transportation Authority (MTA). The land to the west of Stewart International Airport has been in public ownership since approximately 1971, when the MTA acquired and appropriated 802 parcels of land which totaled 8,076 acres in anticipation of the airport's expansion. State officials thought Stewart would become the fourth major airport serving the New York City metropolitan area. There is also some indication that the State intended to develop Stewart as the east coast's supersonic transport (SST) airport - hence, the very long runway and large buffer area. The State bought 802 parcels of land with 337 residences and farmhouses - mostly through eminent domain. About 1,200 people lived on these properties. Remnants of house foundations, driveways, and old orchards are still found on the land, testifying to the residential and agricultural uses which took place here.
The buildings on the property were demolished starting in 1972. The airport expansion was abandoned by 1982 and the state legislature transferred ownership from the MTA to the DOT. This allowed the MTA to return to its core business of providing mass transportation for the metropolitan area. Commercial passenger flights began at Stewart Airport in 1990.

On March 4, 1999, Governor Pataki announced the transfer of 5260 acres west of the Stewart International Airport from the DOT to the Department to be managed as a Reforestation Area - Stewart State Forest (subsequently revised to approximately 5100 acres to account for power line lands owned by Central Hudson passing through the property). A copy of the Transfer of Jurisdiction document is provided in the Appendix C. DOT retained certain rights on the property, including the use of the area as an aircraft noise buffer, and for wetland enhancement and creation as mitigation for DOT and airport expansion wetland impacts. Subsequently, approximately 1600 more acres were transferred from DOT to DEC on June 29, 2006, pursuant to a November, 2005 Consent Decree and Order of Dismissal, [No. 00-cv-1606, Stewart Park and Reserve Coalition, Orange County Federation of Sportsmen's Clubs, Inc and Sierra Club v. Rodney E. Slater (US Department of Transportation), et al.)]

Former DEC Commissioner Cahill set the stage for the property's management; when he said "We will make the Stewart lands a premier outdoor destination while providing maximum protection for its natural resources."

Management of Stewart International Airport was privatized to the National Express Group PLC of the United Kingdom in June, 2000.

II. INFORMATION ON THE STATE FOREST

A. Inventory of Real Property

This information should be used in conjunction with the "Transfer of Jurisdiction" maps and descriptions cited in Table 1 which provide more detail about the property, as well as the 2005 Consent Decree and Order of Dismissal (No. 00-cv-1606, Stewart Park and Reserve Coalition, Orange County Federation of Sportsmen's Clubs, Inc and Sierra Club v. Rodney E. Slater (US Department of Transportation), et al.)

Table #1 Parcels included in the Stewart State Forest

Parcel	Acres	Date Acquired	Funding Source	Previous Owner
Orange 4	5100+	3/4/1999	T.O.J.*	NYSDOT/MTA
Orange 4	1600+	6/29/2006	T.O.J.*	NYSDOT
Total	6700+			

(* Transfer of Jurisdiction)

1. Burdens, Exceptions, Leases, Easements and Right-of-Ways

   a. Property Burdens
   - Wetland creation and/or enhancement as mitigation for wetland impacts of Department of Transportation and airport projects.

   b. Exceptions
   - Cemetery along Rt. 207 between Maple Avenue and Drury Lane.
   - Belknap Family Cemetery between Rt. 207 and Barrett Road.
   - United States military housing parcel.
   - Little Britain Elementary School.

   - Excepted Parcel No. 1
     Is a parcel of land located on Barron Road along the northwest border of Stewart State Forest. Although it is outside the State Forest, DOT retains access rights on northerly Barrron Road which may affect future access and parking in that vicinity.

   - Excepted Parcel No. 2
     A parcel of land being 600 feet along the westerly line of Barron Road and being 300 feet deep, containing approximately 4 acres of land, designated as "Excepted Parcel No. 2 for Division State Police" as generally shown upon O.G.S. Map No. 1751 revised March 4, 1999.

Together with a 50 foot wide right-of-way, for ingress and egress, along the existing Barron Road, from NYS Route 208, to along the above described Excepted Parcel No. 2.

- Excepted Parcel No. 3
  A parcel of land being 150 foot wide, located along the southerly boundary of said Interstate Route 84 containing approximately 32 acres of land, designated as "Excepted Parcel No. 3 to be reserved by NYSDOT" as generally shown upon O.G.S. Map No. 1751 revised March 4, 1999.

- Village of Maybrook. The sections of Barron Road, Decker Road and Second Street that are within the Village limits were not appropriated by the DOT. These roads remain as Village property, in fee, with a 50 foot wide right-of-way.

c. Leases

- A five-year lease agreement between the United State Post Office and DOT was assumed by the DEC. The current agreement was entered into on December 1, 2004. The U.S. Postal Service has two additional five year lease options that will expire in 2014.

d. Easements/Rights-of-Way

- Central Hudson Gas & Electric Corporation owns and manages about 118 acres under transmission lines surrounded by the State Forest, along with another 41 acres in a transmission right-of-way.
- Access easement between the United States Military Housing and Little Britain Elementary School (Orange Co. Clerk filed map 1740, February 10, 1958.
- Easement for sewer and water lines between United States Military Housing and Jackson Avenue extension/airport (map 1740).
- Clark Street access easement (map 1740).
- Drainage easement north of United States military housing
- 33 foot right-of-way for a transcontinental coaxial underground telephone cable (kept free of trees and mowed) from Route 207 north, between Maple Avenue and Drury Lane.

2. Real Estate Taxes Paid on the Unit

New York State pays school, fire district and town taxes on State Forest lands of over 500 contiguous acres under Real Property Tax Law Section 534. Taxes are not paid to the County, or on buildings. Thus, recreational and open-space benefits are provided to the region with continued support of the local tax base. Taxes paid by the State in 2004 were approximately $800,000.

B. Geographical & Geological Information

1. Geology

The eastern part of Orange County is a complex of folded and faulted rocks ranging from the Pre-Columbian to the Triassic period. Metamorphic rock predominates the area. Orange County was moderately affected by glaciation. The movements of the glaciers modified the topography and soils. The last ice age started approximately 300,000 years ago and retreated 12,000 years ago. Glacial fill is the dominant overburden. Topographic relief in the area is moderate but irregular. Bedrock ridges reach elevations of approximately 600 feet above mean sea level (MSL) and in addition, there are areas of exposed bedrock. The highest point within the project area is Buchanan Hill, which is located between Maple Avenue and Drury Lane and reaches an elevation of 658 feet. Low lying areas between the ridges are 340 to 360 feet above MSL and are often swamps and marshes.

2. Soils

The primary soils of the Stewart State Forest consist of two major classifications, the Mardin-Erie series and the Nassau-Bath- Rock outcrop series.

The Mardin-Erie series can be described as a gravelly silt loam. These soils were formed by glacial till deposits in uplands. The Mardin component can be characterized as deep, moderately well drained, while the Erie component consists of deep, poorly drained soils.

The Nassau-Bath-rock outcrop series can be described as shaly silt loam. These soils were formed in thin glacial till deposits on bedrock controlled uplands. The Nassau soil is moderately drained and shallow over bedrock, the Bath soils are well drained and deeper over bedrock. The Nassau-Bath-rock outcrop soils are associated with Mardin and Erie soils. In contrast to the Mardin-Eric soils, these soils (Nassau-Bath) have better natural drainage and are deeper over fragipan.

Carlisle muck is found in the Great Swamp and East of Drury Lane, and is up to 96" deep. The seasonal high water table is near the surface in spring, but lowers quickly through the drainage network once upland runoff subsides. Trees are red maple, willow and alder.

Madalin Silt Loam, formed in glacial lake deposits of silt and clay, the predominant feature in the wetland east of Drury Lane. Partially drained, these areas were once used for pasture. Surrounding soils are very poorly drained and have prolonged wet periods, including:
- Canandaigua silt loam
- Histic humaquepts (Ponded soils commonly called freshwater marsh with typically 1-6 inches of water, muck from 4 to 16 inches thick).
- Limited areas of Palms muck (ponded organic deposits 16 to 50 inches thick over mineral soil deposits). Palms muck is found in depressions and bogs in uplands, and concave basins in lowlands plains.

Also, human activities form Udorthents, best described as soils formed in man-made cut-and-fill areas. Excavated cut and fill areas and soil stockpiles are typical examples (see Appendix A for soils list)

C. Climate

(Prepared by the National Climatic Center, Asheville, North Carolina)

Winters are cold in Orange County. Summers are moderately warm with occasional hot spells. Precipitation is well distributed throughout the year and is nearly always adequate for all crops. Winter snows occur frequently, occasionally as blizzards.

In winter the average temperature is 29 degrees F, and the average daily minimum temperature is 21 degrees. The lowest temperature on record, which occurred at West Point on February 8, 1963, is -11 degrees. In summer the average temperature is 73 degrees, and the average daily maximum temperature is 84 degrees. The highest recorded temperature , which occurred on September 2, 1953, is 105 degrees.

The total annual precipitation is 48 inches. Of this, 24 inches, or 50 percent, usually falls in April through September, which includes the growing season for most crops. In 2 years out of 10, the rainfall in April through September is less than 20 inches. The heaviest 1-day rainfall during the period of record was 4.76 inches at West Point on September 12, 1960. Thunderstorms occur on about 31 days each year, and most occur in summer.

Average seasonal snowfall is 43 inches. The greatest snow depth at any one time during the period of record was 40 inches. On an average of 25 days, at least 1 inch of snow is on the ground. The number of such days varies greatly from year to year.

The average relative humidity in mid-afternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 80 percent. The sun shines 60 percent of the time possible in summer and 40 percent in winter. The prevailing wind is from the southwest. Average wind-speed is highest, 10 miles per hour, in April.

D. Vegetative Types and Stages

Stewart State Forest is a 6,700 acre complex of second growth deciduous woodlands, agricultural and post-agricultural lands, and interconnected wetlands.

Virtually all the Stewart State Forest property has been subjected to some form of disturbance in the recent past. Most of this disturbance is the result of agricultural activities that have been the predominant land use throughout the region for hundreds of years. When agricultural activities cease, as they have on much of the Stewart property, ecological succession results in a variety of habitats that eventually revert to a mesic hardwood forest. Similar patterns of succession have taken place over much of the northeast with the decline of agriculture over the past century. The current forest is a result of soil type, past land use and time.

Table #2 Approximate Acreage of Vegetative Types and Land Uses in the Stewart State Forest.

Land Cover Type	Forest	Non-forest	Total Acres	Percent
Agriculture		519	519	7.7
Old Field-Grass/Forb		414	414	6.1
Brushy Fields		378	378	5.6
Open Wetlands		670	670	10.0
Brushy Wetland		384	384	5.7
Wetland Forest	1312		1312	19.5
Mature Upland Forest-Oak/ Hickory, N. Hdwd	1385		1385	20.6
Sapling Forest	1560		1560	23.2
Open Water		70	70	1.0
Roads/Bldg/Park Lot/Other		40	40	0.6
TOTAL	4257	2475	6732	100.0

The exact acreage of the property is not available at this time, but is estimated at around 6700 acres. The above estimates are within an acceptable margin of error, until exact boundaries are re-surveyed.

The two major forest types, Wetland Forest and Upland Forest, constitute 61% of the land classification of Stewart State Forest.

The Wetland Forest can be characterized as semi-permanently flooded with red maple (Acer rubrum) as the dominant tree species, associated with green ash (Fraxinus pennsylvania) and American elm (Ulmus americana). Pin oak (Quercus palustris) and swamp white oak (Quercus bicolor) are associated around the periphery of the wetland.

The oak-hickory upland forest type is dominated by black oak (Quercus velutina), white oak (Quercus alba), red oak (Quercus rubra), shag bark hickory (Carya ovata), pignut hickory (Carya glabra) and white ash (Fraxinus americana). Minor associates of this forest type are scarlet oak (Quercus coccinea), red maple (Acer rubrum), sweet birch (Betula lenta), sugar maple (Acer saccharum) and black cherry (Prunus serotina). On the driest locations and ridge tops chestnut oak (Quercus prinus) dominates.

In addition to the broad vegetative cover types, rare, threatened, endangered and species of special concern were identified (see Table #4).

Table #4 Rare, Threatened, Endangered Plants and Plant Species of Special Concern found on Stewart State Forest.

SPECIES			CLASSIFICATION
1.	Winged Monkey Flower	*Mimulus alatus*	State, Rare
2.	Small Flowered Agrimony	*Agrimony parviflora*	State, Rare
3.	Slender Knotweed	*Polygonum tenue*	State, Rare
4.	Purple Milkweed	*Asclepias purpurascens*	State, Special Concern

Also found within the broad vegetative cover types are invasive plants.

Table #5		Common Invasive plants of Stewart State Forest
1.	Mile-A-Minute Weed	(*Polygonum perfoliatum*)
2.	Japanese Knotweed	(*Polygonum cuspidatum*)
3.	Barberry	(*Berberis* spp.)
4.	Phargmites	(*Phragmites australis*)
5.	Purple Loose Strife	(*Lythrum salicaria*)
6.	Multiflora Rose	(*Rosa multiflora*)
7.	Norway Maple	(*Acer platanoides*)
8.	Autumn Olive	(*Elaeagnus umbellata*)
9.	Spotted Knapweed	(*Centaurea maculosa*)
10.	Wild grapes	(*Vitis* spp.)
11.	Japan. Honeysuckle	(*Lonicera japonica*)
12.	Privet	(Ligustrum vulgare)
13.	Leafy Spurge	(*Euphorbia esula*)

Invasive plants are plants not naturally found in an area. Their spread can harm native plants, animals and natural communities, and sometimes even people. Many invasive plants spread when forest areas are disturbed, or large openings are created in the canopy. Any silvicultural activities must be carefully assessed so as not to assist in the spread of invasives from other parts of the world, or other nuisance species such as Poison ivy (Rhus radicans) or wild grape (Vitis spp), which although native, can also become invaders when an area is disturbed.

E. Wildlife

Following extensive field work at the Stewart State Forest, the Metropolitan Conservation Alliance (a program of the Wildlife Conservation Society), provided scientific data on wildlife and their habitat. In addition, the NYS Breeding Bird Atlas, the DEC Reptile and Amphibian Atlas, Robert Chamber's list of species by ecosystem, and staff observations provided information on wildlife species of the unit. From this, wildlife management recommendations were formulated for this UMP. Information was also collected on species whose presence or absence gives important information regarding the health of the biological systems on the site,

as well as those threatened, endangered, or of special concern. The presence/absence of these species can allow the delineation of critical habitat zones that may require special management considerations. Another goal of this study was to understand the relative ecological importance of the contiguous properties that are at present outside the boundaries of the Stewart State Forest. Areas may be important ecologically because of the species that inhabit them or because they are part of the Stewart State Forest ecosystem. This information will be helpful in evaluating acreage for future inclusion in the State Forest.

1. Reptiles and Amphibians

Fifteen (15) species of amphibians (8 salamanders and 7 frogs) and 11 species of reptiles (5 turtles and 6 snakes) were observed by the Wildlife Conservation Society (WCS, 2000). The DEC Reptile and Amphibian Atlas Database (see appendix) and this research allows species to be broken down into those that are generally common and widespread in the region, and those that may be relatively common at present, but that are dependent on certain specific types of habitat or habitat complexes (for example, large grassland or shrub land areas) to satisfy their requirements. The habitat dependent species are vulnerable to sharp population declines when subjected to landscape-level changes such as wetland destruction and woody plant succession in abandoned meadows and grasslands) (Wildlife Conservation Society, 2000).

2. Breeding Birds

810 individuals comprising 60 species were observed during a breeding bird survey conducted in June 1999. Additional bird species were recorded outside of the June survey window (see appendix for a list of breeding species from the 2000-2005 Breeding Bird Atlas). Many of the species that were documented are those that are generally common and widespread in the region. There are however, certain species and groups of species found in the Stewart State Forest that are regionally significant, primarily because the habitat they require is declining throughout the northeast. These include:

A. grassland and shrub land nesting species, which require early successional communities to persist;

B. neo-tropical migrant species, some of which require relatively large contiguous forest tracts to breed successfully;

C. and some wetland species, which either nest colonially, or have relatively specific habitat requirements.

Representatives of these regionally significant species groups are found on the Stewart property, making it important in maintaining many of the less common species in the region. Examples of these groups include Field and Song Sparrows (Spizella pusilla, Melospiza melodia) and Blue-winged and Prairie warblers (Vermivora pinus, Dendroica discolor), which nest in early successional habitats; Oven Bird (Seiurus aurocapillus), Scarlet Tanager (Piranga olivacea), and Veery (Catharus fuscescens) which nest in forest habitats; and the colonially nesting Great Blue Heron (Ardea herodius). No grassland breeding bird species were observed during the breeding bird survey in 1999. Additional surveys for grassland bird species should be made in suitable habitat.

A Blue Heron rookery was reported in the southern half of the Stewart State Forest between Ridge and Maple Avenues and east of Drury Lane in 2002. A Blue Heron rookery has also been found at the Armstrong Lane wetland east of Drury Lane.

3. Hawk Survey

Red-tailed Hawks (Buteo jamaicensis) were observed on 15 occasions (1-3 individuals). A Northern Harrier (Circus cyaneus) was observed on two occasions, and a Cooper's Hawk (Accipiter cooperii) and Sharpshinned Hawk (Accipiter striatas) on one occasion each. Hawk survey results are not robust and few generalizations can be made from them. Red-tailed Hawks are generally common in the region and frequent observations in surveys are expected. There are many open areas for hunting and prey species are likely to be abundant. Northern Harrier were also observed on a number of occasions.

4. Mammals

Forty-two species of mammals have been verified on the property (See Appendix). The property has a great deal of promise regarding habitat for the federally endangered Indiana bat (Myotis sodalis) (Alan Hicks, DEC Bureau of Wildlife).

The relatively large size of the property near large protected areas in the Hudson Highlands make it a potentially significant habitat for wide-ranging, area sensitive carnivores, including otter and black bear (Metropolitan Conservation Alliance, 2000).

A nuisance beaver release program was conducted on the property years ago by the DEC. As a result of this reintroduction effort, the property currently supports an active beaver population.

5. Game Species

Game species may be defined as species of interest for hunting, fishing or trapping. The Stewart State Forest has a long tradition of providing these sporting opportunities. Game species on Stewart State Forest are white-tail deer (Odocoileus virginianus), turkey (Meleagris gallopavo sylvestris), woodcock (Scolopax minor), ringneck pheasant (Phasianus colchicus torquatus), raccoon (Procyon lotor), short-tail and long-tail weasel (Mustela frenata), mink (Mustela vison), river otter (Lutra canadensis), striped skunk (Mephitis mephitis), coyote (Canis latrans), red and gray fox (Volpes fulva, Urocyon cinereoargenteus), bob cat (Lynx rufus), woodchuck (Marmota monax), eastern gray squirrel (Sciurus carolinensis), muskrat (Ondatra zibethica) , snowshoe hare (Lepus americanus) and eastern cottontail (Sylvilagus floridanus).

6. Fish

Ponds on the property contain warm water fish species, including largemouth bass, and pan fish (bluegill, pumpkinseed sunfish, yellow perch, bullheads and crappies). Trout fingerlings are supported on a section of tributary in the southwest corner of the property.

7. Butterflies and Invertebrates

On July 10, 11 and 26th, and again on September 8, 9, and 10, 2003, John Yrizarry and 3 observers, members of the North American Butterfly Association, sampled the Barron Road area specifically, as well as the larger property along existing roads (Maple Avenue west). Including skippers, over 30 different species were found, including several that are uncommon in Orange County (Pine elfin and Meadow fritillary). Also found, was a small population of Rufus-vented Tiger beetles east of Barron Road (a species rare south of Albany).

8. Rare, Threatened and Endangered Animals and Species of Special Concern

Threatened species are native species likely to become endangered within the foreseeable future in New York (See Table 5). One such species, the Indiana bat (Myotis sodalis), has been found roosting within a quarter mile of the State Forest. Since it has a forage range of two miles from its roost, it is likely that it can be found on the property, although no individuals have yet been observed.

Table #6:
Rare, Threatened and Endangered Animal Species
of Special Concern found on Stewart State Forest

SPECIES	CLASSIFICATION
Northern Harrier (Circus cyaneus)	State - Threatened
Upland Sandpiper (Bartramia longicauda)	State - Threatened
Least Bittern (Ixobrychus exilis)	State - Threatened
Grasshopper Sparrows (Ammodramus savannarum)	State - Threatened
Coopers Hawk (Accipiter cooperii)	State - Threatened
Red shoulder Hawk (Buteo lineatus)	State - Threatened
Sharpshinned Hawk (Accipiter striatas)	State - Threatened
Pied-billed Grebe (Podilymbus podicaps)	State - Threatened
Horned Lark (Eremophilia alpcstris)	State - Threatened
Yellow-breasted Chat (Icteria virens)	State - Threatened
Jefferson Salamander (Ambystoma jeffersonianum)	State - Threatened
Blue-spotted Salamander (Ambystoma laterale)	State - Threatened
Marbled Salamander (Ambystoma opacum)	State - Threatened

F. Wetlands and Water Resources

1. Freshwater Wetlands

Large wetland areas exist on the property. Twenty-one DEC mapped and regulated wetlands are located on the property. These wetlands range in size from 16.5 to 327 acres and have a total area of approximately 2,000 acres. Many smaller wetlands are found on the State Forest as well. These smaller wetlands include ephemeral or seasonal wetlands and an extensive complex of vernal pools, primarily located in the more topographically varied western part of the property. In total, all types of wetlands (including palustrine emergent, scrub and deciduous forest) make up about one-third of the State Forest (Stewart International Airport

Properties FEIS, 1992). The extensive wetland systems found on this property provide valuable wildlife habitats, as well as resources for educational, interpretive, recreation and research programs.

Vernal pools are essential to the survival of populations of many species of invertebrates and amphibians. These species rely on vernal pools to complete at least part of their life cycles. For example, wood frogs and spotted and marbled salamanders breed almost exclusively in these pool and spend the rest of their lives in the surrounding uplands.

Because some vernal pools may dry out before larval amphibians metamorphose, maintaining a complex of these ponds within a woodland matrix is critical in maintaining populations of these species over time. This allows the recolonization of pools that fail in some years with individuals from source ponds that have successful reproduction. This dynamic is an aspect of vernal systems that is often lacking in unprotected areas in the lower Hudson Valley where fragmentation and other types of disturbance tend to disrupt the connections between complexes of vernal pools.

Beavers currently control the water levels of the property's "Great Swamp," the extensive wetland between Maple Avenue and Ridge Road. Another wetlands system in the property's southwest corner, was expanded several years ago when a dam (Restoration Pond)was constructed between Drakes Lane and Rowe's Pond, north of Forrester Road. This project was undertaken to mitigate wetland destruction during the construction of the airport. Dam maintenance and control on existing water control structures is a DEC responsibility.

In the transfer of jurisdiction document between the DOT and DEC, Stewart State Forest is reserved as a land bank for "Wetland creation and/or enhancement as mitigation for wetland impacts of Department of Transportation and Airport projects." A mitigation wetland was created in 2001, west of New Road. In February 2006, the DOT began building a 13-acre wetland mitigation project west of Barron Road. However, wetland mitigation projects are prohibited in the 1600+ acre addition east of Maple Avenue (transferred in June, 2006).

See Appendix K. for a freshwater wetlands map of the Stewart State Forest.

2. Ponds or Lakes

Table #7

Ponds & Lakes on Stewart State Forest		
1.	Rowe's Pond	2 acres
2.	Restoration Pond	10 acres
3.	Beaver Pond	6 acres
4.	Pittman-Robertson Pond	1 acre
5.	Stick Pond	4 acres
6.	Whalenburgh Pond	6 acres
7.	Tenney's Pond (access)	12 acres
8.	Clark Ave (Pond 234n)	8 acres

Many smaller remnants of farm ponds are found on the property. These ponds contain warm water species including largemouth bass, bluegill, pumpkinseed, yellow perch, crappie, brown bullhead and carp.

3. Surface Water Hydrology

The Stewart State Forest contributes storm water to the Moodna Creek and Wallkill River Basin Watersheds.

Two subbasins on the property contribute storm water runoff to the Wallkill River (via Tin Brook). The northwest corner of the Forest drains north along New Road, crossing under I-84 to the west of New Road. The center of the property, including the large wetland known as the Great Swamp, drains north along Maple Avenue passing under I-84 just east of Maple Avenue. This area includes approximately half the lands between Maple Avenue and Drury Lane.

The remaining areas of the Stewart State forest and adjacent properties drain toward Moodna Creek. In the southwest of the property a number of small wetlands drain south under NYS Route 208 to the Otter Kill, a tributary of Moodna Creek.

4. Water Quality Classifications

The DEC Division of Water Resources established water quality standards for water bodies in the State (6NYCRR Part 701). These standards classify streams according to their water quality and provide the basis for determining what uses are appropriate for these waters.

The minimum classification assigned to the waters on Stewart State Forest is C. Class "C" waters are suitable for fishing, and fish propagation and survival. The water quality is suitable for primary and secondary contact recreation even though other factors may limit the use for that purpose.

Two tributaries on the property are classified Class B - a more stringent classification than C - with a water quality suitable for swimming:

- H139-13-33-3 (Tributary 3 of Tin Brook, a tributary to the Wallkill River. Flows north under Ridge Road near north Scofield Lane).
- H139-13-33 (The Great Swamp is the headwaters of Tin Brook which flows north to the Wallkill River).

Two tributaries on the property are classified Class C:

H89-12-P234-1-4 (Tributary 4 of the main tributary of Beaverdam Lake flows from Tenney's Pond to Drury Lane and Route 207 south to Moodna Creek).

H89-12-P234-1 (Main tributary from the area south/southwest of Stewart International Airport flowing south to Beaverdam Lake and Moodna Creek).

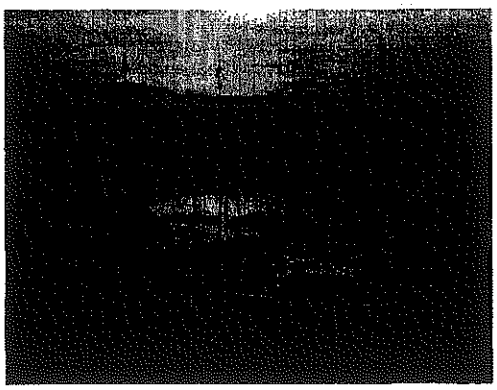
A section of tributary H89-20-5 flowing into the Otter Kill, a tributary of Moodna Creek, in the southwest corner of the Stewart State Forest near Maybrook is designated C (T). It is capable of supporting trout for 1.4 miles of its length in Stewart State Forest. The remaining section of this tributary, to the outlet of Maybrook Reservoir, has a "C" classification.

G. Inventory of Man-made Facilities

The Stewart State Forest's roads, trails and water bodies are used for hiking, hunting, fishing, trapping , hunting dog training, group camping, bicycling, cross country skiing, snowmobiling, horseback riding, nature study, bird watching, and wildlife observation. These activities take advantage of trails, roads and water control structures that predominantly predate the establishment of Stewart State Forest.

1. Impoundment Structures (Dams)

- Restoration Pond - between Drakes Lane and Barron Road. 400' soil berm, 14' outflow structure, two 4' culverts.
- Wilkens Pond - 125' soil berm. Outflow over stones and soil about 15 feet in length.
- Rowe's Pond - 50' (no real berm, overflow is overland through a low wet spot).
- New Road Pond - 100' concrete/asphalt berm, 5' outflow.
- Beaver Pond - 220' berm.
- West of Ridge Road near Scofield Lane: 100' stone and soil berm with overflow.
- Great Swamp - 2/10 mile in 2 road berms, 5' outflow structure with 3-36" culverts.
- Whalenburgh Pond - 100' stone and soil berm with overflow.



Wetland H89-12-P234-1, east of Drury Lane.

2. Existing Road System

Table #8: Paved and gravel roads (11)

Name	Mileage
Ridge Road	3.2
Maple Avenue (Rte 207 to Ridge Road)*	3.05
Barron Road **	3.8
New Road (Ridge Road to Ridge Road North)	4.0
Weed Road	0.45
Lindsay Road	0.3
Orlando Drive	0.8
Giles Road	0.9
Drakes Lane	0.65
Decker Road ***(to railroad tracks in SW)	0.4
Total of Paved & Gravel Roads	17.55 miles

* DOT retains all roadway access

** DEC owns road, but State Police and the Barron Road Development Area (DOT) retain rights

*** The Village of Maybrook retains road right of way on Decker and Barron Roads that are located within the village boundaries.

3. Dirt Roads

Table #9 Dirt Roads (6)

Name	Mileage
• Old Creamery Road (stream crossing washed out)	0.4
• Unnamed road west of Drakes Lane	0.3
• Windsor Woods Road/Trail (Trail F)	1.0
• Road between the Fields (Ridge to New Roads) (Trail E)	1.0
• Forrester to Restoration and Beaver Ponds (Trail N)	0.8
• The Armstrong Lane Farm Trail (Rte 207, east of Drury, Trail P)	0.5
Total Dirt Roads	4.0 miles

4. Trails

Numerous multiple use trails crisscross the property. Some of the major trails are listed below. See the appendix for a map of trail locations. The trail system is used by equestrians, hikers, mountain bikers, cross-country skiers and snowmobilers. These trails are not intended for motor vehicle access. Descriptions of these trails systems and their designated uses can be found in Section VIIB5.

Table #10 Trails (20)

Trail/Name	Mileage
• Trail A/ Southern Maple Avenue to Weed Road connector	1.3
• Trail B/ New Road near Ridge Road intersect to Barron Road	2.9
• Trail B2/Spur connecting Trail B to Restoration Pond	0.6
• C Trails/New Road to Barron Road	1.0/0.5
• Trail D/Orlando Road to Barron connector	1.3
• Trail E/Northern Ridge Road to New Road connector (Pittmann-Robertson)	1.0
• Trail F1/Windsor Woods Road to Ridge Road	1.2
• Trail F2/New Road to Senior Hill	0.6
• Trail F3/Trail east of Windsor Woods Road to Senior Hill (Lindsay Rd.)	1.0
• Trail F4/Senior Hill Road to New Road	0.4
• Trail G/Windsor Woods to Pittman-Robertson Road near New Road	1.0
• Trail H/Scofield Lane Ridge Trail	2.0
• Trail I/Great Swamp Trail	0.8
• Trail L/Old Raincoat Factory to Barron Road and Lindsay	0.7
• Trail N/Farm Lane from Forrester to Restoration Pond to Beaver Pond	0.8
• Barron Rd wetland mitigation site to farm fields west of New Rd, S. of Lindsay Rd.	0.6
• Trail O/Buchanan Hill	1.8
• Trail P/Armstrong Land Farm Trail spur	0.8
Total Trails	20.3 miles

5. Facility Signs

- Kiosk (Weed Road Parking Lot)
- Kiosk (Ridge Road Parking Lot)
- Kiosk (Barron Road North)
- Various road signs

6. Structures (Buildings)

- Post Office Building on Rt. 207
- Old Barn ruins at Creamery Road
- DEC Hunter check station on Weed Road
- Shed on Rt. 208
- N. Barron Rd. Raincoat factory ruins

7. Boundary Lines

• Exterior		22.1 miles
• Interior (Electric transmission line ROW)		6.4 miles
	Total	28.5 miles

8. Group Camping Sites (1)

- West of Ridge Road in the old Orchard.

9. Gates (11)

- Barron Road south (at 208)
- Barron road north (at Route 84 underpass)
- Forrester Road (at Route 208)
- Giles Road (at Route 207)
- Ridge Road north (at Route 84 overpass)
- New Road (at Route 84 overpass)
- Maple Avenue (at Route 84 overpass)
- Ridge Road south (at 207)
- Weed Road (at Route 207)
- Weed Road (near Check Station Building)
- Maple Avenue (at Route 207)

10. Fences

- 300 feet chain link fence on lands behind the raincoat factory separating the State Forest from lands used heavily by ATVs.
- Along the length of I-84 on DOT land.
- Short lengths of plastic fencing closing off trails and openings adjacent to some main road entry gates.

11. Parking lots

- Weed Road/Route 207 (42 cars, 2 horse trailers)
- Ridge Road North (25 cars and 9 horse trailers)
- 76 seasonal hunter parking spaces (distributed throughout the State Forest).

12. Non-ambulatory Parking and Hunting Areas

- Orlando Drive at New Road
- Ridge Road (south of Weed Road intersection)
- Orchard to the west of Ridge Road.

13. CP-3 Access for People with Disabilities

- 14.2 miles of roads designated for access.
- 3 designated hunting sites.

III. RESOURCE DEMANDS

A. Multiple Use Recreation - General

In winter, the Stewart State Forest is used by snowshoers and cross-country skiers. During the rest of the year, the property is used by walkers, joggers, bicyclists and equestrians. Hunting, fishing and trapping takes place on the property during legally open seasons.

The State Forest is used by a diverse mix of people on primarily multiple use trails. However, this UMP proposes management strategies to separate some users to avoid conflict. These uses include hunting, mountain biking, dog trials, hiking, horseback riding and horse/carriage riding.

For many years, the property has hosted hunting dog training and field trial events sponsored by various dog clubs. Each year for the past several years over 150 days of these events were scheduled through Temporary Revocable Permits (TRPs). Birdwatching has also grown in popularity with visitors and bird counts scheduled by various organized groups.

Aside from recreational uses, other resource demands on the land unit include timber, wildlife and fisheries management. The harvesting of trees for wood products is a chief tool in the management of the land for various multiple-use purposes including forest health, wildlife habitat, and recreational use. All short-term and long-term forest treatments will be designed to integrate and benefit these varied uses.

B. Multiple Use Recreation - Specifics

1. Hunting

The Stewart State Forest was managed by the DEC as a Cooperative Hunting Area , under agreement with the Metropolitan Transportation Agency (MTA) and the DOT. *The 1974 Fish and Wildlife Cooperative Area Agreement*, which established the "Stewart Airport Cooperative Hunting Area," regulated public hunting on the property for 25 years. The agreement applied only to hunting, fishing and trapping. Under the terms of the Cooperative Area Agreement, hunting access was controlled during hunting seasons through the use of permits, allocated by either reservations or a "first-come, first-served" system. Since 1974 over 210,000 hunter visits have been recorded at the property's check station. Hunter parking was allowed in designated locations during this approximately 10-week period. Hiking, biking and other activities were allowed by special permit from the DOT during the non-hunting season, but the procedure was not widely publicized and use remained limited primarily to special events, such as dog trials or bicycle races, with a $100/day permit fee. The general public as well as groups with permits could use the property between March 1 and September 30. Winter recreational use was prohibited by DOT. Non-hunter public parking was and continues to be limited to the periphery of the property.

Initially, Stewart hunters were most interested in small game hunting as deer were uncommon. Pheasants were stocked by DEC's Region 3 Division of Wildlife and grey squirrels, turkeys and cottontail rabbits were abundant. However, as deer became more numerous, deer hunting increased in popularity. In 1983, 152 deer were taken. This was followed by a record take on the area in 1987, when 333 deer were harvested. By 1993, 258 deer were taken. During the 2000 archery and big game season, the last season on record, 332 deer were taken.

Hunters come from many different locations within New York and from neighboring states. Approximately 30 percent of the hunter visits recorded from 1974-1998 were by hunters residing in Orange County. Region 3 counties (Dutchess, Putnam, Orange, Rockland, Sullivan,

Ulster and Westchester) accounted for 60 percent of the recorded hunting trips. About 30% were made by hunters who reside in New York City or Long Island. The remaining 10 percent of the recorded trips were made by hunters from elsewhere in New York, neighboring states, Canada, England and Ireland.

There have been two hunting accidents on the property during the past 26 years that resulted in personal injuries.

In reviewing hunting history on the property, it became clear that the information gathered at the check station was interesting, but was not used for managing the deer herd or the property. The check station and parking system were created as a means of allowing hunting and trapping on the property while providing a level of hunter management requested by the former owners of the land, MTA and DOT. During periods of high hunting pressure, which occur roughly two weeks per year, the parking system continues to work well to disperse hunters throughout the property.

With the transfer of land to DEC, individual permits are no longer required for recreational use of the property, although DEC does require Temporary Revocable Permits (TRP's) for group uses.

Since the transfer, the property continues to be closed to all other uses during the height of the hunting season (October 1 through mid-December). Daily entry for hunting is limited to daylight hours for persons possessing a valid hunting license, and controlled by available parking. These restrictions achieve an overall hunter density of three hunters per 100 acres.

Hunting use is heaviest during the opening weekends of small game, duck and bow seasons, and through the first week of the regular deer season. Environmental Conservation Officers, Forest Rangers and Assistant Forest Rangers patrol the property.

2. Fishing

The ponds on the property are lightly fished, primarily by local residents. The best fishing waters on the property are Rowe's Pond, Wilkins Pond and Whalenburgh Pond, as well as adjacent Tenny's Pond.

3. Dog Club Training and Events

One to two dozen field trials and hunt tests are held on the State Forest each year, as well as over 100 days of dog training. These events are conducted through TRPs. Between five and ten clubs use the property.

The retriever and other dog clubs have in the past brushed or mowed the following areas pursuant to TRPs:

- West side of Beaver Pond and horseshoe-shaped edge on east side of pond.
- Southeast and SW side of Restoration Pond to farm fields (about 4 acres).

- Most of Franks Field around, but not within, the New Road wetland mitigation pond.
- Senior Hill (east end Lindsay Road).
- Area 53 south of Orlando (150 by 30 yards).
- Area 27 - right side of Ridge Road, north of road leading to Pittman Robertson Pond and to the east of the pond. Most of field on left side of road also.
- Sections of "Big Trees" area north of Wilkens Pond and the southern edge of Wilkens Pond.
- South-southwest shore of Rowes Pond.

4. Snowmobile Use

Currently the existing roadways, with sufficient snow cover, provide snowmobiling opportunities. Potential conflict exists between snowmobiles, cross-country skiers and snowshoers.

C. Multiple Use - Land Management

1. Farming

Prior to 1971, farming took place on much of Stewart State Forest. Agricultural use declined after the land came into public ownership. In 1980 almost 1,200 acres of the property was used for active agriculture, including the segment between Maple Avenue and Drury Lane. By 1989, only 890 acres were actively being farmed in potatoes, oats, alfalfa, squash, cabbage and strawberries.

In 1999, when DOT transferred jurisdiction of the property to DEC, 6 farmers were farming the property. DEC took over the management of this property subject to these agreements and allows this agricultural use through TRPs.

There are currently four Temporary Revocable Permits (TRP's) for Agriculture at various locations and two Sale of Products Agreements within the State Forest. Agricultural fields cover 458.5 acres of the State Forest (about 36 farm field acres are on lands owned by Central Hudson Gas and Electric).

2. Forest Management

A 1983 letter from DEC reported the following conditions on the property:

"Aerial photos and on the ground inspection of the property indicate a large portion of the 8,000-acre property is wooded. The size of the trees range from seedlings to mature sawtimber. Much of the woodland is in the immature stages and that is due in part to the prior agricultural use."

In 1986-87 most of the accessible forested acreage on Stewart State Forest was logged. Significant volumes of sawtimber and firewood were removed from 400 acres between New and Ridge Roads, and 75 acres between Ridge and Drury Lanes.

A fifteen-acre sale of black walnut trees was completed in late 2000/early 2001 to harvest maturing trees in the southwest corner of the forest.

3. Historic Sites

Orange County Historical Society (OCHS) currently has 5 historic properties (Tellford Tavern, James Clinton House, Denniston, Hawkins House, and Elmwood Schoolhouse) bordering the State Forest along Route 207/208. The properties (10.79 acres in total), once part of Stewart State Forest, were transferred to OCHS in 2005.

4. State Police Facility

The New York State Police retain a four-acre parcel to the west of Barron road surrounded by Stewart State Forest. The facility is used for target practice and training. The State Police also use an old gravel pit on roughly one acre of land to the east of their facility and Barron Road to detonate and burn explosives. This informal arrangement dates back to a time the Stewart Properties were controlled by the MTA and DOT.

5. Motorized Vehicles

A major objective of the Department is to ensure the safety of the public when visiting the forest. Motor vehicle operation, particularly at high speeds, is seen as incompatible and hazardous to people on foot, bicycles, and horses, as well as to other vehicle operators. DEC prohibits motorized vehicles within the Stewart State Forest except when authorized by permit, for farming operations, access for persons with with disabilities, recreational events, group camping, research, and maintenance of certain high-tension power lines. The roadway speed limit is 25 mph.

During the fall hunting season, DEC allows hunters and trappers to enter the area by vehicle to evenly distribute use while the area is closed to non-hunters (see 6NYCRR Part 92).

Police agencies enter the area to access their shooting range, generally from the gate at Barron Road off Rt. 208.

Persons with disabilities may apply for a permit to enter the area with motorized vehicles (no ATVs). Three hunting access sites are reserved for non-ambulatory hunters.

IV. RESOURCE MANAGEMENT ISSUES

The Stewart State Forest Unit Management Plan has been developed in accordance with the Environmental Conservation Law, New York Code of Rules and Regulations, and applicable policies and procedures for the administration of State lands as promulgated by the Department of Environmental Conservation under the authority granted in appropriate sections of the ECL. The following is a list of applicable State laws, rules, regulations and Department policies governing the administration and management of State lands.

Environmental Conservation Law (ECL)

Article 9	Lands & Forests
Article 11	Fish & Wildlife
Article 15	Water Resources
Article 23	Mineral Resources
Article 24	Freshwater Wetlands
Article 33	Pesticides
Article 51	Implementation of Environmental Quality Bond Act of 1972.
Article 52	Implementation of Environmental Quality Bond Act of 1986.
Article 71	Enforcement

New York Code of Rules and Regulations
Title 6

Chapter I	Fish & Wildlife
Chapter II	Lands & Forests

(Management will be guided by 6NYCRR Part 190, Use of State Lands, except as proposed for amendment by "Special Regulations" for Stewart State Forest.)

Chapter III	Air Resources
Chapter IV	Quality Services
Chapter V	Resource Management Services
Chapter X	Division of Water Resources

Parks, Recreation and Historic Preservation Law Article 14
Chapter 354 Cultural & Historic Resources

Federal
The Americans with Disabilities Act 1990 (ADA) along with the Architectural Barrier Act of 1968 (ABA) and the Rehabilitation Act of 1973, Title U, Section 504.

Department Guidelines, Practices, Procedure, Rules& Regulations

Public Use
Temporary Revocable Permits
Motor Vehicle Use
Unit Management Plan
Pesticides
Prescribed Burning
Inventory
Acquisition
Road Construction
Fish Species Management
Habitat Management
Wildlife Management
CP-3 (Motorized Access for Persons with Disabilities)

V. GOALS FOR THE STEWART STATE FOREST

A. Introduction

The Department manages State Forests for multiple uses to serve the needs of the People of New York State. This management is on a landscape level, not only to ensure the biological diversity and protection of the forest ecosystem, but to optimize the many benefits these lands provide to the public. This goal will be accomplished by integrating compatible and sound land management practices.

State Forests are managed for multiple uses including watershed protection, wildlife, timber, recreational use, and other kindred purposes. The resource demands (Section III), along with a long time frame, allow us to envision a landscape that provides for the sustainability of diverse habitats, forest products and recreational opportunities. This forms the basis for the following schedule of management actions:

- Allowable use intensity will be guided by the monitoring of impacts on natural resources (carrying capacity). User permits, guidelines, and public education may be employed to manage public use of the property. Uses expected to cause unacceptable impacts will be curtailed or prohibited.

- Management of the land will be guided by the goal of protecting and enhancing the value and diversity of the property's wildlife habitat and animal species.

- Sustainable forestry practices will yield forest products, such as lumber, firewood, wildlife habitat, watershed protection, recreation, reflecting the properties designated purpose. The property will showcase best management forestry practices.

- Limited areas will be mowed year-round to keep grass short in order to facilitate dog trials and training while minimizing wildlife habitat conflicts. The main purpose of this mowing is to support permitted recreational use. Dog field trial mowing will be integrated with plans to maintain a diversity of habitats on the property.

- Management will enhance or protect all existing wetlands. All construction, mowing and farming practices must meet the requirements of ECL Article 24, the Freshwater Wetlands Law and the Army Corps of Engineers.
- Management proposals on the Stewart State Forest will consider development activities on adjacent lands as part of a landscape approach to management.

- An open water/upland mix of habitats will be maintained to benefit waterfowl and wildlife species, and improve opportunities for hunting, fishing and retriever field trials.

- Provide a safe and effective buffer for airport operations. All management decisions will take into account the unique public safety concerns raised by the proximity of the property to Stewart International airport. No management actions will be undertaken that will conflict with the safe operation of the airport.

- The State Forest's location immediately beyond the end of the airport's main runway dictates that the property continue to be accessible to vehicles in the event of an emergency. Any use which might prove a danger to airport operations will be prohibited.

- The DEC will enhance the existing trail system while ensuring environmental stability.

B. The Americans with Disabilities Act (ADA) and Its Influence on Management Actions for Recreation and Related Facilities

The Americans with Disabilities Act (ADA), along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on the manner by which people with disabilities are afforded equality in their recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities and use of public accommodations. Title II of the ADA applies to the Department and requires, in part, that reasonable modifications must be made to its services and programs, so that when those services and programs are viewed in their entirety, they are readily accessible to and usable by people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity or an undue financial or administrative burden to the Department. Since recreation is an acknowledged public accommodation program of the Department, and there are services and activities associated with that program, the Department has the mandated obligation to comply with the ADA, Title II and ADA Accessibility Guidelines, as well as Section 504 of the Rehabilitation Act.

The ADA requires a public entity to thoroughly examine each of its programs and services to determine the level of accessibility provided. The examination involves the identification of all existing programs and services and an assessment to determine the degree of accessibility provided to each. The assessment includes the use of the standards established by Federal Department of Justice Rule as delineated by the Americans with Disabilities Act Accessibility Guidelines (ADAAG, either adopted or proposed) and/or the New York State Uniform Fire Prevention and Building Codes, as appropriate. The development of an inventory of all the recreational facilities or assets supporting the programs and services available on the unit was conducted during the UMP process. The assessment established the need for new or upgraded facilities or assets necessary to meet ADA mandates, in compliance with the guideleines and criteria set forth in the Adirondack Park State Master Plan. The Department is not required to make each of its existing facilities and assets accessible. New facilities, assets and accessibility improvements to existing facilities or assets proposed in this UMP are identified in the "Proposed Management Recommendations" section.

The Americans with Disabilities Act Accessibility Guidelines

The ADA requires public agencies to employ specific guidelines which ensure that buildings, facilities, programs and vehicles as addressed by the ADA are accessible in terms of architecture and design, transportation and communication to individuals with disabilities. A federal agency known as the Access Board has issued the ADAAG for this purpose. The Department of Justice Rule provides authority to these guidelines.

Currently adopted ADAAG address the built environment: buildings, ramps, sidewalks, rooms within buildings, etc. The Access Board has proposed guidelines to expand ADAAG to cover outdoor developed facilities: trails, camp grounds, picnic areas and beaches. The proposed ADAAG is contained in the September, 1999 Final Report of the Regulatory Negotiation Committee for Outdoor Developed Areas.

ADAAG apply to newly constructed structures and facilities and alterations to existing structures and facilities. Further, it applies to fixed structures or facilities, i.e., those that are attached to the earth or another structure that is attached to the earth. Therefore, when the Department is planning the construction of new recreational facilities, assets that support recreational facilities, or is considering an alteration of existing recreational facilities or the assets supporting them, it must also consider providing access to the facilities or elements for people with disabilities. The standards which exist in ADAAG or are contained in the proposed ADAAG also provide guidance to achieve modifications to trails, picnic areas, campgrounds, campsites and beaches in order to obtain programmatic compliance with the ADA.

ADAAG Application

Current and proposed ADAAG will be used in assessing existing facilities or assets to determine compliance to accessibility standards. ADAAG is not intended or designed for this purpose, but using it to establish accessibility levels lends credibility to the assessment result. Management recommendations in each UMP will be proposed in accordance with the ADAAG for the built environment, the proposed ADAAG for outdoor developed areas, the New York State Uniform Fire Prevention and Building Codes, and other appropriate guiding documents. Until such time as the proposed ADAAG becomes an adopted rule of the Department of Justice, the Department is required to use the best information available to comply with the ADA; this information includes, among other things, the proposed guidelines.

VI. OBJECTIVES OF THE UNIT MANAGEMENT PLAN

A. Resource Protection

These objectives will facilitate protection of the cultural and biological resources from detrimental activities.

- Protect wetlands throughout the unit (both regulated and unregulated) through adherence to ECL Article 24 and implementation of silvicultural best management practices.
- Protect all streams on the unit through the use of silvicultural best management practices and riparian buffer zones.
- Protect the Stewart State Forest from nuisance wildlife, insects and diseases by monitoring and control.
- Protect State lands from trespass by maintaining 28.5 miles of boundary lines and patrol by DEC Forest Rangers and Environmental Conservation Officers.
- Protect cultural resources such as foundations, stonewalls and at least one known family cemetery on lands of the State Forest. This will be accomplished by avoiding these areas, leaving a buffer zone adjacent to these areas, and in certain instances, active vegetation management.

- Protect the native environment by determining the extent of invasive species, instituting control methods where possible, and monitoring for new population occurrences.
- Protect and enhance sites of rare & endangered species. Enhancement may involve vegetative manipulation to improve their chances of survival.

B. Public Use and Recreation

The opportunity for public use and recreation is one of the most direct benefits that this forest provides the average citizen. These objectives provide for a number of recreational opportunities that are compatible and consistent with the natural characteristics of the land.

- A variety of appropriate recreational uses should be encouraged including, but not limited to hiking, bicycling, hunting, fishing, trapping, nature study, cross-country skiing, horseback riding and dog training.
- Provide and improve public access.
- Improve and expand the existing trail system, while ensuring environmental stability.
- Provide maps and informational kiosks.
- Identify the State Forest through maintenance of boundary lines, posting of State signs along highways and maintaining State Forest identification signs.
- Limit public access or other recreational activities where degradation of the State Forest resources is occurring.

C. Wildlife

These objectives will enhance the diversity and recreational values as related to the various wildlife species on Stewart State Forest.

- Manage the State Forest to provide for a variety of wildlife (game and non-game) species in conjunction with management for forest products, within natural resource limits.
- Promote "watchable wildlife" viewing areas.
- Improve habitats for species of special concern, rare, threatened or endangered species, such as the Indiana bat, Myotis sodalis, and purple milkweed, Asclepias purpurascens.
- Designate a proportion of the State Forest as a Bird Conservation Area.
- Improve hunting opportunities for both ambulatory hunters and hunters with disabilities.

D. Fisheries

- Provide and improve fishing opportunities and access to the ponds on the State Forest.
- Work cooperatively with DOT to provide public access to Tenny's Pond.

E. Education and Research

- Encourage research and education by accommodating researchers and educators where possible and appropriate.
- Provide information to the general public about the unit through brochures, signs, press releases and woods walks.

F. Forestry

These objectives will provide for sustainable forestry that will yield forest products, both tangible and intangible without compromising the overall health and productivity of the forest ecosystem.

- Maintain a variety of tree species and age classes on the State Forest in order to provide for biodiversity of both flora and fauna.
- Establish an average allowable cut that will provide a sustained yield of forest products that is within the productive biological capacity of the forest and which does not compromise other resource values.
- Manage forest stands based on stand characteristics and data obtained in the inventory.
- Re-inventory every 10 years.
- Maintain sustainability and biodiversity.

G. Land Acquisition

- Actively pursue acquisition of contiguous private land for buffer and habitat protection. This land will be bought in fee from willing sellers.

H. Airport Safety

- Manage wildlife through habitat manipulation which will not pose an increased threat to airport operations
- Work with the airport to monitor any observed changes

VII. PROPOSED RESOURCE MANAGEMENT ACTIONS

A. Protective Actions

The Department will request information from the public, Natural Resources staff, Forest Rangers and Environmental Conservation Officers regarding changes in land uses or abuse of sites, water quality and plant and animal species. The Department may conduct inventories or delineate sample plots to monitor the habitats, plants and animals at Stewart State Forest.

1. Insect and Disease

The health of plant populations on the State Forest will be monitored and maintained through the integrated pest management approach. Observations and/or inventory of potential insect or disease outbreaks will be recorded. When warranted, appropriate control strategies will be developed to reduce health and aesthetic impacts. More common problems such as beech bark disease, hemlock wooly adelgid, ash decline, cankers, etc. will be controlled through individual tree selection (and harvesting) as a part of specific stand management.

2. Fire Control, State Land Security and Public Safety

Local fire districts having jurisdiction will provide initial response to all calls for fire response, be it structural or wildland. Forest Ranger staff will also respond as necessary for support and take an active role in wildland fire suppression. Under New York State Environmental Conservation law, all wildfires will be suppressed within New York State.

Reports of lost or injured persons will also initiate a response by both the Department's Forest Rangers and the local fire district having jurisdiction.

Enforcement of applicable laws governing Stewart State Forest will be conducted by the Department's Forest Rangers and Environmental Conservation Officers to promote the safe and secure enjoyment of the resource by the public.

3. Temporary Revocable Permits

Permits may be issued for the temporary use of State Lands by the public within stated guidelines and legal constraints so as to protect State Lands and their resources. Authority for this is authorized by Section 9-0105 of the Environmental Conservation Law (ECL) and by provisions of the Policy and Procedures Manual, Section 8426, "Temporary Revocable Permits for the use of State Lands."

4. Wetlands

Wetlands will be maintained by adhering to the requirements of ECL Article 24 and 6 NYCRR Part 663. Silvicultural Best Management Practices will be followed during forest management activities. The Department will use appropriate state-of-the-art management strategies to protect special areas such as vernal pools and wetland mitigation sites.

5. Invasive Species

Staff will identify and monitor locations of invasive species, assess their impact and rate of spread and eradicate them whenever feasible and necessary. Mechanical removal, herbicide application, silvicultural treatments or a combination of these options may be applied.

The management strategy for invasives includes environmental assessment and long term monitoring. Mechanical and silvicultural treatments will be considered first, but if they fail to control the invasives outbreak or spread or if studies show that mechanical treatment is not effective, a herbicide application plan will be prepared.

A herbicide application plan describes the location and character of the site where invasives are present, the steps to be taken (and/or herbicides to be used), method of application, safety procedures, and alternative methods of control. Monitoring methods and post-application evaluations are also described. All provisions of the State Environmental Quality Review Act (SEQR) will be followed.

6. Rare and Endangered Species

Endangered, threatened, special concern, and other DEC-recognized rare species will be protected at Stewart State Forest through habitat and recreational user management; i.e. the needs of these species will take priority over other uses of the property, including recreational use. When developing management prescriptions, the requirements of these species will be considered and adverse effects avoided if at all possible. Furthermore, specific wildlife and forest management projects may be undertaken to improve habitat for these species.

Stewart State Forest is scheduled to be surveyed by the Natural Heritage Program in 2008. The survey will include an assessment of areas likely to contain rare plant and animal species, preliminary field surveys and screenings, and recommendations for further study based on the findings. The DEC will use this information for identifying locations for more detailed study and followup by professional biologists and botanists.

Indiana Bat

Indiana bats (Myotis sodalis) have been positively identified and monitored in the Maybrook/Cambell Hall/Rock Tavern/Middletown area Stewart State Forest provides suitable habitat for summer roost sites.

Indiana bats usually prefer large shagbark hickory (Carya ovata) and black locust trees (Robinia pseudoacacia) for their roosts. Roosting bats have been found on trees larger than 8 inches in diameter with 40% or more roosting on Shagbark hickory. Other trees with large cracks (10-12' long and ½ inch wide,) and flaky bark are also preferred roost sites. At the roost trees, at least several bats congregate, seeking warm shelter in direct sunlight. Therefore, cutting more trees to the south and west of potential roost trees will improve potential habitat for Indiana bats by reducing shading and warming the trees. Tree removals for forest management are best done in winter months when the bats are not using roost trees. However, forest management activities which are sensitive to managing the two key tree species in the forest stands of the area, will have little impact on the Indiana bat population, and can be used to improve their habitat.

Pied-billed Grebe

At least one nesting pair of pied-billed grebes was confirmed to be using Restoration Pond in 2006. The pied-billed grebe is listed as Threatened in New York State. No permits will be issued for any use of Restoration Pond before May 31, in order to determine whether or not the grebes are using the pond for nesting. If the grebes are not confirmed to be nesting on Restoration Pond, permits for use of the southern end of the pond will be issued if requested. If the grebes are confirmed to be nesting on the pond, such permits will be issued after such time as the young grebes have hatched and fully fledged. If pied-billed grebes are confirmed to be nesting on other ponds on the property, these same restrictions will be applied.

In the event that other rare, threatened or endangered species are confirmed on the property, similar measures, as appropriate, will be taken to encourage their success.

7. Cultural Resources

The Department has followed procedures established in concert with the New York State Office and Parks, Recreation and Historic Preservation (OPRHP) in determining the presence of cultural resources on this unit. This involved completion of the Structural-Archaeological Assessement Form (SAAF) and reviewing the New York State Archaeological Site Locations Map. OPRHP and the New York State Museum have been consulted in any instance where the Site Locations Map indicated an archaelogical or historic site may occur on management unit lands. The results of the SAAF evaluation indicate that there is a site located within the unit. DEC will consult with OPRHP before conducting any activities within one-half mile of the site, and will take those measures necessary to protect this resource.

Protection of the old house sites and stone walls will be provided when planning individual timber harvests, recreational activities, and/or construction projects.

Any archaeological sites located within Stewart State Forest are protected by the provisions of the New York State Historic Preservation Act (SHPA - Article 14 PRHPL), Article 9 of the Environmental Conservation Law and Section 233 of the Education Law. No activities impacting these resources are proposed in this UMP. Future proposals will be reviewed in accordance with SHPA.

The archaeological sites located on this land unit as well as additional unrecorded sites that may exist on the property will be made available for appropriate research. All future archaeological research to be conducted on the property will be accomplished under the auspices of all appropriate permits. Research permits will be issued only after consultation with the New York State Museum and the Office of Parks, Recreation and Historic Preservation. Extensive excavations are not contemplated as part of any research program in order to assure that the sites are available to future researchers.
For additional management actions regarding cultural resources, see Section VII.C.4.

8. Mineral Resources

Any party desiring to procure minerals, rocks or oil & gas resources (or the use of the mineral estate in the case of gas or liquid storage in geological formations) from the mineral estate under state lands included in this UMP, must obtain contractual rights (such as a lease contract) to those minerals from the appropriate state entity administering those resources. The party must also obtain appropriate consent (temporary revocable permit) from the state to access the surface estate during operations. Prior to the commencement of operations the appropriate permits must be obtained. These procedures are further outlined below.

The Department has no plans to lease Oil and Gas rights or permit any commercial mining operations on the properties included in this UMP. Any change in this direction would require an amendment of this UMP including the opportunity for public review.

9. Soils

Protection of soils from erosion will be accomplished through the use of Best Management Practices (BMP) as well as other procedures such as winter logging on highly erodible soils, water bars, ditching, bridging and planting of cover crops or grasses to stabilize landings or log docks.

B. Recreational Management Actions

The property will be open to all users throughout the year, but will be limited to hunters and trappers during the regular big game season. Non-hunting companions will be permitted to accompany hunters during the big game season, but will be required to remain with the hunter at all times while on the property. Interior travel in the forest is expected to be by foot, bike or horse, except for special events under permit, persons with disabilities, and hunters and trappers from October 1 through December.

Replacing multiple trails or trail webs with clearly delineated loop trails connecting the main travelways on the property will improve recreation for all of the diverse users of the property. The existing network of formerly paved town roads will constitute the back bone of the trail network, while providing limited vehicle access to the forest for administrative and patrol purposes, farming operations, and specially permitted activities such as dog field trials and training, access for persons with disabilities, and hunting in the fall.

Horse club events, organized dog field trials, ongoing scientific research and education efforts, and other special or group uses will continue to be allowed under TRP, with appropriate conditions and restrictions. These uses enhance the property's value and are permitted when they do not impose unreasonable conflicts with other uses or pose a threat to its natural systems.

Permits for use of the trail system may be granted from time to time for organized group recreational activities like bike rallies, horse club rides, ski tours, group camping, military training, and other events of a similar nature. Permits will not be issued for motorized competitive events like motorcycle enduro runs or ATV races, as these uses would conflict with management objectives and other property uses. (See analysis in item #7, below)

1. Hunting

Hunting will be allowed throughout the property except for several restricted areas which include the one acre site east of Barrens Road that is used by the State Police and two small sites containing the remnants of the raincoat factory just west of Wilkens Pond and another site on Old Creamery Road in the southwest corner of the property. All hunting activities are subject to state-wide regulations regarding hours, seasons and bag limits. In 6NYCRR Part 92 the use of rifles and handguns is prohibited in the Stewart Airport Cooperative Hunting Area. This plan recommends that in the future, the use of .22 caliber rimfire handguns be allowed on the property while rifles and other handguns remain prohibited. It will be necessary to change pertinent regulations before this can become effective. Hunters will be allowed to use shotguns, bows, and muzzleloaders during the appropriate seasons

From October 1 through the end of the regular deer season, the main vehicle gate at Weed Road will be open, allowing hunters to drive into the property. In order to maximize hunting opportunities, consideration will be given to leaving the Weed Road gate open until the end of December if weather and staffing allow. Hunters will be allowed to drive or park vehicles on the internal roads and parking areas only from one hour before sunrise to one hour after sunset. Hunters may not enter the property by vehicle at other times, unless they first obtain a TRP or CP3 permit. All other users may not enter the property by vehicle at any time, unless they first obtain a TRP or CP-3 permit.

As in the past, hunters will be required to use designated parking areas, hunt on the same side of the road as their vehicle, and will not be allowed to cross roads. The parking areas are located so that these regulations will keep hunters spread out on the property, providing a high quality hunting experience. In addition, the Department will continue patrols by Environmental Conservation Officers and Forest Rangers to maintain a high quality hunting experience on the property. Proposed changes to area hunting regulations include elimination of both the hunting party size restriction and restriction on number of dogs per hunting party.

In the past, reservations have been required during the first week of the regular deer season, and more recently with a Saturday opening, for the first nine days. The Department will consider reducing the number of days that reservations are required and may eliminate them altogether in the future, if that does not cause significant user conflicts.

Wheelchair or non-ambulatory hunters will be admitted to specially designated areas if they have a valid non-ambulatory hunting permit issued by the Department. A non-ambulatory hunter may be accompanied by one non-hunter. Hunters with other mobility impairments may access other hunter parking areas throughout the property open from October 1 through the regular deer season. If the need arises, several locations may be identified as more suitable for persons with less severe impairments.

2. Trapping

Trapping will be allowed throughout the property. Trapping for all legal game during open seasons will be permitted. Trappers will be allowed to access the property with a vehicle when the gates are open (October thru December). Trappers that want to enter the property with a vehicle at all other times must first obtain a TRP.

3. Fishing

New signs will give information about ponds nearest parking facilities. Only boats without motors or with electric motors will be allowed on ponds in the State Forest. Amendments to State Regulation, 6NYCRR 92.4(b), will be proposed to allow electric motor use. Boats must be carried or wheeled on dolleys from designated parking lots.

Ice fishing will be allowed on the ponds, limited to pedestrians. If a fish kill occurs on the shallower ponds, or sampling finds low fish populations, stocking will be considered.

Under special circumstances, such as providing fishing access for people with disabilities, TRPs may be issued for transport of car top boats to a pond. In these cases travel on interior roadways will be limited and cars may be required to park in peripheral parking lots during the event.

Through the Invasive Species Task Force the DEC will investigate use of appropriate signs at fishing and waterway access sites to reduce the spread of non-native or invasive plants.

Fishing opportunities will be described in a brochure about the property.

The parcel of land which contains 12-acre Tenney's Pond (north and east of Stewart State Forest, west of Drury Lane) remains under the jurisdiction of DOT. However, the 2005 Consent Decree (00-cv-1606) between the Stewart Park and Reserve Coalition (SPARC) et al and DOT et al provides the following:

"NYSDOT shall reserve to the State of New York public access to Tenney's Pond, including at a minimum: access from Drury Lane to the Pond, an area for launching boats, a 25 foot wide reserved access around the entire shoreline of the Pond, and the use of the entire waters of the Pond. Prior to any sale or other transfer of such lands, NYSDOT shall continue to allow such public access to Tenney's Pond."

The DOT also commits "to encourage SWFAA (SWFAirport Aquisition, Inc.) to continue to allow public access for fishing and other purposes to Maroney's Pond," which is located on leased lands.

4. Dog Trials and Training

The State Forest will continue to be used for field trials. Alternate sites in the region may be considered for some dog trials currently taking place at Stewart State Forest in order to reduce pressures on the area.
Limits and management guidelines for dog club concentration areas will continue to evolve as DEC assesses the situation over the next decade. Some activities will require modification or not be allowed at environmentally sensitive locations. However, the DEC encourages these and other long-term recreational uses of the property. Roads and trails will be shared with other users. Good public relations and communication fosters understanding and will be an increasingly important tool at Stewart State Forest to keep visitors informed.

TRPs for special activities, including dog field trials, are issued on a first come/first served basis. TRPs will include conditions so that special activities will not impact the resource.

To achieve a sustainable balance between natural processes and human disturbances, the following parameters will guide mowing on the property:

- Mowing will, whenever possible, be done in late summer, early fall, or late winter to early spring to avoid nest/habitat disturbances. When mowing is necessary on a limited number of fields, steps such as strip mowing and keeping cutting blades at least 5-6 inches high will be used to reduce wildlife disturbance.

-Mowing around ponds will continue to provide adequate access for dog trials and training while preserving long-term vegetational stability and wetland habitats. Mowing of no more than 30-40 per cent of the current grassland/wetland edges on a 2-3 year rotation will allow access as well as recovery time for the habitat.

-Access roads to certain mowed pond areas (Wilkens, Stick, Restoration and Pittman-Robertson) will be hardened to avoid rutting and prevent erosion.

Dog field trials and training share Stewart State Forest with other users, often in the same area. Notices on bulletin boards will be used to inform other visitors about the use of designated areas for dog training, but will not restrict visitors. Dog clubs as well as any other special groups under permit, should use the opportunity to acquaint other visitors about their activity.

5. Trails

A map of the proposed trail system is provided in Appendix K. In general, trails on the Stewart State Forest will be open for shared use i.e, hikers, bikers, horseback riders, and others will all be allowed on the trail system; however, some trails may be limited to single use to avoid user conflict. Visitors to the area will be expected to share use of all areas, and recognize and cooperate with the safe passage of one another. Our objective is to provide an extensive network of safe, well designed and maintained trails for the use and enjoyment of the public to replace the current maze of trails. However, new trails will not be designated for biking or equestrian use when nearby trails provide equivalent experiences.

In general, trails will be minimally marked, unless site conditions dictate otherwise. Signs will be posted where the trails enter or depart the roadways. All road intersections will be signed with the name(s) of the roads.
All trail systems and routes proposed for the property are currently usable except for parts of the Scofield Lane Trail, the Great Swamp Trail, and parts of the Maple Avenue to Weed Road Trail. The Maple Avenue to Weed Road trail will be reopened and widened with culverts for watercourses and gravel fill in wet or boggy sections. Reopening of trails will be a matter of improvement and maintenance of the existing trails, roads, culverts, and in some cases, hardening of surfaces to eliminate any possibility of future erosion. Proposed trails will be reviewed by the Bureau of Habitat and wetland permits obtained if necessary.
The Department will enhance the existing trails listed in this section and ensure their environmental stability by:

- Providing a mix of multiple-use and single use areas to avoid conflicts and give users a choice of trails to use.
- Limiting trail use to foot traffic in wetlands (the Great Swamp) and steep areas, to avoid conflicts with mountain bikes.
- Providing for continued snowmobile use on the main roads with four connector trails creating a series of long distance loops for riders at the same time providing for the needs of other users. Snowmobiles will be limited to designated trails including and west of Maple Avenue.

- Advising visitors to the area not to enter farm fields, trample or damage crops, and to keep all travel to the edge of the fields.
- Providing access to the varied terrain and major points of interest on the property.
- Enhancing views at a select number of sites - i.e. Great Swamp, views of the Shawangunks off Ridge Road, and pond and field views.
- Designating multiple use trails whenever appropriate.
- Providing access to the general public for as much of the year as possible.
- Providing well placed access on the periphery of the property.
- Giving priority to using existing trails.
- Closing duplicate, parallel, poorly-sited trails and removing trails in places where "trail webs" (dense concentrations of trails which have formed to avoid or bypass locations) have formed.

Descriptions of major trail systems: (Letters correspond to the Proposed Trail and Facilities Map in Appendix K). All trails are multiple use trails, unless specifically designated as single use.

A. Maple Avenue to Weed Road Trail (horseback riding, hiking, mountain biking and snowmobiling)

Sections of an existing old farm road and sections of an overgrown footpath with blowdown in places.

Proposed Actions:

- Rehabilitate to eight feet wide (approx. 1.3 miles) to complete the southern part of a loop between Maple and Ridge Roads.
- Widen to eight feet to complete a loop for snowmobiles (1 of 4 connector trails being proposed), equestrian carriages and horses, as well as for hikers and mountain bikers.

Constraints:

- There are several wet spots in the easterly ½ of the trail which will need four culverts as well as Item 4 gravel on 1/4 mile of the trail
- Portions of this trail will skirt farm fields and steps to minimize disturbance to farm operations will be needed.

Proposed Actions:

- Improve trail for multiple uses, including snowmobiles.

B. New Road to Barron Road (hiking and mountain biking, part of trail from intersection with Trail N to Barron Road for snowmobiling)

The 2.9 mile trail starts at New Road and proceeds west, tying into a trail spur east of Beaver Pond (B2, 0.7 miles), then traversing old farm field lanes intersecting with an old farm road (once called Woodruff Lane), and the dam forming Restoration Pond on its way to Barron Road. The trail will be routed to the edge of fields or within the tree line along the fields to an existing woods road linking to Barron Road.

- This trail exists, mostly as a well delineated single track winding at times through and around high tension electric wires. Currently used by mountain bikers.
- The trail completes a southern loop across Stewart State Forest and is linked to the improved access road to Beaver Pond from New Road and Forrester Lane.
- Trail west of Restoration Pond Road (N) can use the edge of farm fields.

Constraints:

- Careful siting near farm fields east of Rowes Pond will be needed to avoid conflict with farm operations. A single track bike loop exists within the woods to the north of the farm fields west of Restoration Pond, but has too many switchbacks for pedestrian use.
- A small 15' raised boardwalk (less than 2 feet above grade) will be needed to cross a stream entering Beaver Pond and connect the trail to existing road loops east of Beaver Pond (on B-2).
- Separation of snowmobile and bike/hike loop may be needed between the northerly boundary of farm fields and Barron Road.

Proposed Actions:

- The trail will be designated for hikers, mountain bikers and west of Trail N for snowmobilers (one of four connections for snowmobile loops).
- Construct boardwalk to connect to existing road loops.
- Adjust bike loop to eliminate some of the curves.

C. New Road to Barron Road North, 1.0 miles (north of Wilkens Pond, 2 spurs, hiking and mountain biking/horses)

Background:

- This trail lies 0.55 miles north of the Lindsay Road - New Road intersection and 0.8 miles north of the Lindsay Road-Barron Road intersection.
- This trail exists as a roughly 6-8 foot wide swath, probably formed by illegal ATV use. It is currently used by mountain bikers, hikers and horses.
- This trail will help enhance the loop system between New and Barron Roads.
- The trail spur leaves New Road from within 200 of the "Pittman-Robertson Pond Trail" (Trail E).
- Allows for separation of uses, such as mountain bike and horses.
- 3 wet spots in trail, but localized, not part of any wetland system.
- White pines and cedars on the ridge provide a change in scenery.

Constraints:

- Crosses stream in field on New Road side and will require a small pedestrian bridge at this location.
- Crosses at least two streams and one wet area toward the Barron Road half which will require trail improvement with gravel and culverts.
- The section of trail on Barron Road may one day need re-routing if the Barron Road Development Area interchange is built on DOT lands or lands formerly of Penn Central Transportation Company, and would necessitate a rerouting of the trail system.
- At times, retriever clubs using area near Wilkens Pond known as "Big Tree Field" will post area to warn users that field trials are going on. At these times, some trail use may be temporarily rerouted to avoid user conflicts.

Proposed Actions:

- Close the two (2) single track trails which head north from main trail.
- Construct small foot bridge (15-20 feet) near the New Road end of the trail.
- Install 3 culverts and gravel on trail on the westerly half of the trail nearer to Barron Road.
- Upgrade existing spur trail at New Road end to create an optional trail away from the mowed field used by farmers and retriever clubs.

D. Orlando Road to Barron Road, 1.3 miles (horseback riding, hiking, mountain biking, snowmobiles)

Background:

This trail follows old farm lanes and is located 1.3 miles north of Lindsay (0.5 mile south of the gate on Barron Road), connecting to the southerly turn of Orlando Drive.

- 6+ feet wide mountain bike path
- Wetlands skirted at several points, so trail work may require a wetlands permit.
- This is one of two trails in the area - the other is to be managed as a smaller secondary trail.

Constraints:

- Property to the west of Barron Road is not part of Stewart State Forest and is currently heavily used by illegal ATVs. Future development may impact use of this trail.

Proposed Actions:

- Maintain trail for current uses, insuring a minimum 8 foot width at all points.
- Improve signs
- One of 4 connector trails proposed to create trail loops for snowmobiles)

E. North Ridge Road to north New Road, past Pittman-Robertson Pond, 1.0 mile (horseback riding, hiking, mountain biking)

Background:

- Located 0.7 miles south of Route 84/Ridge Road crossing and 1.15 miles south of New Road as it turns into the Rt. 84 parallel access Road. Excellent connector between Ridge Road and New Roads.
- An old one lane farm road through fields and woods near several farm ponds.
- The old farm road can be hardened to make it suitable for horse and buggies, and was tentatively marked as a horse trail in 2000.

Constraints:

- Will require gravel hardening along 1200 feet of its length.
- Will require replacement of at least one 10 inch culvert for wetland streams passing under the old road.
- Will require a wetlands permit for the work in or adjacent to the wetlands.

Proposed Actions:

- Gravel hardening along 1200 feet of its length
- Harden with gravel to make suitable for horse and buggy use.
- Replace 10-inch culvert.

F. Windsor Woods Road to Ridge Road (Multiple-use trail, possible for snowmobiles if chosen instead of connection to Ridge in the long term, or the connection to Ridge not available due to flooding). Ridge Road to New Road near Lindsay, 1.2 miles (F3/F4) for hiking, mountain biking (no snowmobiles), Ridge Road to New Road (hiking, biking, etc, including snowmobiles starting on F and proceeding on Trail G to New Road - 1.0 miles)

Background:

- Horse and buggy trail is 0.5 miles west of Ridge Road/Weed Road intersection on New Road. Marked as a horse trail in 2000. Beaver-caused flooding along Ridge Road in the past 3 years.
- Mountain bike trail parallels and proceeds to Ridge Road (F1). At intersection proceeds west to New Road just south of Lindsay Road.
- From "Senior Hill," single track mountain bike spur continues north to New Road, 0.35 miles away from the first intersection (F2).
- F3 single track trail links Senior Hill and Trail F (Steep, eroded and confusing in places occur needing renovating and relocating). F4 single track to New Road.
- F5 horse trail marked north to Pittman -Robertson Pond

Constraints:

- On the westerly end, toward New Road and Senior Hill (near Lindsay) there is a maze of ATV/mountain bike trails in a highly damaged and overused field and woodland setting.

- Spur trail is needed to reroute the woods road which has had long-term beaver flooding near Ridge Road.
- F5 marked horse trail is wet in many places and is not suitable for snowmobilkes or mountain bikes.

Proposed Actions:

- Route trail to skirt the field on an existing woods road to New Road and avoid the steep hill (a/k/a Senior Hill) leading to the Lindsay Road intersection.
- Construct spur trail to avoid beaver flooded area.
- The maze of ATV/mountain bike trails will be closed.
- Part of trail F from Ridge Road to intersect with Trail G will be for snowmobiles (8 feet minimum width). Windsor Woods Road may be used as an alternate.
- Marked horse trail (F5) passes through wet areas and will need to be monitored/improved/or rerouted to avoid damage rutting, enlarging and erosion.

G. Windsor Woods (Ridge Road to Pittman Robertson Pond Road connecting to New Road), 1.0 mile (horse, snowmobile, hiking & mountain biking)

Background:

- 2 small wet segments will require a stone culvert/rockwork.

Constraints:

- Trail also used by horses.
- A southerly spur off this trail runs through wet and steep areas before connecting to New Road to the south (This area has been damaged by bike and trail use.)

Proposed Actions:

- Will require 3 culverts with headwalls.
- Close southerly spur trail to New Road.
- Upgrade segments which are not 8 feet wide for snowmobiles. Existing old roads will be used whenever possible (one of four trails proposed to create snowmobile loops).

H. Scofield Lane Ridge Trail, 2.0 miles (horseback riding, hiking, mountain biking)

Background:

- Starts at Scofield Lane, runs the ridge west of the Great Swamp, and ends at the Ridge Parking lot.
- 4 feet wide, cleared to appropriate height.
- In the south, trail starts as overgrown Scofield Lane and joins an existing trail on the ridge.

Proposed Actions:

- Maintain for current uses.

I. Great Swamp Trail/Ridge Road to Maple Avenue via Great Swamp, 0.8 miles (hiking only)

Background:

- Hiking trail from Scofield Lane across the Great Swamp via a boardwalk. Roughly 600 feet long, the boardwalk will be three to four feet above the water, and cross the swamp at its narrowest point.
- Excellent interpretive and wildlife viewing potential.

Constraints:

- Only pedestrian access.
- Boardwalk design depends on decisions regarding the repair and reconstruction of the water control structure affecting water levels in the Great Swamp.

Proposed Actions:

- Construct boardwalk.

J. Great Swamp Scenic Overlook, 0.4 miles (hiking only)

Background:

- Overlooks Great Swamp from a Peninsula near its northerly end.
- Siting depends on decisions made about water control structures for the Great Swamp.

Proposed Actions:

- Construct overlook and access trail.

K. 18 miles of existing roads are part of the multiple use trail systems

Background:

- **(Motorized use is only allowed for TRP holders, people with disabilities, and fall season hunters. Roads are also open to horseback riding, hiking, mountain biking and snowmobiling)**

Constraints:

- Development along Barron Road may impact its future use and available parking.
- Development of Penn Central Transport Company lands and access rights via Barron Road may also have an impact on the use of Barron Road.
- Development between Drury and Maple may impact Maple Avenue and curtail its use in the trail system, currently allowed by DOT.

- Development of the Barron Road and Drury lane interchanges may remove the northern access roads connecting Maple, Ridge, and New Roads. They are not part of Stewart State Forest. A 150 foot wide ROW was retained along the southerly boundary of Route 84 by DOT as part of this transfer, which includes roads surfaces within the Stewart State Forest.
- The Village of Maybrook owns all roads in fee within the village limits.

Proposed Actions:

- Rehabilitate roads to gravel surface and maintain for limited public motor vehicle access and administrative motor vehicle access.

L. Old Raincoat Factory/Wilkens Pond loop south to the Barron Road/Lindsay Road intersection, 1.4 miles (horseback riding, hiking, mountain biking)

Background:

- Mountain biking on trail and disturbed areas, with some ponds to the west of Barron Road, and a mix of woodlands and wetlands to the east of Barron Road.
- Used to access Stick Pond and field, skirts Wilkens Pond to the west, old quarries, and bypasses Baron Road.
- Main purpose is to separate conflicting uses.

Constraints:

- Wetlands in area and ponding on old roads.
- The trail north of the factory ruins is heavily trespassed by ATVs.

Proposed Actions:

- Forty feet of trail between Barrow Road and Wilkens Pond (which is occasionally used for vehicle access for dog trial judges and administrative purposes) and a fifty foot section near the raincoat factory needs to be resurfaced with 18" of Item 4 gravel. All ditches need to be cleaned out. The finished road will be adequately graded to facilitate proper cross drainage.
- Maintain for current uses.

M. Decker Road Connector, 0.4 mile (hiking, mountain biking)

Constraints:

- Decker Road, Second Street and parts of Barron Road remain Village of Maybrook roads.

Proposed Actions:

- Designate for pedestrian and bicycle use only.

N. Farm Lane from Forrester Road to Restoration Pond to Beaver Pond, 0.8 mile (horseback riding, hiking, mountain biking, snowmobiles from Trail B north to New Road)

Background:

- Access for hikers and groups, including dog field trials and training.
- Reduces vehicle traffic on property by providing vehicle access to two frequently used dog training areas, bypassing the main roadway network.
- Old farm road

Constraints:

- Could disturb farming operations if used improperly.

Proposed Actions:

- Surfacing, ditching and grading are needed. Approximately 12" of Item 4 gravel will be spread over 1/3 of a mile on this road.
- Maintain road for limited public motor vehicle access and administrative access.
- North of Trail B, will be used to complete one of four snowmobile loops.

O. Buchanan Hill Trail, 1.8 miles (horseback riding, hiking, mountain biking)

Background:

- 0.55 miles north of Maple Avenue and Route 207 intersection to Buchanan Hill and return to Maple Avenue at about 1.6 miles north of this intersection (across the dam of Whalenburgh Pond).
- Trail leads to highest point on the property (658 feet) with good views in all directions, especially southerly toward the Hudson River .

Constraints:

A small segment of the existing trail leaves the State Forest property and crosses a corner of the "Stewart Airport runway protection zone." Currently, access is unrestricted onto this parcel.

Proposed Actions:

- Reroute trail into State Forest to avoid the "Stewart Airport runway protection zone" if access is restricted in the future.

P. Armstrong Lane Wetland and Farm Trail, 0.5 mile (horseback riding, hiking, mountain biking), and old field and woodlands trail spur north to Clark Street, 0.8 mile (hiking only)

- Trail starts approximately 0.6 miles east of Drury Lane on Route 207, and uses an old roadway to access the peninsula heights east of wetland CO1.
- Trail uses a combination of old farm roads, existing paths through old fields, and woods roads, to reach Clark Street.

Constraints:

- Farm Trail , 0.5 miles, exists on old roadway and leads around wetland to old farm woods and fields. However, the two-car parking pad forthe spur connection to Clark Street will depend on the clarification of public access rights to Clark Street.
- A small parking area of 2-3 cars could be built near the northerly end of this trail once public access rights are clear.
- Approximately 200 feet requires resurfacing, landscape fabric and 12" of Item 4 gravel.

Summary of proposed trail use

Horseback Riding Trails

Horse trail designation allows hiking and mountain biking, unless otherwise indicated by DEC due to trail rehabilitation or safety. Horse trails will be six -eight feet wide with a 12 foot high clearance.

- 1.2 miles - Windsor Woods Road (no mountain biking) to Ridge Road (Trail F)
- 1.1 miles - Ridge Road to New Road (Trail G)
- 1.0 miles - Orlando Road to Barron Road connector (Trail D)
- 1.3 miles - Southern Maple Avenue to Weed Road connector (Trail A)
- 1.0 miles - Northern Ridge Road to New Road connector (Pittmann-Robertson) (Trail E)
- 0.7 miles - Old Raincoat Factory to Barron Road - Lindsay Road intersection (western half of loop Trail L))
- 0.7 miles - Farm Lane from Forrester to Restoration Pond to Beaver Pond (Trail N).
- 2.0 miles - Scofield Lane Ridge Trail (Trail H)
- 0.5 miles - Armstrong Lane Farm and Wetland Trail (Trail P)
- 1.8 miles - Buchanan Hill Trail (Trail O)
- 18 miles - Main Road Complex
- 0.5 mile - New Road to Barron (Trail spur, p/o Trail C).

  Total: 29.8 miles

Hiking only (no horses or bikes)

- 0.8 miles - Great Swamp Trail (Trail I)
- 0.6 miles - Barron Road Spur Trail (Mitigation site east to fields)
- 0.4 miles - Great Swamp Scenic Overlook (Trail J)
- 0.8miles - Armstrong Lane Woodland Trail Spur (East of Drury Lane)

  Total: 2.6 miles

Mountain Biking only

Biking trails in close proximity to one another will be closed and multiple tracks reduced to one path. This will also require the rerouting of certain trails, and depositing gravel, new culverts, or installing boardwalks to reduce the impacts.

- 1.0 miles - Trail east of Windsor Woods Road. (Trail F1)

Hiking and mountain biking only

- 1.0 miles - Windsor Woods to Pittman-Robertson Road near New Road (Trail F4,F3,F2)
- 0.4 miles - Senior Hill to New Road (Trail F2)
- 0.7 miles - Wilkens Pond south to Lindsay (East side of Trail Loop L)
- 2.9 miles- Weed Road to Barron Road (Trail B)
- 0.5 miles - New Road to Barron Road (Trail C, one spur)

Total: 5.5 miles

Ski Trails

All trails may be used for skiing when covered with snow or ice.

6. Snowmobiles

The Department has developed guidelines for snowmobiling in Stewart State Forest, and has delineated a snowmobile trail system in this UMP (See Appendix K), which will be put into place by the passing of Special Regulations for the property. The snowmobile system is designed to limit snowmobiles to the existing gravel/paved roadways (with street names), supplemented by 4 connector trails to create loops of significant length. These connector trails are: Trail D (Orlando Drive to Barron Road), Trail A (Maple Avenue to Weed Road), Trail F to G (Ridge Road to New Road), and Trail B to N (from Barron Road to New Road).

Other provisions for snowmobiles at Stewart State Forest are: 1) available wintertime parking will have an indirect limiting effect on the overall numbers of snowmobiles, 2) providing snowmobile access at four locations: North Barron Road, North Ridge Road and Weed Road, 3) Limiting maximum speed limits on the connector trails to 25 mph and stressing accepted etiquette for passing pedestrians, 4) posting snowmobiling Do's and Don'ts at all kiosks and major entrances, 5) Stressing the recommendations for a minimum compacted snow base of 2-3 inches (an absolute minimum of a 4-inch snowfall) and 6) continuing to enforce the substantial New York State registration, insurance and safety course requirements for snowmobiles already in place.

7. All Terrain Vehicles

All Terrain Vehicle use will continue to be prohibited on Stewart State Forest. It has been determined that this State Forest will not be developed for public ATV use due to management objectives, resource carrying capacity, incompatibility with other public use, adequate existing access, maintenance issues and enforcement challenges.

a. Management Objectives- This UMP strives to maintain the natural character of the area by limiting public motor vehicle access to peripheral parking areas (with the exception of controlled motor vehicle (no ATV) access for hunters from October 1st to the end of regular deer season or other users by permit throughout the year). In addition the value of this property as a noise buffer for surrounding residents from Stewart Airport and Interstate Route 84 would be lost if motorized off road uses were permitted.

b. Resource Carrying Capacity - Over one-third of the acreage on Stewart State Forest is classified as wetlands or open water (2436 acres) with a significant acreage in poorly drained soils in the Erie component of the Mardin-Erie series. Together with other sensitive areas, appropriate buffers, and agricultural use, a majority of the land base on Stewart State Forest can not support ATV use.

c. Incompatability With Other Uses- Stewart State Forest is a popular recreational area for hiking, horseback riding, mountain biking, birdwatching, cross country skiing, dog training, trapping, fishing and hunting. These non-motorized uses could not be enjoyed at the same level if ATV use by the general public was permitted. The property also supports over 400 acres of agricultural fields that could be negatively impacted by ATVs.

d. Existing Access - Public access to Stewart State Forest has been addressed by this plan and with the construction of additional parking opportunities and permits for individuals with disabilities and is considered adequate without the development of off road vehicle access.

e. Maintenance and Enforcement Issues - Historic illegal ATV use exists on adjacent private lands and on the Village of Maybrook Reservoir to the west of the property. Stewart State Forest presently suffers from a maze of deeply rutted and muddy trails caused by illegal ATV use. This situation has been a challenge to correct with existing enforcement and maintenance resources. These problems would only be aggravated by developing ATV use on the property. The experience of the Department and with sister agencies in adjoining States has proven that the development of designated ATV trails does not, in itself, solve problems with illegal use of designated trails.

8. Camping and Fires

As a Reforestation Area, Stewart is governed by 6 NYCRR Part 190, which allows for no more than 3 nights at one location, by fewer than ten people, at least 150 feet away from trail, road, or body of water. Longer stays and larger groups require a permit.

Due to the current level of public recreational use of the property, as well as anticipated significant increases over the next decade with improved signs and parking, and close proximity of Stewart Airport, the DEC will prohibit camping except by permit in two designated group camping areas on Ridge Road and Barron Road (See Appendix K, Proposed Trail and Facilities Map), and will not permit camping during big game hunting season. Fires will also be allowed only by permit. The property is surrounded by growing residential and commercial areas which increase the number of day-use people using the property, making it necessary to have additional control over camping and fires with permits. <u>These proposals require the adoption of special regulations.</u> Motor vehicles are not allowed entry for camping at any time, except under special permit. Large group camping and access with motor vehicles will be controlled through TRPs (Temporary Revocable Permits), smaller groups through Camping Permits for State Land issued by Forest Rangers.

A large group camping site is proposed in the orchard west of Ridge Road, which has been used for group camping in the past because its open, flat to gently sloping, lightly shaded, and relatively close to the Weed Road entrance. Another group campsite is proposed for the open fields behind the old raincoat factory, west of Baron Road and Wilkens Pond. The dirt access lanes to the sites will be hardened with Item 4 or other material. For large groups, Port-O-Johns will be required.

9. Youth Hunting and Fishing Opportunities

In recent years, the Department has conducted an annual Youth Hunting Day at Stewart State Forest during October to provide youth hunters (< 16 years in age) with a high quality introduction to hunting during which outdoor enjoyment and hunter safety are emphasized. To provide the best possible experience, the Department has generally stocked pheasants immediately prior to Youth Hunting Day and has limited access to the property for the day to hunting parties containing a youth hunter. Furthermore, adults accompanying youth hunters are encouraged to give youth hunters the first opportunity to harvest game.

In the future, the Department may conduct or sanction a fall Youth Hunting Day or other events to encourage youth participation in wildlife or fisheries recreation. These programs may involve restricting access for one day to all or part of the property for users other than youth participants.

C. Facilities Management Actions

1. Parking

Limiting parking to the property's perimeter protects the character of the State Forest and reduces conflicts between vehicles and recreational users. Multiple parking lots on the perimeter will improve access to different parts of the Forest, as well as provide for more even use of the property.

DOT will be consulted on the steps needed to improve safety at these parking areas. This may include improving road signs and providing turn lanes off route 207 at Weed Road, Barron Road, Lorraine Drive and at the East Drury Wetland Farm Trail.

Weed Road Parking

This parking area provides parking space at Weed Road and Route 207 for 42 cars and 2 horse trailers. Two spaces are reserved for people with disabilities. A sign standard "Stewart State Reforestation Area," is located at the entrance to the lot. An existing DOT sign on the north side of Rt. 207, "Check Station Ahead 500 feet" will be removed and replaced with a sign sign "Stewart State Forest, Weed Road Parking - 500 feet ahead" and appropriate cautions. A similar sign will be requested for the south side of Rt. 207.

The Weed Road area will be the primary site for absorbing additional parking on Stewart State Forest.

Ridge Road North Parking

A ½ acre gravel parking lot at Ridge Road, just south of the I-84 overpass, provides parking for 25 cars and 9 horse trailers. 2 parking spaces will be designated for persons with disabilities. Traffic islands delineate parking spaces. Gates on Ridge Road, Maple Road and New Road provide access for emergency vehicles and permit holders. A pass through structure allows easy access for horse carriages at the Ridge Road, Maple Road and New Road gates. Access for snowmobiles will be constructed for the site.

The parking facility uses the access road along I-84 and is substantially within a 150 foot wide parcel reserved by DOT, leaving it vulnerable to future roadway expansions. However, the 2005 Consent Decree and Order of Dismissal (00-cv-1606) addresses this concern, stating:

"In the event that NYSDOT develops or conveys said 150 foot wide parcel, NYSDOT shall preserve access across I-84 and any new or modified transportation facility via said overpass and NYSDOT and NYSDEC shall relocate an equivalent parking area and equivalent road and trail access into the Stewart State Forest from said overpass, with determining what facilities are "equivalent" to be determined by NYSDOT in its reasonable discretion."

Of great concern , if relocating this parking becomes necessary, is a continuing connection from Ridge Road to Maple Avenue in the north - because of the severe limitations on access to the eastern half of the property posed by the Great Swamp. The DEC deems it essential to maintain a connection for recreational users, as well as for administrative access.

Barron Road North Parking

Currently, parking outside of the Barron Road North gate on land administered by DOT minimizes the need for providing parking on the State Forest in this area.
However, if this arrangement continues, a Concurrent Use and Occupancy Agreement with DOT needs to be formalized.

A 1/4 acre parking lot for 15 cars and two horse trailers will be constructed to the east of Barron Road, including one accessible parking space for users with disabilities. The parking area and portion of the property along Barron Road accessing the lot will be bordered with large boulders to block illegal entry of vehicles onto the property. The gate on Barron Road will be relocated to the south.

The construction of this parking facility may be affected by DOT's plans to develop Barron Road, as well as the development of privately-owned properties to the south. This and the currently available parking on the shoulder of Barron Road adjacent to the State Forest, makes this the lowest priority of all the parking areas proposed. However, the 2005 Consent Decree and Order of Dismissal (00-cv-1606) states:

> "In the event that NYSDOT develops or conveys said 150 foot wide parcel [along Route 84], or if the lands to be retained by NYSDOT along Barron Road are ever developed, NYSDOT shall adopt feasible and prudent measures to maintain access to and parking for the Stewart State Forest in that vicinity. Until such time as such 150

foot wide parcel and such lands retained by NYSDOT along Barron Road are developed or transferred, access and parking in that vicinity shall be maintained at their existing levels."

Barron Road South Parking

Currently sections of Barron Road South, Decker Road and Second Street are retained by the Village of Maybrook. However, a parking lot for 15 cars will be constructed at Barron Road South (80 by 80 feet). This lot will include one accessible van parking space as regulated by ADA. The current entry gate will be moved north of the new parking facility on the west side of Barron Road, and will include a kiosk and sign standard. The parking facility will be as close as possible to Route 208, but still on the old field - minimizing cut and fill. Boulders will be placed around the lot and to reinforce the 120' of road edge and farm hedge south of the new lot. A Port-A-Jon may be installed during peak use season.

Forrester Road Parking

The Forrester - Beaver Pond Road is slated to become a significant entry for retriever club users accessing Restoration and Beaver Ponds. This entry would greatly reduce retriever club use of the major roadways within the property, especially during training. Other areas, nearby entrances to the state forest, such as Wilkens and Rowes Ponds are also slated for retriever club training in an effort to reduce the distances vehicles travel on interior roads.

The roadway to Restoration and Beaver Ponds will be gravel hardened, stabilized and encroaching vegetation removed. This will allow enough space for cars to pass each other safely. A gravel pad for five cars including one van accessible parking spot will be provided in the grassy field at least 250 feet away from the Restoration Pond. This pad will be used frequently by people training their dogs. At times, during infrequent larger events, the grassed area is adequate for parking.

The road will be improved up to Beaver Pond, where a gravel parking area for 10 cars already exists along the roadway on the west side of the pond. This parking lot is in an inconspicuous location and in compliance with freshwater wetlands laws.
Providing access from the south will also reduce the number of vehicles driving over the water control structure.

Lorraine Drive Parking

A gravel parking lot for 15 cars will be built to the east of Maple Avenue off Route 207 (approximately 80 by 110 feet), with a sign standard, kiosk, and one space for persons with disabilities. A gate will control access just beyond the parking lot. A Port-A-John will be available at this parking lot from Memorial Day to Columbus Day.

Armstrong Lane (Route 207) Parking

A gravel parking lot for 10 cars will be built along Route 207 to the east of Drury Lane (approximately 60 by 70 feet), with a sign standard, kiosk, access gate, and one space for persons with disabilities.

Drury Lane Parking

The 2005 Consent Decree provides that "NYSDEC shall provide suitable parking and access points/trailheads, to be located on Drury Lane and Route 207, for the lands east of Drury Lane." The large wetland east of Drury Lane prevents access to a large portion of the areas, so a formal parking area would not be beneficial on Drury. Therefore, one of the three hunter parking areas could be enlarged to provide space for up to three cars.

Other Parking

Vehicle access by hunters to the interior will continue during the small and big game hunting seasons (October to mid-December) through the Weed Road gate. Parking for hunters will be limited to no more than 83 parking spaces and hunter density will continue to be managed for a density of approximately three hunters for every 100 acres of land. Hunter parking spaces 77-83 will be added to the east of Drury Lane, and parking spaces 16-17 and 1-3 will eventually be relocated from the Tenney's Pond area, which is being retained by DOT.

During big game hunting season, parking spaces on the perimeter of the property may be used only by hunters.

Interior parking will be available to provide persons with disabilities access to the property, and to support research efforts or land management.

Parking for dog club members and group events will be limited to one shoulder of the road near training and event areas or as specified by the TRP. Limited parking, 2-3 spaces may be provided near ponds for judges and emergency vehicles. However, parking will not intrude on the ponds and be inconspicuous.

2. Access for People With Disabilities

DEC is guided by the Federal Americans with Disabilities Act (ADA) and other laws to provide access and recreational opportunities at its sites to people with disabilities. Persons with mobility impairments may use motor vehicles with a CP-3 Permit on the paved and graveled roads on the Stewart State Forest under permit. Eligible persons will be provided combinations to the most appropriate gates. Applications for CP-3 permits are available from the New Paltz Regional DEC Office.

Non-ambulatory Hunter parking spaces are provided at New Road near Orlando Drive, on Ridge Road south of the Weed Road , and at the former apple orchards on Ridge Road.

Parking spaces for person's with mobility impairments will be provided at the Weed Road (3 spaces), Ridge Road North (2 spaces), Barron Road North (1 space), and Barron Road South (1 space), Lorraine Drive (1 space) and Rte 207-East of Drury (1 space) parking lots.

3. Sanitary Facilities

Groups using the property by TRP are required to provide one Port-a-John for every 40 persons. DEC will monitor the need for Port-a-Johns near major entry points. An accessible Port-a-John will be provided near the Weed Road Parking facility and at Ridge Road North. The need for additional Port-a-Johns inside the property will be evaluated annually.

4. Historic/Archaeologic Sites

The abandoned Benedict House in the southwest corner of Stewart State Forest was completely destroyed by a fire on August 13, 2000. The two small cemeteries along Rt. 207 and Barrett Drive are not part of Stewart State Forest.

A family cemetery, identified as the McClaughry Cemetery is located near the intersection of Drury Lane and Route 207 in the Town of New Windsor. In 1999, SPARC (The Stewart Park and Reserve Coalition) applied to the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) with the assistance of County Historian Theodore Sly, and Historian and Docent Barbara Clark to establish eligibility of the site for listing on the State and Federal Historic registers. On August 17, 1999, a determination was made by OPRHP that the property was eligible for inclusion on the Register. (Project Reference 96-PR-1641, USN 07115.000593), with this description:

"The McClaughry Burial Ground is historically significant as a highly intact example of a mid to late eighteenth century burial ground. The property derives additional significance in the area of Funerary Art from its fine collection of eighteenth century funerary motifs. Despite years of abandonment and neglect the site retains a high degree of integrity and is unquestionably a significant local landmark."

The 1971 appropriation of lands for Stewart Airport included an exception for lands "...now being used or dedicated for cemetery purposes, and the access thereto." The intent being to exclude such lands from State ownership. However, the DEC is prepared to work cooperatively with the Town of New Windsor and Orange County to help maintain and protect this cemetery and any others that may be found in the future. Historical records indicate a cemetery between Maple Avenue and Drury Lane (the Humphrey Cemetery), and other burial plots somewhere north of Telford Tavern, west of Maple Avenue.

Site testing and evaluation was conducted at four prehistoric sites in 1985 and 1987. An extensive program of cultural resource investigations established that ground disturbance in the vicinity of demolished structures has destroyed the integrity of associated archaeological remains (Stewart International Airport Properties FEIS, 1992). Additional areas with moderate potential for prehistoric sites have been identified in the FEIS, (Stewart International Airport Properties FEIS, 1992 Fig. 1V-15).

The Department has followed procedures established in concert with the OPRHP in determining the presence of cultural resources on this Unit. This involves reviewing the New York State Archaeological Site Locations Map. One site has been identified on the Stewart State Forest.

5. State Police Facility

The State Forest lands to the east of the Police facility on Barron Road are sometimes used to detonate and destroy hazardous materials. The continued use of this area hinges on the adoption of a special agreement between the DEC and the State Police, conforming with Environmental Conservation Law and DEC Regulations.

6. Post Office

The 727 square foot Rock Tavern Post Office is located on the periphery of the property along Route 207 (total site, including parking is 4,072 square feet). Its use as a Post Office has little impact on the State Forest. The basic lease term is for a period of ten years with the current lease beginning December 1, 2004 (with a five year renewal option for December 1, 2009) and expiring on November 30, 2014. If the U.S. Postal Service, decides to discontinue the lease of the Rock Tavern Post Office (12575), the building may be useful as a small information center with offices and storage for the property. Additional storage sheds could be built alongside the existing building

The Department lacks the authority to enter into future leases on Reforestation Areas.

7. Wildlife Check Station

The former check station building on Weed Road is used as a clearinghouse for hunter information and to manage a hunter reservation system during the first part of big game hunting season. The building will continue to support DEC management of the property. The building may be improved, making room for some interpretive displays and a small office.

8. Storage-Maintenance Facility

The Stewart Citizen Advisory Committee recommended new building construction be limited to the perimeter of the property, to preserve existing natural conditions and provide security for the structure (routes 207, 208 and Forrester Road).

A storage-maintenance facility is needed for staff and equipment. A three bay pole barn storage and maintenance building, with two open and one enclosed bay will provide secure storage and a work room for equipment used on the area. Electric and phone service will be needed as well, with a desk, chairs, files, etc. A gated fence will provide security.

One option, would be the reuse of the Post Office property along 207 if the lease is not renewed.

Another location for this facility is the southwest corner of the property along Route 208 or Forrester Road (between Barron Road and the farm shed on Forrester Road). This location is not used by the public, yet is visible and open to the highway and farmer nearby. Frequent entry by police to the firing range offers additional passive security. The proximity to Maybrook, and DOT near Stewart International Airport is convenient for fuel and supplies.

Before constructing this facility, the possibility of storing equipment in sheds on DOT property closer to Stewart International Airport will be pursued.

9. Roads

a. Culverts will be marked and cleaned, and roads ditched. Thereafter, they will be maintained every two to three years. All improvements or maintenance of culverts will be submitted for DEC Freshwater Wetlands Program review. Ditching near wetlands must be approved so proper specifications can be incorporated before work proceeds.
b. Roads will be graded and graveled. Deteriorating paved roads will be returned to gravel.
c. The shale pit south of New Road and west of Drakes Lane (along the unnamed road to Beaver Pond) may be used as a source of shale for small projects on the property. In the event that the shale pit is reopened, the requirements set forth under ECL Article 23, Title 27, Section 11 of the New York State Mined Land Reclamation Law will be followed.
d. Signs will be installed and upgraded at all road intersections. Brown and yellow directional signs with mileages will be posted at all major road and trail intersections.
e. Under the provisions of 6 NYCRR Section 190.8(k) the speed limits on all roads within the State Forest is 25 mph. Once graded and graveled, roads will be maintained, but not improved, in order to keep vehicle speeds low.

10. Gates

Maintain the 11 existing gates. Maintain the existing gate at Giles Road until the gate can be moved closer to the Post Office parking lot, where parking may be provided on part of or adjacent to the existing lot (for 5-6 cars). The existing Giles gate may be replaced with large stones in the future, as may Ridge Road South, when the gates reach the end of their usefulness. These gates are not essential for emergency vehicle access to the State Forest. Gates along Barron Road may need to be added or moved if access to DOT or private land holdings warrant. A new gate may be needed at the East Drury Farm Trail dirt road (Along Rt. 207).

11. Boundary Lines

A survey of the westerly property boundary of Stewart State Forest was completed in Summer, 2001 and the lines posted. A survey of portions of the property transferred in 2006 will be undertaken to clearly define the expanded state forest boundary.

12. Stewart International Airport Security

Wildlife

Stewart State Forest was a Cooperative Hunting Area from 1974 until transfer to the DEC, as the airport has grown to its current stature. DEC habitat management for hunting has not changed during that time, although the number of fields on the property has been reduced by 2/3. This decrease has greatly reduced the habitat for species most likely to be involved in airplane collisions as listed in Wildlife Management at Airports (Cleary andf Dolbeer, 2006) and Wildlife Strikes to Civil Aircraft in the United States (Cleary, Dolbeer and Wright, 2006).

The bird groups most frequently involved in aircraft strikes were gulls (23 percent of collisions), doves/pigeons (14 percent), raptors (13 percent), waterfowl (10 percent), sparrows (7 percent) and starlings (6 percent) (Cleary, Dolbeer and Wright, 2006). In this group, only raptors have

consistently maintained a presence at Stewart because at one time almost half of the property was farmed. Management of a maximum of 950 acres in some form of earlier succession or farming is a reduction of this habitat to about 14 percent of the property. Also, DEC has strived in its protocols guiding users of the property mowing near ponds to decrease the areas of open grass lawn near water which are known to attract nuisance geese and waterfowl.

In the sections on "Mowing and Habitat Enhancement for Wildlife Management," some of DEC's management actions are described (In Section E. Resource Management Actions). Management for grassland and shrubland nesting birds benefits small, non-flocking songbirds that according to FAA publications do not pose a significant risk to aircraft. Many of the larger generalist species of birds that pose a hazard to aircraft, such as gulls, crows, raptors and Canada geese have been present at Stewart State Forest for many years and will continue to be present in the future. The proposed management of the property is not expected to increase populations of these species above current levels. Indeed, grassland management calls for the creation of larger blocks of grassland, reducing field edges and forested hedgerows which attract large raptors. None of the birds that cause the greatest threat to aircraft benefit from grassland management.

Several studies are available from Vermont and Massachussetts which discuss grassland birds, management options and safety issues/benefits at airports (Allen, 2000; Jones & Vickery, 1997; Mass Audubon [www.massaudubon.org/Birds_&_Beyond/grassland]). Massachussetts Audubon has worked with several large airports, including Westover Air Force Base, Fort Devons, and the Massachusetts Military Reservation at Cape Cod on grassland bird management (Wayne Petersen, personal. communication, Important Bird Area Program, Mass. Audubon).

In conclusion, although some non -target birds may be affected by grassland and shrubland management, its is not anticipated that bird populations of species posing any increased threat to the airport will result. DEC will work closely with airport management to assess and monitor the wildlife situation. If at any time, such an unlikely event arises, immediate steps will be taken to eliminate any safety hazard. The airport's wildlife damage management biologist might also review, in coordination with local farmers and producers, the seasonal land uses which could attract hazardous wildlife and incorporate them in the Airport's Wildlife Hazard Management Plan (WHMP).

Vegetation

Certain FAA regulations require the removal of potential obstructions to aircraft taking off or landing. DEC will coordinate with Stewart International Airport staff to ensure that all trees that constitute potential obstructions are removed from those portions of the flight path that traverse the State Forest.

Access/Security

Municipal emergency service agencies in the immediate area have been provided with lock combinations to all gates on the property. DEC through its Forest Rangers and Environmental Conservation Police and staff will continue an ongoing dialogue with the local police, fire and

emergency services, airport security, NYC Department of Environmental Protection police and the Orange County Office of Emergency Services to ascertain the best ways to deal with situations that may occur on or near Stewart State Forest. The poor conditions of the roadways on the State Forest are problematic. All existing roads on the property are to be graded and graveled so as to make travel by emergency vehicles easier.

13. Utility Right-of-Ways

The appropriation of lands creating Stewart Airport excluded all utilities: "Excepting all lands from appropriation held in public use... for transmission of or distribution of electricity, fluids, gasses, or messages by use of electricity."

The major high voltage power distribution line running between Barron Road and New Road down to the Forrester Road substations is retained in-fee by Central Hudson Gas and Electric. In the Town of Montgomery, the in-fee distribution line impacts about 48 acres, in New Windsor, 69.15 acres. Approximately 43 acres under the distribution lines are actively farmed. A 50 foot right-of-way parallels the in-fee line, originally part of a 125 foot right-of-way acquired in 1925-26 (approximately 13.1 acres). The in-fee line overlaps 75 feet of the original 1925-26 right-of-way. The in-fee line is 275 feet wide and was acquired in 1969 prior to the appropriation of lands for Stewart Airport.

Central Hudson has the right to cross and recross State Forest lands anywhere, but must use the most reasonable route. The original owners surrounding the Central Hudson ROW were given the right for roads to cross a set number of times. Such information is provided in each deed, generally dating back to 1969. The original owners were also given rights to cultivate land in the ROW without restriction as long as there was no interference with the towers.
The high voltage distribution lines running from Forrester Road to the vicinity of Weed Road are on a 150 foot right-of-way, acquired by Central Hudson Gas and Electric in 1954 (about 28 acres).

Central Hudson Gas and Electric will be required by the Department to obtain TRPs to perform maintenance on vegetation outside their fee holdings. Central Hudson's ROW management enhances habitat diversity. The power line corridors provide benefits as shrublands and open fields, and often cross wetlands. Areas subject to TRPs are limited to the Forrester/Weed Road right-of-way in the south and a narrow strip abutting Central Hudson's in-fee lands between New Road and Barron Road.

All lands under these power lines, not actively farmed, are hydroaxed by Central Hudson on an average 8 to 9 year cycle. Accord basal spray is used to suppress tree sprouting and encourage shrub closure at intervals. The shrubs become so dense that they exclude trees. Hydroaxing is not repeated unless access to an area becomes almost impossible for future tree and line clearing (McManus, pers. comm., 2001). The 8-9 year cycle is ideal for the maintenance of shrub lands on the property and meets most of the standards for creating good shrub land habitat (Askins, 1999). An active utility line runs down Weed Road, supplying power and telephone service to the check station.

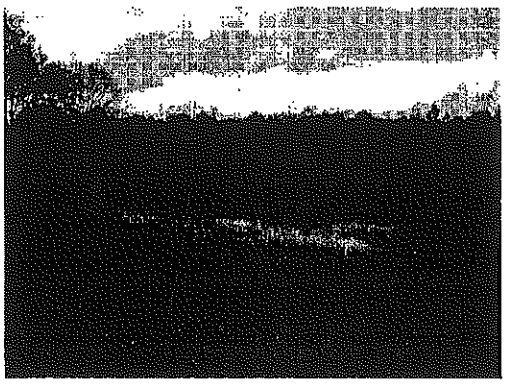
Utility pole maps on the area supplied by Central Hudson indicate that all roads within Stewart State Forest have easements for electric distribution from the original landowners. The easements are still valid since they run with the land, but almost all the poles and conductors have been removed (McManus, pers. comm., 2001).

Starting at Route 207 and proceeding north between Maple Avenue and Drury Lane, a 33 foot ROW is kept free of trees and occasionally mowed by AT&T for a transcontinental coaxial underground telephone cable. The easements are filed at the Orange County Clerks office. Before heavy machinery or any digging crosses the ROW, AT&T should be contacted. (A DigSafely NY inquiry was made, Ticket # 03026-044-065, 1-800-962-7962, AT&T, 203-269-4338,M. Burkhart).

14. Wetland Mitigation

When the property was transferred to the Department, DOT retained the right to use Stewart State Forest as a wetland mitigation site for construction on Stewart Airport which unavoidably destroys wetlands. A 1.5 acre site, west of New Road, was constructed in the Summer 2001 and was planted with wetland plants. A 14.4-acre wetland along Barron Road was created under a DEC Freshwater Wetlands Permit starting in 2006, as mitigation for the Stewart Airport Access Road Project.

New Road Mitigation Wetland (2001)



New Road Mitigation Wetland (2005)

DEC will work with DOT and/or airport officials to select sites most appropriate and beneficial to the environment. DEC will also encourage DOT to avoid construction of mitigation sites which would disrupt recreational use.

The 2005 Consent Decree and Order of Dismissal (Point 13 Appendix C.) limits the DOT to:

"construction of mitigation wetlands only for Airport projects and for NYSDOT projects located within Orange County, and only when it has exhausted all feasible and prudent alternatives at the site of the project in question, and only with the approval of NYSDEC and/or the U.S. Army Corp of Engineers, as required by law."
The 2005 Consent Decree and Order of Dismissal (Point 14 Appendix C.) also states that the new lands transferred to Stewart State Forest, east of Maple Avenue, by NYSDOT to NYSDEC, shall not be used "for such wetlands mitigation construction purposes and NYSDEC shall not grant such right to NYSDOT or any other person or entity."

15. Dams

The earthen dams at Stewart State Forest are hazard class A - no safety issue (as most are less than 6 feet high from toe to crest) and impound less than 3 million gallons. Although formal permits are not required for state-owned dams, all required steps must be followed as for the issuance of a permit. Maintenance of a dam does not require a permit for vegetation and brush removal of < 4 inch diameter.

Several of the earthen "dams" at the State Forest will be visually inspected by DEC's Dam Safety in 2007 (Whalenburgh Pond, Beaver Pond and Restoration Ponds). If needed, an engineering evaluation will be completed either by DEC's Division of Operations or an outside consultant in accordance with "Guidelines for Design of Dams."

These dams were chosen as they are either taller (6-15 feet high) or have larger impoundments, and in the case of Beaver Pond Dam, the outlet stream on the dam is crossed by cars. The DEC strives to maintain and preserve the ponds on the property. In the future, Tenney's Pond may require a similar evaluation.

D. Outreach Management Actions

1. Informational Kiosks

- Maintain three existing kiosks at Weed Road, North Barron Road and Ridge Road North.
- All new kiosks will be constructed to ADA accesibility standards.
- Construct 2-sided kiosk on proposed South Barron Road parking lot.
- Construct kiosk at the intersection of Weed and Ridge Roads (two-sided).
- Construct two-sided kiosks at proposed Maple Avenue Route 207 parking lots.
- Construct 2-sided kiosk at proposed Lorraine Drive parking lot.
- Construct 2-sided kiosk at Rt. 207, east of Drury Lane parking lot.

Each kiosk will contain a map, information on the property including rules and regulations, and contact information for DEC Forest Rangers, Environmemntal Conservation Officers and appropriate local emergency services. Each kiosk near areas used for special events will also have a small, easily accessible 11 inch by 17 inch water proof case to hold information about special events and permit users.

2. Interpretation

A brochure is needed to interpret the major features of the property. A map of the major trails and the key rules governing the use of the State Forest will be included. The goal is to educate users about Stewart State Forest, hunting, access to the property, and our goal of managing the land to protect and preserve transitional species, wildlife and game while encouraging compatible recreational opportunities. DEC may produce this brochure in conjunction with a volunteer organization as well as post the information on the DEC public web site.
No visitor center is needed at this time and the buildings on the property are not suitable for this purpose. Several environmental and interpretive centers in nearby communities might be interested in cooperating with the creation or delivery of interpretive programs on the site. A potential clearly exists for programs with nearby school districts.

If a storage-maintenance facility is established at Stewart State Forest, consideration will be given to allowing Sportsmen Education classes to be held at the facility, if it is conducive to such use and demand for such use exists.

3. Great Swamp Observation Boardwalk

A boardwalk (approximately 350-650 feet) to allow for wetland enjoyment and interpretation is proposed across the Great Swamp at an elevation appropriate to the water level fluctuations identified as most beneficial to the habitat. The boardwalk will be as short as possible, avoiding the island, which serves as a refuge for deer and other animals during wet years.

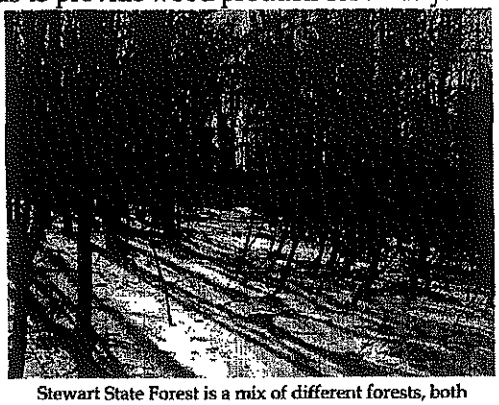
E. Resource Management Actions

1. Forest Management

A forest type map, inventory and stand treatment schedule has been completed for the property, and is provided in the Appendix.

Projects which meet the Department's management objectives for the property.

a. A total inventory of Stewart State Forest has been completed, delineating stands by describing species composition, age classes, wood volumes, and make silvicultural recommendations (See Stand Treatment Table).
b. Mowing, brush-hogging and silvicultural treatments to maintain a continuum of habitats ranging from field to brush to large diameter forest stands in an optimal mix on the property. The optimal mix is established using information from the Wildlife Conservation Society, State Wildlife Biologists and the New York Significant Habitat Unit.
c. Silvicultural practices (Forestry) to enhance existing woodland types, such as Sugar Maple or Black Walnut stands to provide wood products for society.



Stewart State Forest is a mix of different forests, both young and old because of its rich human history.

d. Silvicultural practices to enhance wildlife diversity through a more favorable mix of deciduous trees and conifers. The planting of native conifers to provide improved habitat for a wide range of animals, including turkeys and owls. White pine is suitable for soils and drainage types found on the property.
e. Silvicultural practices to enhance a diversity of native wildlife species will be implemented (for example, see Indiana Bats, Rare and Endangered Species, Section VII Proposed Resource Management actions.)

f. Management practices to remove invasive species where economical and practical.

Black Walnut Trees

Until recently, black walnut was the most valuable hardwood tree grown in the country. That position has been surpassed by Sugar Maple and black cherry, but walnut remains a highly valuable tree for furniture, veneer, gun stocks, and a variety of speciality products.
A measure of the fertility of some soils on the Stewart State Forest is the presence of numerous black walnut trees, in scattered and localized locations. Trees vary from seedlings and saplings to two feet in diameter. Most fall in between these sizes, and the vast majority are 10-16 inches in diameter.

Many walnut trees are found in the vicinity of old homesteads and nearby roads, and may reflect past plantings by farmers and early residents. Some of these trees contain hardware (clothesline pulleys, nails, bolts, etc.) lowering their value for timber.

Given its commercial and wildlife value, the DEC intends to manage all black walnut trees. Competing, poor quality trees of lesser value and vines shading black walnut trees will be removed. Low quality black walnut trees with poor form, decay, or other defects will also be removed when competing with better quality walnut trees. Low pruning of branches, to a height of 17 feet, will also be undertaken from time to time, to improve lower stem quality.

DEC will also consider planting this species in selected abandoned farm fields with appropriate soils. Five acres may be planted at a 12' by 12' spacing in field RM 30 along the southwestern edge of the Great Swamp.

A small sale of black walnut trees was completed in late 2000/early 2001, to harvest maturing trees in one location. The sale allowed DEC staff to gauge the market, and plan future management to keep it in the mix of trees on the property. The sale was done on an area of about 15 acres in the SW corner of the property where black walnut was growing in an area not ideal for its growth. The walnut (roughly 12-24 inches in diameter [DBH]) was removed releasing the understory. The main purpose of the timber sale was to remove black walnut from competition with the sugar maple, which is more suited to the site. Within this 15-acre sale area, patches of young and older black walnut trees on good soils were also released by removing poor quality cherry and white ash competition. These trees, released from competition, will grow more quickly and supply seeds for future walnut generations.

2. Farming

Farming is a long standing historic use of the property. DEC took over jurisdiction of the property subject to several agricultural leases. Currently, farming on the property takes place through TRP's, and is limited to farmers who were cultivating fields at the time the property was transferred to DEC in 1999. DEC will continue to support agricultural use on the property.

Current farmers will be allowed to continue farming. Farmers are required to locate their farm fields on a specially numbered map provided by DEC. The Department will require farmers to have an approved "Conservation Compliance Plan" prepared in conjunction with the Orange

County Soil and Water Conservation District. Because of the unique circumstances surrounding farming at Stewart State Forest, an "Agricultural Environmental Management (AEM)" plan addressing such issues as implementing best management practices for rare plants, wildlife and wetland protection, liability concerns for state land open to the public, outreach to the non-farm community, and supporting farmers in complying with existing and future environmental regulations will also be required. (The AEM Program is outlined in the Appendix or at www.nys.soilandwater.org). These two programs provide a clear accounting of all farming activities past, present and planned by describing the treatments and practices applied to each field.

Conditions such as new gates, seasonal mowing restrictions, field edge and wildlife habitat improvement measures, and avoiding critical wildlife areas will be included in the TRPs issued to farmers. Although most agricultural activities are exempt from Article 24 permitting, farmers leasing Stewart lands will be required to apply best management practices. Use of pesticides on the property requires approval from the DEC (see Part 190.0) and will be reported by the farmers in a yearly summary, will be a component of an Integrated Pest Management (IPM) approach, and will be subject to applicable SEQRA reviews. The DEC's Division of Pesticide Enforcement requires farmers to maintain records for "restricted use pesticides"(Agricultural Use Observation Inspections), including dates applied, equipment used and crop treated. There is no requirement for farmers to be certified applicators or to record "general use pesticides" applied on lands they own or lease. However, since this is a State Forest, , the Division of Pesticides "Agricultural Use Observation Inspections" will be augmented with a requirement in the TRP for listing all 'general use' herbicides and pesticides used on the property, and farmers using Stewart State Forest will be "private applicator certified."

Farmers regularly use the existing ponds for irrigation during droughts, and have deepened some ponds for this purpose. A protocol will be established for ponds with special wildlife populations which might be impacted by drawdown during these periods. Farmers will be required to remove all barbed wire and cable gates, and replace with farm gates. Where fields are open to a road, a farm gate will be installed.

Stewart State Forest may be suitable for applying agro-forestry practices. Appropriate information will be researched and provided to farmers and staff.

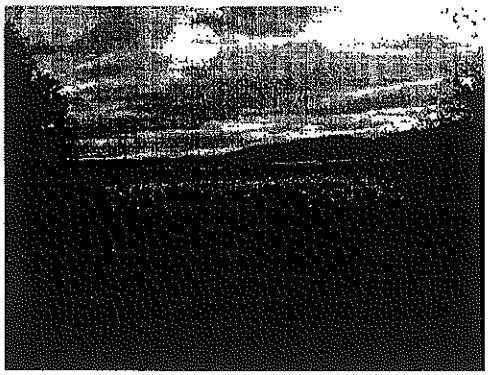
3. The Great Swamp

a. Introduction

The Great Swamp is classified as palustrine deciduous forested wetland. The raising of the water levels by beavers has killed the trees and the swamp has been opening up over the years, leading to swamp forest, dead forest and open water. The Great Swamp is designated WD-48, Class II, and is estimated at 301 acres (page IV 257, Stewart International Airport Properties FEIS, 1992). The Great Swamp is hydrologically tied to wetland MD-11 (Class III, 96 acres), a swamp forest, via a stream corridor to its southwest. The wetlands are described in Appendix D, Vegetation Descriptions for the Stewart Property (Stewart International Airport Properties FEIS, 1992). Hydrological influences from changes in the Great Swamp water levels can

influence land as far south as Weed Road. The southern half of the area containing the Great Swamp between Maple Avenue, Ridge Road and Weed Road is considered a significant habitat as a deer concentration/wintering area.

Large segments of The Great Swamp are dominated by purple loosestrife and phragmites. Water levels are lower than in the past, but fluctuate radically from year to year, depending on weather conditions and beaver dam building activity.



The Great Swamp

Drainage from the swamp is to the north through a series of culverts under I-84. Currently, three 24" pipes drain the wetland, but only one is partially open. Beavers have dammed the culverts in the past and some damming is evident today. In the northern portion of the swamp, flooding once reached heights in excess of 10 to 12 feet above pre-flooded conditions. In the summer of 1988, the water in the northern half of the swamp stabilized at depths between six and eight feet above pre-flooded conditions (Stewart International Airport FEIS, 1992). Since then, new beaver dams and yearly changes have resulted in widely fluctuating water levels.

Because the bottom elevations of the Great Swamp are not uniform, the impacts of the flooding have not been universal over the swamp forest. The vegetation in the southern third of the swamp is intact with a strong tree, scrub and herbaceous layer. Here, there is little indication of excessive flooding beyond normal field conditions. The vegetation here is typical of permanently flooded forested wetland. Although the tree layer is still alive in the central third of The Great Swamp, the scrub and herbaceous layers have been severely impacted by the flooding and are sharply reduced or altered in composition. A mat of various duckweeds (Lemna, Spirodela, and Wolffia) is found floating on the water surface and there are extensive areas of arrow arum and bur reed. The northern third of the swamp is dead flooded forest with a mat of duckweeds on the water surface (Stewart International Airport FEIS, 1992). More recently, alternating drought in 1999 with wet periods in 2000, along with reduced beaver activity, have lowered overall Great Swamp water levels, allowing purple loosestrife to establish a significant presence in the wetland.

b. Purple Loosestrife Control

There have been several attempts to control purple loosestrife through the experimental release of *Hylobius transversovittatus*, a root-boring beetle and Galerucella beetles, which eat loosestrife leaves. Hylobius beetles were released at the Great Swamp and a wetland just west of the Stewart Airport runway and Drury Land in late Spring 2001. The leaf -eating beetles are doing well in the wetland along Drury Lane. In Spring 2006, purple loosestrife beetles were again released at the Great Swamp and for the first time at Wilkens Pond. Purple loosestrife control projects may continue on the property, as needed, for up to five consecutive years, especially in wetlands along Barron Road.

c. Water Control Structure

The merits of reconstructing the water control structure along the northerly boundary of the Great Swamp will be studied. The structure is on DOT land, along I-84. Any alterations to the Great Swamp will require a Freshwater Wetlands and Dam Safety Program permit.

An improved control structure would help create a limited area of open water habitat to benefit waterfowl and wildlife diversity, improve recreational and hunting opportunities and open water fishing without creating habitat for nuisance species, such as Canada Geese, swans, and seagulls. Raising water levels by 18 to 24 inches would also help eliminate nuisance invasive species such as purple loosestrife and phragmites to improve the wetland's diversity. However, raising water levels can have an impact on adjacent wetlands, vernal ponds and forest lands. On the other hand, the deterioration of beaver dams has caused a permanent lowering of water levels. Species dependent on vernal ponds and seasonally flooded woodlands could be adversely affected.

4. Mowing and Habitat Enhancement for Wildlife Management

Mowing on the Stewart State Forest will improve habitat diversity for grassland species. With the decline of agriculture, farm fields throughout the Hudson Valley region are reverting to forest and habitat diversity is decreasing. Techniques to improve habitat diversity will include maintaining a mix of agricultural land, mowing fields and managing brush land.

110 to 120 acres will be mowed per year on a 6 year rotation. The total area to be maintained over the long-term is about 950 acres. However, certain fields with high concentrations of multiflora rose may be mowed on a shorter 3-year rotation to get the infestation under control. Roughly 13-15 percent of the property will be maintained in early to mid-successional stages, including farm fields. Farmland - cultivated, fallow, and abandoned - will be an integral part of achieving the wildlife goals on the property. The mowing plan indicates priority locations for grassland and shrubland maintenance, as well as mowing locations for views, a group camping site, and retriever trials (which may be done annually over small areas). Mowing will be done by DEC Operations Staff or outside contractors supplemented by occasional supervised volunteer, farmer, or user groups. (See Mowing Plan in Appendix). Mowing will, whenever possible, be scheduled to avoid the grassland bird nesting season (May to July 15).

Throughout the property, early successional habitats include active farm fields (hay, cropped or cover-cropped), limited areas mowed near ponds, as well as abandoned farm fields in various successional stages. Some farm fields, if abandoned, will be mowed (See Agricultural Fields Map in the Appendix). Mowing is also a priority to maintain a balance of diverse habitats throughout the property, with continued mowing of smaller areas northern New Road (two fields) and Orlando Drive (the field here should be cleared of trees, retaining some shrubs), parts of the Ridge Road Orchard and several fields west of Maple Avenue near 207. Ridge Road and Buchanan Hill field complexes have been mowed in the past 3 years to maintain the existing fields.

In addition, Central Hudson Gas and Electric manages 158 acres of land within the State Forest which it owns in-fee or part of its transmission line right-of-way. About 116 acres are managed as shrublands, the remainder being farm fields. The Department proposes to rejuvenate and maintain between 7 and 11 acres of brushland per year in addition to the Central Hudson lands. This requires the removal of all tree species shading shrubs in designated locations.

In some cases, grassland management at Stewart SF may require activities more intensive than periodic mowing. This management might include the removal of hedgerows and forest patches within a grassland matrix, planting of appropriate native grasses and wildflowers within grasslands to improve habitat suitability for grassland-dependent wildlife, and annual breeding bird surveys to assess the success of this management.

The removal of trees from grassland landscapes is important because trees, especially linear rows of trees, fragment grassland habitats. Because most grassland bird species are area sensitive, meaning they require continuous habitat patches that meet some minimum size threshold, fragmented habitats without unbroken grassland areas of 100 acres or more are not ideal for grassland birds and, in many instances, simply not used for nesting. Ideally, within grasslands, all non-grassland habitats, including hedgerows, forest patches, and shrublands, are converted to grassland. This course of action is the preferred management option within the proposed grassland habitat complexes at Stewart State Forest. However, recognizing that the cost and effort of completely converting forest patches and/or hedgerows to grassland may be prohibitive, the periodic removal of the tallest vegetation (i.e. trees) while leaving stumps, large rocks, shrubs, and other short vegetation (anything <10 feet in height) provides a good lower cost alternative that minimizes both fragmentation and investment.

Because high intensity grassland management is not practical or prudent for all fields at Stewart SF, five areas were identified as good candidates for designation and management as grassland complexes. The criteria used for selecting these areas included size, configuration, current vegetative condition, and compatibility to grassland management. Within these complexes, connectivity will be improved to the greatest extent possible through removal of hedgerows and forest patches. As previously stated, whenever possible, these forested habitats will be converted to grassland. However, when conversion to grassland is impossible, these habitats will be managed as shrublands dominated by low-growing native shrubs such as dogwood and viburnum species. Actively farmed fields make up a significant portion of the four grassland complexes listed below. While grassland birds do not generally nest in agricultural fields aside from hayfields, pastures, and fallow cropfields, these areas add to the overall size of treeless grassland habitat complexes, and if farming of these fields is discontinued, they will be managed

as grasslands. On farms fields that are purposely being left fallow as part of an approved farm plan, certain management activities will be encouraged to increase their attractiveness to grassland wildlife, such as planting appropriate cover crops and delaying cultivation until after nesting season. Additionally, farmers will be encouraged to delay mowing of hayfields as long as possible to promote nesting success.

The four areas proposed for management as grassland complexes (including some shrublands) are as follows (acreage includes small areas of shrubland/woodland-hedgerow/wetland habitats, as well as mowed areas):

1. South Barron Road/Restoration Pond area fields (215 acres);
2. Barron Road mitigation wetland area fields (200 acres);
3. Northern Ridge Road fields (117 acres);
4. Route 207 fields east of Maple Avenue (105 acres).

These areas are listed in priority order; i.e. resources will be dedicated to improving the grassland habitat at the South Barron Road/Restoration Pond complex before the Barron Road mitigation wetland complex, and so forth. Lower priority fields may be mowed, but may not receive additional habitat improvements. All fields, particularly those east of Maple Avenue, will be monitored in cooperation with Stewart International Airport.

Roadway edges are also important travelways for many wildlife species species as well as needing to be mowed to keep roads passable, maintain visibility and views (Up to 6 foot shoulders wherever terrain, ditches and stone walls permit). Wet areas and steep slopes will be bypassed. Roadways will be mowed in the following order: Weed Road, Ridge Road, New Road, Lindsay Road, Barron Road North, Barron Road South, Maple Avenue, Drakes Lane, Giles Road, Ridge Road South to Route 207, and Orlando Drive. The following trails will be a mowing priority once the roadways are mowed: Windsor Woods Road, Buchanan Hill Trail, Armstrong Farm Lane, Scofield Lane, and the Barron Road to New Road Connector past Wilkins Pond.

Habitat enhancement will also include the planting of native conifers for diversity and habitat on suitable sites not exceeding 15 acres, and efforts to remove exotic plants.

Butterflies and Invertebrates

Areas have been tentatively identified which may need special consideration because of the presence of certain species, habitats or plants. In a small number of locations, the timing of mowing may need to be adjusted. Barron Road is particularly rich in specimens and numbers and offers excellent habitat, with Blue stem, Knapweed, Ironweed and substantial stands of Milkweed.

Barron Road South Purple Milkweed Field

In order to maintain the populations of purple milkweed (Asclepias purpurascens) near the DOT Barron Road Wetland Mitigation site, regular liming of the field may be needed. If high calcium and manganese levels are determined to be indicative of purple milkweed habitat, testing for these elements will be undertaken. If either element is lacking liming will be

undertaken. In order to maintain access to the purple milkweed, reduce competition which could impact the species and keep the area in the early successional stage preferred by the plant, the field and its adjacent upland will be mowed approximately once every 3 years (A drum brush hog should never be used).

Mowing at the site also serves to limit invasive species like purple loosestrife. Between mowing, purple loosestrife may be removed mechanically (snipping and pulling) or by applying an herbicide.

In 2005 purple milkweed seed was gathered at this site to be germinated and grown at the DEC Saratoga Tree Nursery. In July of 2006 DEC, the New York State Department of Transportation (DOT) and volunteers planted 400 of these seedlings to enhance the existing population.

5. Bird Habitat Management

The diverse landscape at Stewart State Forest provides habitat for a broad variety of birds and as noted in the natural resources inventory, this includes habitat for certain groups of species whose habitat is declining throughout the northeast. Management as a state forest provides an opportunity to protect and enhance habitat for these and other bird species. However, due to the proximity of the forest to the Stewart International Airport the Department will limit management actions to those which will not result in unacceptable risks to airport operations.

The Department will continue to monitor bird populations including any potential threat they may pose to airport operations and work with DOT, the FAA and Airport managers to ensure management actions do not compromise airport safety. Management actions have been developed to enhance (favor) habitat for bird species which do not pose a threat to airport operations and actions to discourage use of the property by those species known to conflict with airport operations will be pursued.

Because this property has the potential to provide habitat for bird species at risk, including grassland and shrubland birds, neotropical migrant species and wetland dependant species, the Department will work in partnership with Audubon, the Wildlife Conservation Society's Metropolitan Conservation Alliance and other interest groups to undertake surveys and studies to determine the extent to which these species currently utilize the property, the importance of this habitat to their continued existence in the region and what management actions are appropriate. With this data the Department will also determine if portions of the property meet the criteria in Environmental Conservation Law Article 11 (section 2001) to be designated as a Bird Conservation Area (BCA). A recommendation to designate a portion of the property as a BCA would only be pursed if, after consultation with the FAA and airport managers, it is determined that designation would not conflict with airport operations.

F. Completing a Viable Stewart State Forest

"The transfer of jurisdiction of approximately 5264 acres from the Department of Transportation to the Department of Environmental Conservation" in 1999 is provided in the Appendix. An additional 1600 acres were transferred in June 2006. The Unit Management Plan recommends several properties be considered for addition to the State Forest. These properties will reduce

management costs and maintain the area's long term natural stability and recreational benefits. All proposed land acquisitions will be conservative, limited to key parcels of land which simplify management and insure the integrity of the State Forest.

The Department will pursue the acquisitions proposed in this plan where the existing owner is interested in selling and funding is available. The Department will only use eminent domain as a tool to clear a faulty title or to establish value in cases where the owner has expressed a willingness to sell, but an agreement on price cannot be reached. All land acquisitions will be reviewed and meet the criteria and "resource value rating systems" in the Conserving Open Space in New York State Plan. Notification will be made to the affected Town of the State's intent to acquire any parcels which are purchased with Environmental Protection Fund (EPF). A Town has 90 days from notification to reject a proposed acquisition. For more information on land acquisition proposed for New York State, please consult the "2006 New York State Open Space Conservation Plan."

1. Barron Road Development Area

The impact of developing the 100-acre North Barron Road, Road Development Area could be reduced with vehicle access limited to the north. A gate on Barron beyond the point of vehicle access to the Development Area along with roughly 0.75 mile of fence along the easterly edge of Barron Road, would successfully limit dumping and illegal access. Any new roadway development should include a parking and a bike/pedestrian walkway alongside Barron Road, to allow safe access to the State Forest.

All but 100 of the 300 acres of the Barron Road Development Area were transferred for inclusion to Stewart State Forest in 2006. However, some of the best kettlehole and vernal pool wetlands for amphibians are to the west of Baron Road, north of Wilkins Pond. Many species of amphibians depend on vernal ponds and kettlehole bogs at different stages in their life history, and are extremely sensitive to landscape-level disruptions that fragment or degrade habitat. The complex of ponds and vernal pools in this area, allows for recolonization after drought or other disturbance. (McDougal, WCS, pers. comm.). Development proposals should reflect the unique character of the area.

2. Barron Road - Easterly Parcels

Two parcels to the east of Barron Road and north of Decker Road are not part of the Barron Road Development Area and were not included in the original airport lands condemnation proceedings. They were part of the Penn Central Railroad at the time and were either in receivership or in quasi-public ownership and not subject to eminent domain proceedings. Parcel 6, 8.5089 acres is described in Liber 2272, page 833, 837-38 and the adjacent Parcel 7 (4.83 acres) is described in Liber 2272, page 820, 826-27. These parcels, totaling 13.3 acres, should be acquired from willing sellers to reduce the number of developable inholdings.
A large parcel between Stewart State Forest and the Village of Maybrook, fronts on the west shoulder of Barron Road. This parcel, part of the former Penn Central Railroad holdings (See DOT claim map 1470), has potential to significantly impact Stewart SF along North Barron Road near Wilkins Pond and Decker Road. Appropriate additions of adjacent properties will be pursued from willing sellers to enhance management and protect natural resources.

3. Forrester Road

Central Hudson Gas and Electric owns two lots along Forrester Road (Liber 1824, page 125; Liber 1825 page 1203) totaling 26.65 acres which include three long distance transmission lines. Central Hudson also owns in-fee a power transmission corridor with a power line stretching the length of the property from I-84 to Forrester Road, immediately adjacent to a second power line for which it has an easement through the property. If these lots are offered for sale for any reason, the state should acquire them to keep the property a cohesive unit bordering Forrester Road, keeping the boundary lines of the Forest simple and avoiding encroachment by development.

4. Maple Avenue to Drury Lane

This area, east of Maple Avenue and north of the runway protection zone of Stewart International Airport, remains with the Department of Transportation. However, the DOT in 2006 transferred to DEC the Maple Avenue right-of way, which insures access throughout this section of Stewart State Forest. Also, development setbacks agreed to in Consent Order No. 00-cv-1606, will preserve the viewshed of the entire State Forest, and hunting opportunities. The lands retained by DOT to the east of northern Maple Avenue "Reserved for Development", shall have "no construction of buildings or other action taken by NYSDOT, its successors and assigns, within 500 feet of Stewart State Forest, which would cause a limitation on hunting on the Stewart State Forest pursuant to New York Environmental Conservation Law 11-0931.(Consent Decree 00-cv-1606).

5. Barron Road, Decker Road and Second Street within the Village of Maybrook

The Village of Maybrook owns the roads, in-fee within the village limits. Decker Road, Second Street and a section of Barron Road remain the responsibility of the Village. The Village right-of-way is 50' wide. Acquisition of these roads from the Village should be considered in order to simplify management and access issues for the property.

6. Clark Street and Jackson Avenue

Public access rights to the easterly lands of Stewart State Forest require clarification. Clark Street and Jackson Avenue on the easterly boundaries may or may not provide public access for the use and enjoyment of the property.

G. Proposed Rules and Regulations

Special rules and regulations are needed to implement some of the management actions proposed under Section VII of the Stewart State Forest Unit Management Plan. Regulations will be updated or amended for:

- Hunting reservations, parking and vehicular access during hunting season.
- Fishing w electric/non-motorized craft
- Snowmobile use
- Camping and fires
- Firearms

The Cooperative Hunting Area Regulations for Public Use at Stewart (Part 92) which govern the property will be repealed and replaced with unit specific rules and regulations under Part 190. As proposed in this unit management plan, these rules and regulations are in addition to the general guidelines already codified in Title 6NYCRR, Part 190 of the Environmental Conservation Law and are necessary because of circumstances unique to the Stewart State Forest. Below is a chart which illustrates the existing regulations on the unit and also outlines the proposed changes to the current regulations put forth in the UMP.

Issue	Existing regulations	Proposed regulations
Firearms	Shotguns and muzzle loaders only; handguns and rifles prohibited	Shotguns, muzzle loaders and .22 caliber rimfire handguns permitted; rifles prohibited
Snowmobiles	Snowmobile use allowed	Snowmobile use limited to designated trails.
Camping	Camping allowed for no more than 3 nights in one location by fewer than 10 people and 150 feet away from trail, road or water. Longer stays and larger groups require a permit. Limited by current Coop Regulations.	Camping allowed by permit only. Camping prohibited during big-game hunting season.
Fires	Fires not allowed	Fires by permit only.
Fishing/boats	Use of boats prohibited on Wilkins, Rowe's, Tenny's and Maroney's Ponds. Fishing prohibited on Tenny's Pond from Sept. 1 through the end of February, and on Wilkins and Rowe's Ponds from October 1 through the end of February. Ice fishing by special permit during hunting season (10/1-3/1)	Fishing and non-motorized/electric motor boats allowed on all ponds in the State Forest.[1] Ice fishing permitted except during regular big-game hunting season.
Hunting/access	General public access limited to March 1 through September 30 with a special permit. A hunter permit system required for use of the property from October 1 through big-game hunting season. Hunting party size limited to three hunters and two dogs.	Property open to all users except during the regular big-game hunting season (approximately Mid-November to mid-December), when it is limited to hunters with valid hunting licenses. Non-hunting companions may accompany hunters, but must stay with hunter at all times while on property. No party size or dog restrictions.

[1] Tenny's Pond is located on NYS DOT property. Public access to the pond is allowed under the 2005 consent decree. Use of boats on the pond is under the jurisdiction of NYS DOT.

VIII. Update of the Unit Management Plan

The Final Unit Management Plan (UMP) will need updating 10 years after its adoption or if substantial changes or amendments are made due to changes in circumstances.

IX. MANAGEMENT BUDGET AND STAFFING: 10 YEAR SCHEDULE

A. Annual Maintenance Budget

The following tables outline a schedule for the implementation of proposed management actions and their estimated costs. Accomplishments are contingent upon sufficient staffing levels and funding. It is expected that most tasks will be done by Department Staff. To conform with program budgeting practices, estimated project costs are based on current costs for materials and wages for seasonal staff labor, excluding fringe benefits and indirect costs. The contruction or maintenance projects costs do not include permanent program staff salaries. Therefore costs are significantly lower than they would be for outside contractors.

- Yearly mowing of both sides of roughly 18 miles of truck roads and 4 miles of access roads to keep brush and shrubs from encroaching on the traveled ways with DEC staff & equipment. $ 6,000

- Mowing of an average of 115 acres per year on a 6 year rotation to maintain grassland habitat on the property with DEC staff and equipment. $ 7,000

- Manage a minimum of 7 acres per year for shrubs (Rowes Pond area, BN6, NR48, Ridge Road north, NR21, 37, 40, 38). (5 days per year). $ 2,000

- Invasive plant control. $ 1,500

- Hazardous tree removal. Contracting or DEC staff removal of trees damaged by disease, insects, lightening or other weather events which pose a potential hazard to visitors along roads or major travelways. $ 2,500

- Maintain/renovate 3.5 miles of roads per year (grade, drain, resurface). $ 130,000

- Yearly parking lot snow removal. $ 1,500

- Yearly parking lot maintenance. $ 1,500

- Yearly trail maintenance. $ 3,000

- Yearly property line maintenance. $ 1,000

- Maintain and repair gates, install/maintain one new gate every two years on average. $ 3,000

- Yearly upkeep and repair of forest headquarters building (former Cooperative Hunting Area Check Station). $ 1,200

- Mow and maintain six dams a year. $ 6,000

- Maintain Kiosks and information on a yearly basis. $ 1,000

- Reprint Stewart State Forest brochure for multiple users $ 2,000

- Install/Rent accessible Port-A-John at Weed Road, Ridge Road, and regular P-O-J at Barron Road and Lorraine Drive as needed from April 1 to mid-December. Totaling about 2.5 years of coverage every year. $ 3,750

Annual Maintenance Budget **$197, 950**

B. Construction and Projects Budget

Year 1-5

- Install parking facility at Baron Road South. $10,000

- Install parking facility at Rt. 207/Armstrong Lane trailhead. $ 10,000

- Install parking facility at Lorraine Drive (East of Maple Ave.). $ 15,000

- Install parking facility at Barron Road North. $19,000

- Small hardened parking areas at Restoration Pond and Beaver Pond. $ 8,000

- Construct 7 hunter parking spaces along Drury Lane and east, and two along Maple Avenue. $ 7,000

- Rebuild farm lane, 10-12' road surface cut brush to 25' wide, pull-offs every 250 feet or so, grade, fill and culverts. (Forrester to Restoration Pond, suitable for one-lane car access). $12,000

- Rebuild farm lane between New and Ridge Roads past Pittman-Robertson Pond to 8 feet wide, suitable for horse carriages (fill, culverts, permit, fabric and drainage). $14,000

- Demolish 20 by 35' shed off Forester Road. $ 3,000

- Storage/maintenance facility:A three bay pole barn storage/maintenance building, with three bays enclosed. $50,000

- Remove 2-story wood frame barn and other wood frame structures on Old Creamery Road (Old Route 208, Maybrook). $20,000

- Install DEC signs on 12.6 miles of boundary lines. $ 5,000
- Install five additional informational kiosks at major entry points (Barron Road South. Weed Road intersection with Ridge Road) ,Lorraine Drive South, and Rte 207-East Drury. Maintain existing three kiosks and bulletin boards. $15,000

- Install directional and trails signs at all major trail and road intersections. $ 1,500

- Install 3 sign standards at southerly Barron Road, northerly Ridge Road, and northerly Barron Road. $ 2,000

- Investigate and assess maintenance of other dams on ponds throughout the property. $ 1,000

- Removal of trash, debris, and old structures (one-time). $ 2,000

- Upgrade and complete 21 trail segments and loops as follows:

  - Costs per mile ($1,500) for 12 miles of foot trails $ 18,000
  - Cost per mile ($3,000) for 9 miles of horse and buggy, multiple use trails: $ 27,000
    (Costs include 2 culverts and small wooden footbridge on trail C and maintenance/upgrade of boardwalk on trail B2)

- Upgrade existing small hunter check station, by winterizing, and adding a restroom and septic system. Expand to provide an office/contact station for the visiting public. Electric and phone service exists already. $50,000

- Establish and maintain group camping area at Ridge Road Orchard (Mow areas, establish parking, harden access routes, provide area for horse tethering and buggies). $ 8,000

- Boardwalk over Great Swamp, maximum 600 feet (@ $20 foot) $12,000

- Plant 5 acres of black walnuts at 12x12 spacing (300 trees per acre with protective tubes, 300 trees per day = 5 person days.) $ 4,000

- Plant 5 acres of white pine (300 trees per acre, 12x12 spacing, 300 trees per day = 5 person days). $ 5,000

- Plant app. 5 acres of tree buffer along Forrester Road and route 208 (Sugar maple, oak, poplar, white pine, walnut and hickory) $ 2,000

- Demolish 150' by 150' one story masonry building west of Barron Road. $75,000

- Disposal of 150 'by 150' masonry building at approved C&D site. $397,000

- Install approximately 2 miles of chain link fence along Barron Road, if needed. $150,000

- Add parallel parking on one shoulder of Weed Road, if needed. $10,000

Total construction costs for years 1-5: **$ 952,500**

C. Equipment Budget

- 4-wheel drive truck for staff $25,000
- Loftness Timber Ax (80-93"blade) or equivalent (Allows mowing, larger brushing and tree removal in fields and on uneven ground. Purchase of this equipment would reduce yearly maintenance costs for mowing by up to an equivalent amount) $45,000
- 6-wheel ATV $ 8,000
- Two chain saws - one medium and one small $ 700
- Hand tools, including hammers, shovels, pickaxes, loppers, etc for a crew of six. $ 500
- Safety Equipment, including hard hats, with ear and face protection, chain saw chaps, gloves, etc. for a crew of three. $ 500
- Two two-way radios or cell phones $ 300

Equipment Budget Total: **$80,000**

D. Annual Budget for Personnel

- Senior Forestry Technician 1 staff year
- 2 Assistant Forest Rangers from October 1 through December and May to December 1 staff year

Annual Budget for Personnel 2 staff years

10 YEAR TOTAL **$ 3,012,000**

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XI. Public Comments and DEC Response

Wildlife

Comment: Unit Management Plan fails to provide adequate protection for nesting pied-billed grebes at Restoration Pond and other locations on the property from recreational user disturbance.

Response: Specific language has been added under the heading "Rare and Endangered Species" in the "Protective Actions" subsection of the "Proposed Resource Management Actions" section to provide pied-billed grebes with additional protection from disturbance during the nesting season. Furthermore, general language has been added under this heading stating that the needs of rare, endangered, threatened, and special concern species supercede recreational use of the property.

Comment: Unit Management Plan fails to discuss butterfly surveys conducted on Stewart State Forest and proposed management for rare butterfly species found on the property.

Response: Language providing information about the butterfly surveys conducted on the property has been added to the "Wildlife" subsection of the "Information On The State Forest" section. Language has been added to the "Protective Actions" subsection of the "Proposed Resource Management Actions" section under the "Rare and Endangered Species" heading stating that the needs of rare species will take priority over other uses of the property.

Comment: Because of the proximity of Stewart International Airport, management activities at Stewart State Forest, including its designation as a Bird Conservation Area, will increase the risk of bird-aircraft collisions.

Response: DEC will not pursue BCA designation at this time. However, the Department will consult with airport and FAA staff, and if deemed appropriate, may pursue designation of part or all of Stewart State Forest as a Bird Conservation Area (BCA) in the future.
Proposed habitat management at Stewart State Forest for birds focuses primarily on two groups of birds which are declining in the Northeast: grassland and shrubland nesting birds. In general, bird species that will benefit from this proposed management are small, non-flocking songbirds that do not represent a significant risk to aircraft. Many of the large, generalist species of birds that pose the greatest hazard to aircraft, such as gull species, crows, raptors, and Canada geese, have been present at Stewart State Forest for many years and will continue to be present there in the future. The proposed management of the property is not expected to increase populations of these species above current levels. Indeed, grassland management calls for the creation of larger blocks of grassland, reducing field edges and forested hedgerows which attract large raptors. None of the birds that cause the greatest threat to aircraft benefit from grassland management. DEC will also pursue management actions which discourage species which could cause a threat to the airport.
Language has also been added to address these concerns under Stewart International Airport Security (Wildlife) under Facilities Management, Section C and Proposed Management Actions, Section 7.

Comment: The Department should manage specific areas at Stewart State Forest for grassland dependent wildlife as this habitat type, and the wildlife that depends on it, is declining across the state, especially in the Hudson Valley.

Response: Because of the public support for grassland management, additional information regarding the management and enhancement of grasslands has been added under the "Mowing and Habitat Enhancement for Wildlife Management" heading in the "Resource Management Actions" subsection of the "Proposed Resource Management Actions" section.

Comment: Appendix B-1 (the list of amphibians and reptiles in the vicinity of Stewart State Forest) contains references to species that were not observed during the Wildlife Conservation Society/Metropolitan Conservation Alliance biological survey of the property.

Response: Appendix B-1 lists amphibian and reptile species recorded in the vicinity of Stewart State Forest during the New York State Amphibian and Reptile Atlas Project and does not reflect observations made by the Wildlife Conservation Society/Metropolitan Conservation Alliance. Because the New York State Amphibian and Reptile Atlas Project uses large blocks to document the presence/absence of species, the data are not specific to the area encompassed by Stewart State Forest. A short list of amphibians and reptiles documented during the Wildlife Conservation Society/Metropolitan Conservation Alliance survey of Stewart State Forest has been added to Appendix B, and the comments will be reviewed by the Natural Heritage Program staff and biologists in future assessments of the property .

Comment: The New York State Breeding Bird Atlas data in Appendix B-3 are not specific to Stewart State Forest.

Response: The list of breeding bird species in Appendix B-3 is from the four Breeding Bird Atlas blocks that cover Stewart State Forest and surrounding areas rather than being exclusive only to Stewart. Therefore, it may contain breeding bird species that were not observed on the property, but in the nearby vicinity. The title of the table has been revised to eliminate any confusion. Clarifications noted will be kept on file for use by biologists in future surveys of the property.

Comment: Habitat management proposals specific to ruffed grouse should have been included in the UMP.

Response: While ruffed grouse are present at Stewart State Forest, they have never been abundant on the property and were not recorded there during the most recent Breeding Bird Atlas. Although not specifically mentioned as a species of management concern, ruffed grouse will benefit from the early successional habitat management proposed in the plan.

Hunting

Comment: Motor vehicle access to interior roads of Stewart State Forest for hunters should be available during all hunting seasons.

Response: Current and anticipated staffing levels do not allow the main gate at Weed Road to be open during all hunting seasons. However, language has been added under the "Hunting" heading in the "Recreational Management Actions" subsection of the "Proposed Resource Management Actions" section that would allow for the Weed Road gate to be open until the end of December if conditions permit.

Comment: An area of Stewart State Forest should be dedicated to youth sportsperson education.

Response: A new heading has been added to the "Recreational Management Actions" subsection of the "Proposed Resource Management Actions" section entitled "Youth Hunting and Fishing Opportunities" that addresses youth sporting events at Stewart State Forest, especially the annual Youth Hunting Day. Additionally, language has been added under the "Interpretation" heading in the "Outreach Management Actions" subsection of the "Proposed Resource Management Actions" section stating that if a storage-maintenance facility was established at Stewart State Forest, consideration would be given to allowing sportsmen education classes to be held there.

Comment: Stewart State Forest should be open later than one half hour after sunset for motor vehicle access during hunting season to allow hunters more time to recover game and leave the property.

Response: Language under the "Hunting" heading in the "Recreational Management Actions" subsection of the "Proposed Resource Management Actions" section regarding the hours when the property is open to motor vehicle access has been changed from "one half hour after sunset" to "one hour after sunset."

Comment: The hunting party size restriction (3 hunters per vehicle) should be eliminated in part to encourage youth participation in hunting. For example, under the current regulations, a parent with three children could not take all three children hunting with them simultaneously.

Response: The regulation restricting hunting party size to three hunters dates back to when Stewart State Forest was operated as a Cooperative Hunting Area. This regulation will be rescinded and hunting parties will no longer be limited to three hunters. Language has been added under the "Hunting" heading in the "Recreational Management Actions" subsection of the "Proposed Resource Management Actions" section that clarifies this change.

Comment: Limiting access to Stewart State Forest to licensed hunters during hunting season discourages youth participation in hunting because children under the age of 12 cannot obtain a hunting license and therefore cannot accompany an adult while hunting. This regulation should be eliminated.

Response: Non-hunting companions will be permitted to accompany hunters during the big game season, but must remain with the hunter at all times while on the property. During the rest of hunting season, all other users are allowed on the property, and therefore friends and relatives of hunters may accompany them without restriction.

General Management and User Considerations

Comment: Snowmobile Use should not be prohibited at Stewart State Forest (45 comments and several petitions). Snowmobile Use should be prohibited (13 Comments).

Information was presented - in support of and objecting to - snowmobiles. Most reservations about snowmobiles were about their noise, exhaust, large numbers at one time, and inconsiderate behavior by what appears to be a small minority of riders. The Section under Snowmobiles was changed to allow snowmobiles on the main roadway system and four connector trails on the property. Snowmobiles will not be allowed east of Maple Avenue and on non-designated trails. These steps and others, designed to provide a balance among users, are outlined under Section VII Proposed Resource Management Actions, B. Recreational Management Actions, Snowmobiles in the UMP.

Comment: Farming should continue and be encouraged (13 comments received). Farming should sunset with the current farmers (2).

Current farmers will continue farming.. The DEC supports agricultural use of the property and has been working, whenever possible within the framework the regulations governing the management of State Forests toward this goal. DEC will consider agro-forestry and bio-fuels research proposals, in cooperation with universities and research institutes, with existing farmers, as long as it is compatible with protecting the long term sustainability of the natural resources on the property. Legislative guidance for agricultural use is required over the longer term. Farm fields east of Maple Avenue will continue to be farmed under TRP by the present farmer and have been added to the inventory of farm fields on the property.

Comment: The property should make provisions for ATV use/should not make provisions for ATV use.

The DEC stands by the guidelines prohibiting ATV's presented in the Draft UMP.

Comments: Describe and define "camping permit" and the reasoning behind the proposed camping guidelines.

Clarification has been added under Section VII Proposed Resource Management Actions, Recreational Management Actions-Camping.

Comments: On public use, hunting practices, volunteers, dedicated funding and management, the property description, alternative development and Norway spruce trees to name just a few.

These comments were all considered in the creation of the Final UMP. Some of the comments are within the purview of the goals and objectives outlined in the UMP and will be kept on file and considered as management options. Your support through the comments on funding, management and volunteers is greatly appreciated.

Comments: The State is urged to incorporate public uses such as a golf course, tennis and ball fields in its plans for the property.

The consideration of such uses is beyond the scope of this Unit Management Plan and the legislation authorizing the creation of Stewart State Forest under the category of State Reforestation Area.

The State is urged to take into account the emergency planning process for emergency responders accessing the property.

Access to the property by emergency responders and fire services is coordinated through DEC's Forest Rangers (Division of Forest Protection and Fire Management) and Environmental Conservation Officers (ECO's). Forest rangers monitor the daily use of the property through patrols and through the monitoring of Temporary revocable Permits (TRP's) issued to groups and for special uses. Forest Rangers and Assistant Forest Rangers also provide additional monitoring during the fall hunting season and will control the enforcement and/or issuance of camping permits in the future. This coordination should continue with improvements in communication as a need is identified. A Section has been added under Facilities Management actions entitled 'Stewart International Airport Security" (Under VII. Proposed Resource Management Actions, C. Facilities Management Actions).

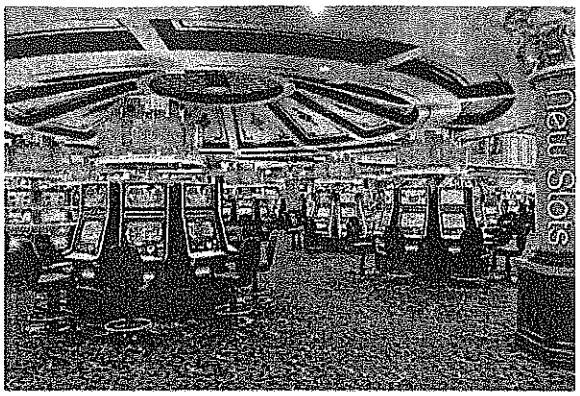
Orange County Department of Emergency Services
Walter C. Koury, Commissioner

Impact of Casinos on the Emergency Services of Orange County, New York

April 2014

Steven M. Neuhaus
Orange County Executive

I. Introduction.



With the construction of large casinos resorts in Orange County becoming a distinct possibility, the Orange County Department of Emergency Services has undertaken this preliminary study to gauge the possible impact that these large facilities might have on the State, County and Local Emergency Services agencies that serve Orange County.

Due to a lack of funding and dedicated resources, the undertaking of a scientific study of issue is impossible at this time. This initial study is simply intended to frame the issue to determine if further study is necessary at a later junction.

II. Executive Overview.

As part of this study, the Orange County Department of Emergency Services contacted numerous emergency services agencies in New York and Connecticut in an attempt to determine the impact that casinos have had on their jurisdictions.

The overall findings from these telephonic interviews is that the casinos have had a minimal impact in terms of crime rates, medical calls, fire related incidents, and emergency management activities. The common theme from all the representatives interviewed for this study was that the impact of the casinos caused some initial issues but as the facilities matured, the impact was minimized.

The one exception to this trend was vehicular traffic. Each of the jurisdictions interviewed cited a significant increase in vehicular traffic leading to and from the casinos. As a result of this increase in traffic, the number of vehicle related emergency calls has significantly increased.

It is the recommendation of the Department of Emergency Services that a complete traffic impact study be completed should the selection of a casino site in Orange County become a reality. Additionally, special equipment should be installed in any large complex to enhance the communications capabilities of emergency responders working therein.

III. Outreach.

As part of this non-scientific study, members of the Orange County Department of Emergency Services have contacted several emergency services agencies in communities which have existing casinos in order to determine the impact that these facilities have made to their jurisdictions.

In an effort to further understand the issue, the following agencies have been contacted:

Agency	Location	Casino
American Ambulance (Commercial Service)	Norwich, CT	Foxwoods Resort Casino & Mohegan Sun
City of Oneida Police Department	Oneida, NY (Oneida County)	Turning Stone Resort & Casino
Niagara County Office of Emergency Services	Niagara County, NY	Seneca Niagara Casino
Oneida County Emergency Services Office	Oneida County, NY	Turning Stone Resort & Casino
Town of Montville Police Department	Montville, CT	Mohegan Sun
Town of Ledyard Police Department	Ledyard, CT	Foxwoods Resort Casino
Town of Ledyard Fire Marshal	Ledyard, CT	Foxwoods Resort Casino
Verona Fire Department (Fire & EMS)	Verona, NY	Turning Stone Resort & Casino

IV. Impact on Law Enforcement.

In terms of the impact a casino may have on community law enforcement, the discussion is broken into two categories, traffic and crime.

a. Traffic Management

Craig Cherry, Deputy Commissioner of the Division of Police Liaison Services, conducted telephone interviews with representatives from the City of Oneida NY Police Department, along with the Town of Montville and the Town of Ledyard Police Departments in Connecticut. Additionally, published traffic related data was researched.

All three of these police departments report that since the casinos have opened in their jurisdictions, they have experienced a significant increase in traffic leading to and from the casinos.

This increased traffic has resulted in a corresponding increase in the number of traffic related incidents requiring the involvement of law enforcement. According to a Lieutenant from the Ledyard Police Department, the increase in traffic and the resulting traffic related incidents are the most significant impact to his Police Department since the opening of Foxwoods Resort and Casino.

According to data from the 2004 New York State Thruway Annual Report, Exit 33 near Turning Stone Resort & Casino is one of the busiest highway exits in the region. However, data from the NYS Department of Motor Vehicles for the period of 1998 – 2012 indicated vehicular crashes in Oneida County have stayed relatively consistent.

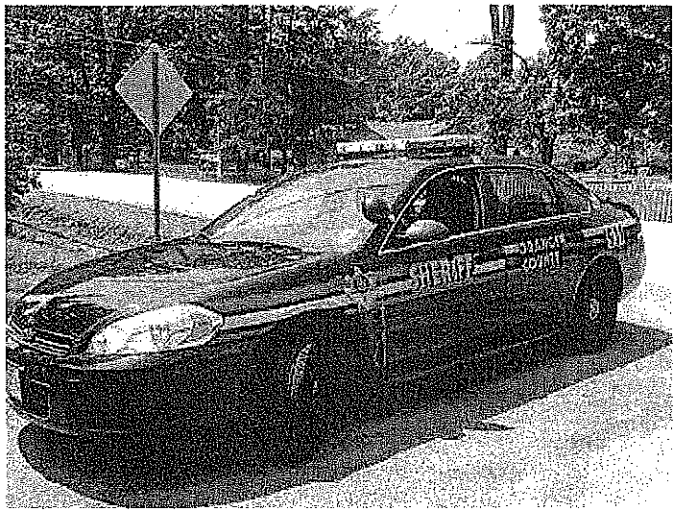
Without an in-depth emergency services-focused traffic impact study of casinos in the Orange, Sullivan, Ulster County region, it is impossible to predict the true impact of casinos to the Emergency Services agencies in Orange County.

A reasonable assumption can be made, however, that the impact on the existing traffic infrastructure could be significant, as the placement of casinos in the New York State Route 17 corridor either in Orange, Sullivan or Ulster Counties could have significant impact on Route 17, particularly during the summer months.

b. Crime

During Deputy Commissioner Cherry's telephonic interviews with the City of Oneida Police Department, the Town of Montville Police Department, and the Town of Ledyard Police Department determined that these Police Departments have not experienced any substantial increase in criminal activity directly attributable to the presence of casinos in their jurisdictions.

Available published data supports that reportable crime in these jurisdictions actually decreased in direct proportion with the statewide and nationwide decrease in crime witnessed across most of the nation in recent decades.



Prior to the construction of these casinos it was feared that there would be a significant and measurable increase in alcohol related traffic incidents, disorderly conduct arrests, murder, rape, robbery, assault, burglary, and theft. These fears have been largely unfounded according to the police department members interviewed.

One aspect of crime statistics that ran counter to this trend were some of the surrounding towns with low income housing. These areas did not experience the decline in crime as other surrounded communities did. Crime in these low income areas largely remained static.

V. Impact on Fire Services.

As part of this report, Vini Tankasali, Deputy Commissioner of the Division of Fire Services, interviewed representatives from the Oneida County Emergency Services Office and Verona Fire Department in New York and the Town of Ledyard Fire Marshal in Connecticut. The impact of a casino resort on the fire service varied depending on whether the facility is located in a volunteer fire district or in the jurisdiction of a career fire department like the City of Newburgh.

a. Call Volume

All of the fire service representatives interviewed by Deputy Commissioner Tankasali indicated that an initial increase in call volume was due to traffic as well as fire related alarms and incidents. The representatives also noted that the increase was greater initially but seemed to reduce as the facility matured. Of specific note to this discussion, due to the size of their respective casinos, the Mohegan Sun Casino and the Foxwoods Casino both maintain their own on-site paid fire departments. The Verona Fire Department (volunteer) remains the primary fire protection for the Turning Stone Casino. Any increase in call volume would need to be analyzed to understand the impact on staffing for career fire departments or capabilities to meet staffing needs by volunteer fire departments.

b. Training

The fire departments that would respond to incidents at casino resort complexes would require extensive training specifically designed for large scale commercial occupancy structures. According to Deputy Commissioner Tankasali's interview with the Verona Fire Department, specialized training was needed to educate firefighters on high-rise type structures. This training was contracted through another fire department and required funding to obtain this training.

These facilities may also have specialized fire suppression systems that may require initial and periodic training on part of the fire departments.

c. Equipment and Apparatus

The fire departments tasked with responding to incidents at a casino resort may need custom equipment and apparatus in order to properly mitigate any potential hazardous events.

For instance, a casino may be built in a fire district that currently does not own a ladder truck. In this case, the fire district may have to purchase a ladder truck to properly respond to a multi-story structure in the casino complex.

Depending on the size and functionality, new ladder truck can cost $500,000 to $1,500,000.

Another example brought up in Deputy Commissioner Tankasali's discussion with the interviewed Fire Services representatives was the need for special equipment to handle special circumstance fires. One such instance would be vehicle fires in parking areas with limited or no access to fire apparatus. Specialized equipment may be needed by the fire departments in order to handle these types of incidents not typical of existing properties in the local jurisdiction.

d. Staffing

According Deputy Commissioner Tankasali, if a casino resort were to be located in a jurisdiction with a career fire department, additional staffing may be required in order to meet the increased demands potentially placed on the fire department.

e. Facilities

Depending on where a new casino resort is located, the need may arise to place a new and separate fire department substation near the casino. The need for this may be dictated by traffic concerns or other variables such as the proximity needed to provide adequate fire protection.

VI. Impact of the Emergency Medical Services (EMS).

Frank Cassanite, Deputy Commissioner of the Division of Emergency Medical Services, contacted the Verona Fire Department which provides EMS coverage for Turning Stone Resort & Casino and American Ambulance which provides EMS coverage for both Mohegan Sun and Foxwoods Resort Casino.

Both of these EMS providers related that the impact of the casinos was minimal in their daily operations. American Ambulance stated that each casino added three to four calls per week to their normal activities.

VII. Impact on Emergency Communications (911).

Allen Wierzbicki, Deputy Commissioner of the Division of Emergency Communications, reported that the projected impact on the 911 Center is anticipated to be limited. Should there be a significant and continuous increase in casino related 911 calls then the level of staffing at the 911 may have to be increased.

Consideration should also be given by building authorities to require the installation of Bi-Directional Amplifiers in all casino buildings. Such equipment is designed to improve both radio and cellular communications for emergency responders working within such structures or complexes thereby enabling them to communicate with other responders located either on different floors of the same building or who are working elsewhere within the building complex.

Impact on Emergency Management.

Deputy Commissioner Seamus Leary of the Division of Emergency Management spoke with Director Jonathan Schultz from Niagara County Office of Emergency Services and Director Kevin Revere from Oneida County Emergency Services Office to determine the impact of casino resorts in counties similar in nature to Orange County.

Director Schultz related that the impact of the Seneca Niagara Casino was minimal to his department. Most of the impact of the casino was limited to the City of Niagara Falls and that casino was just one more entity in the county for his office to coordinate with.

Director Revere stated that the impact of the Turning Stone Resort and Casino was minimal to the county. Turning Stone Resort and Casino is located on the sovereign land of the Oneida Indian Nation. As such, many of the emergency management functions are undertaken by the Oneida Indian Nation and not Oneida County. Director Revere did state that his office had a good working relationship with the casino, and just like in Niagara County, the casino is just one more entity to coordinate with in the community.

VIII. Initial Conclusion.

Based on interviews from members of the Emergency Management, Fire Service, EMS, and Law Enforcement agencies that service existing casino resorts in New York and Connecticut, the overall impact on the emergency services in these communities is minimal.

The one exception is traffic related incidents. It seems that there is a significant increase in vehicular traffic on the roadways leading to the casinos. As a result, there is an increase in vehicular related emergency calls. Although not interviewed for this study, it could be logically assumed that the outlaying jurisdictions surrounding casinos could also experience an increase in traffic and traffic related calls for emergency services.

Without knowing the exact placement of a casino in Orange, Sullivan or Ulster Counties it is difficult to determine the true impact on our specific emergency services agencies at this time. As part of the location selection for a potential casino in Orange County, the Department of Emergency Services recommends that a traffic impact study be commissioned with a particular emphasis placed on the impact of increased traffic to the emergency services.

Once the location of the casino is known and a traffic impact study is complete, then a comprehensive study should be undertaken by an outside organization to study the true impact of a casino in the region and to make staffing, training, and equipment procurement

recommendations that will ensure the continued safety of Orange County's emergency responders and the general public.

Finally, improvements to radio and cellular communications between emergency responders working within large complexes would be enhanced through the installation of Bi-Directional Amplifiers.

FINAL ENVIRONMENTAL IMPACT STATEMENT

NEW YORK INTERNATIONAL PLAZA

Project Name:	New York International Plaza
Project Location:	Former Stewart Army Subpost, Town of New Windsor, New York
Lead Agency:	Town of New Windsor Planning Board Town Office 555 Union Avenue New Windsor, New York 12553 Contact: Mark J. Edsall, P.E., P.P., Planning Board Engineer Phone: (845) 563-4615
Report Contributors:	The Chazen Companies 110 Glen Street Glens Falls, New York 12801 Contact: Stuart Mesinger, AICP, North County Office Director Phone: (518) 812-0513 Fax: (518) 812-2205
Project Sponsor:	First Columbia International Group, LLC 26 Century Hill Drive Latham, New York 12110 Contact: Christopher Bette, P.E.

Date of Notice of Completion of DEIS:	April 14, 2003
Date of Public Hearing:	May 14, 2003
DEIS Public Comment Deadline:	May 27, 2003
Date of Notice of Completion of FEIS:	July 23, 2003

FINAL ENVIRONMENTAL IMPACT STATEMENT

NEW YORK INTERNATIONAL PLAZA

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EXECUTIVE SUMMARY

This is a Final Environmental Impact Statement with appendices (collectively, the "FEIS") prepared for the Town of New Windsor Planning Board, Orange County, New York. The Planning Board has been established as the Lead Agency under the New York State Environmental Quality Review Act (Environmental Conservation Law, Article 8) and its implementing regulations (6 NYCRR Part 617), collectively known as SEQRA. The DEIS evaluates potentially significant adverse impacts associated with the redevelopment plan for the former Stewart Army Subpost (formerly a self-contained military base, referred to as STAS) located on approximately 263-acres (+/-) adjacent to the Stewart International Airport, in the Town of New Windsor, Orange County, New York. Generally, the site is situated along the northern side of Route 207 (Little Britain Road) and the western side of Breunig Road, with the Stewart International Airport bordering the site to the east and Reed Street bordering to the north. The DEIS, including its appendices, is incorporated by reference into this FEIS.

I. Proposed Action

First Columbia International Group, LLC submitted an application to the Town of New Windsor Planning Board for subdivision approval of Parcel "H". The request included subdividing the existing Parcel "H" (128+/- acres) into two lots with a portion of land to be used for the extension of Hudson Valley Ave. Pursuant to Article 8 of the Environmental Conservation Law and the subsequent regulations (6 NYCRR Part 617), also known as the New York State Environmental Quality Review Act (SEQRA), the Town of New Windsor Planning Board is considering the potential environmental impacts associated with the proposed subdivision and redevelopment of the entire 263+/- acres of the former Stewart Army Subpost (STAS).

The 15-year redevelopment plan is intended to transform STAS into New York International Plaza (NYIP) and establish NYIP as the premier corporate mixed-use park in the Hudson Valley. The redevelopment plan contemplates the construction of up to 2,000,000-sf of gross building area with a mix of uses to include: high-tech offices; convention center; hotels; retail; restaurants; corporate residences; education facilities; and light manufacturing. For the purpose of this FEIS, a redevelopment plan totaling 2,515,450 square feet of gross building area was analyzed. Using and analyzing a redevelopment plan that is 25% larger than the proposed plan incorporates an adjustment factor. The adjustment factor allows flexibility in the mix of uses that enables the redevelopment to react to current and future market demands. Recognizing that development is dynamic, actual development within the mix of uses will be pursued in response to future market conditions and, therefore, may change over time.

The DEIS contains reasonably detailed information concerning the STAS redevelopment plan which allows the Planning Board to review and balance the need of the Applicant for flexibility in its development plans and the Planning Board's need to have a level of detail sufficient to identify, evaluate and mitigate likely environmental impacts. In furtherance of these goals and objectives, the overall redevelopment plan, which represents the Applicant's long-term vision for the project, establishes specific site development envelopes, and associated future subdivisions, for certain sizes and types of uses. As described in greater detail in the FEIS, this approach

enables the Planning Board to reasonably evaluate the environmental impacts associated with such development and the application of land use and zoning requirements.

II. Project History

STAS was originally constructed in the 1940's for use by the United States Military Academy (USMA) for flight training of the West Point Cadets. Later, the United States Air Force operated the base and expanded it in the 1960's to accommodate a population of 5,600 personnel. At the height of its use, STAS facilities included approximately 158 structures totaling approximately 923,900 square feet of gross floor area, approximately 5.8 miles of asphalt paved roadways with storm sewer system, its own water treatment and distribution system, its own wastewater treatment plant and sanitary sewer system, low pressure natural gas distribution system and overhead electric, telecommunication and cable TV wires. In the 1970's the USMA took control of the STAS Lands again and operated the facility, until the late 1990's, for housing and support facilities for West Point. In the 1990's USMA decided to consolidate their facilities to West Point and disposal of the STAS lands became a main focus. Through special legislation passed by the United States Congress and subsequently signed by President William J. Clinton, the STAS lands were transferred to the Town of New Windsor to develop the lands for economic purposes.

III. SEQRA Process

The DEIS was prepared in accordance with the "Final Scoping Document" adopted by the SEQRA Lead Agency, the Town of New Windsor Planning Board, pursuant to the SEQRA scoping regulations at 6 NYCRR Section 617.8.

On April 14, 2003, the Planning Board accepted the DEIS as complete and adequate for public review. A public comment period of forty-three (43) days, until May 27, 2003, was established. During the public comment period, the Planning Board conducted a joint public hearing to consider the subdivision application and the DEIS.

No involved agency provided comments on the project to the Planning Board during the public comment period. Only one member of the public spoke at the public hearing. That same person submitted substantively the same written comments to the Planning Board. The commentor supported the project, however, raised some concerns regarding the adequacy of the DEIS.

The Planning Board and individual members of the Planning Board, pursuant to SEQRA, will thoroughly examine, evaluate and consider the FEIS for the purpose of determining its completeness, including accuracy and responsiveness to the substantive comments raised, and based on that review, and review and advice of the Town Engineer and special consultant, determine whether to accept the FEIS as "complete" as that term is used in SEQRA.

Certain information and analyses relating to issues examined in the DEIS were amplified and further discussed in the FEIS as a result of comments received from the public and other parties. This material is consistent with information regarding such issues contained in the DEIS. It amplifies and augments information previously considered by the Planning Board and contained

in the DEIS and did not identify newly discovered information about significant adverse environmental effects which were not previously addressed. Therefore, the FEIS identifies and examines all relevant potential environmental impacts which have been identified.

IV. Project Need & Benefits

Redevelopment of STAS is being undertaken in furtherance of the Federal legislation that authorized a transfer of such lands for economic purposes. Pursuant to such legislation, the Town of New Windsor leased the site to the First Columbia International Group, L.L.C. to promote, accommodate and enhance economic development.

The proposed STAS redevelopment will spur both local and regional economies, re-establish a major employment center and generate employment opportunities and increased revenues throughout the region.

V. Permits & Approvals

Approval of the redevelopment plan by the Town of New Windsor Planning Board will establish a framework for the long-range redevelopment of the STAS lands to a premier corporate mixed-use park. Review of portions of the plan will be required by various State and Local agencies including Town of New Windsor Planning Board (Site Plan and Subdivision), New York State Dept. of Transportation, New York State Dept. of Environmental Conservation, Orange County Department of Health and New York State Dept. of Economic Development. Implementation of the redevelopment plan will be permitted on a site by site or project by project basis, over the expected 15-year build-out. Any required permits and approvals for individual projects will be obtained as and when required. The Planning Board will review the individual plans taking into account the determinations of the redevelopment plan SEQRA findings.

VI. Potential Environmental Impacts & Mitigation Measures

There are not expected to be any unavoidable adverse impacts associated with the redevelopment of the STAS lands. All potentially adverse environmental impacts are planned to either be avoided or minimized to nominal (*i.e.* minor) levels or appropriately mitigated such that they do not constitute a significant adverse impact. The following is a summary of the impact analysis contained in the DEIS:

a. Soils, Topography & Geology

The existing setting of the project area will be unchanged and the topography will not be significantly altered by taking a balanced cut-fill approach during redevelopment. Potential impacts during construction relate to the potential for erosion, generation of dust, removal of rock and possible occurrence of seasonal high ground water table.

Specific erosion control plans will be prepared as required prior to construction to control runoff and dust generation for each individual site during construction. The plans will be designed to retain soil and remove it from stormwater reaching water bodies or adjoining properties.

Construction of each site may include a number of temporary erosion control measures, as required by the NYSDEC and/or sound construction practices. Following construction, the erosion control measures will be managed and maintained consistent with the recommendations in the *New York Guidelines for Urban Erosion and Sediment Control.* Removal of large quantities of rock is not expected but if blasting is determined necessary, all operations will adhere to New York State ordinances and guidelines governing the use and storage of explosives. Proper program guidelines will be established as necessary between the State, the Project Engineer and the blasting contractor prior to undertaking these activities. Seasonal groundwater, if any, will be temporarily controlled by pumping or other standard dewatering techniques.

Blasting may be required to excavate bedrock, but given the depth to bedrock, it is unlikely that bedrock will be encountered. The DEIS establishes detailed guidelines and mitigation measures to address such impacts, in the unlikely event it is required. No blasting will be used for demolition of above-ground existing buildings or structures.

b. Vegetation & Wildlife

This site has already been developed (a former self-contained military base) and much of the natural vegetation has already been cleared. The remaining vegetative resources on-site are common to the area. The loss or conversion of these types of vegetation is considered a minor impact. Construction and operation of NYIP will not have a significant adverse impact to fish and wildlife. No unique habitats or rare, threatened or endangered species have been identified at this site. Clearing at any particular location will be conducted pursuant to an approved site plan by the Planning Board for each individual project, taking into account actual construction needs, physical site constraints, zoning requirements and other relevant factors.

c. Water Resources

Implementation of the redevelopment plan is not anticipated to have any significant impact on groundwater, significantly sized water bodies, floodplains, navigable waterways or coastal zones located on or adjacent to the site. The site is not located over any Sole Source, Primary or Principal Aquifers.

Stormwater management measures will be required to detain surface water flow. Storage of chemicals and petroleum will be done in strict conformance with State and Federal regulations. No significant adverse impacts to any public water supply or private wells are anticipated. Construction and operation of NYIP will follow all applicable Best Management Practices (BMP's).

d. Wetlands

There are no NYSDEC regulated wetlands on the site. Federal wetlands, regulated by the U.S. Army Corp. of Engineers (ACOE), have been field delineated and a jurisdictional determination issued by the ACOE. Less than one acre of ACOE regulated wetlands has been identified and are located in five distinct and isolated areas.

Given the location of the wetlands, their small size and characteristics, it is likely that individual project layouts will avoid such areas. As a result, the project can be developed with little to no impact to them. However, if it determined necessary to disturb the jurisdictional areas, any permits required from ACOE and NYSDEC will be obtained and any impacts mitigated. The total amount of federal wetlands on the site is ±0.6 acres. Therefore, if all but ±0.1 acres are disturbed, such disturbance would be authorized by Nationwide Permit No. 39.

e. Cultural Resources

As part of the transfer of the property to the Town of New Windsor, the USMA performed various studies, including a Phase IA Cultural Resource Investigation and a Phase IB Cultural Resource Investigation. The studies were undertaken to assess the potential of important archaeological and architectural resources at STAS and were incorporated into an Environmental Baseline Study. The in-depth studies were completed and accepted by the New York State Office of Parks, Recreation and Historic Preservation in 1998. No State or National Register of Historic Places historic sites and no archaeological resources are located on-site.

The in-depth studies included a detailed evaluation of the Sayre-McGregor House by a professional consultant. The house was inspected. The various criteria used to determine eligibility for inclusion on the National Register of Historic Places were identified and examined in detail. Other examples of this period architecture in the Town and surrounding communities were considered. Based on those in-depth professional studies, it was concluded that the Sayre-McGregor House did not possess the characteristics to support a determination of eligibility for inclusion on the National Register.

The New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") has commented during this SEQRA process, based solely on a single-page inventory form, and apparently without regard to the in-depth studies that have been prepared, that the Sayre-McGregor House may be eligible for inclusion on the National Register of Historic Places.

The Applicant has represented that, if OPRHP has, in fact, reversed its position (and continues to do so), the stormwater management facilities targeted to include this location will be modified to avoid impacting the Sayre-McGregor House.

f. Climate and Air Quality

Implementation of the redevelopment plan will not produce any measurable changes in local or regional climate, nor is a significant adverse air impact anticipated by the proposed construction, operation, or related transportation. Odors anticipated with the multi-use corporate park are consistent with those that currently exist both on-site and in the surrounding area.

g. Noise

Upon completion of the redevelopment plan, normal operating levels of a commercial business campus and the associated increase in traffic are not expected to create a significant adverse

impact on existing noise levels. During construction, noise generated by construction equipment can reach high levels. However, it is likely that any on-site construction noise will be short duration and generally overridden by the daily operations of the adjacent airport.

h. Visual Resources

The visual character of the site will be altered from the existing military style buildings of the former STAS to a master-planned, mixed-use commercial facility. The proposed buildings along with the elimination of overhead wires and proposed landscaping will provide a positive impact on the visual landscape of the STAS lands. Therefore, no significant adverse visual impacts associated with the redevelopment of the STAS lands have been identified.

i. Land Use

Implementation of the redevelopment plan will transform the former thriving military base, now dormant, to a modern state-of-the-art corporate business park adjacent to Stewart International Airport and Metal Container Corp. facility. NYIP meets the objectives of the property transfer from the USMA, meets the objectives of the Town's ground lease with the Applicant, is in accordance with the Town of New Windsor's current zoning and long range planning, is consistent with the existing airport use and will compliment the nearby residential uses by providing additional employment opportunities within the Town.

j. Zoning

All uses proposed within the redevelopment plan are consistent with the Town of New Windsor Permitted Uses within the current zoning district, Airport-1 (AP-1). The Applicant's proposed redevelopment plan is intended to be consistent with the permitted uses in this district.

k. Transportation Facilities

The potential traffic impacts were analyzed based on a 15-year buildout period, completion of the Stewart Airport Access Improvement Project (SAAI FEIS) and the assumed NYIP uses totaling 2,515,450 s.f. The SAAI FEIS was prepared by NYSDOT for the construction of the direct airport connection to I-84. Included in the SAAI FEIS are projected traffic volumes for the expansion of the airport, redevelopment of the STAS lands and proposed future Drury Lane Industrial Park. Background traffic information was developed directly from the traffic flow figures contained in the SAAI FEIS, actual car counts along Rte 207 and included projected volumes from the proposed redevelopment of the Terrace Housing Area. Primary access to NYIP will be from I-84 via the SAAI project (Drury lane Connector) with secondary access to be from NYS Rte 207 via Breunig Rd. and Hudson Valley Ave. Each access point will be signalized. Potential adverse impacts associated with the anticipated increase in traffic are related to the capacity of each roadway and the subsequent ability of each intersection to function efficiently. Capacity and intersection level of service analyzes were performed for NYS Rte 207 and intersections with, including Rte 300, Breunig Rd., Hudson Valley Ave. and Drury Lane and all intersections within NYIP. Mitigation measures at certain stages of the

redevelopment identified to maintain an efficient roadway network and acceptable intersection level of service include:

- Roadway widening and re-striping at the International Boulevard/Connector Road & World Trade Way intersection.

- Roadway widening and re-striping at the International Boulevard & Aviation Avenue intersection.

- Relocating STOP signs and constructing a channelized right-turn-only lane at the Airport Center Drive & Aviation Avenue/Hudson Valley Avenue intersection.

- Relocating STOP signs at the Airport Center Drive & Bill Larkin/Tozzoli Avenue intersection.

A map showing the traffic intersections studied is attached on the following page as Figure B. See Errata Revised "Figure B"

I. Infrastructure and Utilities

Water Distribution System – Implementation of the redevelopment plan will generate a maximum daily demand for water of approximately 333,296 gpd. Previously, STAS generated an average daily demand of approximately 455,400 gpd as a military facility. For purposes of this DEIS, the water supply and distribution will consider a maximum demand of 350,000, which will allow flexibility in the mix of uses ultimately developed at the site.

As previously noted, the current water distribution system adequately provided flow to uses at the site, with daily usage of 455,400. The distribution system includes a 2.0 MG grade storage reservoir, which is currently in the process of being improved for increased reliability. As such, the existing system should adequately distribute potable water within NYIP. In areas where fire-flow can be enhanced, and is necessary based on the proposed development, distribution pipe sizes may be increased to improve flow conditions during emergencies. Relative to source capacity, NYIP is currently serviced by the Town's Riley Road Water Filtration Plant. The plant has a current capacity of 3 MGD, with plans currently under way for an expansion to 4-6 MGD. The STAS plant, with a capacity of 1.2 MGD is available to the Town as a backup facility. Redevelopment of NYIP will be so sequenced or scheduled, such that available capacity of the Riley Rd. Plant will not be exceeded until such time that the plant capacity has been increased or such additional development is otherwise approved by the Town.

In connection with individual project development, devices or system improvements will be installed, as appropriate, to increase fire flows. Enhancements may be in the form of individual building booster pumps, other improvements to the distribution system, or otherwise, as determined by the Applicant. Any such improvements may be performed by the Water District #9, in which case all related costs of such improvements will be assessed against benefitted properties.

Sanitary Sewer System – Implementation of the redevelopment plan will generate a maximum daily wastewater flow of approximately 333,296 gpd. Previously, STAS generated an average daily demand of approximately 455,400 gpd as a military facility. For purposes of this DEIS, a wastewater flow of 350,000 will be used in the evaluation of the collection system and wastewater treatment needs. This value will allow flexibility in the mix of uses ultimately developed at the site.

As previously noted, the current sewer collection system adequately provided service for collection of approximately 455,400 gpd. The collection system currently discharges to a 30" sewer interceptor line which conveys flow to the Town's Wastewater Treatment Plant off Caesars Lane. The plant has a current

capacity of 5.0 MGD, excess capacity of 250,000 gpd, and future plans to expand to 10.2 MGD.

The Applicant has also acquired 200,000 gpd from the Moodna Basin Development (MBD), which has been allocated 1.25 MGD from the Caesars's Lane facility. As stated above, the estimated demand at full build out of the project will be approximately 333,296 gpd. To the extent required at that time, available additional capacity may be obtained from the MBD. Construction will be sequenced or scheduled such that available capacity at that time will not be exceeded or development has been otherwise approved by the Town.

As noted in Appendix H of the DEIS, the existing I & I problems are a function of the of the age of the existing sewer system, construction materials used and construction practices at that time. The Applicant will address the I & I problems by replacing and/or repairing the existing sanitary sewer facilities (piping and manholes) within the STAS lands, as needed, as the individual projects are constructed.

Storm Sewer System – Implementation of the redevelopment plan will increase the impervious area of site with the construction of paved parking areas and new buildings. The proposed stormwater management plan model controls the increase in stormwater run-off from NYIP without adversely affecting down gradient conditions. The existing stormwater management system was modeled for various storm durations in accordance with Town of New Windsor and NYSDEC regulations. Post-construction stormwater runoff will be controlled, using multiple detention facilities before it is discharged off-site at pre-construction volumes. Detention facilities will accommodate large areas (regional detention) in lieu of individual site by site detention method. Individual detention may be utilized in certain areas. Improvements such as area detention facilities, outlet control structures and storm sewer systems for collection and conveyance of runoff from new impervious area will be designed and constructed as part of the individual site development plans. It is not expected that significant adverse storm sewer impacts will result using the area detention method for the redevelopment.

Four regional detention ponds will be designed to provide the required storage and improve stormwater discharge quality for the full buildout of the STAS lands. They will be constructed in stages to accommodate per project flows. The individual project design will permit, to the extent necessary, future expansion of the detention facilities by the creation of additional "cells" or expanding the detention facilities.

In addition to the regional detention facilities local on-site facilities (temporary and/ or permanent) within an individual project may be utilized to accommodate runoff and quality in the absence of future improvements. Any local on-site facilities will be designed to achieve the same quantity and quality control goals

as the regional system. Future stormwater systems for each individual project within the STAS site will be required to be designed in compliance with the Phase II Stormwater regulations, adopted by NYSDEC March 2003. Best management practices will be employed to address stormwater quality as per the NYSDEC SPDES Permit program. As actual sites are developed detailed storm water management plans will be completed.

- *Electric, gas and telephone* – Implementation of the redevelopment plan will eliminate the overhead utility lines with the construction of the electric/ telecommunication ductbank system. Central Hudson Electric and Gas (Central Hudson) provides electric and gas service to the site. Electric service to the site is from three 6 MW feeders and gas service is from the 6" diameter, 600 psi main along Rte 207. Typical electric and gas services to a building are 200 amp, and 0-10 psi, respectively. Central Hudson has indicated that sufficient capacity to service the project from the existing facilities is available. No significant adverse impacts are anticipated for electric and gas. Telecommunication services are provided by Verizon and Frontier Communications. Service to the site is available and no significant adverse impacts are anticipated for telecommunications.

m. Community Service Characteristics

- *Fire, Police Protection & Emergency Medical Services* – Based on evaluations performed and responses received from emergency services representatives, implementation of the redevelopment plan will not have an adverse impact on emergency services. Correspondence with local fire and police departments and EMS Teams obtained in connection with the preparation of this DEIS states that the departments are adequately equipped to provide protection services to the redeveloped STAS.

- *Recreation and Education* – The redevelopment will have no adverse impact on any recreation or education facilities during construction or operation. Previously, the STAS lands produced approximately 419 students. NYIP has a minor corporate housing component but is not expected to generate a significant amount of school aged children. Educational facilities will benefit from increased assessed valuations from a previously tax exempt property.

It is anticipated that the Washingtonville School District will realize a significant benefit in the form of additional tax revenues which will far exceed any increase which may result from the corporate housing component of the redevelopment.

VII. Economic Conditions

Economic benefits associated with the redevelopment of the STAS lands are substantial. As a military base, the STAS lands were exempt from taxes, employed a small percentage of civilians,

and placed a small demand on the community services. Redevelopment as a mixed-use business park will create approximately 5,300 jobs, generate over $500 million in new construction and equipment purchases, create over $70 million in property taxes (PILOT payments) and produce over $75 million in sales tax revenues.

VIII. Growth Inducing Aspects

The redevelopment plan has the potential to induce growth in both population and business activity within the area. Such growth will occur on a voluntary basis, subject to environmental review and approval. All such induced growth is anticipated to be consistent with applicable local zoning and community's comprehensive planning efforts, and will be subject to any required environmental reviews in accordance with SEQRA. Thus, project induced growth is not anticipated to have any significant adverse impact.

IX. Alternatives Considered

SEQRA requires that reasonable alternatives to the proposed redevelopment be described and evaluated at a level of detail sufficient to permit a comparative assessment. The lease between the Town of New Windsor and First Columbia International Group, LLC. clearly states the desire to redevelop the STAS lands to promote, accommodate and enhance economic development in accordance with the established zoning district uses.

The alternatives considered demonstrate the flexible nature of the redevelopment plan while achieving the goals set forth by the transfer of property. Analysis of various size redevelopment plans using the same uses studied in this DEIS, but varying the composite of uses demonstrates that uses which create more demand on specific resources (*i.e.* hotel demand on water is greater than office demand on water or traffic related to retail is greater than traffic related to corporate housing) will identify the maximum demand possible. Using the identified maximum demand values in comparison to the studied values highlights the ability of the redevelopment plan to be flexible and reactive to market demand within the range of impacts being considered.

The alternatives developed and analyzed assume that the developed area of the STAS lands remains constant and that any increased building square footage and increased parking is a function of building additional stories and integration of structured parking. The AP-1 zoning district requires specific building setbacks and green space requirements, which all alternatives will comply. The alternatives analyzed include: maintaining the existing military base; providing a balance of low-rise and high-rise buildings throughout; providing only low-rise buildings throughout.

The redevelopment alternatives include: No Action; 2.5 million sf of development using four redevelopment land-use scenarios; and 1.5 million sf of development using three redevelopment land-use scenarios.
The analysis of the 2.5-million square feet redevelopment plan scenarios clearly identifies the effect of the varying composite when compared to the studied redevelopment plan of 2,515,450 square feet. The no action plan would maintain the existing STAS as a dormant military base. The no action plan does not meet the objectives of the lease or transfer from the USMA.

- **Irreversible and Irretrievable Resource Commitments**

Some areas of existing undeveloped land will be committed to development of structures, roads and landscaped areas. Some existing soils will be altered and replaced with pavement. A majority of the existing vegetative communities and habitats on this site will be converted to landscaped areas. Some wildlife habitat, as it presently exists, will be irretrievably lost or altered.

INTRODUCTION

This Final Environmental Impact Statement, with appendices (collectively, the "FEIS") has been prepared for the Town of New Windsor ("Town") Planning Board ("Planning Board") in compliance with Article 8 of the New York State Environmental Conservation Law and its implementing regulations (6 NYCRR Part 617), otherwise known as the New York State Environmental Quality Review Act ("SEQRA"). Pursuant to the requirements of SEQRA, the Draft Environmental Impact Statement with appendices (collectively, the "DEIS") for the pending action is incorporated into this FEIS by reference. The Planning Board has been established as the SEQRA Lead Agency.

First Columbia (the "Project Sponsor" or "Applicant") is seeking subdivision approval which will permit the subdivision of the existing Parcel "H" (128± acres) into two lots with a portion of land to be used for the extension of Hudson Valley Avenue. The 15-year redevelopment plan will create a premier corporate mixed use park in the Hudson Valley. The redevelopment plan contemplates the construction of up to 2,000,000-sf of gross building area with a mix of uses to include: high-tech offices; convention center; hotels, retail; restaurants; corporate residences; educational facilities and light manufacturing.

The Planning Board determined this action to be a Type I Action pursuant to the requirements of SEQRA, declared its intent to act as Lead Agency for the coordinated environmental review of the Project, and notified all involved agencies of its intent. The Planning Board subsequently adopted a Positive Declaration requiring the preparation of a DEIS and initiated public Scoping for the DEIS. Notice of the Positive Declaration and Scoping was published in the *Sentinel*, a newspaper of general circulation in the area and the NYS DEC Environmental Notice Bulletin in November and December, 2002. Comments on the draft Scope were accepted until January 2, 2003. The Planning Board adopted a final Scope on February 26, 2003 after consideration of all comments.

The DEIS was prepared in accordance with the content of the Final Scope and was accepted as complete by the Planning Board on April 14, 2003. There was no additional substantive information concerning the draft scope that was not included in the DEIS. In any event, the FEIS comprehensively analyzed all substantive comments on the DEIS and treated comments on the draft scope as public comments on the DEIS. The DEIS analyzed a variety of topics, the potential environmental impacts associated with the Project and proposed mitigation measures designed to ensure that such potential impacts would be minimized to the maximum extent practicable. A public comment period was established from April 14, 2003 through May 27, 2003. During that public comment period, a public hearing was conducted by the Planning Board on May 16, 2003 to consider the proposed subdivision and the DEIS.

This FEIS contains the Lead Agency responses to all comments received on the DEIS and the Project that it determined were substantive. This information clarifies and augments the information contained in the DEIS. To avoid excessive duplication, the responses are organized as described below. Part I contains the substantive comments of the Planning Board's environmental consultant followed by responses thereto. The order of presentation follows the order of presentation of the consultant's comments. In Part II, substantive comments were

extracted from the written comments and the public hearing transcript, and were organized into specific topics so that similar substantive comments are noted and responses were prepared and recorded in an organized fashion. In this part of the FEIS, comments are presented, accompanied by the source of the comment (name of the commentor and location in the public hearing transcript or the date of the written statement), and followed immediately by the response to the comment. This FEIS addresses the comments considered by the Planning Board to be substantive on issues relating to:

PART I - Comments/Responses to Letter Prepared by the Planning Board's Special Consultant

PART II - Digest of Substantive Public Comments on Draft EIS and Responses

Section A - Infrastructure - Wastewater
Section B - Infrastructure - Stormwater Management
Section C - Project Design and Operations
Section D - Cultural Resources
Section E - Economic Resources
Section F - Miscellaneous

Copies of all written comments received during the public review period are contained in Part III of this FEIS. Part IV contains a transcript of the oral comments presented at the May 16, 2003 Public Hearing. Part V contains the Errata. Volume I of this FEIS contains Parts I though V. Volume II of this FEIS is the Appendix which contains additional reports and other information that are summarized, where noted, in Volume I.

The information contained in the FEIS (including the DEIS) will form, at least in part, the basis for the development and adoption of SEQRA Findings Statement by the Planning Board.

FIRST COLUMBIA

Transmittal Letter
Hand Delivered

10:15 AM
RECEIVED
JUL 25 2003
TOWN CLERK'S OFFICE

July 24, 2003

Ms. Debbie Green
Town Clerk, Town of New Windsor
555 Union Ave.
New Windsor, NY 12553

RE: Final EIS for New York International Plaza/ STAS Redevelopment Project

Dear Debbie:

Attached please find a Notice of Completion of Final EIS and copy (two volumes) of the FEIS for the above referenced project, to be filed and made available in accordance with the SEQRA.

Sincerely,

Christopher J. Bette, P.E.
Project Manager

CJB/at

cc: File

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

State Environmental Quality Review Act
Notice of Completion of Final EIS

Lead Agency: Town of New Windsor Planning Board Date: July 23, 2003

Address: 555 Union Avenue
New Windsor, New York 12553

This notice is issued and has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law and 6 NYCRR Part 617, the implementing regulations pertaining thereto (collectively, "SEQRA").

A Final Environmental Impact Statement ("Final EIS") has been completed and accepted by the Town of New Windsor Planning Board, as lead agency, for the proposed action described below. A copy of the Final EIS is attached.

SEQRA Classification: Type I

Name of Action: New York International Plaza/STAS Redevelopment

Description of Action: Redevelopment of the former Stewart Army Subpost (STAS), a 263 +/- acre parcel in the Town of New Windsor. The STAS lands have been ground-leased by the Town of New Windsor for the purposes of economic development. The redevelopment plan contemplates redevelopment in multiple phases to establish a broad range of commercial, industrial, retail, institutional, residential and/or other uses pursuant to existing zoning requirements, including parking, utilities, street, and other improvements and facilities identified as necessary or appropriate as redevelopment proceeds. The action also involves the proposed subdivision approval of Parcel H (128 ±acres) into two lots with a portion of land to be used for the extension of Hudson Valley Avenue.

Location: Former Stewart Army Subpost property, generally bounded by Stewart International Airport to the north and east, Route 207 to the south, and Jackson Avenue to the East in the Town of New Windsor, New York in the Town of New Windsor, New York.

A Copy of the Final EIS and Additional Information may be obtained from:

Contact Person: Mark Edsall, P.E., P.P., Engineer for the Planning Board

Address: c/o Town Hall
555 Union Avenue
New Windsor, New York 12553

Telephone Number: (845) 563-4615

A Copy of this Notice and the Final EIS Sent to:
(One copy of the Final EIS to be sent to these locations)

* Commissioner, Department of Environmental Conservation, 625 Broadway, Albany, New York 12233-0001

* Appropriate Regional Office of the Department of Environmental Conservation

* Office of the Chief Executive Officer of the political subdivision in which the action will be principally located; George J. Meyers, Town Supervisor

* All other involved and interested agencies

New York State Agencies:
Department of Transportation, Poughkeepsie
Department of Environmental Conservation, Main Office
Department of Environmental Conservation, New Paltz
Parks, Recreation and Historic Preservation
Department of Economic Development

County of Orange Agencies:
Department of Health
Department of Planning

Town of New Windsor Agencies:
Town Board
Zoning Board of Appeals

* Persons requesting Final EIS (subject to copying fees)

I. RESPONSES TO PLANNING BOARD SPECIAL CONSULTANT STUART TURNER & ASSOCIATES COMMENTS ON DRAFT EIS DATED MAY 23, 2003

The Planning Board retained the services of Stuart Turner & Associates, as special consultant, to assist the Planning Board in its obligation to fully evaluate all potential environmental impacts of the project. Stuart Turner & Associates, a recognized expert in environmental planning, provided a letter commenting on certain topics contained in the DEIS. Each comment has been extracted and responses thereto prepared.

Comment 1: The proposed estimated mix and amount of full build-out of the STAS site is uncertain. The Draft EIS has been prepared to identify and assess the likely impacts of full build-out under several scenarios and to establish thresholds that would trigger various mitigations. Therefore, the approach is general in that no specific plan for the development is included. The Applicant proposes to build approximately 2.0 million square feet of mixed-use development. The DEIS is based on 2.5 +/- million square feet to account for uncertainties regarding the amount and mix of development.

Response 1: The DEIS contains reasonably detailed information concerning the STAS redevelopment plan. See, Section 1.0 of the DEIS. It also contains a reasonable description of the methodology used to undertake the environmental impact review. See Section 3.0 of the DEIS. The Appendix contains detailed plans and expert reports which specifically describe and analyze in greater detail a variety of potential environmental areas.

As stated at the Public Hearing, the DEIS does not identify and evaluate the numerous hoped for individual site plan layouts for this 200+ acre tract. The DEIS was prepared to identify an overall mix of development within the confines of the STAS lands, as permitted by and in reliance upon the Town's Zoning Law and as obligated by the ground lease. The Planning Board recognizes the Applicant's need to be flexible in locating and mixing uses so that this project (intended to occur over up to a 15-year period) can proceed in light of then-existing market forces. As noted in the above comment, the DEIS also evaluated environmental impacts based on a ±2.5 million square foot mixed use build-out, a size 25% larger than actually proposed. See Section 1.0 of the DEIS. The adjustment factor provides a cushion in the analysis of impacts to account for the fact that certain mixes may result in greater (or lesser) individual environmental impacts than other mixes at the same size. That need has been reasonably balanced against the Planning Board's need to have a level of detail sufficient to permit it to identify, evaluate, and mitigate likely environmental impacts.

The overall redevelopment plan establishes specific site development envelopes for certain sizes and types of uses, in conformity with the Town's Zoning Law.

The site development envelopes were located to establish the Applicant's current vision for the appropriate long-term redevelopment of the STAS lands. Because the size and type of use have been identified in each development envelope, the environmental impacts associated with such development can be generally identified and evaluated, such as cultural resources, vegetation and wildlife, water resources, demographic characteristics, soils, geology, and topography. Identifying size, site location and type of use permits identification and consideration of projected impacts such as water usage, sewer usage, stormwater management, traffic, wetlands, air quality, noise, infrastructure needs, community services, and economic impacts. Establishment of design guidelines and application of land use, and zoning requirements permit the Planning Board to monitor visual impacts, land use, and zoning.

Moreover, pursuant to the Zoning Law, the Planning Board must approve site plans for each individual project and future subdivisions for the individual projects. Therefore, the Planning Board will have the opportunity in every case to examine an individual project, its layout, and the extent to which the resulting impacts are already covered by this EIS. If the Planning Board determines that a further (or supplemental) EIS is warranted because an actual individual project differs significantly from that considered in this review, such supplemental EIS will be required by the Planning Board at that time.

The Planning Board believes that this constitutes a reasonable approach to identify and evaluate reasonably foreseeable impacts from the overall redevelopment. The Planning Board contemplates that performance criteria (derived from the information contained in the EIS) will be established to assure that the impacts remain within the scope of impacts analyzed.

Comment 2: The environmental impact statement should accurately reflect the conditions under which the redevelopment of the STAS lands will occur to the greatest extent possible. Given this level of SEQRA review, environmental reviews may be required as specific projects are proposed.

Response 2: Comment noted. No further response is warranted.

A. Executive Summary

Comment 1: It is not clear where the wetlands referenced on page V of the DEIS are located on the STAS lands. According to Figure 2.7.1 there is only one small wetland area on-site. Is it likely that some of these wetlands will be disturbed during redevelopment? Reference to a wetlands map should be included in the text.

Response 1: The DEIS clearly locates federally regulated wetlands (Figure 2.8.1-1) and NYSDEC-regulated wetlands (Figure 2.7.1 and Figure 2.8.1 – there are none on or in close proximity to the STAS lands). Figure 2.7.1 does not identify or

specify any wetlands on-site – the only area identified on-site is USFWS National Wetlands Inventory areas.

Section 2.8 of the DEIS textually identifies, in Figure 2.8.1 and Figure 2.8.1-1, NYSDEC and federally regulated wetlands, respectively.

Potential impacts to these regulated wetlands are examined in Section 3.8 of the DEIS. It is not likely that any NYSDEC-regulated wetlands will be disturbed. See also Response to Comment I (B)(2). As indicated in the DEIS, the Applicant intends to try to avoid disturbing any on-site federally regulated wetlands. In any event, if the Applicant cannot do so, applicable requirements will be met. The total federally regulated wetland area totals ±0.6 acres. This area is split up into five distinct areas, all of which are less than ±0.2 acres. As a result, if all but ±0.1 acres of these areas were disturbed (an unlikely result), such disturbance is authorized pursuant to Nationwide Permit 39. Given the shape, size, and relationship of the federally regulated wetlands to the redevelopment (see Figure 2.8.1-1), it is likely that disturbance will be avoided.

Comment 2: The map entitled "Traffic Study Area Intersections" following page VII of the DEIS is not clear. The FEIS should clearly show all intersections with appropriate labeling.

Response 2: The comment appears to refer to Figure B: Traffic Area Intersections. That figure graphically identifies the intersections studied in the DEIS. The intersections are identified in Table 2.16.2, "Traffic Study Area Intersections." A modified Figure B, containing a legend labeling the intersections, is attached in Part V - Errata to this FEIS. See also Appendix F to the DEIS.

Comment 3: A note should be added to the text indicating that there is not a difference between the 2.5 million and the 2,515,440 square foot proposals as discussed on pages XI and XII of the DEIS.

Response 3: Comment noted. For purposes of the DEIS (and this FEIS), references to "2.5 million" square feet are intended to be, and should be interpreted as, shorthand for "2,515,440" square feet.

B. Existing Environmental Setting

Comment 1: Where is the Environmental Assessment prepared by NEA as referenced on page 21 of the DEIS? As far as we can tell, it is not located in the main body of the DEIS or its appendices. It should be part of the SEQR record.

Response 1: The NEA Environmental Assessment is a reference document which has been filed and made available along with the DEIS. A copy is attached as Appendix III to this FEIS.

Comment 2: Wetland delineation is a critical element of the DEIS. However, it is difficult to follow where these wetlands are located. The indicated area of wetland A on Figure 2.8.1-1 following page 32 of the DEIS and the area described for the same wetland on page 3 of Appendix C are not consistent with each other. All wetland maps should be consistent. How will the discharge of dredged or fill material into the delineated waters of the United States during the redevelopment of the STAS lands be avoided to the greatest extent possible? Is development anticipated in the area?

Response 2: The federally regulated wetlands (A, L, K, I, and N) are all identified and located on Figure 2.8.1-1. Based on the full size maps and/or USACOE letter included in the Jurisdictional Determination (see Appendix C of the DEIS), the area of each is as follows:

A: ±0.163 acres
L: ±0.199 acres
K: ±0.10 acres
I: ±0.081 acres
N: ±0.052 acres

Accordingly, Figure 2.8.1-1 correctly identified the noted areas, except that the labeling of Figure 2.8.1-1 should be corrected to show that Wetland Area A is "0.163", not "0.059," acres.

This minor discrepancy does not affect the identification and assessment of environmental impacts in the DEIS.

Individual project layouts will be designed to avoid disturbance of these areas to the extent practicable. Each jurisdictional area is small and has at least one of the following characteristics: tends to follow some sort of drainage or other swale, is located at or near the periphery of the STAS lands, is located in a steeply sloped area, and/or is located near proposed stormwater detention facilities. Given these characteristics, it is likely that individual project layouts, which will likely tend to be oriented toward the road system (not the site periphery), will avoid such areas. To the extent they do not, see Response to Comment I (A)(1) and Section 3.8 of the DEIS.

Comment 3: The narrative in Section 2.16 and the map in the Executive Summary indicate that a total of eleven intersections were included in the study area, however, Table 2.16.2 entitled "Traffic Study Area Intersections" located on page 51 of the DEIS indicates that there are only 10 intersections. Please list the intersections studied.

Response 3: There were eleven (11) intersections studied. See Appendix F of the DEIS, "Traffic Impact Study", pp. 21-22. Table 2.16.2 accurately identified ten (10) of the eleven (11) intersections – "Airport Center Drive at Hudson Valley Avenue/Aviation Avenue" needs to be added to it. Taking into account that

change, all text, tables, and graphics are consistent. This ministerial change does not affect the identification and assessment of environmental impacts in the DEIS.

C. Potential Environmental Impacts & Mitigation Measures

Comment 1: Page 79. Will this development affect the overall land use pattern in the Town or in the immediate area? What type of impacts might this type of development have on the Town? Describe whether specific land uses including office development, hotel, and conference space is consistent with the surrounding area. The Town's goals should be clearly stated in the text.

Response 1: The redevelopment plan is consistent with the goals established by the U.S. Congress in adopting legislation authorizing the transfer of the STAS lands to the Town of New Windsor for economic development purposes. See also, Response to Comment II (F)(1); see Section 1.0 of the DEIS. It is also consistent with the economic development purposes underlying the Town's ground lease with the Applicant. It is embodied in the zoning amendments adopted by the Town Board in 2000 and 2001 for the STAS lands, which established those uses (such as office, hotels, and conference center) contemplated in the redevelopment plan as permitted uses in the AP-1 Zoning District . See also Sections 2.19 and 3.19 of the DEIS. The proposed mix of uses is based upon, and has been prepared in furtherance of, the Applicant's obligations under the ground lease and upon reliance of the existing zoning for the project site.

As discussed in Section 4.0 of the DEIS, the redevelopment will likely have a long-term positive effect on land use patterns in the Town and the immediate area. Increased economic activity at the STAS lands will likely create opportunities for nearby lands to upgrade uses to take advantage of the increased activity. Overall, and for the same reasons, the effect on land use in the Town should also be positive.

Comment 2: Page 89. The applicant should clarify what the east/west Connector Road is referenced in the third paragraph.

Response 2: The reference to the "east/west Connector Road"is to the proposed portion of a connector road from Drury Lane to the STAS lands.

Comment 3: Table 3.16.1-2. What are the Levels of Service (LOS) for Full Build with improvements? This is essential information for findings. The blank sections of the table should be explored.

Response 3: A revised Table 3.16.1-2 is attached in Part V - Errata to this FEIS. The "-"s in the last column have been changed to "N/A." It has been modified to show that Level of Service ("LOS") and vehicle capacity ("v/c") data for both the AM and PM peak hours for the 2015 Full Build (with Improvements) year at the following intersections is not applicable: Route 207 at Drury Lane; Route 207 at Hudson

Valley Avenue; Route 207 at Bruenig Road; and International Boulevard at Bruenig Road and Loop Road. No improvements have been identified at these intersections at the "2015 Full Build" scenario. The relevant column is the "2015 Full Build – Without Improvements."

Comment 4: Page 92. Will upgrades to water filtration be required?

Response 4: No. The Riley Road water filtration plant has a permitted capacity of 3 MGD, which has sufficient to supply the Town's water demand for the areas currently serviced by existing water mains. The demand generated by the redevelopment of the STAS lands is figured into that permitted capacity. As noted, a recent water moratorium has been adopted by the Town Board to limit the construction of new water distribution lines, in other areas of the town (i.e., excluding the STAS lands, until the expansion for the treatment plant. Construction will be sequenced or scheduled such that available capacity will not be exceeded or development has been otherwise approved by the Town.

Comment 5: Page 106-107. What is NYIP's compatibility with the discussed community services? It is not clear why there would not be any impact on these services.

Response 5: See Section 3.18 of the DEIS. In order to assess the impacts (or compatibility) of the proposed redevelopment with the community services, the Applicant contacted the providers of those services and requested their input. Those providers responded. See Appendix B of the DEIS. Those providers are in the best position to assess the impacts, if any, within the scope of services they provide.

Comment 6: What will the fiscal impact on the school district be as a result of the corporate housing?

Response 6: As indicated in Section 3.18.5 and 3.19 of the DEIS, the redevelopment plan will have an overall positive fiscal impact on the school district. Additional school tax revenues will greatly exceed any increased demands to the school system which may result from the corporate housing component of the redevelopment plan. As described in greater detail below, annual school tax revenues will approach $3,200,000 while annual increased expenses will be approximately $525,000, resulting in a net annual gain of more than $2,650,000.

Will 1st Columbia guarantee $2.6 mil net to Wash. schools

Based on an average construction cost of $100 per square foot, and assuming that value is the same as cost, the project would have a total value of $200,000,000. The Town equalization rate is 21.66 and the school tax rate is $73.36/1000. Annual tax revenues would therefore equal $3,177,955 (total value x equalization rate/1000 x tax rate).

Likely demand on the school district from the corporate housing has been estimated at 57 children. Based on an analysis completed by Prior and

add a per child fee

Associates, it is projected that only 10.3% of the households within the corporate housing component will generate school children. See Appendix 6 to this FEIS. Assuming that each such household generated two school children, the total is 57 (275 x 0.103 x 2).

Based on 2001 Washingtonville School District numbers, the per student cost is $9,215 ($47,201,306 budget ÷ 5, 122 students). Therefore, the additional costs to the school district from adding 57 children is $525,255 ($9,215 x 57). The net annual benefit is $2,652,700 ($3,177,955 - $525,255).

Taking into account the projects which the Applicant has already constructed and the projected tax revenues from the corporate housing, the short-term fiscal impacts to the school district are also positive. Those projects (using the same formulas used above) will generate $947,000 in annual school taxes (total assumed value x equalization rate/1000 x tax for 595,750 square feet). That amount is $421,745 more ($947,000 - $525,255) than the projected additional cost of students from the corporate housing.

II. RESPONSES TO SUBSTANTIVE PUBLIC COMMENTS ON DRAFT EIS

Substantive comments were extracted from the written comments and the public hearing transcript, and were organized into specific topics so that similar substantive comments are noted and responses were prepared and recorded in an organized fashion. In this part of the FEIS, comments are presented, accompanied by the source of the comment (name of the commentor and location in the public hearing transcript or the date of the written statement), and followed immediately by the response to the comment.

A. INFRASTRUCTURE – WASTEWATER

Comment 1: Commentor requests additional information concerning infiltration/inflow in the STAS sewer system, including: a) prior problems; b) average daily flows from the district, which are available at the new pump station and c) quantities and source of the infiltration/inflow. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003.

Response 1: The DEIS recognizes that the sanitary sewer system has historically experienced infiltration/inflow ("I & I") problems. The impacts have generally been identified in the DEIS (see Appendix H of the DEIS). Based on information provided from records maintained at the new pump station, commonly known as the STAS wastewater pump station, current flows likely attributable to I & I are "385,000 gallons during peak wet weather conditions (600,000 gallons recorded during such time periods less the average daily flows of "215,000 gallons). As also indicated in the DEIS, the I &I problems are the result of the age of the system, construction materials used and construction practices at that time. See Appendix H of the DEIS.

The Applicant will, to the extent necessary, eliminate the I & I by repairing or replacing the existing sanitary sewer facilities (piping and manholes) within the STAS lands. Field investigation and monitoring will be performed, as necessary, to identify portions of the facilities which require repair or replacement. The new (or repaired) facilities will eliminate or minimize any I & I into the existing system from within the STAS lands, reducing the demand on the overall system, especially during peak stormwater flow events. I & I will be substantially, if not completely, eliminated. This represents a significant benefit to the Town through substantial costs saving to the district.

Comment 2: Commentor requests additional information concerning how much old clay and asbestos pipe within the STAS properties being developed has been replaced and what condition it is in. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003.

Response 2: As identified in Section 2.17.2 of the DEIS, more than one-third (approximately 37%) of the sanitary sewer piping, including mains, building service laterals and

forcemains, have been repaired and/or replaced since 1982 (27,481 feet of 73,785 feet). See Response to Comment II (A)(1), which discussed the measures to be implemented to address the I & I, regardless of the quantities or sources.

Comment 3: Commentor suggests that the Sewer Capacity Analysis (DEIS, §4.2) should discuss capacity under peak flow conditions during wet weather. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003.

Response 3: See Response to Comment II(A)(1). Volumes from the STAS lands attributable to I &I will decrease over time. Peak flow conditions during wet weather will approach typical flow conditions.

Comment 4: Commentor proposes that Proposed Sewer Improvements, which are limited to installation of sewers to be relocated to allow for redevelopment, are not enough. I & I problems must be addressed. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003.

Response 4: See Response to Comment II(A)(1).

Comment 5: Commentor suggests expanding the discussion of new sewers and relocation of existing sewers in §5 of the DEIS to address the obligation of the project sponsor to correct infiltration/flow problems throughout the entire STAS collection system. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003.

Response 5: Comment noted. See Response to Comment II(A)(1). No further response is warranted.

Comment 6: Commentor requests discussion of existing average daily flows to the town's existing sewage treatment plant, the reserve capacity of the 5.0 mgd design flow that is allocated to the Majestic Weaving Sewer District and any reserve capacity for the STAS property. Memorandum of Richard McGoey, Town of New Windsor Engineer dated May 22, 2003

Response 6: As indicated in Section 3.17.2, the Caesars Lane treatment facility is permitted for 5 MGD which includes the reserved capacity of 1.25 MGD allocated to the Moodna Basin Development. The actual average daily flow at the Caesars Lane facility is approximately 3.5 MGD. Currently the facility has excess capacity of approximately .25 MGD.

The Applicant has acquired 200,000 GPD from the Moodna Basin Development (MBD). The estimated demand at full build out of the project will be approximately 290,000 GPD. To the extent required at that time, available additional capacity may be obtained from the MBD. Construction will be sequenced or scheduled such that available capacity at that time will not be exceeded or development has been otherwise approved by the Town.

Comment 7: The existing water distribution system may not be capable of providing the necessary fire flow pressures. Verbal comment received from Richard McGoey, Town of New Windsor Engineer, July 2003.

Response 7: The DEIS recognizes that upgrades to the existing water distribution system, much of which was installed during the 1940's, may be needed to increase flows for fire suppression. The impacts have generally been identified in the DEIS. Fire flow pressures are generally affected by the elevation difference from the reservoir and condition of the mains, due to the age of system.

In connection with individual project development, fire flow pressure enhancing devices or system improvements will be installed, as appropriate. Enhancements may be in the form of individual building booster pumps, other improvements to the distribution system, or otherwise, as determined by the applicant. Any improvements to the distribution system may be performed by the water district (Water District #9), in which case all related costs will be assessed against the benefited properties.

B. INFRASTRUCTURE – STORMWATER MANAGEMENT

Comment 1: The stormwater management plans do not specifically address stormwater quality other than stating that best management practices will be utilized. The findings statement should clearly identify that individual drainage analysis and stormwater pollution prevention plans will be submitted and reviewed prior to any approvals being issued. Memorandum of McGoey, Hauser & Edsall dated June 11, 2003.

Response 1: The storm water management plan (SWMP) provided as part of the DEIS addresses stormwater management for the overall redevelopment plan. See Section 3.17.3 and Appendix I of the DEIS. It specifically addresses anticipated maximum runoff based on the full build out for specific storm intervals. It conceptually identifies and establishes those stormwater management features and practices that will achieve required stormwater quality and quantity goals. The plan specifies the BMPs will be employed to address storm water quality as per the NYSDEC SPDES Permit program. As actual sites are developed detailed storm water management plans will be completed.

Comment 2: The detention ponds should be excavated, constructed and stabilized during the initial phase of the project, permitting outlet control devices to be modified as development progresses to meet stormwater management quantity and quality needs. Repeated excavation of ponded areas should be discouraged. Memorandum of McGoey, Hauser & Edsall dated June 11, 2003.

Response 2: The four regional detention facilities have been designed to accommodate full build-out. They will be constructed in stages to accommodate per project flows.

The individual project design will permit, to the extent necessary, future expansion of the detention facilities by the creation of additional "cells". In other words, the detention facilities will be expanded by adding onto the existing facility. In addition to the regional detention facilities local on-site facilities (temporary and/ or permanent) within an individual project may be utilized to accommodate runoff and quality in the absence of future improvements. Any local on-site facilities will be designed to achieve the same quantity and quality control goals as the regional system.

It is anticipated that as initial building sites are developed, temporary facilities may be constructed within or within close proximity of the proposed development. As development progresses with a specific quadrant, temporary detention facilities would be abandoned and the regional facility would be constructed. The regional facility(s) would be constructed to the final depth with the overall volume sized to accommodate current developed sites within the respective drainage basin. The outfall device would also be sized to accommodate full build-out of the up stream development with modifications to provide quality and quantity controls. Once the regional facility has been constructed, it would be continually expanded up-gradient to accommodate additional development as well as modifications to the outlet device to provide adequate storm water quality and quantity controls. There are two options for continual expansion of the regional facility: constructing "cells" as development occurs or expanding the basin with no separation between successive expansions.

Comment 3: The drainage analysis is "generic" and will require individual reviews in connection with detailed site plans for actual individual redevelopment projects. See Memorandum of McGoey, Hauser & Edsall dated June 11, 2003.

Response 3: Development is dynamic. As the redevelopment progresses individual stormwater calculations will be completed and facilities designed to address the quantity and quality requirements of the NYSDEC's Phase II Stormwater Regulations. See Response to Comment II (B)(1).

Comment 4: Adequate detention pond areas have been identified to accommodate stormwater volumes resulting from the overall redevelopment project. Specific outlet control devices must be evaluated in the future. Memorandum of McGoey, Hauser & Edsall dated June 11, 2003.

Response 4: Comment noted. The identified stormwater detention facilities will provide sufficient storage and maintain acceptable water quality. Outlet devices will be designed once the regional facilities have been constructed. Additionally, any temporary detention facilities would also have outlet devices to accommodate the development it was intended for. It is anticipated that any specific outlet device for the regional facilities would be sized considering full build-out of the up-gradient development with modifications made during phased development to

accommodate actual areas utilizing the regional facility(s) for storm water quantity and quality controls.

Comment 5: The discharge from the detention facilities near Route 207 and Breunig Road discharge to a Class A tributary to Washington Lake (which is the City of Newburgh's water supply). Stormwater quality and pollutant loadings from these facilities must be addressed during site development. Memorandum of McGoey, Hauser, & Edsall dated June 11, 2003.

Response 5: As part of the overall development of the NYIP campus, regional storm water management facilities are proposed that will be designed to provide the required storm water quality and quantity controls as required by the NYSDEC Phase II regulations. As per these applicable regulations, if the receiving water body is not a TMDL (Total maximum Daily Load) or Section 303(d) of the Clean Water Act water body, adequate quality and quantity controls are provided and a Storm Water Pollution Prevention Plan (SWPPP) is prepared. A Notice of Intent (NOI) can be submitted for coverage under the State SPDES Permit Program within 5 days of submission of the NOI. Under the State SPDES Permit Program when an NOI is submitted for 5 day coverage detailed pollutant loadings are not required.

C. PROJECT DESIGN AND OPERATIONS

Comment 1: How will toxic substances, such as asbestos, be remediated, if present? SPARC letter dated May 27, 2003.

Response 1: A historical assessment of the potential presence of toxic substances in the STAS lands has been included in the DEIS. See Section 2.2 of the DEIS. See also the NEA Study (attached as Appendix III to this FEIS), and the excerpts from the *Environmental Baseline Study for the Transition of the Stewart Army Subpost* (attached as Appendix I to this FEIS), which contain a preliminary assessment of areas of environmental concern, including storage tanks. Each of these documents were relied upon in the DEIS and are specifically listed as a reference document. To the extent they exist and are encountered, any required remediation will be coordinated with the appropriate environmental protection regulatory authorities.

Given the age of the original buildings, it is expected that they contain asbestos. The NEA Study and *Baseline Study* (attached as Appendices I and III to this FEIS) supports this conclusion. It contains, in Appendix C to the NEA Study, a building-by-building assessment of areas of potential environmental concern, including asbestos. Investigation of actual asbestos in existing buildings and structures will be evaluated in connection with demolition and/or renovation activities. To the extent regulated asbestos is identified, such asbestos will be managed in accordance with applicable state and/or federal requirements. Those requirements establish detailed procedures, including testing and contractor practices, which are intended to avoid and/or minimize the release of asbestos into

the environment and to otherwise protect the public health. Adherence to these requirements will avoid and/or minimize any possible adverse environmental impacts resulting from the presence of any asbestos.

Comment 2: What buildings will be razed? What buildings will be removed? Public Hearing statement of Sandra Kissam, p. 9. See substantively similar comment in SPARC letter dated May 27, 2003.

Response 2: See Figure 2.13 of the DEIS. That figure shows the general location and number of buildings that will be renovated. All other buildings identified thereon will be demolished (or as expressly delineated, have already been demolished). To the extent buildings currently targeted for renovation are demolished, see Response to Comment II (C)(1) above. To the extent buildings currently targeted for demolition are renovated, they will be incorporated into the overall redevelopment.

Comment 3: Commentor requests clarification regarding what conditions may require blasting and where it may be conducted on the site. SPARC letter dated May 27, 2003; see also substantively similar comment of Sandra Kissam at Public Hearing, p. 11.

Response 3: The DEIS states that blasting may be required to excavate bedrock. See Section 3.2.2.1 of the DEIS. Given the depth to bedrock (see Table 2.3 of the DEIS), it is unlikely that bedrock will be encountered.

Commentor has not expressed any specific concerns regarding specific environmental impacts. The DEIS adequately addresses those impacts associated with any blasting which may occur. The DEIS establishes detailed guidelines and mitigation measures to address such impacts. See Section 3.3.2 of the DEIS. Adherence to these guidelines and measures will assure that there will be no significant adverse environmental impacts (such as noise, vibration, damage to nearby buildings and structures or debris) resulting from any blasting which may be required.

As stated at the Public Hearing, blasting will not be used to demolish above-ground buildings or structures.

Comment 4: Will construction commence on Parcel H prior to completion of the EIS process? Public Hearing Statement of Sandra Kissam, p. 5-6.

Response 4: As stated by the Applicant at the public hearing, it is not intended that construction of Parcel H will commence prior to adoption of the findings statement by the Planning Board. Such findings statement will be adopted at the completion of the pending environmental impact statement review process.

D. CULTURAL RESOURCES

Comment 1: While an earlier Cultural Resource Report for the STAS lands concluded that the Sayre-McGregor House was not eligible for inclusion in the National Register of Historic Places, the Office of Parks, Recreation, and Historic Preservation has submitted an evaluation form suggesting that it may meet such eligibility criteria. OPRHP letter dated May 22, 2003.

Response 1: See Appendix B of the DEIS, which contains an OPRHP letter dated February 27, 1998 approving the final cultural resources report in connection with the U.S. Government's divestiture of the STAS lands for economic development purposes. The Sayre-McGregor House was evaluated in detail in a report dated January 1998 entitled *Cultural Resources Input to the Environmental Baseline Study – Stewart Army Subpost* (prepared by The Greeley-Polhemus Group, Inc. and John Milner Associates, Inc.). A copy is attached as Appendix II to this FEIS. The report concluded that the Sayre-McGregor House was not eligible for inclusion on the National Register of Historic Places because it does not possess the characteristics required for NRHP listing.

That report contained a detailed evaluation of the Sayre-McGregor House applying criteria B and C for potential NHRP eligibility. The report included assessment of other similar architecture in the Town of New Windsor and neighboring communities, the extent to which the original structure has been modified, and the quality of the original construction.

Following are excerpts:

> Field examination of the property revealed probable additions to either end of a three bay, side hall plan stone house. A wood-framed block, sheathed in clapboards, was added to the south end. This addition contains a full basement, indicated on plans as a storage room, with a master bedroom above. This single story, stone-faced kitchen block at the north end of the house is another probable addition...
>
> The interior of the house contains a minimal amount of decorative woodwork. Among the decorative woodwork are the west door surround with its sidelights, the staircase with its turned newel post and spindle balusters, and the simple, molded wood mantels that frame the original brick fireplaces. At least a portion of the interior plaster of the house has been removed and replaced with drywall. The second floor has probably been reconfigured from

> an original open attic to accommodate additional living space...
>
> The Sayre-McGregor House was evaluated for potential National Register eligibility under criteria B and C. Under Criterion B, the only house owner who appears to have been locally prominent was the original owner, Captain William Sayre. One of many river boat captains who plied the Hudson during the mid-nineteenth century, he does not appear to have been a person "significant in our past" as required by Criterion B (36 CFR 60.4)...
>
> Under Criterion C, the house was evaluated to determine whether it embodies the "distinctive characteristics of a type, period or method of construction." (36 CFR 60.4). As noted, the Sayre-McGregor House is a vernacular stone house with substantial later additions. Several earlier and better preserved vernacular stone dwellings exist in New Windsor Township and surrounding communities. As an altered and undistinguished example of its building type and method of construction, the Sayre-McGregor House is recommended not eligible for the National Register under Criterion C...

The report concludes that the Sayre-McGregor House is a

> late example of a vernacular stone dwelling, it is one of many stone houses in New Windsor Township. Neither a particularly well-preserved nor particularly finely crafted example of its type, the Sayre-McGregor House appears to lack the necessary significance for National Register eligibility. Since none of the buildings and structures of STAS is recommended eligible, no additional documentation of architectural resources appears warranted...

See Appendix D of the DEIS, p. (iv) and the Final Environmental Assessment – Stewart Army Subpost Divestiture – August, 1999 (p. 51), attached as Appendix III to the FEIS.

Based on this report, which is much more extensive than the generalized discussion in the form attached to the OPRHP letter, the Applicant has

represented that it intends to assure that the original OPRHP determination (February 27, 1998) remains effective.

Based on the current redevelopment plan (Figure 1.0-2), stormwater detention facilities are to be constructed at the site of the Sayre-McGregor House. The Applicant has represented that, to the extent OPRHP continues to maintain that the house is eligible for listing on the NRHP, it will redesign the stormwater detention facilities to avoid impacting the house, thereby avoiding any significant adverse environmental impacts to such house. A redevelopment plan showing the modified stormwater detention facilities is attached as Figure 1.0-2A. Sufficient space and capacity exist to modify the facilities as shown without affecting other elements of the redevelopment plan. Taking into account the modifications, stormwater management facilities continue to be sufficient to accommodate expected stormwater volumes and quality in such facilities. No significant adverse impacts on other matters of environmental concern have been identified.

Comment 2: The possible historical significance of the Sayre-McGregor House should be considered in connection with any redevelopment that may impact it. See OPRHP letter dated May 22, 2003.

Response 2: See Response to Comment II (D)(1).

E. ECONOMIC RESOURCES

Comment 1: The commentor stated there is no discussion of funding sources for the project or of funding needed for the project. SPARC letter dated May 27, 2003.

Response 1: It is not clear how this comment relates to environmental impacts. The Commentor has not identified any environmental impact concerns arising from or relating to funding.

The Applicant intends to fund each individual development project separately. While it is expected that typical commercial project financing will be used, the Applicant will exercise its business judgment to evaluate and consider the most appropriate funding sources available.

To the extent it determines appropriate, the Applicant will seek funding or other project assistance from any available source, including government assistance. The Applicant has sought and received funding assistance from the NYS Department of Economic Development. The Applicant is also contemplating seeking financial assistance for individual redevelopment projects from the Orange County Industrial Development Agency. The Applicant may also seek tax (or PILOT) abatement assistance under applicable law, including the Real Property Tax Law.

None of the above are expected to result in significant adverse environmental impacts.

The DEIS also contains a study of economic impacts resulting from the redevelopment plan. A copy can be found in Appendix J to the DEIS. Attached as Appendix IV to this FEIS are the various "assumptions" made in completing the analysis. While the term "assumptions" is used, the numbers used to project the impacts are within the range of those commonly used to assess economic impacts for the size and type of facility being evaluated. Cites to references are also included.

F. MISCELLANEOUS

Comment 1: Commentor supports redevelopment of the STAS land and believes it is appropriately located and appropriate for this area. Public Hearing statement of Sandra Kissam, p. 5.

Response 1: Comment noted. The Applicant concurs. No further response is warranted. Nevertheless, it should be emphasized that the federal legislation authorized the transfer of these lands to the Town of New Windsor for economic development purposes. See DEIS Section 1 and DEIS Appendix B. The Town of New Windsor thereafter ground leased the STAS lands to the Applicant for the express purpose of construction, use and operation of multiple facilities which promote, accommodate and enhance economic development in and around the Stewart Airport. The redevelopment plan being reconsidered meets these goals and objectives consistent with the Applicant's obligations under the ground lease and existing zoning regulations. See also, Response to Comment I (C)(1).

Comment 2: Commentor raises concern regarding the fact that an outline of the draft DEIS was submitted in September 2002, and a draft of the DEIS was submitted to the Town prior the end of the comment period on the draft Scoping Document. SPARC letter dated May 27, 2003; see also substantively similar comment of Sandra Kissam at Public Hearing, p. 7.

Response 2: The Planning Board thoughtfully and carefully considered substantive comments received and complied with applicable procedures.

The Applicant voluntarily prepared a proposed outline for the draft environmental impact statement and submitted it to the Planning Board. Thereafter, the Planning Board determined to provide the public an opportunity to comment on the scope of the draft EIS. The Planning Board established a draft scope and made it available for public comment. Thereafter, and before the final scope was adopted, the Applicant submitted a proposed draft EIS. The Applicant understood that any such submittal was subject to revision because the Planning Board may revise the draft scope after receiving public comment thereon. The Planning Board considered all comments received on the draft scope, including those received from the Commentor, and incorporated such matters as it determined substantive

and relevant. The Commentor noted that all her comments on the draft scope were incorporated into the final scope, except those reiterated in the DEIS comment letter. This FEIS responds to those. A final scope was adopted by the Planning Board on or about February 26, 2003. The proposed draft EIS was revised and submitted for further consideration. Additional revisions were made to address comments of the Planning Board and its consultants. The Planning Board accepted the DEIS as complete on or about April 14, 2003. See also Response to Comment II (F)(3).

Comment 3: Commentor questioned why the draft Scoping Document was published during December. Public Hearing statement of Sandra Kissam, p. 7.

Response 3: The posting and circulating of the draft scope merely reflect the timing and stage of the DEIS process. The Planning Board formally determined to require preparation of an environmental impact statement on or about November 18, 2002. At that same time, it adopted a draft outline of the scope of the required draft EIS. That draft scope outline was posted in Town Hall through January 2, 2003. In addition, copies were circulated to the involved agencies and it was published twice in an area newspaper. No public comments were received on the draft scope outline, except for those from Commentor (received on the last day). Those comments were considered by the Planning Board and its consultants. A final scope outline was prepared and adopted by the Planning Board on or about February 26, 2003.

Comment 4: Do all the Planning Board members have their own copy of the DEIS? Public Hearing statement of Sandra Kissam, p. 7.

Response 4: As stated at the Public Hearing, yes.

Comment 5: Commentor stated that access to the DEIS was unreasonably restricted and the public's ability to participate severely limited because the DEIS, although available for review at Town Hall, was not permitted to be removed from the premises to review it outside of Town Hall. SPARC letter dated May 27, 2003; see also substantively similar comment of Sandra Kissam at Public Hearing, p. 6.

Response 5: It is unclear whether Commentor intends that this comment is substantive. In any event, the Planning Board has determined that a response, whether justified or not, be made.

The Planning Board has adhered to both the letter and spirit of the SEQRA requirements relating to filing and making available the DEIS. The Planning Board followed its standard practices and procedures relating to filing and making available SEQRA documents. Commentor frequently comes to Town Hall to review documents – she has never been allowed to remove the Town's copies from Town Hall and has never before complained.

The Planning Board is obligated to assure that the documents are available to the public, not just Commentor. It would be inappropriate to permit Commentor to remove the DEIS from Town Hall – it would no longer be available to the public, it would be available only to the Commentor.

In any event, Commentor has acknowledged that she was not denied access to the DEIS and that the DEIS was made available to her at Town Hall upon request. Additionally, Commentor has submitted detailed comments on the DEIS.

Comment 6: Commentor requested that the Planning Board note that the public is not permitted to borrow and remove copies of the DEIS from Town Hall and that there is only one DEIS available at Town Hall for review and that it must be reviewed by the public during normal office hours. Public Hearing statement of Sandra Kissam, p. 6.

Response 6: Comment noted. See also immediately preceding Response. No further response is warranted.

Comment 7: The Commentor observed that there was very little detail offered in terms of the development plan itself. The Commentor further questioned how impacts can be assessed if a precise footprint has not been established. SPARC letter dated May 27, 2003; See also substantively similar comments of Sandra Kissam at Public Hearing, pp. 7, 9.

Response 7: As a general observation with respect to the completeness of the DEIS, the Planning Board, acting as Lead Agency, thoroughly reviewed the DEIS and found it contained sufficient detail to assess the environmental impacts identified and assessed in the DEIS. All areas of the adopted final scope were addressed. See Response to Comment I (1).

Comment 8: It is difficult to ascertain the difference in impacts of the two build options presented in the DEIS. Public Hearing statement of Sandra Kissam, p. 8. See also substantively similar comment in SPARC letter dated May 27, 2003.

Response 8: The DEIS identifies and evaluates reasonable alternatives to the project that are feasible, considering the objectives and capabilities of the project sponsor. The two build alternatives (see Section 6.3 and 6.4 of the DEIS) contain sufficient information for the Planning Board to ascertain the differences between the two build alternatives.

Comment 9: There was no statement concerning the total acreage to be cleared for the STAS redevelopment. SPARC letter dated May 27, 2003.

Response 9: The statement is true. It is not known at this time precisely what areas, or how much, will be cleared. The existing STAS lands are a mix of developed and undeveloped areas. Clearing at any individual site will be undertaken in

connection with individual projects, taking into account actual construction needs, physical site characteristics, zoning requirements, and other relevant factors. See also Response to Comment I (1). Potential impacts associated with clearing are identified and evaluated in Section 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 and 3.8 of the DEIS. The Commentor has not identified any significant adverse environmental impact resulting from clearing that is not addressed in the DEIS.

Comment 10: Commentor inquired if the EIS was a Draft EIS or a Generic EIS. SPARC letter dated May 27, 2003; See also substantively similar comment of Sandra Kissam at Public Hearing, p. 7.

Response 10: The DEIS is not a generic EIS. It is a DEIS, which the Planning Board believes is reasonable and appropriate under the circumstances. The Planning Board sought public input on the scope of the DEIS and has required preparation of an exhaustive array of impacts in it. In addition, the DEIS has been evaluated by the Planning Board's special environmental consultant. In any event the analysis undertaken by the Planning Board in this DEIS and in consideration of future individual site projects and subdivisions is substantively the same as the analysis which would be undertaken in connection with a GEIS. Each individual project will be subject to review and approval by the Planning Board. This approach is consistent with the policies and purposes of SEQRA, and is at least as protective of the environment as a GEIS. See also Response to Comment I (1).

Comment 11: Commentor stated that several of the figures are totally inadequate, with missing information or information so small as to be unreadable. Figure 1.0-1 does not have a legend. Figure 1.0-1 does not identify option 2 or option 3, does not label streets, etc. Figure 2.13 is impossible to read – development nodes could not be determined. See SPARC letter dated May 27, 2003

Response 11: The figures are reasonably understandable for the purposes used and contain sufficient information to identify and evaluate the relevant environmental impact(s) relating to the subject matter of the figure(s). Commentor has only expressed generalized, nonspecific concerns, except for Figures 1.0-1 and 2.13. Figure 1.0-1 merely shows the two lots proposed to be created by the proposed subdivision. It is sufficient to locate the STAS lands, and to orient the reader as to the proposed subdivision. Major streets are identified. A scale is included. There are no options 2 or 3 for this plan. Figure 2.13 merely generally shows the existing STAS lands. It is sufficient to locate existing and/or previous buildings and to identify and locate those structures to be renovated and demolished. Development nodes are shown on Figure 1.0-2, not Figure 2.13. See also Response to Comment I (1).

Comment 12: There is no map showing current structures versus planned structures. Public Hearing statement of Sandra Kissam, p. 9.

Response 12: See Figure 2.13 of the DEIS for the location of existing structures at the STAS lands. See Figure 1.0-2 of the DEIS for a conceptual illustration of the redevelopment plan. Examination of them reasonably permits the reader to do the requested comparison.

Individual building(s) are not shown within the various redevelopment envelopes. Nevertheless, the size, location, and mix of various uses are generally shown. Also shown are the street network and stormwater management facilities. See also Response to Comment I (1).

Comment 13: Two of these projects are new construction, not "redevelopment." SPARC letter dated May 27, 2003.

Response 13: The term "redevelopment" is used generally and refers to the STAS lands as a whole. It has always been intended and represented that new construction would occur on lands within the STAS lands that do not currently have buildings or structures located thereon.

Comment 14: Negative declarations were previously issued for separate projects located within the overall STAS lands. It is questionable whether those projects have been considered in the DEIS. SPARC letter dated May 27, 2003; see also substantively similar comment of Sandra Kissam at Public Hearing, p. 11.

Response 14: The Commentor expressly referred to the following projects: Headquarter Building Renovation, LSI/Lightron, and the Medical Center of New Windsor. The analysis of the overall environmental impacts resulting from these projects – remember, they exist and therefore actual impacts can be identified and evaluated – have been incorporated into the draft EIS. The total size for the STAS redevelopment evaluated for SEQRA purposes – consisting of ±2,515,450 square feet, actually include these projects. For example, the LSI/Lightron building is the ±220,000 square feet of Light Manufacturing shown on Figure 1.0-2 "Redevelopment Plan". That square footage is calculated into the overall redevelopment plan. See Table 1.5 of the DEIS. Likewise, impacts associated with the development have been incorporated.

Comment 15: The above-referenced individual projects were segmented from this larger project. SPARC letter dated May 27, 2003.

Response 15: As discussed in greater detail in Response to Comment II (F)(14), the Planning Board satisfied its hard look obligation in connection with each of the referenced projects and has not impermissibly segmented its consideration of the overall redevelopment plan. While each project has been ultimately folded into and made part of the redevelopment plan, the Planning Board previously concluded that no overall plan necessitating overall review existed. The important consideration for the Planning Board, and the one discussed more fully in Response to Comment II F(14), is that the impacts of the overall redevelopment plan consider the impacts

of these already existing/approved developments. The DEIS does so. In any event, if anyone objected to the scope of the Planning Board's prior reviews, they had an opportunity to challenge them at that time and did not do so.

Comment 16: Commentor questioned how these projects, which reportedly involved significant alteration to the lands involved and required highway construction, were considered to have no significant environmental impacts. SPARC letter dated May 27, 2003.

Response 16: The Planning Board evaluated each of these projects in accordance with SEQRA requirements in the context of site plan approval. Public hearings were held. In each case, the Planning Board analyzed the potential environmental impacts of the proposal before it, and concluded that such project would not result in significant adverse environmental impacts. Each decision was rational and supported by the record. Commentor has raised generalized and unsubstantiated opinions after the fact. In any event, if anyone objected to such reviews, they had an opportunity to challenge them at that time and prior to construction and did not do so.

Comment 17: The DEIS states the project is not dependent on other projects in the area, however, the DEIS uses other studies that have been done for other projects in the area, such as the I-84/Drury Lane project in preparing the DEIS. SPARC letter dated May 27, 2003; See also substantively similar comment of Sandra Kissam at Public Hearing, p. 10.

Response 17: It is proper and appropriate to rely upon previously completed studies, such as those relied upon in preparing the DEIS.

Comment 18: What if the I-84 connector is never built? Public Hearing statement of Sandra Kissam, p. 10.

Response 18: It is likely that the I-84 connector road will be built. As stated at the Public Hearing, if the approved I-84 connector is never built, the traffic impacts associated with the redevelopment plan, and possibly the redevelopment plan itself, will have to be revisited. Traffic volumes and distributions coming to and within NYIP, and therefore impacts, would likely be different than analyzed.

PART III

COPIES OF CORRESPONDENCE RECEIVED DURING COMMENT PERIOD

LIST OF PUBLIC COMMENTS RECEIVED
STAS REDEVELOPMENT DEIS

1. Memorandum from Stuart Turner & Associates – May 23, 2003
2. Memorandum from McGoey, Hauser & Edsall Consulting Engineers, PC – June 11, 2003
3. Memorandum from Richard McGoey, PE (Town of New Windsor Engineer) – May 22, 2003
4. Letter from New York State Office of Parks, Recreation and Historic Preservation – May 22, 2003
5. Letter from SPARC – May 27, 2003

Stuart Turner & Associates

PLANNING AND DEVELOPMENT CONSULTANTS 845-368-1472

Stuart Turner, F.A.I.C.P., P.P.
Principal

MEMORANDUM

To: Town of New Windsor Planning Board

From: Stuart Turner, FAICP, PP
Fred W. Doneit

Date: May 23, 2003

Subject: New York International Plaza SEQRA Review

****

As requested, we have reviewed the DEIS dated December 31, 2002 and revised April 10, 2003. The applicant's response to these comments as well as public comments delivered at the public hearing or in writing will be the basis for the Town's Final Environmental Impact Statement.

The proposed estimated mix and amount of full buildout of the STAS site is uncertain. The purpose of this Draft EIS is to understand the likely impacts of full buildout under several scenarios and to establish thresholds that would trigger various mitigations. Therefore, by agreement between the Town and the applicant the approach is general in that no specific plan for the development of the 263 +/- acre site is included. The applicant proposes to build approximately 2.0 million square feet of mixed-use development. The DEIS is based on 2.5 +/- million square feet to account for uncertainties regarding the amount and mix of development.

The FEIS will become the Town of New Windsor's legal document and the basis for Findings to be relied upon by various involved agencies. As such, the Environmental Impact Statement should accurately reflect the conditions under which the redevelopment of the STAS lands will occur to the greatest extent possible. It is likely that given this level of SEQRA review, supplemental environmental reviews may be required as specific projects are proposed.

We believe that the following issues should be clarified and/or expanded in the FEIS:

Executive Summary

1. It is not clear where the wetlands referenced on page V of the DEIS are located on the STAS lands. According to Figure 2.7.1 there is only one small wetland area on-site. Is it likely that some of these wetlands will be disturbed during redevelopment? Reference to a wetlands map should be included in the text.

2. The map entitled "Traffic Study Area Intersections" following page VII of the DEIS is not clear. The FEIS should clearly show all intersections with appropriate labeling.

3. A note should be added to the text indicating that there is not a difference between the 2.5 million and the 2,515,440 square foot proposals as discussed on pages XI and XII of the DEIS.

2.0 Existing Environmental Setting

4. Where is the Environmental Assessment prepared by NEA as referenced on page 21 of the DEIS? As far as we can tell, it is not located in the main body of the DEIS or its appendices. It should be part of the SEQR record.

5. Wetland delineation is a critical element of the DEIS. However, it is difficult to follow where these wetlands are located. The indicated area of wetland A on Figure 2.8.1-1 following page 32 of the DEIS and the area described for the same wetland on page 3 of Appendix C are not consistent with each other. All wetland maps should be consistent.

   How will the discharge of dredged or fill material into the delineated waters of the United States during the redevelopment of the STAS lands be avoided to the greatest extent possible? Is development anticipated in the area?

6. The narrative in Section 2.16 and the map in the Executive Summary indicate that a total of eleven intersections were included in the study area, however, Table 2.16.2 entitled "Traffic Study Area Intersections" located on page 51 of the DEIS indicates that there are only 10 intersections. Please list the intersections studied.

3.0 Potential Environmental Impacts & Mitigation Measures

7. Page 79. Will this development affect the overall land use pattern in the Town or in the immediate area? What type of impacts might this type of development have on the Town? Describe whether specific land uses including office development, hotel, and conference space is consistent with the surrounding area. The Town's goals should be clearly stated in the text.

8. Page 89. The applicant should clarify what the east/west Connector Road is referenced in the third paragraph.

9. Table 3.16,1-2. What are the Levels of Service (LOS) for Full Build with improvements? This is essential information for findings. The blank sections of the table should be explored.

10. Page 92. Will upgrades to water filtration be required?

11. Page 106-107. What is NYIP's compatibility with the discussed community services? It is not clear why there would not be any impact on these services.

12. What will the fiscal impact on the school district be as a result of the corporate housing?

McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS P.C.

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11 June 2003

MEMORANDUM

TO: MARK EDSALL – P.E., PRINCIPAL

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT - NEW YORK INTERNATIONAL PLAZA DRAINAGE REVIEW

Pursuant to your request the undersigned has reviewed the stormwater management plans for the subject project.) plans and report as identified are generic in nature and identify that stormwater quantity control will be developed utilizing four large detention ponds. Stormwater quality is not specifically addressed in the document other than statements that best management practices will be utilized for control of stormwater quality. The analysis does not identify first flush treatment volumes, nor is a stormwater pollution prevention plan incorporated into the document. These issues are addressed by stating that individual site plans will be prepared and reviewed in order to accomplish stormwater quality and quantity control. The document identifies that the detention basins will be sized as each individual development site plan is prepared and the detention ponds will be expanded as required. We question the construction of detention basins over time and would recommend that the detention ponds be excavated, constructed and stabilized during the initial phase of the project and that only outlet control devices be modified in order to accomplish stormwater quantity and quality benefits in each basin as construction progresses. Continued construction of the stormwater management facilities will defeat the benefits provided by these detention ponds by constant excavation of the ponded areas. If the DEIS is adopted in its current form the finding statement should clearly identify that individual drainage analysis and stormwater pollution prevention plans, in compliance with NYSDEC SPDES permit requirements for construction activities, will be submitted and reviewed prior to any approvals being issued.

As discussed earlier, it is my opinion that the drainage analysis provided is a "generic" drainage analysis for the redevelopment of the large parcel of property and individual reviews must be undertaken once detailed site plans for the actual redevelopment areas are provided.

The identification of the four detention areas on the site will most likely reserve those areas for stormwater management facilities during any planned redevelopment of the site. I believe that an adequate detention pond areas has been identified on the site, however, specific outlet control devices to meet the required quality and quantity controls, must be evaluated in the future. Although not identified in the document it is noted that the discharge from the detention pond facilities in the area of Route 207 and Brunning Road discharge to a Class A stream tributary to the Washington Lake, the City of Newburgh's water supply. Specific attention to stormwater quality and pollutant loadings to this area must be addressed during site development for areas tributary to this discharge point.

As you are aware, I have not reviewed the specific input data for the extensive computer modeling provided in the document. This review can be undertaken or deferred until detailed design of the specific site plans are provided.

Respectfully submitted,

Patrick J. Hines
Associate

Pjh:klh

TOWN OF NEW WINDSOR
ENGINEER'S OFFICE

MEMO

TO: JAMES PETRO, JR. – PLANNING BOARD CHAIRMAN
MARK EDSALL, P.E. – PLANNING BOARD ENGINEER

FROM: RICHARD D. MC GOEY, P.E.,
ENGINEER FOR THE TOWN

DATE: MAY 22, 2003

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT – NEW YORK INTERNATIONAL PLAZA – SANITARY SEWER SYSTEM – APPENDIX H

Gentlemen:

I recently had an opportunity to review the Sanitary Sewer System Report – Appendix H of the Draft Environmental Impact Statement. Based on our review, we would like to offer the following concerns:

1. This report does not identify the problems which have always been experienced with infiltration/inflow in the STAS sewer system. Section 3.1 indicates that no record information was provided by the town concerning average daily flows from the district, however, this information is available from Camo and should be incorporated into the DEIS. The information is in the form of flow meter readings at the newly reconstructed pump station at the former STAS Sewage Treatment Plant, which contains flow-metering equipment.

2. The DEIS does not report the quantities of infiltration/inflow and discuss the source of the infiltration/inflow, much of which is coming from the STAS properties being developed by First Columbia.

3. Section 3.2 notes that a majority of the original sewer pipes have been replaced with PVC or cast iron and notes that a total of 27,480 feet of the 73,800 feet of sewer line has been replaced. The report does not discuss how much of the old clay and asbestos pipe within the

STAS properties being developed as part of New York International Plaza has been replaced and what condition this piping is in.

4. Section 4.2, Sewer System Capacity Analysis, indicates that there is sufficient capacity, but does not discuss the capacity under peak flow conditions during wet weather when infiltration/inflow impacts the sewer system.

5. Under Section 4.3, Proposed Sewer System Improvements, this section notes that improvements will be limited to the installation of sewers to be relocated to allow for the placement of specific buildings and, although there is a brief reference to inflow problems, which they state will be documented during construction, this section does not talk about the infiltration/inflow problems throughout the STAS collection system which must be corrected to reduce peak flows to the town sewer system.

6. Under Section 5, Conclusions, this section also simply talks about the construction of new sewers in areas undeveloped and limited relocation of existing sewers and should talk about the obligation on the part of First Columbia to correct the infiltration/inflow problems throughout the collection system.

7. This section of the report also does not discuss the existing average daily flows to the Town of New Windsor Sewage Treatment Plant on Caesar's Lane, the reserve capacity of the 5.0 mgd design flow, which is allocated to the Majestic Weaving Sewer District and any reserve capacity that is available for the STAS property.

We are hopeful that the above will be given consideration in the review of the Draft Environmental Impact Statement or, otherwise, in the Final Environmental Impact Statement.

As time permits, we will also review the water section of this report and provide comments.

RDM:mlm

cc: George J. Meyers, Supervisor
Philip Crotty, Attorney for the Town

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

May 22, 2003

Mark J. Edsall, P.E.
Town of New Windsor Planning Board
Town Office
555 Union Avenue
New Windsor, NY 12553

Re: **SEQRA**
International Plaza
Newburgh/New Windsor,
Orange County
03PR020687 (97PR0561)

Dear Mr. Edsall:

Our office has received the Draft Environmental Impact Statement that was submitted for the subject project. As the state agency responsible for the coordination of the state's historic preservation program, including the encouragement and assistance of local preservation efforts, the Office of Parks, Recreation and Historic Preservation offers the following comment:

Enclosed, please find a Resource Evaluation that identifies the Sayre-McGregor House as being eligible for inclusion in the National Register of Historic Places. An earlier Cultural Resource Report that was developed for the property had considered this resource to not be eligible. We ask that this correction be entered into the project record and that the significance of the property be considered in any project undertaking. We request that our office review any and all project activity that may impact this historic resource.

Please forward any requested information as soon as it becomes available so that we can complete our review of the project. If you have any questions, please feel free to contact me at your convenience. Ext. 3273.

Sincerely,

Kenneth Markunas
Historic Sites
Restoration Coordinator

Stuart Mesinger, AICP, The Chazen Companies (w/attachment)

Attachment: Resource Evaluation

An Equal Opportunity/Affirmative Action Agency
printed on recycled paper

RESOURCE EVALUATION

DATE: 5/22/03 STAFF: Bill Krattinger

PROPERTY: Sayre-McGregor House USN: 07115.000235

ADDRESS: COUNTY: Orange

PROJECT REF: N/A V/T/C: New Windsor

I. ☐ Property is individually listed on SR/NR:
name of listing:

☐ Property is a contributing component of a SR/NR district:
name of district:

II. ☒ Property meets eligibility criteria.

☐ Property contributes to a district which appears to meet eligibility criteria.

Pre SRB: ☐ Post SRB: ☐ SRB date

Criteria for Inclusion in the National Register:

A. ☐ **Associated** with events that have made a significant contribution to the broad patterns of our history;

B. ☐ **Associated** with the lives of persons significant in our past;

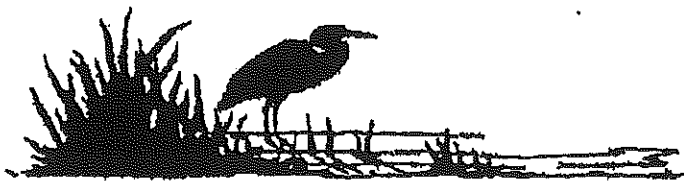
C. ☒ Embodies the distinctive characteristics of a type, period or method of construction; or represents the work of a master; or possess high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction;

D. ☐ Have yielded, or may be likely to yield information important in prehistory or history.

STATEMENT OF SIGNIFICANCE:

The former Sayre-McGregor House satisfies National Register of Historic Places Criterion C as an intact and substantial example of Greek Revival-style domestic architecture in the Town of New Windsor. Likely constructed c. 1840, the three-bay gable-ended house was built with walls formed of random range ashlar, likely quarried nearby, with window and door openings keyed with brick. Windows appear to retain original six-over-six double-hung sash; while the primary entrance is highlighted by a trabeated treatment with rectangular-shaped sidelights and transom set within a molded casing that is fitted with a six-paneled door. The interior appears substantially intact, including what appears to be much of the original floor plan, with period details and finishes including the original stairway-- complete with turned newel post and balusters characteristically Greek Revival in profile-- molded architraves, deep window reveals, molded baseboards, six-paneled doors, and wood mantelpieces. Later modifications have failed to grievously alter the house's salient architectural characteristics, and it remains a relatively sophisticated example of the vernacular Greek Revival tradition and an important example of regional building practices at the mid-point of the nineteenth century.

If you have any questions concerning this Determination of Eligibility, please call Bill Krattinger at (518) 237-8643, ext. 3265.



sparc

The Stewart Park and Reserve Coalition
P.O. Box 90, Blooming Grove NY 10914
phone/fax: 845.564.3018 . email: sparc@frontiernet.net
Visit our website at: http://www.frontiernet.net/~sparc

Mark J. Edsall, P.E., P.P.
Town Hall
555 Union Avenue
New Windsor, N.Y. 12553

May 27, 2003

re: DEIS, New York International Plaza

Dear Mr. Edsall:

I am pleased with the opportunity to offer the following comments regarding the DEIS referenced above.

Regarding the DEIS process, timing of the various steps seems confusing. Scope comments were called for during December, 2002 with a deadline of January 2, 2003. However, the Draft EIS was submitted by Chazen Cos. on December 31, 2002. Further, the record shows that a draft outline for the DEIS was submitted last Sept. 25, 2002. This would seem to render public scope comments irrelevant.

At the public hearing for the DEIS, this commenter requested that a copy of the document be made available for borrowing by the public. That request was refused, necessitating that any member of the public would have to be available to go to the Town Hall on a weekday between during business hours, but no later than 4:30 PM. This commenter is a retired person, but any working individual would not be able to read the document, unless they gave up a working day.

This restriction to access severely limited the ability of the public to participate.

Although it is appropriate that the International Plaza project is the subject of this DEIS, it is questionable that the initial structures placed on the site were not the subject of this review and were indeed segmented and given 'Negative Declaration' determinations.

As described in the DEIS (p. 11), "approximately 298,000 SF of the total redevelopment has been approved and constructed. Those individual projects are known as 'Headquarters Building Renovation' (office), LSI/Lightron (production warehouse), and the Medical Center of New Windsor (office)."

Furthermore, substantial highway accommodations on Rt. 207 were built to service these buildings, and a traffic light was installed. Woodlands were cleared and the lands subjected to cut and fill. It is not clear how all of this significant alteration to the lands involved and the highway construction, were considered to have no environmental impacts.

It should be noted that two of these buildings do not represent 'redevelopment', as they are totally new construction on former open space: LSI/Lightron and Medical Center of New Windsor.

At the public hearing on the Draft EIS held at the New Windsor Planning Board meeting of May 14, 2003 (oddly, the agenda for the meeting omitted the date, saying only "Wednesday, 7:30 PM), this commenter specifically asked the Chairman if the subject DEIS was intended to be a generic EIS or a specific DEIS. The response was that it is not a generic EIS. However, in light of this response, it is extraordinarily general in many of its assumptions. Here is a representative statement, regarding permits needed, "Implementation of the redevelopment plan will be permitted on a site by site or project by project basis, over the expected 15 year build-out."

There was no statement concerning the total acreage that would have to be cleared for the project.

There was no statement as to how many existing structures would be demolished versus those that would be renovated. In this connection, there was no discussion of how toxic materials and substances such as asbestos (present in many of the buildings) would be handled and disposed of.

Several of the figures are totally inadequate, with maps missing identifying information or information so small as to be unreadable: Figure 1.0-1 for example shows no legend, does not make clear which sites are option 2 or option 3, does not label many streets, etc. Figure 2.13, "Guide Map of Stewart" is also impossible to read. It was not possible to determine where the development nodes would be.

Although there is discussion of assumed economic impacts of the project and its two options, there is apparently no discussion of the funding sources for the project, or the funding that will be needed for the project.

Referring back to items in my letter (scope comments) of January 2, 2003, the DEIS did not reveal:

- detailed cost studies and sources of funding
- detailed analyses of planned demolition and associated impacts
- location of potential contaminated sites and plans for mitigation

In addition, it was not clear what conditions would trigger blasting and where on the site it would be done.

Finally, there is considerable discussion about the fact that the current project is not dependent on other projects in the vicinity and can be constructed in any event. However, there is also an effort to use the studies that have been done for other projects, such as the I-84/Drury Lane project, to flesh out the subject DEIS.

Thank you for the opportunity to provide these comments.

Sincerely yours,

Sandra Kissam

PART IV

TRANSCRIPT FROM MAY 14, 2003 PLANNING BOARD JOINT SEQRA/SUBDIVISION PUBLIC HEARING

TOWN OF NEW WINDSOR

PLANNING BOARD

MAY 14, 2003

MEMBERS PRESENT: JAMES PETRO, CHAIRMAN
JIM BRESNAN
RON LANDER
THOMAS KARNAVEZOS
NEIL SCHLESINGER

ALSO PRESENT: MARK EDSALL, P.E.
PLANNING BOARD ENGINEER

MICHAEL BABCOCK
BUILDING INSPECTOR

ANDREW KRIEGER, ESQ.
PLANNING BOARD ATTORNEY

MYRA MASON
PLANNING BOARD SECRETARY

STUART TURNER
PLANNING BOARD CONSULTANT

ALSO PRESENT: ERIC MASON

ABSENT: JERRY ARGENIO

REGULAR MEETING

MR. PETRO: I'd like to call the May 14, 2003 meeting of the New Windsor Planning Board to order. Please stand for the Pledge of Allegiance.

(Whereupon, the Pledge of Allegiance was recited.)

PUBLIC HEARINGS:

FIRST COLUMBIA (N.Y. INTERNATIONAL PLAZA) 02-20

Mr. Chris Batte appeared before the board for this proposal.

MR. PETRO: Okay, Chris, address the board first then we'll turn it over the public.

MR. BETTE: Okay, My name is Chris Batte, I'm with First Columbia. With me is Greg Foucher. We're here tonight for the joint public hearing for the subdivision of Parcel H and for SEQRA. I've got two plans here. The plan that we saw probably a year ago May actually for the subdivision of Parcel H, Parcel H was the large parcel that was originally 226 plus or minus acres, we're proposing to resubdivide that to create two lots, one lot 95 acres, the other lot 32 acres. With that request for subdivision we were asked to review the impacts associated with the overall or the redevelopment of the lands so tonight, we're also here for our SEQRA public hearing. Recently, we have submitted the DEIS that was completed in accordance with the scoping document that was approved by this board early this year. Our DEIS reflects the redevelopment of the former STAR lands. We're proposing to develop it for a state of the art facility for primarily commercial business. We have a multi-family component which is residential for the corporate employee that would also support the park. Our focus is office, we think that the market, the need and the location are ripe for that type of use across from the airport. Our DEIS looked at the potential environmental impacts associated with the redevelopment, we looked at everything from soils, geology, visual, water, traffic, vegetation, wildlife, land use, infrastructure, noise and economics. The redevelopment plan is intended to revitalize this dormant piece of property using the existing roads, the existing infrastructure which includes the water lines, the sewer lines, the storm lines, the electric and gas that are at the site are to be reused but to be located underground to enhance the appeal of the property. The redevelopment plan incorporates the uses as permitted

by the Airport 1 zoning. We have created a flexible plan, we're trying to provide a plan that would be attractive to any perspective tenants, clients that meets current and future market demand, we have tried to best guess what the demand will be in 15 years, so we have tried to generate a plan and look at the impacts associated with the various uses. We're trying to remain flexible, things change, market changes, the analysis was based on a 2 1/2 million square foot redevelopment. Our intention is to build 2 million square feet. We analyzed more square footage to further demonstrate that the impacts associated with a 2 1/2 million square foot redevelopment are able to be accommodated by mitigation or what have you. Our DEIS that you have all seen demonstrates that there are some issues that have to be dealt with and I think we have shown that we can deal with them. I guess at this time we're here to hear any comments that you may have.

MR. PETRO: Well, the board's looked at it at the last meeting on April 9, at that time, we had determined it was ready for public input, so that's why we have a public hearing tonight. And we can have input into the, from the public. We're going to open it up to the public for the hearing and also we have the 27th of May to take any written information that may come forward. On the 22nd day of April, 2003, 7 addressed envelopes containing the notice of public hearing were mailed. At this time, I'd open it up to the public for any comment. Please state your name and address, come forward and be recognize by the Chair. Yes, ma'am?

MS. KASSAM: Good evening, my name is Sandra Kassam and I live in the Town of Newburgh, 1261 Union Avenue. I have questions this evening more so than comments but if you just bear with me. My first question is hi, Chris, first of all, I will make a comment, I think that developing this piece of land, redeveloping this piece of land on the airport is a good idea. It seems like an appropriate thing to do and it's in I think the right place for this kind of, you know, a project. I would just like to make that statement for the record. Now, I don't understand from what you have just presented, Parcel H, is that going to be subdivided, is work going to proceed on Parcel H before the EIS is

finished?

MR. BETTE: No.

MS. KASSAM: Almost sounded to me as though you were proceeding with Parcel H and it was somehow or other not part of the EIS process. Not true?

MR. BETTE: Not true.

MS. KASSAM: Parcel H as a subdivision of its own is part of the EIS process and no work will continue on that until you have a record of decision on the EIS?

MR. BETTE: Correct.

MS. KASSAM: Fine. I had a chance to look at the study today very briefly, I would like for the record I have never been in a position before where there wasn't a copy of an EIS to borrow, take out, and have. Often there have been copies that were actually made available to the public in other situations. I think that you might consider having a copy that can be removed and borrowed, people sign for it, it's done a lot. And then that gives the person who wants to make comments in this case myself more of a chance to really look at the material. What do you think about that, Mr. Petro?

MR. PETRO: Well, we had a copy here for review. I know that's not what you're saying. We felt that was sufficient. You're certainly welcome to come here and review it, take all the time you want and you can certainly make a copy of that.

MS. KASSAM: That's very extensive, I don't think you can do that.

MR. PETRO: You can sit here for eight hours a day the time the Town Hall is open and review it. The reason that this particular copy can't be out, if that's the only copy we have, if someone else shows up to review it, obviously, it wouldn't be here, it would be at your home.

MS. KASSAM: Have all the planning board members been operating with just that one copy?

MR. PETRO: We have our copies and they're being reviewed at our own leisure. The copy is left here for review, I mean, if you want to make that as a formal suggestion, I don't see anything wrong with that.

MS. KASSAM: I'd like that comment to be in the record that it's, the public is not able to borrow any copies of this document from the office. There's only one copy available to the public and the public must come in during office hours and review that document. Now, an interesting thing that I noticed as I was looking over the papers is that you called for scope comments in December, it was during the holiday season with a cutoff of January 2 and I did submit scope comments on January 2 but apparently, the draft environmental impact study was already underway and in fact, as I see in the papers, a draft of the draft was being reviewed in December, if not earlier, and it struck me as very odd that you would be calling for scope comments after the document itself was already being basically worked on. Do you have anything you want to say about that?

MR. PETRO: It can always be added.

MS. KASSAM: What would be added?

MR. PETRO: Your comments.

MS. KASSAM: I realize that but the scope of a document is really so to speak the table of contents.

MR. PETRO: But it wasn't complete, so it certainly can be added and taken under consideration.

MS. KASSAM: Okay. Overall, although I do intend to put in written comments, overall, I felt that there was very little detail offered in terms of the development plan itself. The maps in the document are very difficult to read because, and I have seen maps that showed what the current structures are as opposed to the planned structures that the project wants to see built that you want to put in and the maps that I saw

in the EIS didn't provide any kind of detail and were extremely difficult to read. And so as a result, the two build options with the differences in square footage and the no build option, well, the no build option is always, you know, nothing's going to happen type thing, but the two build options that only addressed the issue of total square footage, it was difficult to tell what the impacts on the site would be from one option versus the other. And so that raised a question in my mind and maybe you can answer it, is this a generic draft environmental impact study or a draft environmental impact study?

MR. PETRO: I think the difficulty and I think Chris touched on it earlier is that this is approximately a 15 year buildout and it's not something that could be pinpointed every action, I'm sure you can understand that, as the market would dictate things may change, it's somewhat market driven, and things do change constantly. So it's very hard to pinpoint exactly every item or every building that's going to be built, square footage, the types and every location, we're trying to get a feel for the entire project of a, like you say, what may be built in the one side of what you're talking about, then you go all the way down to zero. We know it's not going to be zero so he's trying to be somewhere in the middle to encompass the idea of what's going to be there. It's very difficult, I don't know how you would do it. I don't know how I could do it. I think it's very hard for anyone to pinpoint every exact use and location of every building with the exact square footage. I think he's doing a fairly good job. Could it be more precise, possibly, but as you become more precise, then certainly you have to stick to that more strictly if you've written it down. I think he's trying to give himself a little leeway. Keep in mind every building and every parcel that's developed is going to go through planning board process so we're going to review it as these buildings come in and as these lands are developed. So this is just an overview of what he thinks is going to be there. It's very hard to pinpoint every use and building.

MS. KASSAM: But Mr. Petro, I will appreciate what you're saying and I will comment on that, but you

didn't answer my question. Is that a generic DEIS or is this simply a DEIS?

MR. PETRO: Mark?

MR. EDSALL: We had those discussions with the applicant, I think it's best that we let them explain the approach they took to the EIS.

MS. KASSAM: Well, it's not a question of approach, it's a question of what you call it because if you call it a generic--

MR. EDSALL: This is submitted as an environmental impact statement, not a generic.

MS. KASSAM: Well, that's different because under a generic EIS, then you do come back in, you basically you create a footprint, as they say, and then you do come back in and you approve projects within the footprint, that's a generic study. However, if you're doing a DEIS, which is an EIS, is a draft EIS, then a certain amount of specificity should be required. Now I'm not talking about the buildings, per se, but certainly some sense of where buildings will be placed, I mean, you really have, if this is totally market driven, then how can we know what the impacts will be in terms of the environment at the site, in terms of traffic, for example, how can you calculate these things if you don't have at least a footprint? Now I didn't see a footprint on those maps, but I haven't studied the document for very long. I looked at it this afternoon, a locational sense of where you--and by the way, I didn't see anything about which buildings would be raised, you know, what you're going to remove. I did see discussion about blasting but it's probably in there but I didn't see where the blasting would occur. I didn't see anything about what would be taken down because the map didn't show current structures versus planned structures.

MR. PETRO: Chris?

MR. BETTE: I think you'll find in the document that we do demonstrate which buildings that we'll be

renovating, which buildings we won't be renovating.

MS. KASSAM: You mean, what's the word, I'm looking for a word?

MR. BETTE: Raising's a good word. I'm not sure I heard the rest of your question but you'll find all that stuff in the document, it's in there.

MS. KASSAM: It's there?

MR. BETTE: Ah-huh.

MR. EDSALL: It may be beneficial just to touch on the fact that you looked at various mixes or as it may be subalternatives of the square footage that you analyzed, so that even if the balance of the use has changed, they did evaluate that impact on sewer, water, storm water, traffic so they did look at that.

MS. KASSAM: I saw tables on water use and sewer use and so on, I did see that.

MR. EDSALL: So it did look at it, one of your questions was not being able to see into the future as far as analyzing what might occur, the point being is they did look at various mixes of those uses should there be a high demand for one versus another and that was one of the requests that we made.

MS. KASSAM: Now, the DEIS said that it assumes the completion of the highway and the construction of the housing at Stewart Terrace, now I put in a request for documents from Stewart Terrace Housing and one of the things I asked for was the lease between the Town and the housing group, it said they couldn't give it to me because it hasn't yet been finalized.

MR. PETRO: That's correct.

MS. KASSAM: What happens if the highway doesn't get built in its current location?

MR. PETRO: Chris?

MR. BETTE: We're obviously optimistic that it will, you know, I think you'll see us back here in the future, we may be reworking our plans but again, I think we're fairly confident that eventually the 84 connection will get built.

MS. KASSAM: Just one or two more comments. Is it indeed stated in the study where the blasting will occur?

MR. BETTE: The blasting was in reference to bedrock, not for the demolition of structures. If we encountered rock in excavations, then there would be blasting. We don't know, we have not found rock in our subsurface investigation, so we don't anticipate it occurring but it was not for demolition of structures.

MS. KASSAM: So you're saying that you do or do not expect to blast?

MR. BETTE: We do not.

MS. KASSAM: So my final comment at this point is the structures that you have already put up, the medical center, I believe there's another building behind that, what's that building?

MR. BETTE: The LSI Lightron facility.

MS. KASSAM: So it's a light industrial facility?

MR. BETTE: Correct.

MS. KASSAM: Those two facilities were put up without benefit of any EIS at all, you had them neg dec'd so it would seem to me that it would make sense and I would hope that you would want to incorporate the impacts of these two structures into this overall EIS. What are you planning to do about that?

MR. BETTE: Greg, do you want to answer that?

MS. KASSAM: Because the map doesn't show them as connected.

MR. FOUCHER: The impacts of those projects are in the overall evaluation of what the impacts are.

MR. BETTE: They're part of the analyzed 2 1/2 million square feet.

MS. KASSAM: You mean the square footage, but what about the traffic impacts and so on and you have already had highway changes there on 207.

MR. BETTE: Everything associated with those facilities has been incorporated into this study.

MS. KASSAM: All right. Final comments are due on the 27th?

MR. PETRO: Correct, May 27th.

MS. KASSAM: I would highly recommend that you provide another copy that can be removed from the office. I think it would be in your best interest to demonstrate that you're willing to meet the public in that regard. That's all I have to say. Thank you.

MR. PETRO: I'll take your comments under advisement. Anybody else? Motion to close the public hearing.

MR. BRESNAN: So moved.

MR. LANDER: Second it.

MR. PETRO: Motion has been made and seconded that the New Windsor Planning Board close the public hearing for First Columbia. Any further discussion from the board members? If not, roll call.

ROLL CALL

MR. LANDER	AYE
MR. BRESNAN	AYE
MR. KARNAVEZOS	AYE
MR. SCHLESINGER	AYE
MR. PETRO	AYE

MR. PETRO: I reopen it up to the board for any further

comment. I would suggest that we have Miss Kassam's comments to go over, Mark certainly made comments, we have it in the minutes. Chris, take everything under advisement, you want to make any changes, you heard some comments here and you're going to work with Mr. Turner and Mr. Edsall to get it more complete and finalized?

MR. BETTE: Yes.

MR. PETRO: We'll move along once you have done that.

MR. BETTE: Thank you.

PART V

ERRATA

1. Parcel H will be ±126, not ±226 acres. See Public Hearing transcript, p. 4.

2. Figures

   - DEIS Table 2.16.2, "Traffic Study Area Intersections", Figure B, as modified.

   - DEIS Table 3.16.1-2, as modified

Figure B: Traffic Study Area Intersections

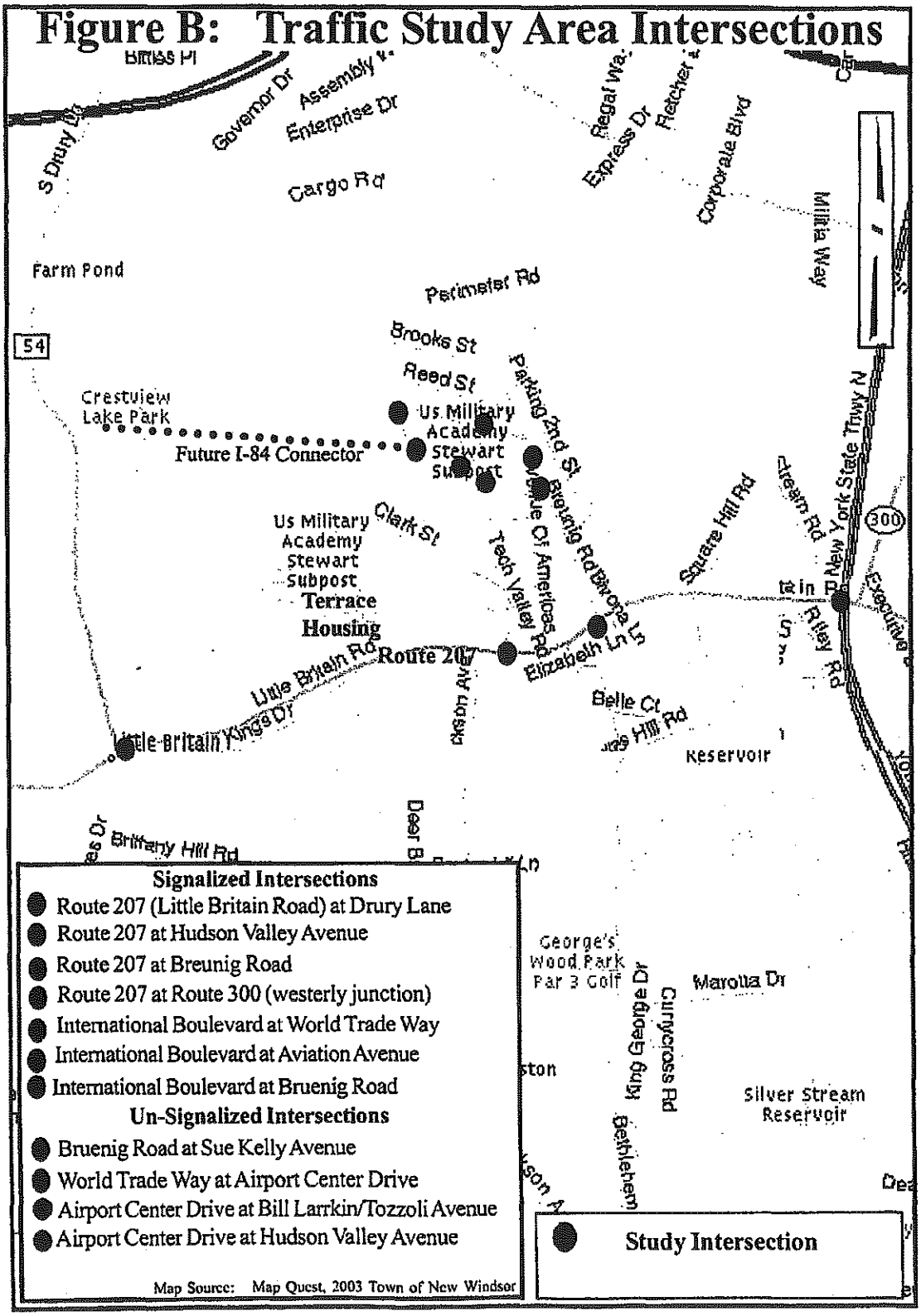


Table 3.16.1-2

TABLE 4 - Level of Service Summary - 2015 Full Build Condition

Intersection	Approach	Lane Group	2015 Full Build Without Improvements				2015 Full Build With Improvements			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	v/c	LOS	v/c	LOS	v/c	LOS	v/c
Route 207 at Drury Lane:	Route 207 Eastbound:	Left	A	0.39	A	0.44	N/A	N/A	N/A	N/A
		Through	A	0.67	A	0.41	N/A	N/A	N/A	N/A
	Route 207 Westbound:	Through/Right	A	0.69	B	0.84	N/A	N/A	N/A	N/A
	Drury Lane Southbound:	Left	C	0.81	B	0.57	N/A	N/A	N/A	N/A
		Right	B	0.25	B	0.36	N/A	N/A	N/A	N/A
	Overall Intersection:		B	N/A	B	N/A	N/A	N/A	N/A	N/A
Route 207 at Hudson Valley Avenue:	Route 207 Eastbound:	Left	A	0.80	A	0.26	N/A	N/A	N/A	N/A
		Through/Right	A	0.79	A	0.57	N/A	N/A	N/A	N/A
	Route 207 Westbound:	Left/Through/Right	B	0.87	B	0.87	N/A	N/A	N/A	N/A
	Hudson Valley Avenue Southbound:	Left/Right	B	0.22	C	0.75	N/A	N/A	N/A	N/A
	Overall Intersection:		B	N/A	B	N/A	N/A	N/A	N/A	N/A
Route 207 at Breunig Road:	Route 207 Eastbound:	Left/Through	B	0.82	B	0.66	N/A	N/A	N/A	N/A
	Route 207 Westbound:	Through	B	0.68	C	0.92	N/A	N/A	N/A	N/A
		Right	A	0.21	A	0.18	N/A	N/A	N/A	N/A
	Breunig Road Southbound:	Left	C	0.32	C	0.77	N/A	N/A	N/A	N/A
		Right	B	0.03	B	0.08	N/A	N/A	N/A	N/A
	Overall Intersection:		B	N/A	C	N/A	N/A	N/A	N/A	N/A
Route 207 at Route 300	Route 207 Eastbound:	Left	F	1.08	F	1.14	D	0.94	E	0.96
		Through	B	0.48	A	0.47	B	0.48	A	0.45
	Route 207 Westbound:	Through	D	0.81	D	0.87	E	0.94	E	0.94
		Right	A	0.72	C	0.87	B	0.55	D	0.92
	Route 300 Southbound:	Left	D	0.93	D	0.93	D	0.94	E	0.93
		Right	B	0.52	D	0.96	B	0.42	C	0.86
	Overall Intersection:		C	N/A	D	N/A	D	N/A	D	N/A
Breunig Road at Sue Kelley Avenue:	Sue Kelley Avenue Eastbound:	Left/Right	A	0.03	B	0.14	N/A	N/A	N/A	N/A
International Boulevard at Connector Road and World Trade Way	Connector Road Eastbound:	Left	A	0.01	A	0.08	A	0.01	A	0.08
		Through	N/A	N/A	N/A	N/A	B	0.82	B	0.50
		Right	N/A	N/A	N/A	N/A	A	0.36	A	0.29
	International Boulevard Westbound:	Through/Right	B	0.94	B	0.71	N/A	N/A	N/A	N/A
		Left	A	0.13	A	0.08	A	0.13	A	0.04
	World Trade Way Northbound:	Through/Right	A	0.20	B	0.94	A	0.23	B	0.94
		Left	N/A	N/A	N/A	N/A	D	0.71	D	0.82
	World Trade Way Southbound:	Left/Through/Right	F	1.48	F	1.53	D	0.73	D	0.80
		Left/Through/Righ	C	0.09	C	0.05	D	0.19	D	0.32
	Overall Intersection:		D	N/A	D	N/A	B	N/A	C	N/A
International Boulevard at Aviation Avenue	International Boulevard Eastbound:	Left	B	0.11	B	0.31	A	0.12	B	0.32
		Through/Right	B	0.73	B	0.58	B	0.80	C	0.80
	International Boulevard Westbound:	Left	A	0.06	B	0.03	A	0.07	B	0.04
		Through/Right	A	0.10	B	0.42	A	0.11	B	0.43
	Aviation Avenue Northbound:	Left	N/A	N/A	N/A	N/A	C	0.31	D	0.93
		Left/Through/Right	D	0.82	F	2.10	C	0.32	D	0.89
	Aviation Avenue Southbound:	Left/Through/Right	C	0.18	B	0.14	D	0.46	D	0.80
	Overall Intersection:		B	N/A	F	N/A	B	N/A	C	N/A
International Boulevard at Breunig Road and Loop Road	International Boulevard Eastbound:	Through	B	0.47	C	0.80	N/A	N/A	N/A	N/A
		Right	B	0.01	B	0.06	N/A	N/A	N/A	N/A
	Breunig Road Northbound:	Left/Right	A	0.11	A	0.19	N/A	N/A	N/A	N/A
	Breunig Road Southbound:	Left/Through	A	0.08	A	0.19	N/A	N/A	N/A	N/A
		Right	A	0.28	C	0.80	N/A	N/A	N/A	N/A
	Overall Intersection:		B	N/A	B	N/A	N/A	N/A	N/A	N/A
World Trade Way at Airport Center Drive:	World Tade Way Southbound:	Left/Right	C	0.53	B	0.42	N/A	N/A	N/A	N/A
Hudson Valley Avenue at Airport Center Drive and Aviation Avenue	Airport Center Drive Eastbound:	Left/Through/Right	N/A	N/A	N/A	N/A	C	0.12	C	0.25
	Airport Center Drive Westbound:	Left/Through/Right	N/A	N/A	N/A	N/A	C	0.18	C	0.11
	Hudson Valley Avenue Northbound:	Left/Through/Right	C	0.47	F	1.82	N/A	N/A	N/A	N/A
	Hudson Valley Avenue Southbound:	Left/Through/Right	E	0.95	F	*	N/A	N/A	N/A	N/A
Airport Center Drive at Bill Larkin Drive and Tozzoli Avenue	Bill Larkin Drive Northbound:	Left/Through/Right	N/A[1]	N/A[1]	N/A[1]	N/A[1]	B	0.03	C	0.26
	Tozzoli Avenue Southbound:	Left/Through/Right	N/A[1]	N/A[1]	N/A[1]	N/A[1]	B	0.36	B	0.37

* = not available

N/A = not applicable

[1] = Cannot be analyzed without improvements. Currently, the Bill Larkin Drive approach is closed and traffic control (yield sign) is provided on Tozzoli Avenue only.

Note:
Vehicle trips are based on the redevelopment plan as shown on Figure 1.0-2 and as outlined in Table 1.5.
Vehicle trips include all currently approved projects within NYIP

FINAL ENVIRONMENTAL IMPACT STATEMENT

NEW YORK INTERNATIONAL PLAZA

VOLUME II

Project Name:	New York International Plaza
Project Location:	Former Stewart Army Subpost, Town of New Windsor, New York
Lead Agency:	Town of New Windsor Planning Board Town Office 555 Union Avenue New Windsor, New York 12553 Contact: Mark J. Edsall, P.E., P.P., Planning Board Engineer Phone: (845) 563-4615
Report Contributors:	The Chazen Companies 110 Glen Street Glens Falls, New York 12801 Contact: Stuart Mesinger, AICP, North County Office Director Phone: (518) 812-0513 Fax: (518) 812-2205
Project Sponsor:	First Columbia International Group, LLC 26 Century Hill Drive Latham, New York 12110 Contact: Christopher Bette, P.E.

Date of Notice of Completion of DEIS:	April 14, 2003
Date of Public Hearing:	May 14, 2003
DEIS Public Comment Deadline:	May 27, 2003
Date of Notice of Completion of FEIS:	July 23, 2003

Any overview of
2 mil sq ft.
- Site plan
- breakdown of
use
anything?

VOLUME II

APPENDIX

I. Excerpt from Environmental Baseline Study for the Transition of the Stewart Army Subpost - June 1997.

II. Cultural Resources Input to the Environmental Baseline Study - January, 1998 and Letter from the New York State Office of Parks, Recreation and Historic Preservation, dated February, 1998.

III. Final Environmental Assessment - Stewart Army Subpost Divestiture - August 1999.

IV. Economic Impact Study - Appendix A

V. Modified Redevelopment Plan showing the modified stormwater detention facilities - Figure 1.0-2A

VI. Prior and Associates Report

DIRECTORATE OF HOUSING AND PUBLIC WORKS
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK

ENVIRONMENTAL BASELINE STUDY

FOR THE

TRANSITION OF THE STEWART ARMY SUBPOST

NEW WINDSOR, NEW YORK

JUNE 1997

DIRECTORATE OF HOUSING AND PUBLIC WORKS
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK

ENVIRONMENTAL BASELINE STUDY
APPROVAL SHEET

TRANSITION OF THE STEWART ARMY SUBPOST
NEW WINDSOR, NEW YORK

JUNE 1997

JOHN MAHONY, Ph.D., P.E.
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EUGENE E. ROOD, P.E.
Chief, Environmental
Management Division

MICHAEL F. COLACICCO
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Engineer

Legal Review:

DAYTON CRAMER
Colonel, JA
Staff Judge Advocate

Approved by:

ROBERT P. KANE
Colonel, FA
Garrison Commander

PREFACE

The approximately 400-acre Stewart Army Subpost is located adjacent to Stewart International Airport in New Windsor, New York. The Stewart Army Subpost has a long history of military use starting with its original development as part of a major Army Air Corps facility in the early days of World War II. The military post has remained in place through the transition of the adjacent air field from an Army Air Corps facility in wartime, to an Air Force facility throughout the cold war, to the present status of the air field as a public facility.

In more recent years, the Subpost has served primarily as a housing area for United States Military Academy personnel working at West Point. The Subpost has been under the stewardship of the United States Military Academy since 1971. Through this period, the Subpost has provided family housing and support services for military personnel assigned to the Military Academy at West Point and other authorized Department of Defense Personnel.

The fifteen-mile distance of the Subpost from the West Point Military Academy campus and the difficulty in traveling across the rugged terrain of the Hudson Highlands that surround the Military Academy has always been a disadvantage to having Military Academy housing in this area. This disadvantage is significantly compounded by winter weather conditions. The ongoing development of new housing and community related facilities on the main post of the Military Academy has created an opportunity to transfer personnel from the housing at the Stewart Army Subpost to housing at the Military Academy.

Because of these changed conditions, the Stewart Army Subpost will eventually no longer be necessary to support operations at the Military Academy. The transition of the Stewart Army Subpost to other uses will be taking place in the near future. Because of the proximity of the Stewart Army Subpost to the Stewart International Airport and major regional highways, it is thought that the Subpost has great potential for either other military uses, public uses, or private uses.

The preparation of this Environmental Baseline Study is a step in the transition process. The study is a compilation and assessment of information provided by the Directorate of Housing and Public Works in order to identify any potential risks associated with the use of the Stewart Army Subpost property.

This Environmental Baseline Study consists of (1) an Introductory Section in which the site, its historical uses, its current uses, its potential proposed uses, and the environmental factors affecting the site are described, (2) an Areas of Concern Section in which uses at the site that may relate to potential risks are identified and reviewed, and (3) a Findings Section in which each of the phases of the Environmental Baseline Study protocol are reviewed. Also included are a Reference Section which lists materials provided by the Directorate of Housing and Public Works for use in this study.

EXECUTIVE SUMMARY

The United States Military Academy is undertaking a real estate transaction for the divestiture of the approximately 400-acre Stewart Army Subpost in New Windsor, New York. The purpose of this Environmental Baseline Study is to determine the Academy's potential liabilities associated with the condition of the Subpost property. The procedure used in this analysis was to delineate past and present land uses at the Subpost in order to identify the property classifications for individual areas or buildings and those areas of potential environmental risk.

There are 114 buildings on the Subpost property, not including the residences at the Stewart Gardens and Stewart Terrace Housing Areas. The Subpost property is surrounded on three sides by the Stewart International Airport. Most military activities that have the potential to cause a liability did not take place on the present Stewart Army Subpost (STAS) site. The character of the area within the current subpost boundaries, as established during the World War II era, was that of a barracks area with a high level of personnel support services. The general use of the installation has remained essentially unchanged since the 1940's.

Once academy military personnel quartered at STAS are transferred to the West Point main campus, the Stewart Army Subpost will no longer play a major role in the support of operations at the Academy. The transition of this facility to other uses can then take place. Any public or private uses of the Subpost would likely be associated with the continued development of the Stewart International Airport. It is unlikely that this property would be used for future residential uses because of the noise environment associated with the airport. It also seems likely that other environmental risk sensitive land uses such as a school, a hospital, or other type of health facility would be precluded.

Specific areas, facilities, and issues at the Stewart Army Subpost that relate to potential environmental and health risks have been identified and reviewed. Based on the review of past and present land uses, there are a limited number of areas that have identifiable potential risks. The Academy is proposing the demolition of approximately 30 non-residential buildings on the Subpost property. The demolition work will include removal of the structure, proper disposal of any potential hazardous material, and disconnection of utility services, such as water, sewer, and electricity. If this work is accomplished in accordance with the contract specifications, there would be no increase, and in some cases a decrease, in environmental risk as a result of the demolition of these buildings. There are a limited number of aviation related areas associated with the Subpost. The risks on the subpost associated with aviation related land uses are isolated and minimal. Storage tanks for petroleum products are located throughout the Subpost property. These tanks have undergone testing as part of ongoing management programs.

Asbestos has been identified in buildings in the form of heating insulation, floor tiles, and ceiling tiles. These materials present little immediate risk, as long as they remain undisturbed. Removal of asbestos material from any buildings scheduled to be demolished will be included in the demolition contract and will follow all applicable federal, state, and local asbestos removal and disposal requirements. Lead-based paint was commonly used prior to its risks being known. A

recent study was conducted to assess the potential for lead medical related conditions in residential areas of the Academy. Polychlorinated biphenols (PCBs) have been used in transformers and other electrical equipment on the subpost. Demolition contracts will follow all federal, state, and local requirements for the removal and disposal of material containing PCB's. In general, the risks associated with these previously commonly used materials is small as long as they remain undisturbed. If building demolition is carried out in conformance with appropriate removal and disposal procedures, the risk associated with these materials would be eliminated.

Based on this review of land uses at the subpost that may have potential risks, a limited number of areas have been identified as areas of potential environmental concern. Many remediation activities are now underway as part of ongoing programs. Other remediation responsibilities that may be necessary will be the responsibility either the United States Military Academy or the purchasing party as part of any property transfer agreement.

There are two major findings relative to the Stewart Army Subpost properties:

1. The majority of the properties at the Stewart Army Subpost currently fall in the category of Type II property, that is property where some potential exists for environmental contamination or disruption from past, present, or proposed activities. The potential for environmental contamination or disruption at most of these properties can be largely eliminated by implementing mitigation measures. Assuming that there will be a continuation of the management and mitigation programs currently being carried out by the Directorate of Housing and Public Works, there is no significant pollution potential at these sites.

2. There are a limited number of areas of potential environmental concern. These are Type II properties at which measures other than ongoing programs are necessary to ensure that there will be no significant pollution potential.

The purpose of the risk assessment phase is to characterize the risks associated with the property when some potential for environmental contamination or disruption has been identified in a preceding phase of the study. For the Type I property and most of the Type II property, which makes up the vast majority of the Stewart Army Subpost site, the survey phase of this study has identified little or no potential for environmental contamination or disruption from past, present, or proposed activities provided ongoing maintenance and mitigation measures continue as planned.

TABLE 1

Typical Land Uses with Contamination Potential at Military Installations

Land Use	Assessment	Comments
Building maintenance areas	Presently on the site	A building complex in the 2400 block at the east central area of the Subpost near Breunig Road.
Dental facility	Presently on the site	Building No. 2126
Dispensary or Pharmacy	None presently on the site	Formerly in Building No. 2128
Grounds maintenance areas	Presently on the site	In the 2200 block at the north end of the support
Landfill	Presently on the site	Used only for the disposal of fill and construction debris - does not have a long history of use.
Metal work shop	Presently on the site	Building No. 2414 - This facility is in operation but underutilized. It basically supports building maintenance needs.
Heating plant	Presently on the site	Building No. 2102 - Provided steam for former hospital complex with low pressure steam system.
Sheet metal shop	Presently on the site	Building No. 2414 - This facility is in operation but underutilized. It basically supports building maintenance needs.
Vehicle maintenance areas	Presently on the site	At several locations within the Subpost-primarily in the 2200 block at the north end of the Subpost.
Wastewater treatment systems	Presently on the site	In continuous operation since the 1940's - In the 2200 block at the north end of the support.
Water supply treatment systems	Presently on the site	In continuous operation since the 1940's - At the hilltop site in the 2600 block in the center of the support.
Gasoline Storage/ Dispensing Facilities	Presently on the site	This activity took place at several locations across the Subpost. Gasoline and diesel fuel were stored in underground storage tanks at Building 2219, 2228, 2308.

TABLE 1 (cont'd) Typical Land Uses with Contamination Potential at Military Installations		
Land Use	**Assessment**	**Comments**
Pesticide and Herbicide Storage Areas	Not presently on the site	Herbicides and pesticides were mixed and stored at Building 2228 until 1979.
Hospital	Not presently on the site	A hospital complex was at one time one of the functions provided at the Subpost. The hospital ceased operation in 1969.
Burn Pits	Never on the site	There is no record or recollection of this activity having taken place on the site.
Disposal area for flares and chaffs	Never on the site	Aviation related activity took place on the east side of Breunig Road beyond the present support boundaries.
Film developing area	Not presently on the site	Small scale film processing formerly took place in the basement of Building 1400.
Hydrant system for fueling	Never on the site	Aviation related activity took place on the east side of Breunig Road beyond the present support boundaries.
Morgue or Cemetery	Never on the site	There is no record or recollection of this activity having taken place on the site.
Ordnance storage area	Not presently on the site	Small scale ordnance storage took place on the site in the past. Buildings where this activity probably took place are Building 2229, the former Rocket Storage building, and Building 2402, the former Small Arms Ammunition Storage building. It appears from an examination of the building plans that Building 2410, the former Ordnance Warehouse, and Building 2400, the former Chemical Bomb Magazine, actually were used for an administrative and accountability function rather than a storage function.
Indoor Target Zeroing Range	Not presently on the site	Building 1914, the former Visitor's Area, had a pistol range in the basement at one time.
Aircraft Maintenance Hangars	Presently on the site	Buildings 108 and 109 are currently in use as aircraft maintenance hangars

TABLE 2

Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
106 (1987)	Storage of aviation related products.	None	None identified.	Past storage of oil or hazardous materials (OHM).	Type II	Removal of existing stored materials in March 1997. No further action once material is disposed of. Reclassification to Type I anticipated.
107 (1970)	Pump Station for Deluge Tank	Pump Station for Deluge Tank	UST Registration No. 107A. 2,000 gallon tank for No. 2 fuel oil installed in 1970. No secondary containment. Tested in December 1994 and found to be tight. Scheduled for closure and removal and replacement with two 275 gallon AST's.	Potential asbestos and lead-based paint (LBP) based on age of building. No visible asbestos containing material (ACM). Paint condition is good. No signs of leakage of deluge tank. OHM stored onsite. Heating plant scheduled for gas conversion.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure.
108 (1963)	Aviation Hangar and Boiler Room	Aviation Hangar and Boiler Room	UST Registration No. 108B. 15,000 gallon tank for No. 2 fuel oil installed in 1964. No secondary containment. Tested in December 1994 and found to be tight. Scheduled for removal and replacement with a 275 gallon AST. 1,000 gallon UST for used oil was removed in 1994.	Potential asbestos and LBP based on age of building. No visible ACM. No LBP on building exterior. OHM stored and used onsite. Primary source of heat is natural gas.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
108 (cont'd)			Used oil AST with secondary containment outside.			
109 (1963)	Aviation Hangar	Aviation Hangar	1,000 gallon used oil UST part of the oil/rotor separator system.	Potential asbestos and LBP based on age of building. No visible ACM. No LBP on building exterior. OHM stored and used onsite. Oil/water separator and underground sump next to tank. Primary source of heat is natural gas.	Type II	Continued testing and maintenance of oil/water separator system.
712 (1942)	Sewage Pump Station	Sewage Pump Station	275 gallon diesel AST with secondary containment.	Potential asbestos and LBP based on age of building. No visible ACM. OHM stored and used onsite.	Type II	Testing to identify extent of asbestos and LBP. Continue scheduled inspection and maintenance program for pump and back-up generator. Testing of soils for possible contaminants due to wastewater backup.
810 (1942)	Aircraft Training	Bowling Center	UST Registration No. 810. 3,000 gallon No. 2 fuel oil tank. No secondary containment. Tested in April 1989 and found to be tight. Closed and removed in 1993.	Potential asbestos and LBP based on age of building. Source of heat is natural gas.	Type I	None.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1004 (1942)	Telephone and Signal Corps Office	New York Telephone Co., AT&T, and Federal Bureau of Investigation (FBI) Offices	1,000 gallon UST for No. 2 fuel oil installed in 1952. Scheduled for closure and removal. Two replacement 275 gallon AST's are installed in basement ready for use.	Potential asbestos and LBP based on age of building. Potential PCB's in fluorescent light ballasts.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure.
1102 (1942)	Gymnasium	Gymnasium	UST Registration No. 1102. 8,000 gallon UST for No. 2 fuel oil installed in 1952. No secondary containment. Tested in April 1989 and found to be tight. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. No visible ACM. Possible LBP under surface coat. No LBP on exterior. Interior in good repair. Incidents of wastewater backup into basement through floor drains. There are now backflow preventers on the floor drains. Building in excellent condition and being converted to natural gas.	Type II	Continue to monitor for incidence of inflow to floor drains from sewer line. Change in classification to Type I is anticipated. Testing and removal of any contaminated soils will be performed as part of the UST closure.
1200 (1942)	Dining hall	Teen Center	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. All painted surfaces in good repair.	Type I	None.
1202 (1942)	Day room for enlisted men	Administration (Vacant)	1,000 gallon UST for No. 2 fuel oil. Out of service.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1202 (cont'd)			Scheduled for closure and removal.			Testing and removal of any contaminated soil will be performed as part of the UST closure. Scheduled for demolition. Redesignate as Type I after demolition complete.
1204 (1942)	Barracks for enlisted men	Storage for WP Credit Union	None identified.	Potential asbestos and LBP based on age of building. LBP identified on exterior covered entryway.	Type I	Testing to identify extent of asbestos and LBP. Scheduled for demolition.
1206 (1942)	Barracks for enlisted men	Barracks	None identified.	Potential asbestos and LBP based on age of building. LBP identified on exterior covered entryway.	Type II	Testing to identify extent of asbestos and LBP. Scheduled for demolition. Redesignate as Type I after demolition complete.
1208 (1942)	Barracks for enlisted men	Barracks	None identified.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Scheduled for demolition. Redesignate as Type I after demolition complete.
1214 (1942)	Fire station	Fire station	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. Lead-based paint in good repair.	Type II	None.
1216 (1942)	Unit supply	Warehouse	None identified.	Potential asbestos and LBP based on age of building. No visible friable ACM. Non-friable asbestos floor tile present.	Type I	None.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1216 (cont'd)				Lead-based paint on exterior and interior in good repair. Potential PCB's in fluorescent light ballasts. Natural gas heat.		
1300 (1942)	Administration	Administration (Vacant)	None identified.	Potential asbestos and LBP based on age of building. Possible asbestos floor tiles. Building in very good repair.	Type II	None.
1400 (1942)	Service club, film developing	Youth services	None identified.	Potential asbestos and LBP based on age of building. Potential use and storage of chemicals associated with film developing. Photo lab used for public relations activities by the U.S. Air Force for small scale film developing operations with quantities below minimum reporting requirements.	Type I	None.
1402 (1942)	Library	Library	None identified.	Potential asbestos and LBP based on age of building. Possible asbestos floor and ceiling tile. Potential PCB's in fluorescent light ballasts. Natural gas heat.	Type I	None.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1404 (1942)	Former post Headquarters	Administration (Vacant)	3,000 gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building. Potential PCB's in fluorescent light ballasts.	Type II	Testing to identify extent of asbestos, LBP, and PCB ballasts. Scheduled for demolition. Redesignate as Type I after demolition complete.
1500 (1942)	Post Exchange	Post Exchange, Credit Union, Drop off for laundry and dry cleaning	1,000 gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	None.
1600 (1942)	Recreation day room	Day room (Vacant)	1,000 gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building. All visible ACM removed.. Potential PCB's in fluorescent light ballasts.	Type I	Testing to identify extent of asbestos, LBP, and PCB ballasts. Proposed for demolition.
1602 (1942)	Barracks for enlisted men	Barracks (Vacant)	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
1604 (1942)	Barracks for enlisted men	Barracks (Vacant)	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
1606 (1942)	Barracks for enlisted men	Barracks (Vacant)	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
1608 (1942)	Barracks for enlisted men	Barracks (Vacant)	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1610 (1942)	Barracks for enlisted men	Barracks (Vacant)	275 AST for No. 2 fuel oil closed and removed.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
1612 (1942)	Unit supply	Storage (Vacant)	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
1700 (1942)	Chapel	Chapel	1,000 gallon UST for No. 2 fuel oil. Scheduled for closure and removal with no replacement.	Potential asbestos and LBP based on age of building. Building scheduled for conversion to gas heat.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I after conversion to gas heat.
1708 (1967)	Headquarters for Army and Air Force Operations	Subpost headquarters, Administration for FBI, Army Readiness Group, USA REC, Satellite Testing Station	UST Registration No. 1700A. 5,000 gallon tank for No. 2 fuel oil installed in 1967, used to store diesel fuel for emergency generator. UST Registration No. 1708B. 4,000 gallon tank for No. 2 fuel oil installed in 1957. No secondary containment for either tank. Both tested in December 1994 and found to be tight.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type II	Any contaminated soil will be removed from the UST excavations prior to backfilling.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1708 (cont'd)			4,000 gallon tank scheduled for removal for conversion to natural gas heat. 5,000 gallon diesel tank to be replaced with a UST that meets all applicable regulations.			
1800 (1942)	Barracks for enlisted men	Barracks for New York Air National Guard (NYANG)	None identified.	Potential asbestos based on age of building. LBP on exterior trim. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.
1802 (1942)	Unit Supply	Storage - MEDAC	None identified.	Potential asbestos based on age of building. LBP on exterior trim. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.
1804 (1942)	Barracks for Women's Air Force (WAF)	Barracks for NYANG	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP.
1806 (1942)	Barracks for enlisted men	Barracks for NYANG	275 gallon AST outside stores No. 2 fuel oil for hot water heater. Scheduled to be removed and replaced with a natural gas hot water heater.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1808 (1942)	Barracks for enlisted men	Barracks for NYANG	275-gallon AST outside stores No. 2 fuel oil for hot water heater. Scheduled to be removed and replaced with a natural gas hot water heater.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP.
1810 (1942)	Administration, USMA Classroom	Administration (Vacant)	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed
1812 (1942)	S.Q./Supply	Storage for FBI	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	None.
1814 (1942)	Administration, child care center, day room	Storage	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	None.
1816 (1942)	Barracks for enlisted men	Administration for FBI	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	None.
1818 (1942)	Barracks for enlisted men	Barracks for NYANG	275 gallon AST for No. 2 fuel oil outside mechanical room. Scheduled to be removed and replaced with a natural gas hot water heater.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1906 (1942)	Mess hall for cadets	NCO club	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. No visible, potentially friable ACM in building. Potential LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1908 (1942)	Barracks for cadets	Administration for USMCR	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. No visible, potentially friable ACM in building. Potential LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1910 (1942)	Barracks for cadets	Barracks for USMCR	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1912 (1942)	Barracks for cadets	Administration for NYANG	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1914 (1942)	Visitor area for cadets, with pistol range in basement, then beauty parlor, FESA detachment, and supply area	Administration for USMCR	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. Potential LBP based on age of building. Sand containing lead shot residual from former pistol range in basement. 208 cubic feet of sand estimated for removal and disposal.	Type II	Testing to identify extent of asbestos and LBP. Removal of sand containing lead shot in basement. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1916 (1942)	Administration for supply and cadet support	Storage for USMCR	1,000 gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP.
1918 (1942)	Barracks	Barracks	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1920 (1942)	Barracks for Cadet	Barracks for USMCR	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1924 (1990)	Barracks for USMCR	Barracks for USMCR	None identified.	No asbestos or LBP based on age of building.	Type I	

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2000 (1943)	Living quarters for married enlisted men quarters	Bachelor officers quarters	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure.
2002 (1943)	Living quarters for married enlisted men quarters	Guest house, living quarters	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent of asbestos and LBP.
2004 (1943)	Living quarters for married enlisted men quarters	Storage for FBI	1,000 gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.
2006 (1942)	Barracks for enlisted men	Barracks	UST Registration No. 2006. 8,000 gallon tank installed in 1957. No secondary containment. Tested in December 1994 and found to be tight. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. No visible ACM. Scheduled for conversion to natural gas.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I after conversion to gas heat.
2008 (1988)	Army Reserve Center	Army Reserve Center	None identified.	No asbestos or LBP based on age of building.	Type I	None
2100 (1942)	Hospital Garage	Ambulance Garage and engineer's storage	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	No visible ACM.	Type I	None

TABLE 2.
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2102 (1942)	Heating plant for Hospital	Central heating plant	UST Registration No. 2102A 10,000 gallon UST installed in 1952. No secondary containment. Tested in April 1989 and found to be tight. Scheduled for closure and removal. 5,000 gallon UST closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure.
2104 (1942)	Day Room	Child care for toddlers	None. Central oil heating is from Bldg. No. 2102 for 2100 Area.	LBP on exterior window surface. No visible ACM.	Type II	Testing to identify extent of LBP.
2106 (1942)	Barracks and Hospital for WAF	Child development center	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible ACM. No visible LBP.	Type I	None
2108 (1942)	Barracks and Hospital for WAF	Child development center	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. LBP on raised covered walkway. No visible ACM. No visible LBP.	Type I	None
2122 (1942)	Barracks for WAF	Scout and Community Activities	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible friable ACM. LBP on exterior and interior window surfaces.	Type I	Testing to identify extent of LBP.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2124 (1942)	Medical ward for WAF COMB	Vet facility and message center	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible friable ACM. LBP on exterior and interior window surfaces.	Type I	Testing to identify extent of LBP.
2126 (1942)	Surgical for WAF	Dental Clinic	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible ACM.	Type I	None
2128 (1942)	Administration for WAF Hospital complex	Army community services	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. LBP on exterior double doors under covered walkway and other exterior surfaces. No visible ACM.	Type I	Testing to identify extent of LBP.
2200 2202 2204 2206 2208 (1945)	Wastewater treatment plant	Wastewater treatment plant buildings	None identified	Potential asbestos and LBP based on age of building. All visible ACM abated.	Type II	Testing to identify extent of LBP. Testing to determine contamination from wastewater treatment processes, specifically heavy metals in sands from trickling filter process. Sludge and discharge tested on a regular basis.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2210 (1995)	Wastewater treatment plant	Wastewater treatment plant	UST Registration No. 2210. 550 gallon UST for storing diesel fuel. No secondary containment. Tank previously tested and found to be tight. Will be replaced with UST or AST that meets all applicable requirements.	Potential asbestos and LBP based on age of building. All visible ACM abated.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure. Testing to identify extent of asbestos and LBP. Testing to determine contamination from wastewater treatment processes. Specifically heavy metals in sands from trickling filter process. Sludge and discharge tested on a regular basis.
2216 (1988)	Salt and sand storage dome.	Salt and sand storage dome.	Two empty abandoned USTs were formerly stored on the site. One 3,000 gallon UST and one 275 gallon UST were removed and disposed of.	No asbestos or LBP based on age of building. Possible discharge to surface water with elevated concentrations of salt. Facility will be relocated due to New York Department of Transportation roadway project.	Type II	
2218 (1961)	Salvage and reclamation	Storage for Engineering	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled to be closed and removed.	Potential asbestos and LBP based on age of building. No visible ACM. Potential contamination due to OHM associated with salvage and reclamation activities.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure. Testing of soil for heavy metals.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2219 (1965)	Defueling facility and repair	Transportation motor pool	UST Registration No. B37. 5,000 gallon UST for gasoline now out of service. UST Registration No. A37. 4,000 gallon UST for diesel fuel installed in 1979 now out of service. Both B37 and A37 are adjacent to building 2228, but belong to building 2219. Both tanks A37 and B37 are Scheduled for closure and removal. UST Registration No. A26. 275 gallon UST installed in 1952 for used oils, but removed in 1979. 550 gallon UST for No. 2 fuel oil installed in 1965. No secondary containment. Two 2,000 gallon USTs for storage of gasoline and diesel fuel closed and removed in 1996.	Potential friable asbestos and LBP based on age of building. Past storage and use of OHM associated with vehicle fueling and maintenance activities. Does not appear to be any LBP on exterior of building. Used for parking of school buses in winter months. No visible contamination Surface areas free of stain Most building components relatively new	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2220 (1945)	Warehouse and vehicle maintenance	Auto craft shop	500 gallon UST for used oil. 55 gallon drum for waste antifreeze. No secondary containment for UST. Scheduled to be replaced with a UST or AST that meets all applicable requirements. UST Registration No. 027. 3,000 gallon UST installed in 1952, closed and removed in 1992. 2,000 gallon AST installed in 1992 with built-in secondary containment.	Potential asbestos and LBP based on age of building. Past storage and use of OHM associated with vehicle storage and maintenance activities.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure. Testing to identify extent of asbestos and LBP. Testing to confirm presence or absence of OHM contamination due to past usage.
2221 (1977)	Vehicle Maintenance	Army maintenance service area No. 4 (AMSA #4)	UST Registration No. 028. 2,500 gallon UST installed in 1987. Secondary containment is provided by the double-walled tank construction, but no leak detection system. Tested in April 1989 and found to be tight.	Potential asbestos and LBP based on age of building. No visible ACM. Past storage and use of OHM associated with vehicle storage and maintenance activities.	Type II	Testing to identify extent of asbestos and LBP. Testing to confirm presence or absence of OHM contamination due to past usage. Continue to perform inspections of oil/water separator operation and maintenance records.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2228 (1942)	Maintenance shop and storage shed	Roads and grounds maintenance contractor building	One 500 gallon AST for diesel fuel and one 500 gallon AST for gasoline both with secondary containment. One 275 gallon AST outside the garage for storing used oil, but removed recently. 550 gallon AST for No. 2 fuel oil inside garage. Two 275 gallon ASTs for No. 2 fuel oil inside the boiler room.	Potential asbestos based on age of building, transite ductwork, transite sheets for fireproofing. Suspect ACM floor tiles. No thermo pipe insulation. LBP identified on overhead doors. Past storage and use of OHM associated with vehicle storage and maintenance activities. Potential PCBs in light fixture ballasts based on age of building. Past storage of pesticides, herbicides, and fertilizers.	Type II	Testing to identify suspect Class I nonfriable asbestos. Sampling for past storage of pesticides, herbicides, and fertilizers will be scheduled.
2229 (1955)	Rocket storage for USAF	Storage for AMSA #4 and USMA Admissions	500 gallon UST closed and removed September 1996.	Asbestos on heating plant riser and lines. Potential LBP based on age of building. Past storage of rocket materials.	Type II	Testing to identify extent of asbestos and LBP. Inspection for possible contamination from rocket materials. Proposed for demolition. Reclassification to Type I anticipated if demolition is completed.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2297 (1945)	Electric primary power plant	Auxiliary power plant	250 gallon UST for diesel, removed in September 1996.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Small generator to be removed and disposed of. Proposed for demolition. Redesignate as Type I if demolition is completed.
2308 (1942)	Gas oil supply	Gas pump house, storage RGS (Vacant)	12,000 gallon UST used for gasoline was closed in place in 1988.	Potential asbestos based on age of building. LBP on exterior trim. Past storage and use of OHM associated with gas pumping activities.	Type II	Testing of soil around closed UST. Additional mitigation is required. Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.
2310 (1942)	Dispatch office for motor pool	Vacant	1,000 gallon UST. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Past storage and use of OHM associated with motor pool activities.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Proposed for demolition. Redesignate as Type I if demolition is completed.
2400 (1942)	Chemical bomb magazine (apparently administrative area)	Storage (Vacant)	None identified.	Potential asbestos and LBP based on age of building. Possible storage and use of chemical bomb materials.	Type II	Testing to identify extent of asbestos and LBP. Testing for contamination from possible past storage of chemical bomb materials. Proposed for demolition. Redesignate as Type I if demolition is completed

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2297 (1945)	Electric primary power plant	Auxiliary power plant	250 gallon UST for diesel, removed in September 1996.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP. Small generator to be removed and disposed of. Proposed for demolition. Redesignate as Type I if demolition is completed.
2308 (1942)	Gas oil supply	Gas pump house, storage RGS (Vacant)	12,000 gallon UST used for gasoline was closed in place in 1988.	Potential asbestos based on age of building. LBP on exterior trim. Past storage and use of OHM associated with gas pumping activities.	Type II	Testing of soil around closed UST. Additional mitigation is required. Testing to identify extent of asbestos and LBP. Proposed for demolition. Redesignate as Type I if demolition is completed.
2310 (1942)	Dispatch office for motor pool	Vacant	1,000 gallon UST. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Past storage and use of OHM associated with motor pool activities.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Proposed for demolition. Redesignate as Type I if demolition is completed.
2400 (1942)	Chemical bomb magazine (apparently administrative area)	Storage (Vacant)	None identified.	Potential asbestos and LBP based on age of building. Possible storage and use of chemical bomb materials.	Type II	Testing to identify extent of asbestos and LBP. Testing for contamination from possible past storage of chemical bomb materials. Proposed for demolition. Redesignate as Type I if demolition is completed.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2410 (1942)	Ordnance warehouse (signal), then Class VI store	Thrift shop	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal. Two 275 gallon replacement ASTs installed.	Potential asbestos and LBP based on age of building. Possible past storage of ordnance materials. Scheduled for natural gas conversion.	Type II	Testing to identify extent of asbestos and LBP. Additional research of records and, if warranted, testing for contamination from ordnance materials. Testing and removal of any contaminated soil will be performed as part of the UST closure.
2412 (1942)	Lumber shed	Lumber shed	None identified.	None identified.	Type I	None
2414 (1942)	Plumbing and sheet metal shop	Maintenance shop	Two 275 gallon ASTs for No. 2 fuel oil. Recently closed and removed and replaced.	Potential asbestos and LBP based on age of building. Potential PCB's in fluorescent light ballasts. 30+ water coolers, possibly containing lead, stored on site. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Determine if there is lead solder used in water coolers for future disposition.
2416 (1942)	Carpenter shop and office	Engineer shop and office	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent of asbestos and LBP.
2418 (1942)	Administration	Administration (Vacant)	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos based on age of building. LBP identified under Latex paint. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignation as Type I if closure is completed.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2420 (1942)	Engineer's office	Engineer's office START	Two 275 gallon ASTs for No 2 fuel oil. No secondary containment.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP.
2422 (1942)	Engineering compound	Engineering compound	None identified.	Potential asbestos and LBP based on age of building. Potential PCB's in fluorescent light ballasts. Natural gas heat.	Type I	Testing to identify extent of asbestos and LBP.
2500 (1942)	Barracks	Administration (Vacant)	1,000 gallon UST for No. 2 fuel oil removed May 1994.	Potential asbestos based on age of building. LBP on exterior trim, under Latex paint.	Type I	Testing to identify extent of asbestos and LBP. Scheduled for demolition.
2506 (1942)	Barracks	Storage (Vacant)	1,000 gallon UST removed April 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
2508 (1942)	Day room recreation	Administration	1,000 gallon UST, for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignation as Type I of closure is completed.
2510 (1942)	Dining room (mess hall)	Administration	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignation as Type I if closure is completed.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2512 (1942)	Administration supply	Administration storage	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignation as Type I if closure is completed.
2514 (1942)	Barracks	Administration (Vacant)	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos, LBP, and PCB ballasts. Proposed for demolition.
2516 (1942)	Barracks	Administration (Vacant)	1,000 gallon UST for No. 2 fuel oil removed May 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos, LBP, and PCB ballasts. Proposed for demolition.
2518 (1942)	Administration	Chapel office	1,000 gallon UST for No. 2 fuel oil installed in 1952. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I if closure is completed.
2520 (1942)	Administration supply	Chapel Annex	1,000 gallon UST for No. 2 fuel oil installed in 1952. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I if closure is completed.
2600 (1942)	Snack bar, tennis courts, Administration	Snack bar, pool, Stewart. Club	No heating system.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2602 (1942)	Officer's club	Stewart Club	1,000 gallon UST for No. 2 fuel oil installed in 1952. No secondary containment. Tested in April 1989 and found to be tight. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. Scheduled for gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I if closure is completed.
2603 (1962)	Bath house	Bath house, Stewart Club pool	No heating system.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP.
2604 (1942)	Water pump station	Water pump station	550 gallon UST for gasoline was closed and removed in September 1996 and was replaced by a 550 gallon AST with secondary containment. 1,000 gallon AST for No. 2 fuel oil with secondary containment installed September 1996.	Potential asbestos and LBP based on age of building.	Type I	None.
2605 (1942)	Bachelor officers quarters	Five Star Inn	UST Registration No. 2605. 8,000 gallon UST for No. 2 fuel oil installed in 1952. No secondary containment. Tested in December 1994 and found to be tight. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building. No visible ACM.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I if closure is complete.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2608 (1942)	Bachelor officers quarters	Storage (Vacant)	1,000 gallon UST removed April 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent of asbestos and LBP. Proposed for demolition.
2609 (1967)	Bachelor officers quarters and Bachelor enlisted quarters	Bachelor officers quarters and Bachelor enlisted quarters	Two 550 gallon USTs and one 275 gallon AST, for No. 2 fuel oil. One 550 gallon UST was closed and removed in September 1996. No secondary containment.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent of asbestos and LBP.
2610 (1942)	Married Quarters	Bachelor enlisted quarters, Uncompanied living space	1,000 gallon UST for No. 2 fuel oil. Scheduled for closure and removal.	Potential asbestos based on age of building. LBP on exterior trim. Scheduled for natural gas heat.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Redesignate as Type I if closure is completed.
2611 (1958)	Garage	Garage	None	LBP on exterior.	Type I	Proposed for demolition.
2612 (1942)	Married officers quarters	Guest house (Vacant)	1,000 gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos based on age of building. LBP on exterior trim.	Type II	Testing to identify extent of asbestos and LBP. Testing and removal of any contaminated soil will be performed as part of the UST closure. Proposed for demolition. Redesignate as Type I if demolition is completed.
2613 (1958)	Garage	Garage	None	LBP on exterior.	Type I.	Proposed for demolition.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2614 (1942)	Married quarters	Married quarters	1,000 gallon UST for No. 2 fuel oil recently closed and removed.	Potential asbestos based on age of building. LBP on exterior trim.	Type I	Testing to identify extent of asbestos and LBP. Scheduled for demolition.
2615 (1958)	Garage	Garage	None	LBP on exterior.	Type I	Proposed for demolition.
2616 (1942)	Family quarters	Family quarters	1,000 gallon UST for No. 2 fuel oil installed in 1952. Recently closed and removed.	Potential asbestos based on age of building. LBP on exterior trim.	Type I	Testing to identify extent of asbestos and LBP. Scheduled for demolition.
2617 (1958)	Garage	Garage	None	LBP on exterior.	Type I	Proposed for demolition.
2618 (1942)	Water treatment plant	Water treatment plant	1,000 gallon UST for No. 2 fuel oil. No secondary containment.	Potential asbestos and LBP based on age of building. No visible friable asbestos. Paint is in good condition.	Type II	Testing of soil around UST.
2619 (1957)	Radio tower station	Storage	550 gallon AST for No. 2 fuel oil closed and removed August 1996.	Potential asbestos and LBP based on age of building. Possible past storage of OHM materials. Clean and empty 55 gallon plastic drums in building. Building has individual septic system of undetermined location.	Type II	Testing to identify extent of asbestos and LBP. Further investigation to identify items stored in the past. Test for possible contamination due to past stored materials.
2620 (1942)	Water treatment plant	Water treatment plant	None identified.	Past and current use as chlorine injection point.	Type II	None

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2623 (1957)	Communications transmitter for USAF	Storage (Vacant)	3,000 gallon UST for No. 2 fuel oil removed. 275 gallon AST for No. 2 fuel oil removed. Remediation at UST excavation is planned pending a contract modification.	Asbestos used on generator parts and thermo pipe systems. Potential LBP based on age of building. Possible past storage of OHM materials. Building has individual septic system at undetermined location.	Type II	Testing to identify extent of asbestos and LBP. Test for contamination due to past storage of OHM materials.
2626 (1957)	Electronics and communications support	Federal Aviation Administration building and radar platform	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. No surface LBP. Oil related to electronic equipment changed regularly and removed by FAA through ongoing contract. Electric space heat.	Type II	Testing to identify extent of asbestos and LBP. Test for contamination due to past storage of OHM materials.
2627 (1987)	Storage for community swimming pool supplies.	Storage for community swimming pool supplies.	None identified.	Chlorine and other chemicals associated with swimming pool maintenance.	Type I	None.
4055 (1961)	Sewage Pump Station #2	Sewage Pump Station #2	None identified.	Potential friable asbestos and LBP based on age of building. Emergency generator powered by natural gas.	Type II	Testing to identify extent of friable asbestos and LBP.

TABLE 2
(cont'd)
Building Uses and Property Type Category

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
4056 (1961)	Sewage Pump Station #3	Sewage Pump Station #3	None identified.	Potential friable asbestos and LBP based on age of building. Emergency generator powered by natural gas.	Type II	Testing to identify extent of friable asbestos and LBP.
4275 (1961)	Sewage Pump Station #1	Sewage Pump Station #1	None identified.	Potential friable asbestos and LBP based on age of building. Emergency generator powered by natural gas.	Type II	Testing to identify extent of friable asbestos and LBP.

All data organized in this table was obtained either from "The Environmental Baseline Survey Inspection Sheets" collected by the Directorate of Housing and Public Works during facility inspections made during 1996 or from discussions with personnel of the Directorate of Housing and Public Works.

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

February 27, 1998

John Sassi, P.E.
Department of the Army
New York District - Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Sassi:

Re: ARMY
Cultural Resources Input
Environmental Baseline Study
Stewart Army Subpost
New Windosr/Newburgh, Orange County
97PR0561

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations.

Based upon this review, the SHPO accepts and approves the final cultural resources report. We concur with the reports recommendations for archeological testing and look forward to receiving the results of that work when it is completed.

When responding, please be sure to refer to the OPRHP project review (PR) number noted above. If you have any questions, please feel free to call me at (518) 237-8643 ext. 255.

Sincerely,

Robert D. Kuhn, Ph.D.
Historic Preservation Coordinator
Field Services Bureau

RDK:cm

An Equal Opportunity/Affirmative Action Agency

CULTURAL RESOURCES INPUT TO THE ENVIRONMENTAL BASELINE STUDY

STEWART ARMY SUBPOST
U.S. MILITARY ACADEMY, WEST POINT
NEW WINDSOR AND NEWBURGH TOWNSHIPS
ORANGE COUNTY, NEW YORK

Prepared by

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Under the Supervision of

Richard Meyer

Richard Meyer, Principal Investigator

January 1998

ABSTRACT

John Milner Associates, Inc. (JMA), in association with The Greeley-Polhemus Group, Inc. (GPG), conducted a historical, architectural, and archeological investigation of the Stewart Army Subpost (STAS), a United States Military Academy (USMA) facility located in New Windsor and Newburgh townships, Orange County, New York. This investigation constitutes the cultural resources input to the Environmental Baseline Study (EBS) for the proposed land transfer of the subpost. It included a detailed examination of the prehistory of the area, the development and settlement of the local community, the initiation of flight training at West Point, the role of Stewart Field during World War II, and the post-war role of Stewart Field, Stewart Air Force Base, and Stewart Army Subpost.

Archeological research was directed toward identifying the location of known prehistoric sites within the STAS property, summarizing recent archeological investigations in the vicinity, and evaluating the archeological sensitivity of different portions of the property. Historic architectural research was directed toward identifying buildings and structures that may be eligible for listing in the National Register of Historic Places. Aside from a brief site visit, no field work was undertaken during the investigation.

The investigation concludes that the STAS property has a low probability for the presence of prehistoric archeological resources. However, the southwest slopes of Prospect Hill should be examined for the presence of prehistoric rock shelters. Seven areas of the STAS property are identified as having historic archeological potential. Prior to proposed land transfer these seven areas should be examined for the presence of archeological resources. Due to a lack of integrity and significance, none of the buildings or structures on the STAS property is recommended potentially eligible for listing in the National Register. Therefore, the proposed land transfer is expected to have no effect on architectural resources.

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1.0 INTRODUCTION

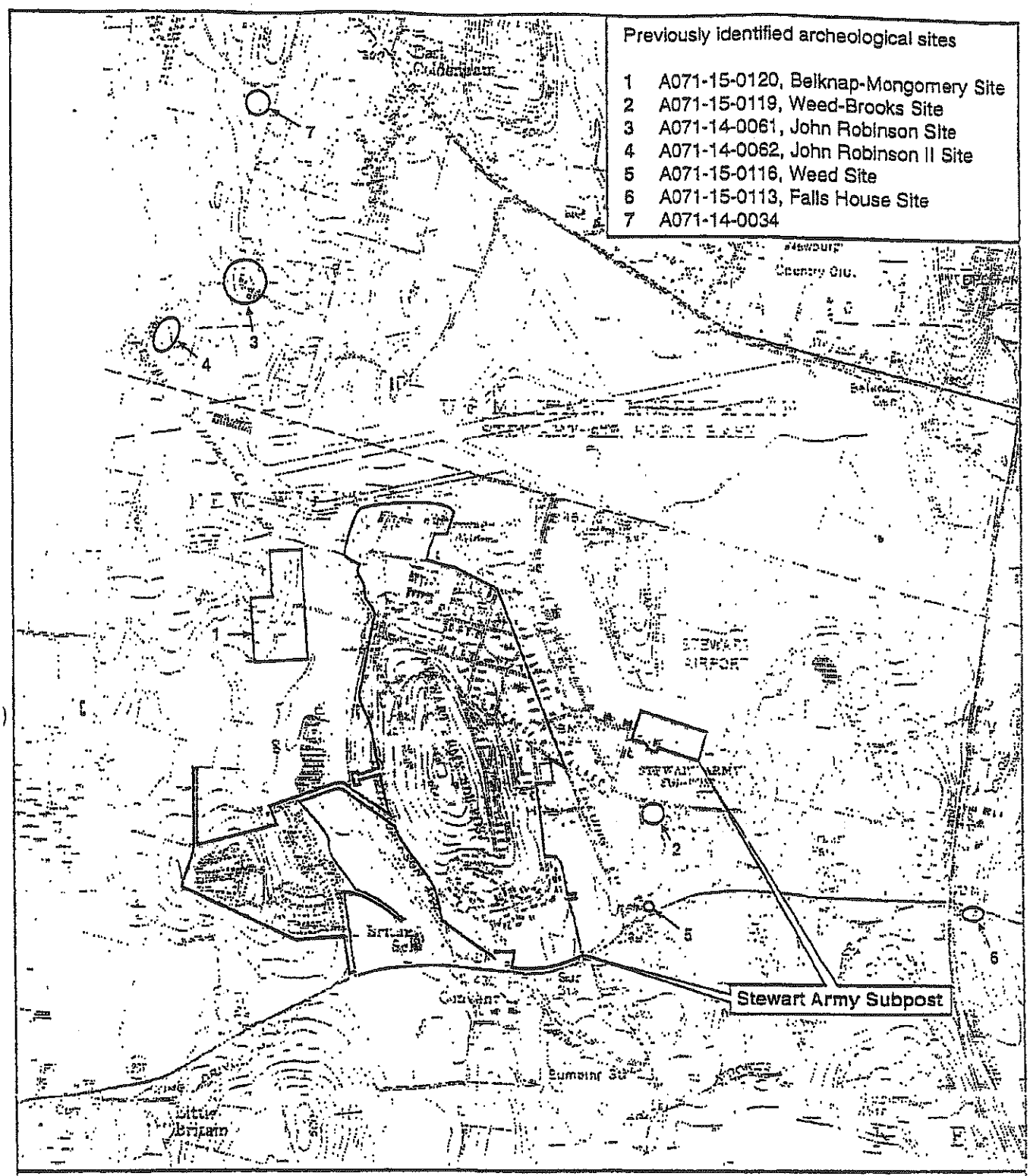
The United States Military Academy, West Point (USMA) is preparing an Environmental Baseline Study (EBS) for the proposed land transfer of the USMA property known as the Stewart Army Subpost (STAS), located adjacent to Stewart International Airport in Orange County, New York (Figures 1 and 2). As an agency of the Federal government, USMA has certain defined responsibilities regarding the identification and protection of cultural resources. The Federal statutes and regulations defining these responsibilities include sections 106 and 110 of the National Historic Preservation Act, as amended; the Advisory Council on Historic Preservation Guidelines for the Protection of Cultural and Historic Properties (36 CFR 800); and Environmental Quality: Environmental Protection and Enhancement (AR200-1).

The USMA is required to prepare an EBS for all real property transfers and other transactions. The purposes of the EBS are to describe the environmental setting, to define the nature, magnitude, and extent of any environmental contamination, and to develop sufficient information to adequately assess the health and ecological risks associated with the proposed transaction. The EBS will provide the USMA with the information needed to determine whether the proposed transaction should proceed. Within the EBS, the USMA must consider a number of factors. Among these are areas of cultural, historical, or archeological significance at the STAS. This cultural resource assessment was based on existing documentary data and, aside from a brief site visit, did not involve field work.

This project was sponsored by the U.S. Army Corps of Engineers, New York District (District). The principal contact person was Nancy Brighton, Archeologist with the District's Environmental Analysis Branch. This report was prepared pursuant to Work Order No. 0026 the District's Contract DACW51-94-D-0035 with the Greeley-Polhemus Group, Inc. (GPG). Under the terms of this work order, JMA, as a subconsultant to GPG, was charged with undertaking a cultural resources investigation of the STAS. Project activities, including a site visit, background research, data analysis, and report preparation, took place between October and December 1996.

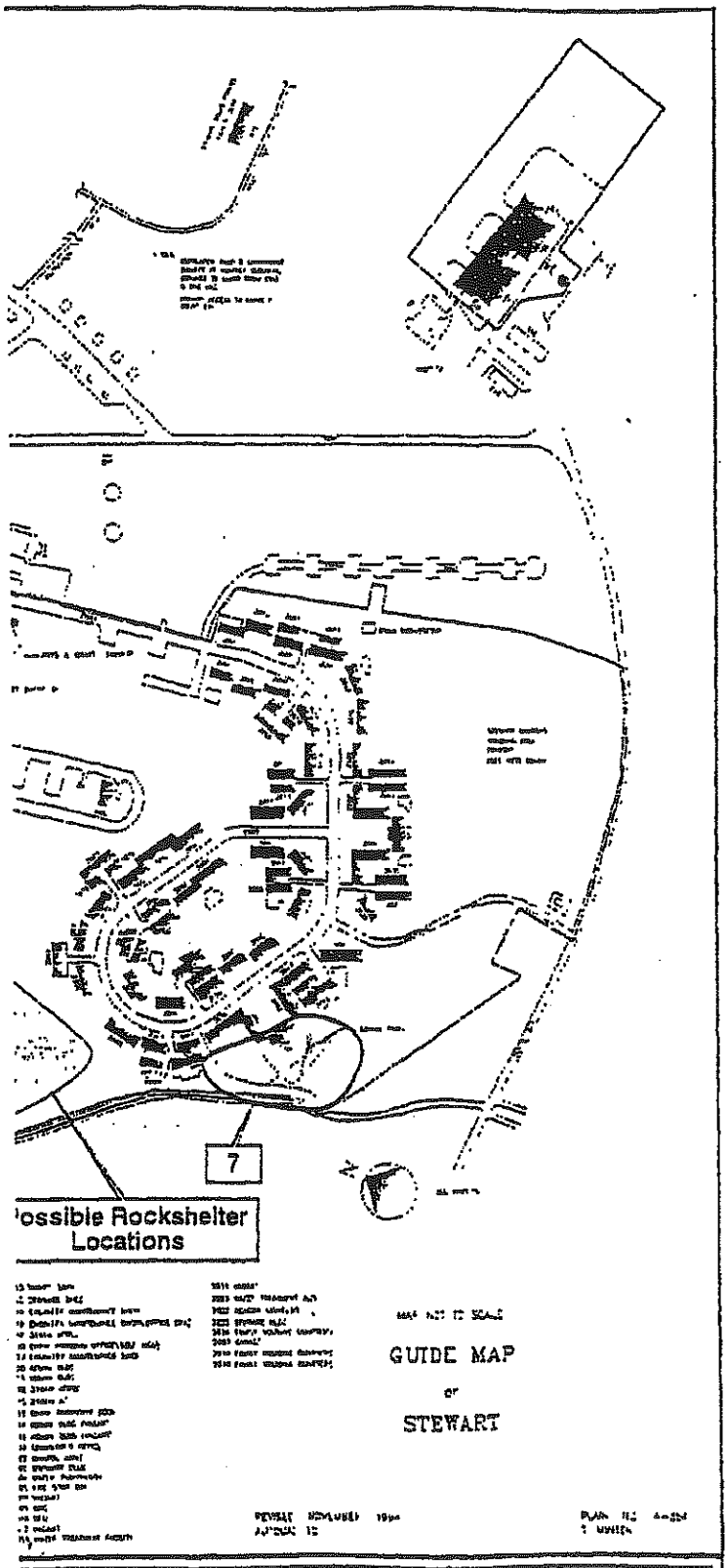
The study involved research leading to the preparation of a regional prehistoric and historic overview, as well as site-specific investigation documenting the history of the property from its initial development as an airport to the present. The purpose of this research was to provide the historic contexts necessary to determine the potential significance of cultural resources located at the post. Because this work order specified that field testing was not to be undertaken, the archeological investigation concentrated on evaluating the potential for prehistoric and historic archeological sites. Specific buildings were not individually surveyed during the architectural investigation. Instead, the complex as a whole was evaluated to determine whether it appears to possess integrity and significance as defined in the National Register Criteria for Evaluation (36 CFR 60.4).

The JMA project team was comprised of Richard Meyer, Architectural Historian and Principal Investigator; Dr. Stuart Fiedel, Archeologist; Wade P. Catts, Archeologist; and Douglas C. McVarish, Research Assistant. Mr. Meyer served as principal point of contact at JMA, coordinated preparation of the report, and edited the text. Dr. Fiedel prepared the prehistoric context and assessed the potential for the presence of prehistoric archeological resources. Mr. Catts prepared the pre-military historic context and assessed the potential for the presence of historic archeological resources. Mr. McVarish prepared the military-era historic context and



Cultural Resources Input to the Environmental Baseline Study
Stewart Army Subpost
U.S. Military Academy, West Point
Orange County, New York

Figure 1. Study area location (detail. *Cornwall, N.Y.* [USGS 1957, photorevised 1981], *Maybrook, N.Y.* [USGS 1957, photorevised 1981], and *Newburgh, N.Y.* [USGS 1957] 7.5-minute quadrangles).



Baseline Study

gical sensitivity (Minnes 1994).

assessed the potential significance of standing buildings and structures. Report figures were prepared by Sarah J. Ruch and Robert M. Schultz, and the text was produced by Margaret Schoettle.

Repositories consulted in the preparation of this report included the Orange County Historian's Office; the Orange County Clerk's Office; the Orange County Genealogical Society Library; the Newburgh Free Public Library; the Moffatt Library (Washingtonville, New York); the New York State Library; the New York State Archives; the New York State Office of Parks, Recreation and Historic Preservation (NYSHPO); the National Archives Cartographic Branch; the Commander's Office, Stewart Army Subpost; the USMA Archives; the USMA Library Special Collections Department; the University of Pennsylvania Library; and the Free Library of Philadelphia (Appendix II). Copies of this report are filed at the USMA, the District, and the NYSHPO.

2.0 DESCRIPTION OF ENVIRONMENTAL SETTING

The USMA is located on the western bank of the Hudson River, approximately 50 miles north of New York City. The reservation covers an area of 16,000 acres. The STAS is situated northwest of the main installation and is located adjacent to the existing Stewart International Airport (Figure 3). The STAS includes administrative buildings, Wherry and Capehart housing, and support structures for the post. The STAS also includes a mid-nineteenth century stone house, which is presently used as the commanding officer's quarters.

The project area is situated in the northeastern corner of Orange County, near the boundary of two physiographic provinces: the New England Uplands to the south and east, and the Hudson Mohawk Lowland to the west and north. Locally, the uplands are expressed as the Ramapo Mountains and Hudson Highlands. During the Pleistocene, the region was covered by ice sheets, which left behind glacial tills. Soils formed in the till include Mardin-Erie, Swartswood, Lordstown, Arnot, and Nassau (Olsson 1981). Small areas of extremely rocky Erie and Swartswood soil are found at the southern edge of the project area, but most of this area consists of Mardin-Erie soil, deposited on hilly terrain that varies from 3 to 15 percent slope.

As the ice retreated in the late Pleistocene, it left in its wake meltwater lakes. One of these ultimately filled, becoming the 55-square-mile "Black Dirt" bog, now drained farmland in the southwestern part of the county. The Great Swamp that constitutes the main drainage in the project vicinity is probably another old proglacial lake. Orange Lake is located north of the project area, and is fed by Beaverdam Creek, the stream that borders the project area to the west. It is noteworthy that at least 41 mastodon fossils have been discovered in the muck deposits of the Black Dirt and other swampy areas in the county, including one viewed by George Washington in 1783 in the present town of Montgomery (Dumont and Ehlers 1973). A small area of Palms muck and very deep Carlisle muck, located about a half-mile west of the project area, is the sort of deposit that may contain such fossils. The patch of poorly drained Madalin silt loam at the southeastern corner of the project area also formed in silt and clay that had accumulated at the bottom of a glacial lake.

The majority of the STAS is currently occupied by military structures and buildings, and a large number of these are vacant. The land occupied by the project area was used during the last two centuries as agricultural farmland and/or pasture for cattle. Along the western side of the subpost is Prospect Hill, a name derived from the *Farm Map of the Town of New Windsor and Part of Cornwall, Orange County, New York* (Hughes 1864). The hill is currently covered with secondary growth woods, with a radar station at the summit. Maps of the project area dating from the early twentieth century to the present show the patterns of land use over the last nine decades. As recently as the turn of the twentieth century the majority of Prospect Hill was denuded of foliage, except along the northeast slope, and along the southern margin close to Little Britain Road.

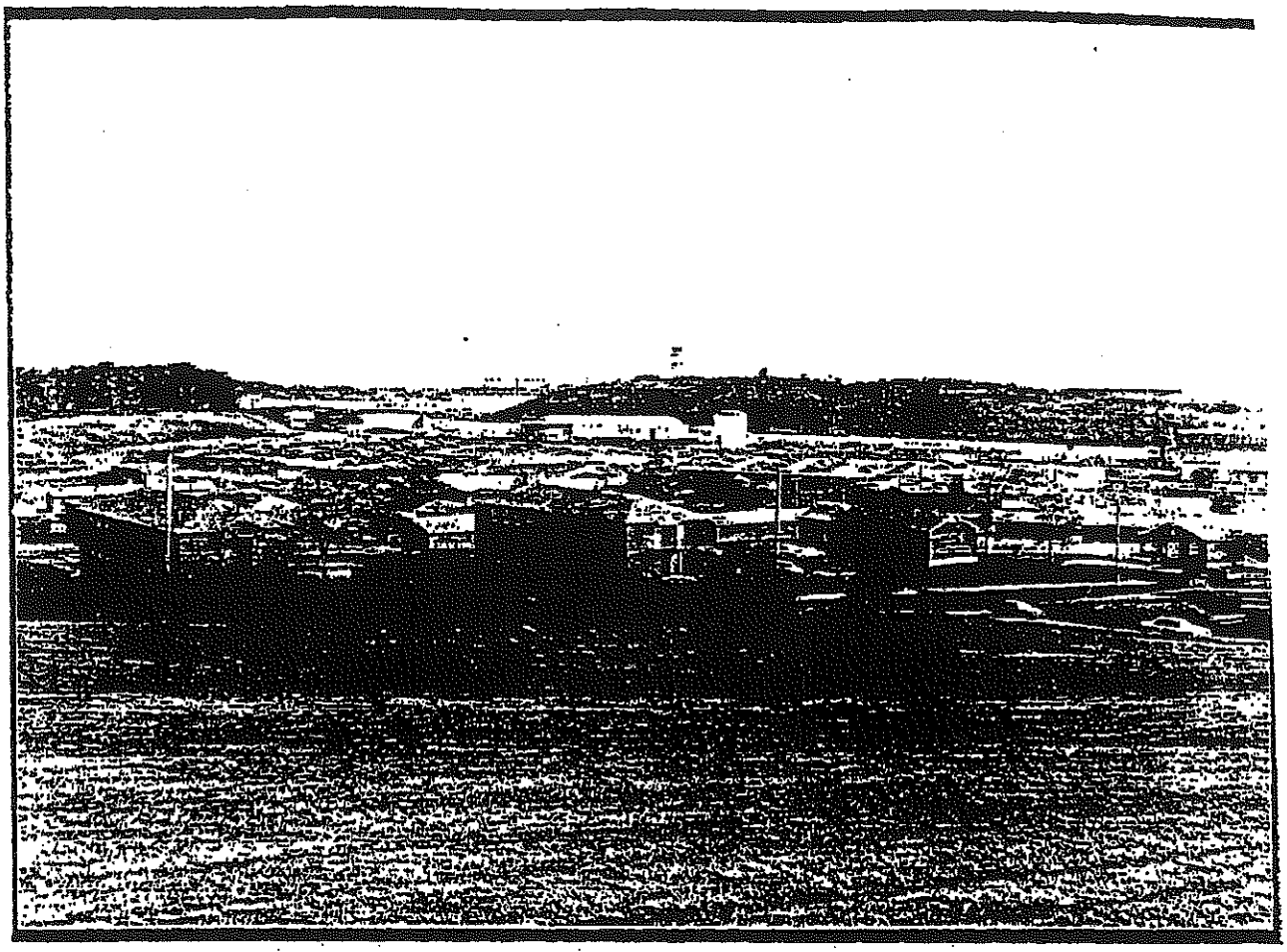


Figure 3. General view of portion of Stewart Army Subpost, Stewart International Airport, and Air National Guard facilities from D Street toward northeast. Stewart Army Subpost in middle ground, Stewart International Airport in central background, and Air National Guard facilities atop ridge at far right. Photograph by Douglas C. McVarish.

3.0 REVIEW OF PREVIOUS INVESTIGATIONS

Cultural resources at the STAS were evaluated in a 1986 investigation. *Cultural Resource Report of the Stewart Properties, Stage 1A Literature Review*, prepared for the New York Department of Transportation, Langan Engineering Associates, Inc., and Dresdner Associates. Inc. by Hartgen Archeological Associates of Troy, New York (Hartgen Archeological Associates 1986). This report recommended that subsurface testing should be undertaken in areas of high archeological sensitivity, including high knolls and rises near swamps for prehistoric occupation and along roadways for historic period occupation. The study also identified one nineteenth century dwelling within the area of the STAS, the Sayre-McGregor House. No evaluation of its significance was made.

Standing structures at the STAS were recorded on Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) Inventory cards in 1981 in a study conducted by HABS for the USMA Directorate of Engineering and Housing. This study concluded that all of the World War II-era buildings possessed either no or limited architecture or historical importance at that time. The only buildings that predated World War II were #2606 and #2624. Building 2606, the stone house historically known as the Sayre-McGregor House. is presently used as officer's housing. Building 2624, a vernacular wood-framed, side-gabled block with a raised foundation and front gallery porch, was located in the vicinity of Stewart Gardens. It has since been demolished. These two buildings were recommended as important examples of the pre-military land use of the area.

Intensive archeological investigations were undertaken in conjunction with the development of the Stewart International Airport, located to the north of the project area. The New York State Historic Preservation Field Services Bureau has on file 18 cultural resources reports relating to the survey, evaluation, and mitigation of prehistoric and historic archeological sites at the airport. No known prehistoric or historic archeological sites are recorded in the New York State site files for the project area.

Table 1 summarizes the nine known prehistoric sites in the vicinity of the project area. Prehistoric sites in the vicinity of the project area have generally dated from the Middle Archaic (circa 3000 B.C.), exemplified by two components at the John Robinson I and II sites, or from the Middle to Late Woodland (circa AD 600 to AD 1300), also exemplified at the John Robinson site.

Table 1: Summary of prehistoric sites in the vicinity of Stewart Army Subpost

Site No.	Site Name	USGS Quadrangle	Topo. Setting	Site Type	Cultural Association	Ref.
A071-14-0043	North End Road	Newburgh	?	?	?	1
A071-14-0061	John Robinson	Newburgh	adjacent to swamp	?	Middle Archaic	2
A071-14-0062	John Robinson II	Newburgh	adjacent to swamp	?	Middle Archaic; M/L Woodland	2
A071-14-0013	Prehistoric Site #1	Newburgh	Orange Lake	?	?	3

AO71-14-0014	Prehistoric Site #2	Newburgh	Orange Lake	?	?	3
AO71-14-0025	Prehistoric Site #3	Newburgh	adjacent to wetland	?	?	3
AO71-15-0017	New Road	Maybrook	?	core prep.	?	4
?	Wilkins Road	Maybrook	?	?	Late Archaic	4
?	Wilkins Road II	Maybrook	?	?	multi-component	4

References:
1. Hartgen Archeological Associates, Inc. 1986
2. Stevens. Lear, and Krievs 1985
3. NY Site files 1977
4. Clark, McCafferty, and Beauregard 1987

The New York State archeological site files record four historic archeological sites in the vicinity of the project area. These are summarized in Table 2. Two of these sites, the John Robinson site (AO71-14-0061) and the Belknap-Montgomery site (AO71-15-0120), were intensively examined in conjunction with development of the Stewart International Airport. The Robinson site is considered to be eligible for the National Register of Historic Places, and was occupied from the eighteenth through early twentieth centuries (Curtin 1987). The Belknap-Montgomery site may be of a similar time frame (Curtin and Sugihara 1987). The Weed-Brooks site (AO71-15-0119) was located on the Anheuser-Busch property and dated from the nineteenth century (Beauregard and Turcy 1987). All of the sites located on the Stewart Airport property were found to be farmsteads.

Table 2: Summary of historic archeological sites in the vicinity of the Stewart Army Subpost

Site Number	Site Name	Period of Occupation	Reference
AO71-14-0061	John Robinson	circa 1771-1912	Curtin 1987
AO71-15-0120	Belknap-Montgomery	late 18th-19th century	Curtin and Sugihara 1987
AO71-15-0119	Weed-Brooks	18th-19th century	Beauregard and Turcy 1987
AO71-15-0113	Falls House	18th century-1914	Eisenberg et al. 1982

In summarizing the historical economic development of the Stewart Airport property, Curtin and Sugihara (1987:8) noted several trends that characterize the area: 1) the long-term use of the area as farmland with associated agricultural industries, such as blacksmith shops, particularly during the eighteenth and nineteenth centuries; 2) the late nineteenth century growth of a few businesses, such as ice houses, creameries, hotels, and taverns on the transportation routes; and 3) the construction of the Colden Canal (circa 1750), "which should be considered a unique event in the local context." To these should be added the construction of the Catskill Aqueduct, completed in 1917, along the western margins of the project area, and the continued adaptation and use of the project area in agricultural production.

4.0 HISTORY OF THE PROJECT AREA

4.1 The Hudson Highlands Prior to European Settlement

The first inhabitants of present Orange County were Paleo-Indians, who arrived ca. 9000 BC (uncalibrated radiocarbon years, equivalent to ca. 11,000 BC in calibrated calendrical years). The diagnostic artifacts of these terminal Pleistocene hunters were fluted spearpoints made of high-quality cryptocrystalline stone. A single Clovis fluted point and three end-scrapers of Paleo-Indian style are reported from the plow zone of the Nicoll Farm site, located north of Cornwall in New Windsor Township (Funk 1976:179). At Dutchess Quarry Cave, near the village of Florida, a Cumberland-style fluted point, with flutes extending along nearly the entire length of the point, was found in apparent association with fragments of caribou bone. A radiocarbon date of 10,580± 370 BC was obtained from the bones (Funk et al. 1970). For some time, this date was seen as probably applicable to the Paleo-Indian point, although it was markedly earlier than other dates for fluted point assemblages. In fact, the Cumberland style appears to be rather late in the stylistic sequence that begins with Clovis points at 9000 bc. It has now generally been concluded that the early date is probably accurate, but is associated only with the extirpated Pleistocene fauna, *not* with the subsequent human occupation of the cave (Funk, personal communication). Three additional fluted point fragments were found in disturbed contexts in Dutchess Quarry Cave 8 (Kopper et al. 1980), 12 meters north of Dutchess Quarry 1. Small corner-notched points recovered from this cave are probably examples of the Early Archaic Amos type, dating from ca. 8000-7000 BC. Another Paleo-Indian site in the region is Twin Fields, located on a sandy bluff above the Dwaar Kill, near Wallkill in Ulster County. Two fragments of fluted points and numerous unifacial tools were recognized in a mixed assemblage from near-surface soils (Eisenberg 1978:79). The abundance of scrapers here suggests a specialized wood-working camp.

The arrival of Paleo-Indians coincided with the sudden onset of the Younger Dryas, a 1,300-year cold period in which glacial conditions returned for the last time before Holocene warming began ca. 8000 BC. Vegetation responded to the warming trend. Initially, treeless tundra prevailed in the wake of the ice sheets ca. 12,000 NC BC. Spruce trees colonized this area around 11,000-10,500 bc, accompanied by pine and fir in some areas, such as the lower Wallkill Valley (Connally and Sirkin 1970). Oak was also present, in small numbers, by 10,500 BC. Spruce increased to a maximum ca. 8500-8000 BC, but pine seems to have become predominant by ca. 7000 BC, and oak and other hardwood species were becoming more numerous. By 6500 BC, hemlock and oak dominated the forest.

The mastodon and other Pleistocene megafauna probably had disappeared by 8000 BC. It is debatable whether extinction is attributable mainly to dramatic changes in climate and environment or to human predation. Fluted points are demonstrably well-designed to penetrate elephant hide; however, they have never been found in unambiguous archeological association with megafaunal remains in the northeastern U.S. The closest association has been observed recently at the Hiscock site in western New York, where bones of mastodon and other extinct fauna occur in close proximity to several fluted points and other Paleo-Indian tools. The question of human-mastodon association is particularly important for Orange County, as this county contains the greatest number of mastodon fossils known in the entire state (Ritchie 1965:11). Ritchie (1965:9) speculated that evidence of Paleo-Indian predation on megafauna might be found in the Wallkill River valley or the Black Dirt, which is drained by the Wallkill. Dutchess Quarry Cave, it may be noted, looks out over the Black Dirt, which had already become a bog by the time of Paleo-Indian

occupation. Radiocarbon dates for Orange County mastodons tend to place them late enough to have encountered human predators, e.g., 7910±225 BC for the Sugar Loaf specimen, and 8050±160 BC for the Arborio mastodon, found in a bog south of Montgomery (Dumont and Ehlers 1973). These collagen-based dates may not be accurate, however.

The appearance of new notched projectile point types around 8000 BC is a convenient marker for the initiation of a new cultural period known as the Early Archaic. This change is arguably concomitant with a shift in hunting from extinct megafauna to surviving Holocene species. However, the similarity of Paleo-Indian and Early Archaic settlement patterns has been cited as evidence that the basic adaptation, restricted wandering between seasonally available resources in patchy mosaic environments, did not change very much (Eisenberg 1978:138-9; Custer 1990). Points of the Kirk series, dated ca. 7500-6500 BC in the South, are very rare from New Jersey northward. At the Rockelein site on the upper Delaware, near the Orange County border, a Kirk-like assemblage has been radiocarbon-dated to 5570± 120 BC (Dumont and Dumont 1979). This date, while early, is anomalously late in comparison to southern dates for this type.

The same site also yielded points of the LeCroy bifurcate, Eva, and Stanly/Neville types, indicating subsequent occupations between 6500 and 5000 BC. In the Middle Atlantic region, bifurcate points are currently interpreted as diagnostic of the inception of a new period, the Middle Archaic (6500-3500 BC). This period roughly corresponds to the Hypsithermal climatic period, a warm, dry period when temperatures climbed to their highest postglacial levels and the oak-chestnut-deer-turkey biome became established in the Northeast. In Tennessee and Illinois, Middle Archaic sites contain evidence of nut-harvesting as well as hunting and fishing. At the Rockelein site, the Neville-Stanly component included pitted stones, anvils, milling stones, and netsinkers. On the middle Delaware, nut-harvesting is attested at the Sandts Eddy site, where burnt maze, nut shells were radiocarbon-dated to ca. 5380±60 BC (Bergman et al. 1994). A substantial Middle Archaic occupation is attested in the Mohonk Rockshelter, located on a ridge west of the Wallkill Valley in Ulster County. A total of 73 Neville points were found at this site, as well as four very similar points ascribed to the Kanawha bifurcate type (Eisenberg 1991). Unfortunately, the rockshelter deposits were entirely mixed, so no stratigraphic associations were observed.

The latter part of the Middle Archaic, ca. 5000-3500 BC, is not well-attested in this region. Diagnostic points of this age may include Stark, Poplar Island, and Otter Creek types; Hunterbrook triangles, originally described in Westchester County and recently discovered in deep strata at Area D of the Abbott Farm site near Trenton, may also belong in this period (Stewart 1990).

During the Late Archaic, ca. 3500-1700 BC, the regional population seems to have increased dramatically. Late Archaic people hunted deer and other animals of the deciduous forest (now dominated by oak and hickory, hemlock having suffered a sharp decline ca. 4000 BC), collected nuts and seeds, and took fish and shellfish from the rivers. The side-notched Otter Creek type, which dates from the early part of the Late Archaic, is very sparsely distributed in southeastern New York. Corner-notched Vosburg and related Beekman Triangle and Brewerton points (ca. 3000-2000 BC) are somewhat more common, but the predominant form in Late Archaic assemblages is the narrow stemmed point. This type, variously named as "Taconic" (Brennan 1968) or "Sylvan Stemmed" (Funk 1976), dates from ca. 2500-1500 BC. A side-notched type (Sylvan Side-Notched or Twombly Side-Notched) apparently co-occurred with these stemmed points. Thirty-nine narrow stemmed points, 27 Sylvan Side-Notched points, and 16 Vosburg points were found at the Nicoll Farm in New Windsor Township. The Greycourt or Claudius Smith

Rockshelter in Chester Township yielded nine stemmed points, two Vosburg points, and one Brewerton Corner-Notched point (Funk 1976:178). At the John Robinson I and II sites, located on high ground overlooking two swamps, north of the project area near Route 17K, a few points of the Otter Creek, Vosburg, and Beekman Triangle types were identified (Stevens et al. 1985). Data recovery at the John Robinson I yielded little prehistoric material, but excavations at the John Robinson II site produced additional evidence of an isolated, upland Vosburg-phase campsite (Curtin 1987).

Broadspear-makers from the Southeast seem to have spread northward along the coastal plain, ca. 2000-1500 BC. The earliest broad-bladed form in southern New York is Snook Kill, probably derived from the Koens-Crispin points of New Jersey. The Snook Kill form was ancestral to later Susquehanna and Perkiomen broad-bladed points. In the Delaware Valley, there is good evidence of the stylistic evolution of Orient Fishtail points from broadspears, by way of the intermediate Dry Brook type. Orient Fishtail points (ca. 1200-700 BC) were found in elaborate mortuary deposits at the northeastern tip of Long Island, associated with carved soapstone bowls. Ceramics, imitative of soapstone (steatite) vessels in shape, appear as a minor part of Orient assemblages in the Delaware Valley and eastern Long Island (Ritchie 1965:172); their appearance marks the beginning of the Early Woodland. Sixty-two Orient Fishtail points were found at Nicoll Farm, as well as two steatite sherds. One Susquehanna, one Perkiomen, and three Orient Fishtail points were recovered from the Greycourt Rockshelter (Funk 1976:178).

The period from about 700 BC to AD 300 (Early Woodland and early Middle Woodland) is not well known. *In situ* transition from Orient to succeeding cultures has not been established. Contracting-stemmed Rossville points are the most common diagnostic form of this period in southeastern New York; however, very few have been recovered from sites in Orange County and the Bear Mountain region; for example, only four are reported from the Nicoll Farm collection (Funk 1976:179,183). Rare examples of side-notched Meadowood and lobate-based Adena points indicate probable trade relationships with Early Woodland peoples to the west. One Meadowood and four Adena points are reported from Nicoll Farm (Funk 1976:179). Rossville points and other Early Woodland types appear to be associated with cord-marked Vinette 1 and modified Vinette pottery. These ceramics are also very rare in the region, having been found only in the Greycourt Rockshelter and a shelter near the Bear Mountain Railroad Station. Pollen evidence indicates a cool, moist interval beginning ca. ad 1.

Fox Creek points date between ca. AD 300 and 700. Many of these were made of argillite, obtained near present-day Trenton, New Jersey. The wide distribution of this lithic material shows that the Middle Woodland people of southern New York participated in a trade network that extended along the coastal plain from Maryland to Massachusetts. Ceramic styles diffused throughout the same exchange sphere. Six Fox Creek points were found in the Greycourt Rockshelter, and the same number are reported from Nicoll Farm. In the shelter near the Bear Mountain Railroad Station, three Fox Creek points were found in apparent association with a remarkably well-preserved Vinette 1 vessel. At sites in coastal New York, Fox Creek (or "Cony") points were associated with North Beach Net-Marked and Abbott Zoned Net-Impressed and Incised ceramics. At the Ford site in Columbia County, a similar net-marked ware was associated with Fox Creek points (Funk 1976:131). These pottery types are not reported as yet from Orange County sites.

Sparsely distributed Jack's Reef pentagonal and corner-notched points demarcate a late Middle Woodland horizon, ca. AD 700-900. The narrow lanceolate Greene point appears to be a roughly

contemporaneous type, restricted to the mid-Hudson Valley (Funk 1976:83). One Greene point and one Jack's Reef pentagonal are reported in the Nicoll Farm collection. In the Hudson Valley, associated Middle Woodland ceramic types include Point Peninsula Plain, Corded, and Rocker-Stamped, Jack's Reef Corded and Corded Punctate, and Vinette Dentate. Examples of several of these types are present in the Nicoll Farm collection.

Triangular arrow-points of the Levanna and Madison types are diagnostic of the Late Woodland, AD 900-1600. The prevalence of Levanna points in regional collections suggests that a population explosion occurred in the Late Woodland. For example, 91 Levanna points were found at Nicoll Farm and 21 at the Greycourt Rockshelter. A late Middle to Late Woodland component was recognized at the John Robinson II site, presumably on the basis of a Levanna point (Curtin and Sugihara 1987). Besides the bow and arrow, Late Woodland innovations include sedentary villages and cultivation of maize, squash and beans. The noted population surge is doubtless causally related to the increased reliance on horticulture. Some of the Late Woodland pottery from Orange County is stylistically and chronologically linked to pottery types produced by Proto-Iroquoian peoples of Central New York, e.g., the Owasco Corded Collar, Oak Hill Corded, Cayadutta and Kingston Incised types. However, pottery from the Bear Mountain region appears more closely related to ceramic types such as Bowmans Brook Incised, East River Cord Marked, and Van Cortlandt Stamped (Funk 1976:183), which are associated with coastal groups ancestral to the historic Algonquian-speakers of coastal New York.

At the time of significant European contact in the early seventeenth century (there had been exploratory probes into New York's harbor as early as 1524), the region between West Point and the Catskills, including present Orange County, was occupied by the Esopus Indians, presumed descendants of the Late Woodland inhabitants. The Esopus were a sub-group of the widespread population, encompassing both the Upper Delaware and Lower Hudson drainages, that spoke the Munsee dialect of Delaware, an Algonquian language (Goddard 1978:213). By the late eighteenth century, continuous encroachment by white settlers and waves of European-introduced disease, had reduced the native population of southeastern New York to a small remnant. It is possible that surviving Indians intermingled with free mulatto settlers to form the racially mixed Ramapo Mountain People of Orange and Rockland counties (Berry 1978:291).

4.2 Historical Settlement and Development of the Project Area

The project area is situated predominantly in New Windsor Township, with a small portion lying in Newburgh Township. Early patent maps for the area indicate that most of the project area is contained in the 2000-acre John Haskell tract, initially settled in 1719 (Ruttenber and Clark 1881:214). Haskell was an early patentee in the region, and also acquired a second 2000-acre tract in 1721, which included Snake Hill, located on the western edge of Newburgh (Figure 4). Haskell's log house, built in 1738, was located along the Windsor Highway, one mile south of the Newburgh City line. Haskell apparently farmed the land extensively, raising varieties of seeds, plants, and livestock, with the help of a large labor force of African Americans (Corning 1993:21).

The Newburgh Township portion of the SAS was part of the 6000-acre Baird Patent, issued to Alexander Baird, Abraham Van Vlecque, and Hermanus Johnson in 1719 (Figure 4). It was sold in 1745 to Governor William Burnet. Burnet divided the tract into 28 lots, the balance of which (26) were sold to Samuel Belknap, a native of Woburn, Massachusetts, in 1749 (Ruttenber and Clark 1881:254). Four Belknap brothers emigrated to what was then Ulster County, "and a widespread Belknap community grew up on the outskirts of Newburgh"(Mailler and Dempsey 1968). The

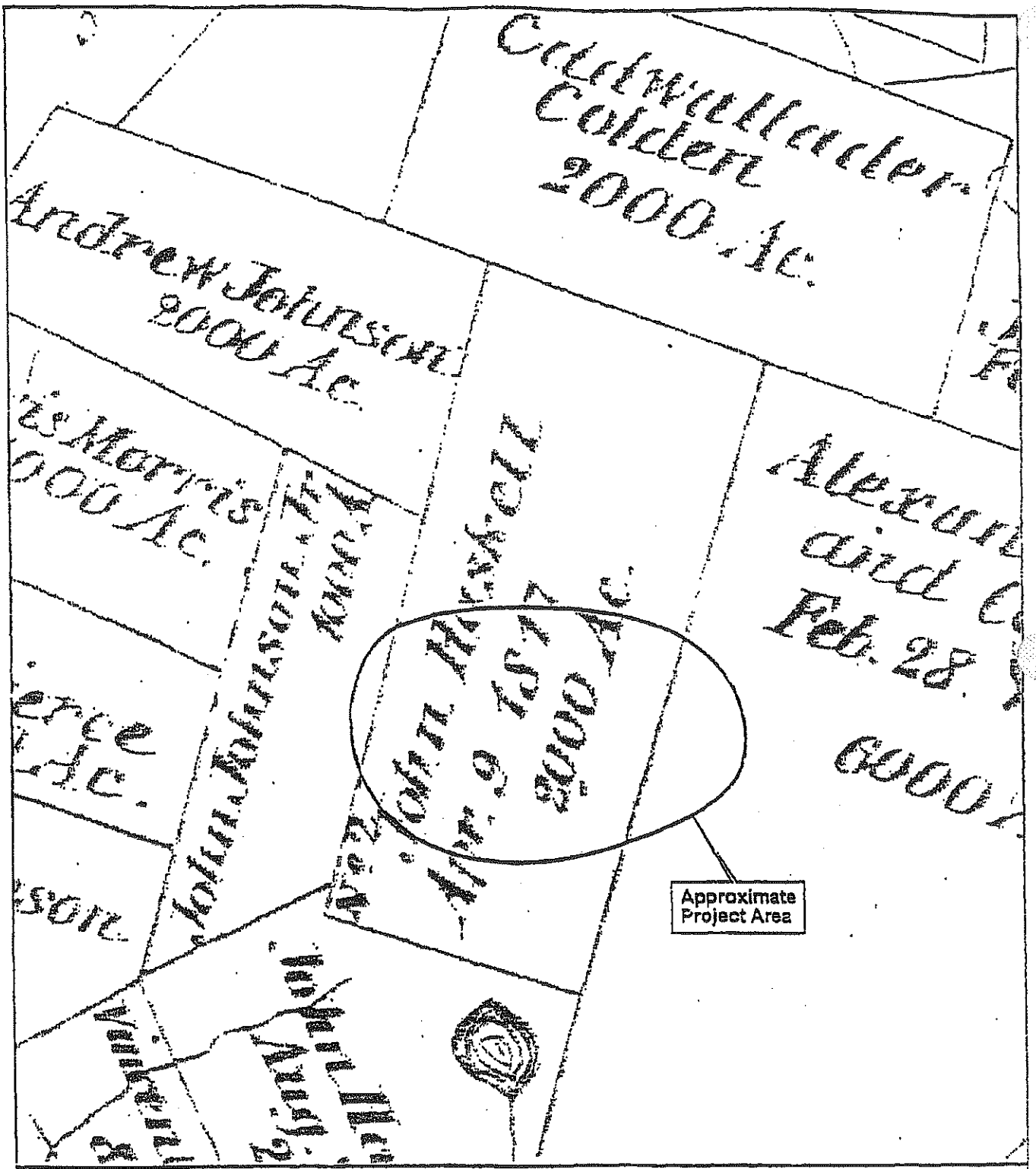


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Figure 4. Detail, *Map of Lords Patents from Original Surveys* (DeWitt 180?).

early patents played an important role in the growth and development of the region during the eighteenth century and were rendered on contemporary maps well into the nineteenth century (Figures 5 and 6) (Southier 1779; French et al. 1859). One of the Belknap family homes was investigated archeologically during the cultural resources surveys associated with the creation of the Stewart International Airport. Known as the Belknap-Montgomery Site (A071-15-0120), the National Register-eligible site contains the archeological remains of a farmstead established in the late eighteenth century (Leeper and Beauregard 1987).

Prior to the Revolution Newburgh and New Windsor served as nodal points for shipping produce to market by water, and ship building and the lumber industry were important in the local economy (Clark 1973; Greene 1931:882). By the 1780s, both villages were compact rural communities with highly productive agricultural hinterlands. The development of the region in the eighteenth century was, as one historian has stated, similar to other towns along the Hudson River, with "a settlement near the river, larger farms in the hinterland; roads which often followed old Indian trails; cramped cabins giving way to more spacious dwellings; a church built by a small congregation: a few officials elected to perform necessary government functions"(Dempsey 1987:3). Early settlement in the project vicinity focused along the road network, such as the Little Britain Road, and initial housing and outbuildings were constructed of log or stone, the building material most readily available (Ruttenber and Clark 1881:215).

By the last quarter of the eighteenth century, Newburgh contained 48 houses, and New Windsor 24 (Mailler and Dempsey 1968). The American Revolution saw the project vicinity embroiled in military activities, particularly in the years from 1782 to 1783, when the left wing of the Continental Army made New Windsor the location of their winter cantonment (Boatner 1973:267-268; Fisher 1983). Laid out by Baron von Steuben, the encampment consisted of over 700 log huts for the accommodation of 6,000 to 8,000 people. The Simeon DeWitt map of the army's winter cantonment, dated 1783, provides some graphic evidence of the project vicinity, although the cantonment was situated over two miles southeast of the project area (DeWitt 1783). The road to Little Britain, which forms the southern boundary of the project area, is shown, as are several houses and the point where the road crosses Beaver Dam Creek. The Little Britain district is located a short distance southwest of the project area and was formed on part of the Andrew Johnson patent, issued in the 1720s. By the 1730s the families settled in the area included Clintons, Denniston, Falls, Youngs, and Maillards (or Maillers), families that would continue to reside in the area for generations (Dempsey 1987).

The focus of the DeWitt map is the cantonment southeast of the project area, and it appears that the project area was not immediately affected by the quartering of Continental troops several miles away, although several officers were quartered in the Square (now Washington Square). Part of Little Britain, the Square, was formed by the public roads in the vicinity coming together in the pattern of a diamond. Notable in the Square was the Falls House or tavern, used as early as 1777 by Brigadier General George Clinton, a native of New Windsor, as his headquarters. Other American commanders who made their headquarters at the house included St. Clair and Gates (Ruttenber and Clark 1881:222,224). The Falls House was located at the northwest corner of the second John Haskell patent, issued in 1721. In 1914 the house was destroyed by fire during the filming of a motion picture, and subsequent archeological investigation recorded the site of the dwelling as under present Route 207 (Mailler and Dempsey 1968:68-72; Eisenberg et al. 1982).

The development of the country around Newburgh and New Windsor accelerated after the establishment of the Cochecton-Newburgh Turnpike in 1801. The turnpike provided Newburgh

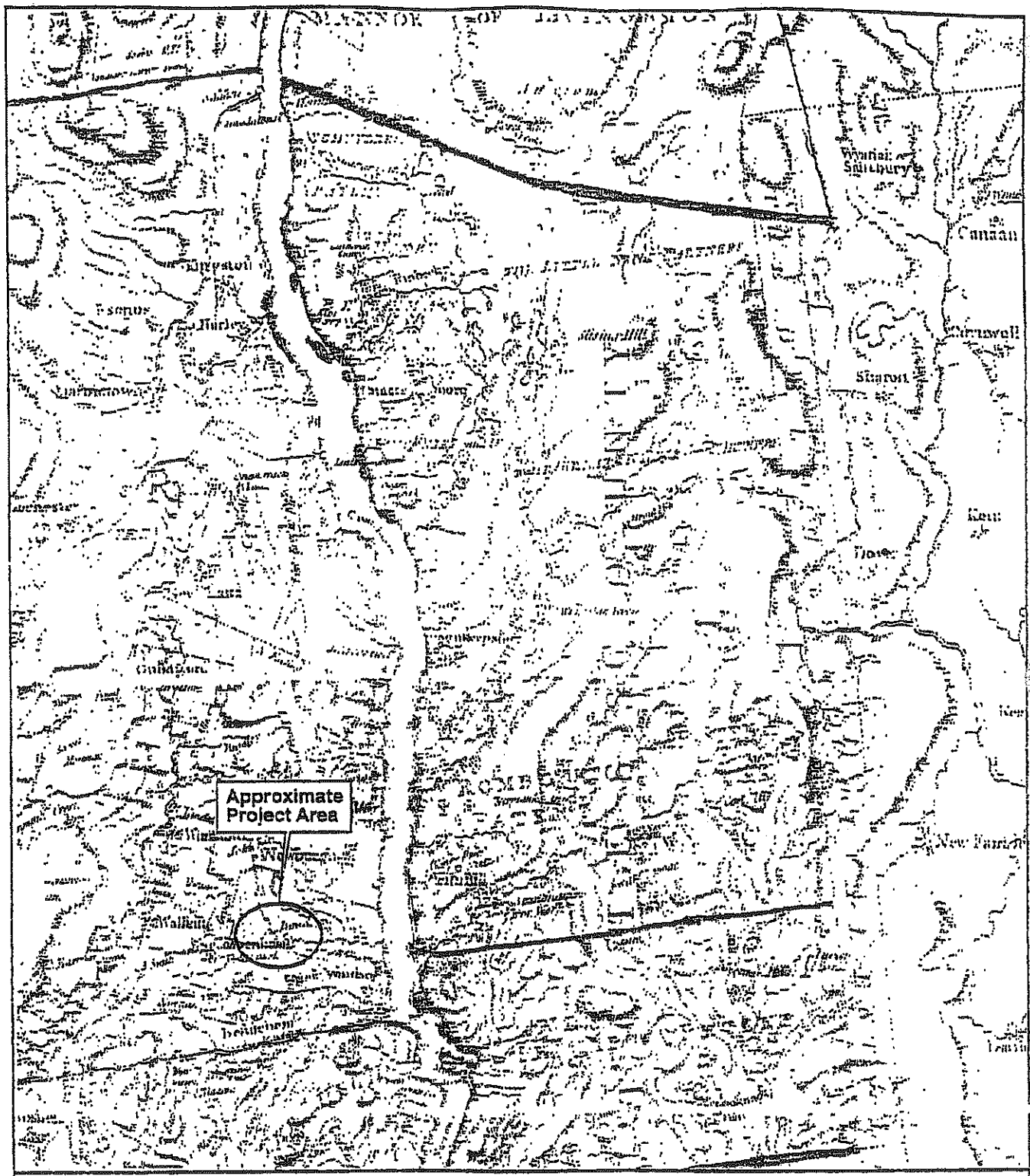

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Figure 5. Detail, *Chorographical Map of the Province of New York* (Southier 1779).

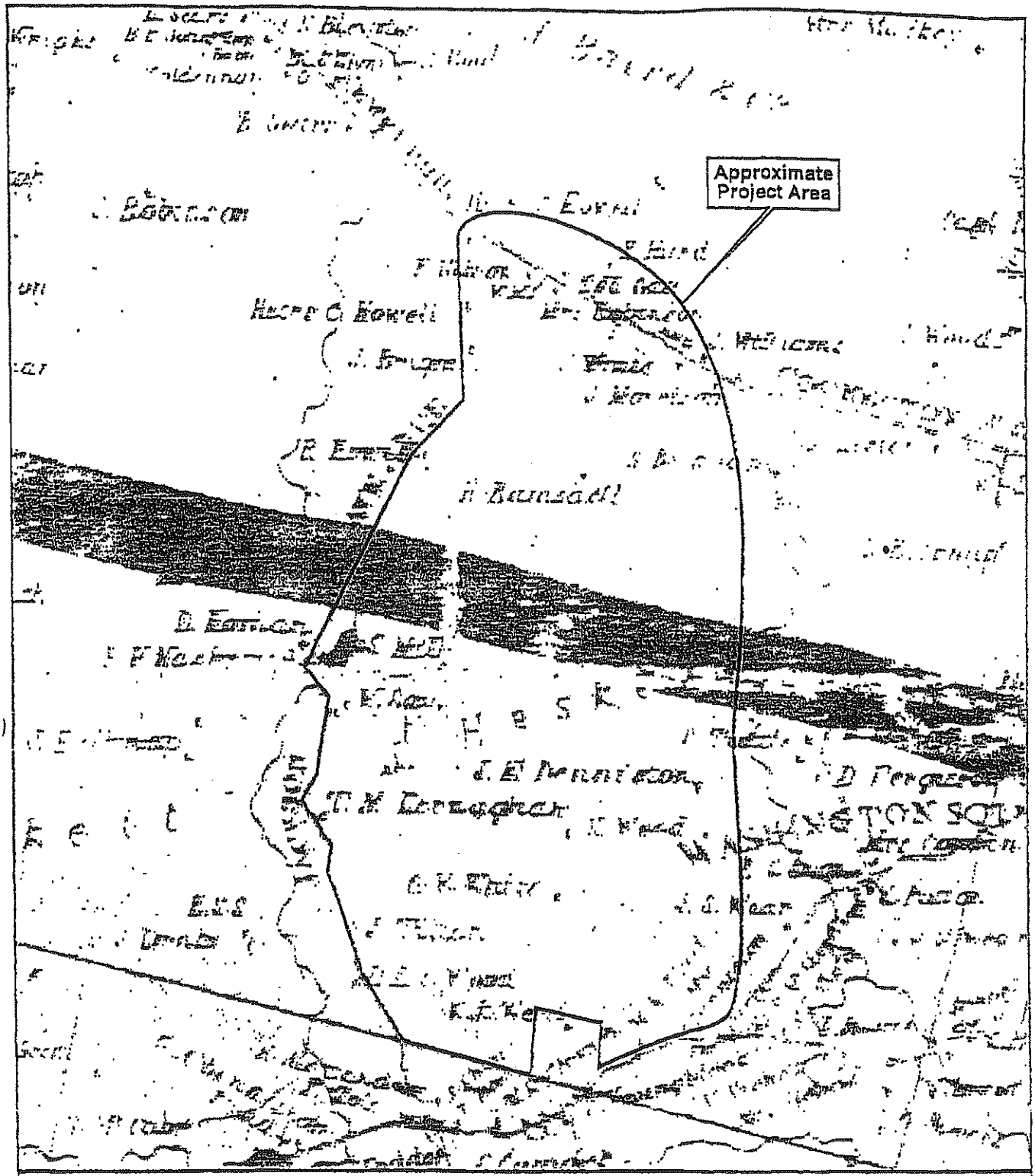

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Figure 6. Detail. *Map of Orange and Rockland Counties, New York* (French. Wood. and Beers 1859).

with an economic buoy that saw the town eclipse it southern commercial rival, New Windsor. The turnpike extended for 60 miles west from Newburgh to Cochecton on the Delaware River, and opened up the backcountry of New York for settlement. Newburgh became a central place for immigrants and settlers, and the creation of the turnpike led to the formation of Sullivan County in 1809 (Ruttenber and Clark 1881:111, 112). As the Reverend James R. Willson stated, "the average arrivals and departures daily, estimated together, cannot fall much short of three hundred, or eighty-four thousand in one season. The sections of country in the interior, occupied by these travelers, are generally connected with [Newburgh] by some commercial ligament"(Ruttenber and Clark 1881:116).

New Windsor was not idle, however, and chartered the New Windsor and Blooming-Grove Turnpike in 1801. In the next decade, with either New Windsor or Newburgh financial backing, at least four more turnpikes were chartered, and it is estimated that in the first quarter of the nineteenth century the people of Orange County invested at least a half million dollars in the construction of turnpikes (Ruttenber and Clark 1881:115). New Windsor and Newburgh benefited considerably from the turnpike boom; the trade in the former was "large," while by the 1830s the commerce in Newburgh was described as "unprecedented"(Ruttenber and Clark 1881:116).

The prosperity of the first decades of the nineteenth century was reflected in the organization of the countryside around Newburgh and New Windsor (Figure 7). Farming and livestock production were mainstays of the area, especially grain cultivation and dairying. The lower Hudson Valley farms supplied New York City with much of its flour, grain, and butter, and these foodstuffs were shipped by water to that urban center. As with other parts of the New Republic, second and third generation Orange County farmers reconfigured their farmsteads during this period, and a large-scale rebuilding effort took place throughout much of the Middle Atlantic region (cf. Deetz 1993:132; Herman 1994). Typical of these farms was the Burnet place in Little Britain. By 1875, the third generation of Burnet occupied the "old homestead," which had begun as a log dwelling (circa 1730), and was transformed into a "commodious mansion" by the second-generation Burnet in 1804 (Ruttenber and Clark 1881:241).

The opening of the Erie Canal in 1825 and the construction of the Delaware and Hudson Canal in 1828 slowed the growth of the project area somewhat, but the establishment of railroad connections to Newburgh insured that the area would continue to prosper. The Newburgh branch of the New York and Erie Railroad opened in 1850, and the Newburgh to New York railroad was completed in 1869, effectively assuming much of the trade of the Hudson River towns (Ruttenber and Clark 1881:123).

By the middle of the nineteenth century Newburgh and its environs was a dynamic agricultural community that supplied New York City with farm produce and dairy products by boat and railroad (Ruttenber and Clark 1881; Parkerson 1995). The area around Newburgh was considered to be some of the finest agricultural land in New York, and Orange County ranked in the top five counties in 1875 in the production of corn, wheat, hay, and milk (Ruttenber and Clark 1881:124). Typical of the farmers in the region was James W. Morrison, who "devoted himself closely to the cultivation of his fine farm of 170 acres" (Rutteber and Clark 1881:242). Morrison was owner of the Brookside Farm, situated just to the west of the project area, along Beaver Dam Creek. Illustrated in *The History of Orange County*, Brookside Farm was considered to be an excellent example of productivity for the county, and indicates the high level of landscape alteration necessary to operate a nineteenth century dairy farm successfully. As stated in the county history, "the land is thoroughly drained, well fenced, and carefully cultivated and intelligently tilled, and

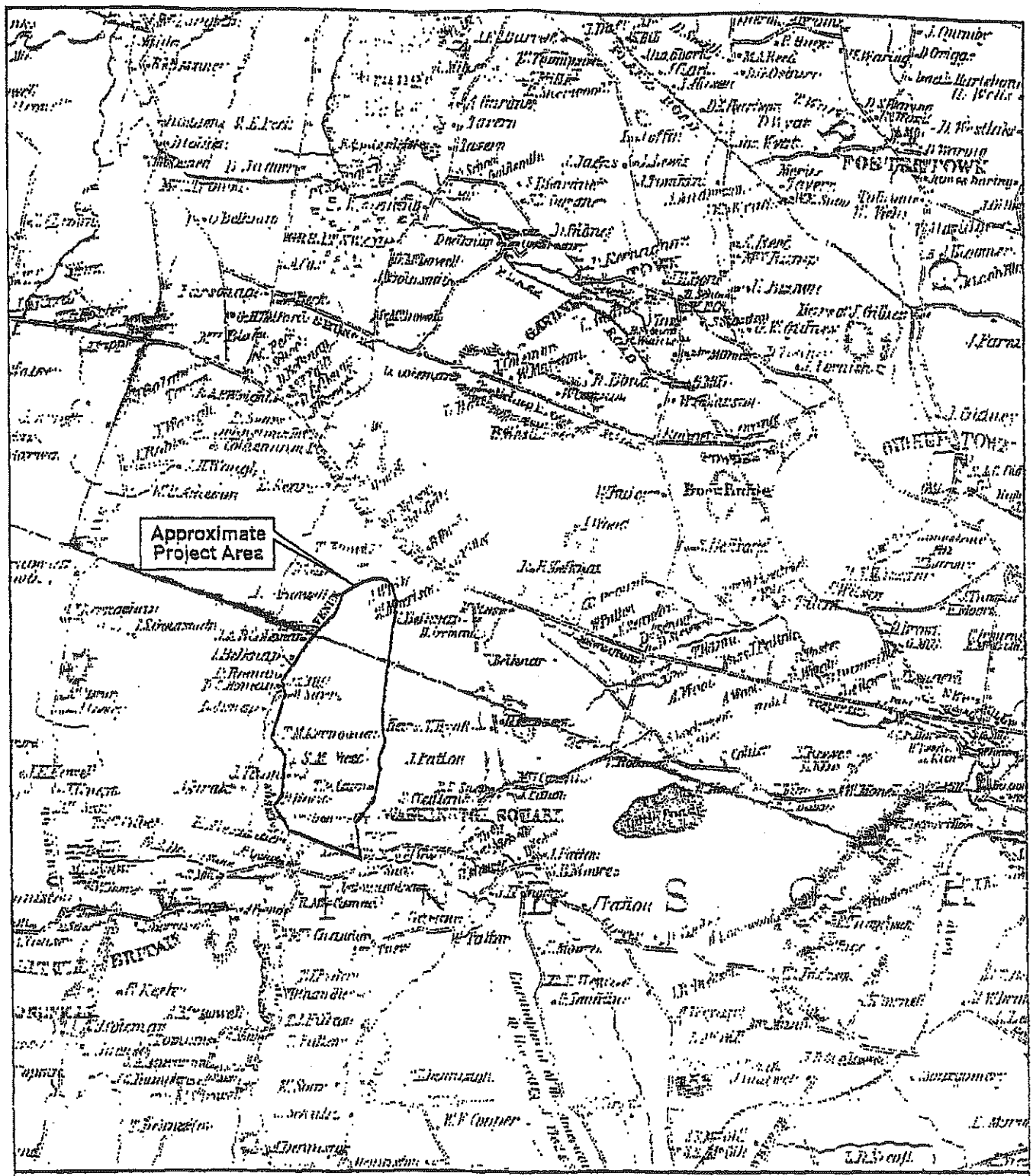

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Figure 7. Detail, *Map of Orange County, New York* (Sidney 1851).

bears witness to the agricultural skill of Mr. Morrison. and to the years of labor and toil that he has expended on it. He has made a specialty for many years of dairying and the manufacture of butter, and has sold this commodity for forty-one years to one firm in New York City" (Ruttenber and Clark 1881:242). Morrison's farm formerly was owned by the Denniston family, and by the early years of the twentieth century was the home farm of the Stewart family (Figures 7 and 8).

Throughout the nineteenth century, the great agricultural productivity of Orange County made it flourishing and economically viable, with a high level of in-migration and population growth an a low level of out-migration (Parkerson 1995:114). Population growth in Newburgh and New Windsor townships rose steadily throughout the century, reflecting the economic prosperity of the region (Greene 1931:893; Ruttenber and Clark 1881:116). By the last quarter of the nineteenth century approximately 75 percent of both New Windsor and Newburgh townships was considered to be improved agricultural lands, while only 10 percent was woodland, and 15 percent was unimproved, swamp, or otherwise not used (Ruttenber and Clark 1881:125). In Orange County in 1875, 44 percent of the farms were between 100 and 500 acres in size, while an additional 27 percent were between 50 and 100 acres. Only one percent of the farms in the county were under three acres (Ruttenber and Clark 1881:125). In the project area, Hughes' *Farm Map of the Town of New Windsor...* (Hughes 1864) illustrates property lines and provides acreage for the tracts, indicating that of nine farms associated with the project area, three were of 100 acres or larger, three were between 70 and 80 acres in size, and three were under 60 acres. The farms comprising the project area thus are typical of the small holdings located in Orange County in the middle decades of the nineteenth century (Figure 8).

By the early decades of the twentieth century dairy farming and production had declined to be replaced by the production of fruits, including grapes, pears, apples, peaches, and berries (Figure 9). Fluid milk production surpassed butter production due to ease in transportation and an increased local market. Newburgh in the 1930s was the center of one of the richest fruit-growing areas in the Middle Atlantic region, and was the trading center of Orange County (Greene 1931:886). An important hydraulic engineering feat in the Hudson Valley was the construction of the Catskill Aqueduct, begun in 1907 and completed a decade later. The aqueduct is still in use and carries millions of gallons of water from Ashokan Reservoir, west of Kingston, to New York City (Flinn 1989; Greene 1931:731). Located west of the project area between Jackson Avenue and Beaver Dam Creek, the aqueduct appears to have impacted several farms and potential site locations described below.

Samuel Lachlan Stewart provided the City of Newburgh with 172 acres of land on which to build an airport, to be called Lachlan Stewart Field, in honor of his father (Greene 1931:109). As a member of a well-established farming family in the area, Stewart had a career that was typical of the late nineteenth and early twentieth centuries. He began in the lumber business and later occupied Brookside Farm, a showcase dairy farm located just beyond the project area to the west along Route 207. Under S.L. Stewart's direction, Brookside Farm produced and bottled condensed milk and other dairy products, contributing to the millions of cans of milk shipped annually from Orange County into New York City at the turn of the century (Knipp 1980).

Since the 1950s, the vicinity of the project area has become less agricultural and increasingly more suburban. There has been a noticeable decline in the amount of land under cultivation. By 1974, only 45 percent of Orange County was crop land, and the amount of woodland had increased to 20 percent (Olsson 1981:1). Lands in the southeastern and central portions of the county have become used for urban development. Transportation routes have changed yet again, with the New

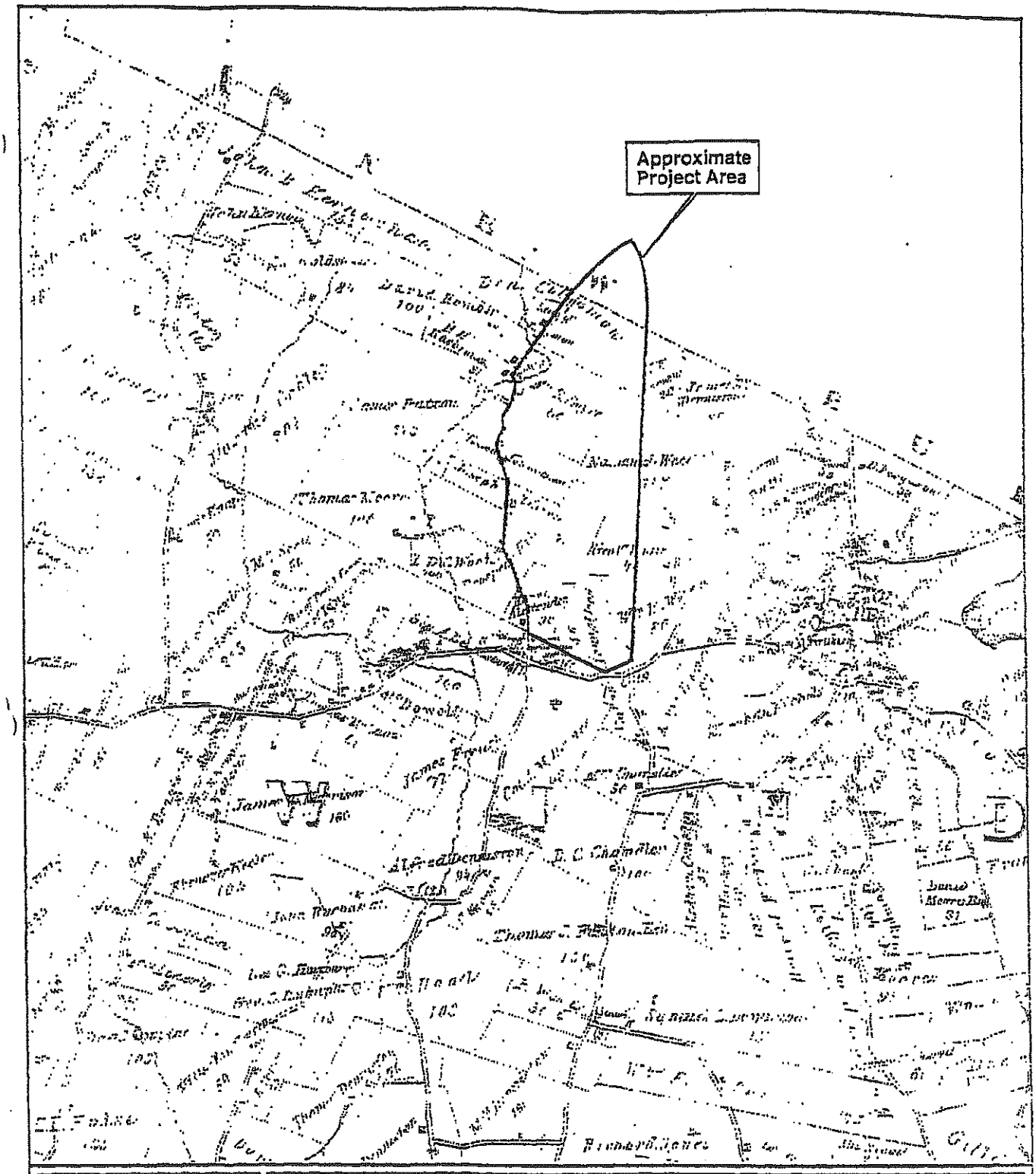

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Figure 8. Detail, *Farm Map of the Town of New Windsor and Part of Cornwall, Orange County, N.Y.* (Hughes 1864).

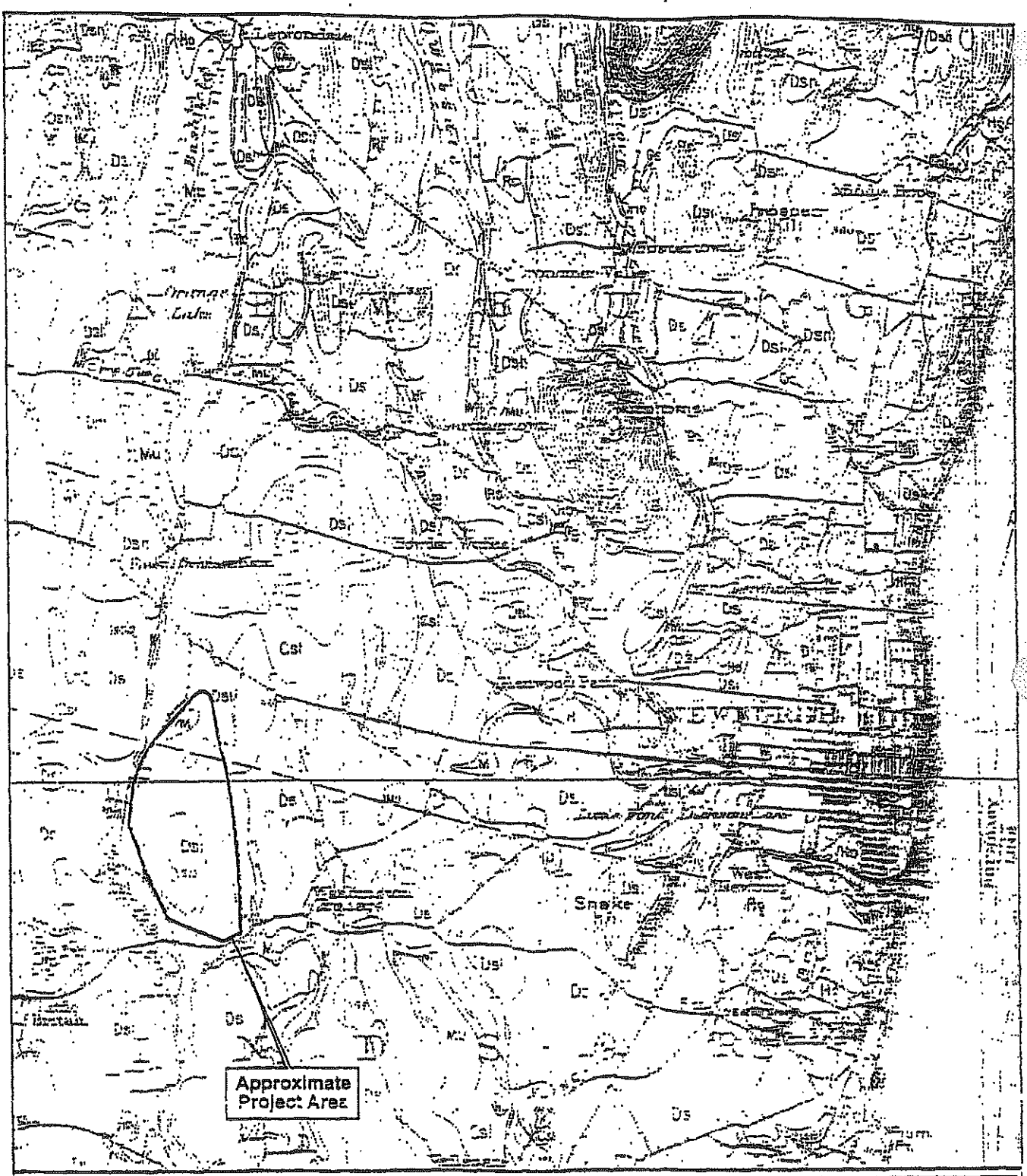

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Figure 9. Detail, *Orange County, New York, Soils Map* (Bureau of Soils 1913).

York Thruway at the forefront as the means of choice over rail and water. The most significant twentieth century historical development affecting the project area was creation of the Stewart Airport, and the use of the property as a U.S. military post.

4.3 The Establishment of Stewart Airport

By the 1920s, the airplane had become more than a novelty. With the beginning of scheduled passenger service and airmail, the airplane had become a recognized means of transportation. Cities large and small sought to provide facilities for air transportation to capitalize on the expected economic boost of air access. Newburgh was one such city.

Among the first small airports to serve Newburgh was Lacey Field in New Windsor Township. In March 1927, aviators were denied further access to this field, and leaders of the local Chamber of Commerce saw the need for a new airfield site. A committee of the Chamber considered possible sites and settled on land west of Epiphany College in New Windsor. Committee members requested that Newburgh City Council appropriate sufficient funds to purchase the land, but this request was denied.

In December 1927, the Chamber filed a second request with the City Council. This request called for $500 to hire aviation experts to survey the area for possible airfield sites. Three and one-half months later, the requested funds had not been appropriated. As an alternative, the Chamber committee reached agreement with a U.S. Department of Commerce aviation expert. He would undertake the proposed survey.

A number of sites in the vicinity of the Cochecton Turnpike were examined, including the farms of Charles W. Greene and D.B. Howell. All of these sites were rejected by the Commerce Department expert. (Ironically, the Greene and Howell farms later became part of Stewart Field.) The site near Epiphany College was reconsidered, and the federal expert approved its selection. In April 1929, the Airport Commission recommended purchase of the 180 acres of land for $22,100.

The City Council adopted a resolution authorizing the purchase, and the City Engineer was instructed to prepare an estimate of development costs for the site. Before funds were appropriated for this purchase, the president of the Chamber of Commerce reported that local resident Samuel L. Stewart had offered to donate 175 acres of land on the Cochecton Turnpike for an airfield. The City Council made the decision to pursue this offer, and in September appropriated $1,000 for the American Airports Corporation to prepare a complete layout for an airfield on the Stewart property (Anonymous 1942c).

In the twelfth anniversary celebration of Stewart Air Force Base, Thomas A. Stewart discussed his family's role in the establishment of the airport:

> Back around 1930 there were a group of us here in Newburgh who thought that this community should have an airfield....Our group examined all of the possible sites in this general area and decided that this one was the only one which was practical. At that time the original land for this site was owned by my uncle, the late Mr. Samuel L. Stewart. The land consisted largely of woods and abandoned farms. It had been in my family for a great many years and was known as Stony Lonesome. I went to my uncle and told him that our group thought that this community should have an airfield and suggested that he give Stony Lonesome to

> the city by way of getting the ball rolling. He fell in with the idea immediately, and told me to go ahead and represent him in anything I thought would be right. We then went to the city administration and proposed to them that they buy some additional land which would be necessary, stating that if they would do that, we had the initial tract of land that would be made as a gift....
>
> In...deeding his land...to the city, Uncle Sam kept a string attached to it. That string was that if the city didn't develop the land within a certain length of time he would get the land back. Now Uncle Sam didn't want the land back, and that was merely his way of making sure that present and future city administrations wouldn't go to sleep on the job (Stewart 1954:2-3).

The Stony Lonesome tract was primarily woodland, the overgrowth of abandoned farms that served for a time as a resting place for tired horses from New York City, shipped up the Hudson on freight boats (Cunningham 1990).

The airfield was named for Captain Lachlan Stewart, the father of Samuel Stewart. The first member of the Stewart family to settle in Newburgh was Captain Archie Stewart, a native of Argyleshire, Scotland. Stewart began his seagoing life at 17, serving as an apprentice aboard the Brig *Lord Blantyre* sailing out of Greenock. In 1854, he brought his wife and daughter to Newburgh, which, from that point on, became his home port. He died in Balmville, New York in 1880.

Lachlan Stewart, son of Archie Stewart, was born in Greenock, Scotland in November 1830. At age 11 he stowed away on a sailing vessel bound to the West Indies, thus beginning his maritime career. In 1853, he married Julia Ann Lyon, whose father was a Newburgh school teacher, and the couple had 11 children. Upon his retirement from the sea, Lachlan Stewart, his son Samuel, and Thomas Sayre founded the Newburgh Lumber Company.

In his latter years, after Samuel took over management of the lumber company, Lachlan Stewart purchased a large farm west of Newburgh. This farm was formerly known as Denniston Farm and as Jones W. Morrison's Brookside Farm. Stewart engaged in dairy farming as Mr. Morrison had before him. He died at Brookside in 1899. After Lachlan Stewart's retirement from the dairy business, his son Samuel Stewart took it over. The younger Stewart's consuming interest was the production of purse milk. He served for a time as president of the Certified Milk Producers Association of America. Samuel Stewart died at his home at Brookside in 1936 (Archie Stewart 1962).

The Stewart family interests also included ice and automobile retailing. At the turn of the century, Thomas Stewart operated the Brookside Ice Company, selling ice from a huge warehouse. Shortly thereafter, he left the declining ice industry and became a pioneer in automobile sales. From 1912 until his death, he owned Broadway Buick, a dealership in downtown Newburgh that served eastern Orange County and southern Ulster County (Cunningham 1990).

Peter Castiné, a city official, warned that "We'll be a backwoods town if we have no landing facilities in the future" (Anonymous n.d.b). At the instigation of Mayor James Tweed of Newburgh and with the support of members of the Chamber of Commerce, the City Council authorized the purchase of land adjoining the Stewart tract with the expenditure to be limited to $42,000. In April, Samuel Stewart tendered to the City Council his proposal to transfer the deed of the Cochecton

Turnpike property to a local bank with instructions that the property be transmitted to the city as soon as sufficient work was completed to permit the takeoff and landing of airplanes. A month later, the Council accepted the offer, and acquisition of needed adjoining lands was authorized (Anonymous 1942c).

In November 1930, clearing of brush and preparing the land for construction of the airfield was begun using unemployed men from Newburgh (Anonymous 1949). By autumn of 1931, the American Airport Corporation submitted plans to the City Council and City Engineer. Estimates of improvement costs for the field totaled $121,140 for a first phase and $87,610 for a second phase. These plans proposed the gradual development of the airport toward a deluxe A-1-A rated civilian, commercial flying field with hangars, shops, administration building, runways, and other facilities (Anonymous 1942c).

In 1932 condemnation proceedings were instituted for the property adjoining that owned by Stewart. This property was owned by Emma F. Weygant and Theresa Falk. The Council voted the needed money as part of a $140,000 bond issue in July 1932.

Airport construction proceeded very slowly because of the poor economic climate. In 1933, the project received a boost when the Civil Works Administration approved funds to develop the city-owned acreage, a project which was proposed to provide jobs for half Newburgh's homeless. In January 1934, it was revealed that the CWA expenditure would require the expenditure of $58,000 by the city for materials, trucks, and survey. The project was approved by the City Council, and the money was appropriated with the hope that some local expenses could be cut. Final CWA approval was received, and 300 men were put to work cutting brush on February 2, 1934.

A total of $2,134,399 was expended on land purchase and construction at Stewart during the city's ownership of the facility. This total included $127,000 appropriated by the city, $11,640 from the Civil Works Administration, $15,000 from TERA, $1,479,005 from the WPA, $162,754 from the War Department, and $239,000 from the PWA (Anonymous 1942c).

The first plane landed at Stewart while WPA laborers were still clearing the field. Learning that U.S. Military Academy aviators were planning to make the first landing at the field on June 30, 1937, William H. "Ted" Hallock, an aviator from nearby Walden, landed his two-seater at the field on June 25. Mr. Hallock was also responsible for the first unofficial parachute drop and airmail delivery at Stewart. On July 3, 1937, he flew the plane from which Eddie DeAlmo parachuted onto the field, carrying a sack of mail (Dennison 1967).

4.4 The Development of Army Aviation Training

In 1907, the United States became the first country in the world to contract for the construction of military aircraft when it called for bids on a military airplane. Three bids were accepted. Of these, only the Wright brothers delivered. The U.S. Army accepted its first aircraft on August 2, 1908, following its successful testing by Orville Wright. By the summer of 1911, the U.S. Army had five airplanes (Weinert 1991:2).

The First Aero Squadron, the first tactical United States aviation unit, was established on March 5, 1913. Three years later, it began operations in conjunction with the Mexican Punitive Expedition against Pancho Villa. Its operations were of little import because most of its aircraft sustained mechanical failure during preliminary reconnaissance missions.

The squadron achieved its first successes in World War I. After arriving in France in September 1917, it went into action in the Toul Sector in April 1918. Brigadier General William Mitchell, commander of all air units of the American Expeditionary Force, added two additional squadrons to the First, thus forming the 1st Corps Observation Group. This group provided reconnaissance for artillery for the remainder of the war (Weinert 1991:3).

The United States had a smaller role in aerial bombardment and air combat. Such bombardment was first tested in the German bombing of Compiègne in August 1914. France urged the United States to have 5,000 pilots and 4,500 planes at the front by the spring of 1918, but in 1917, the United States had only a handful of flying officers and not a single plane capable of combat use (Historical Office 1947:35).

The first formal military pilot training began during World War I. College classrooms became schools for aviators, as cadets by the thousands were trained. Ground courses were begun at California (Berkeley), Cornell, Texas, Illinois, Ohio State, and the Massachusetts Institute of Technology. By mid-July 1917, 147 graduates were ready to prepare for flying training. At the same time additional ground schools were established at Princeton University and Georgia Tech (Historical Office 1947:46).

Military flying fields had been completed at San Diego, California; Mineola, Long Island; Memphis, Tennessee; Chicago, Illinois; and Essington, Pennsylvania. Before the end of 1917, 15 additional fields had been established, including Selfridge, Chanute, Wilbur Wright, and Scott. Additional fields were added in 1918. At these fields prospective aviators received six months to two years of training. Upon successful completion of training, the trainee was awarded his pilot's wings and commissioned as a second lieutenant (Reserve Military Aviator). Training consisted of four to 10 hours of dual, 24 hours of solo, and 16 hours of cross-country flight. By the end of the war, 16,587 cadets had graduated from ground school, and 8,689 from primary training. However, due to the delay in beginning training, no pursuit or observation pilots and only eight bomber pilots completely trained in the military schools saw action in the war (Historical Office 1947:46).

In the postwar period, Army advanced flying training was initially confined to Kelly Field, Texas. After a hiatus of several years, flying instruction was formally resumed at Kelly in 1922. The three-phase training sequence initiated at Kelly remained the norm for military flight training through World War II. After about five months of primary training at Brooks Field, a cadet moved to the Advanced Flying School at Kelly for another six months. In about 12 weeks, he progressed through stages of flight training, including dual, solo, hurdles, eights, 180 and 360-degree turns, night flying, cross-county, and formations. In the last part of the training, cadets were grouped in sections for training in specialized areas, including attack, bombardment, observation, or pursuit. Of the 865 cadets admitted for flight training in the five year period ending February 1928 480 were graduated (Historical Office 1947:74-75).

In July 1926, the Army Air Corps was officially established. An act of Congress passed in that year authorized enlarging the number of air officers from 919 to 1,650, increasing the enlisted force from 8,725 to 15,000, and increasing aircraft strength from 1,254 to 1,800. However, budget appropriations did not permit this level of expansion (Nalty, Shiner and Watson 1994:12-13).

Army flight training facilities were augmented with the completion of Randolph Field, Texas in June 1930. For its first eight years all of the Air Corps primary and basic training took place at the Primary School at Randolph, and advanced training took place at the Advanced School at Kelly.

Each of the three stages of air instruction required four months. Fundamental flying maneuvers were taught in primary training, formation and instrument flying in basic training, and special problems of the fighter or bomber in advanced training. Total flying hours for the year's course were approximately 325 (Historical Office 1947:77).

During the 1930s, the Air Corps Tactical School at Maxwell Field, Alabama, began the development of the strategic bombing theory that focused on attacks against an enemy's vital centers as the heart of offensive operations. Consistent with this doctrine, contracts for new aircraft centered heavily on modern bombers (Nalty, Shiner, and Watson 1994:16).

Depression-era funding for the Air Corps was erratic. In the mid-1930s, the Army General Staff made a concerted effort to obtain larger appropriations for the Army air arm. This strategy brought improvements in the funding picture with $45 million appropriated for fiscal 1936. Irregular funding took its toll on aircraft. Aging aircraft had to be scrapped, and the inventory fell to 855 in 1936. Air Corps appropriations continued to increase annually, enabling the Air Corps to slowly rebuild its inventory (Nalty, Shiner, and Watson 1994:21).

Manpower was as much a problem as equipment. In June 1935, the enlisted force of the Army Air Corps numbered 14,719 men, a total that grew to 20,838 four years later. Commissioned strength of the Air Corps, Regular Army, grew from 1,305 to 1,670 during the same time period. During the latter portion of the decade Congress raised the authorized officer level from 2,092 in 1938 to 3,203 in 1939. The Army's five year plan also provided additional pilots by authorizing extended active duty for 550 Air Reserve officers. New pilots were supplied from graduates of the Advanced Flying School who flew with tactical units as cadets. These cadets, who numbered 100 in mid-1934, 140 in 1935, and 125 in 1936, were a significant part of the pilot strength of the Air Corps. For five years, the only officers commissioned in the Air Corps, Regular Army, came by transfer from other branches. Most were recent West Point graduates (Maurer 1987:350).

In recognition of the heightening international tensions of the late 1930s, President Roosevelt outlined his program for expansion of military aviation at a secret meeting on November 14, 1938. Among those in attendance was Major General Henry "Hap" Arnold, Chief of the Air Corps. The president described an Air Corps of 20,000 planes and an aircraft industry capable of adding an additional 24,000 planes per year. Conceding that Congress probably would not approve an Air Corps of more than 10,000 planes, Roosevelt established as his immediate goal a total of 7,500 combat aircraft and 2,500 trainers.

Arnold saw the weakness in Roosevelt's plan. Such an increase in aircraft would mean little unless it was also accompanied by increased pilot training, more support personnel, and more airfields. In 1939, Roosevelt scaled back his equipment request in a message to Congress. The president agreed that slightly more than half of the Air Corps's $300 million appropriation be used to purchase aircraft. The balance of the appropriation was devoted to overcoming the most serious obstacles to expansion: a lack of men to operate and maintain the new equipment, a shortage of training facilities, and a need for more operating bases (Nalty, Shiner, and Watson 1994:31).

Air Corps planners worked feverishly during the winter of 1938-1939 planning this expansion. Since the acquisition of manpower had to parallel the increased number of airplanes, planners decided that the enlarged Air Corps should number 48,000 officers and men by June 1941, along with an appropriate number of airfields, maintenance depots, and training centers. By September

1939. the Air Corps was halfway to its goal with 2,058 Regular officers, 609 reserve officers, and 23,779 enlisted men (Nalty, Shiner, and Watson 1994:31-32).

The rapid increase in personnel necessitated a radical reorganization of the training process. Since the beginning of post-World War I flight training, the largest number of pilot training graduates in one year had been 246. To meet the expansion goals, the Air Corps would need 1,200 new pilots annually. Arnold arranged contracts with nine of the best civilian flying schools to provide primary flight training. The Air Corps supplied the aircraft and supervisors; all the instructors were civilians. Trainees who completed the 12-week primary program went to Randolph Field for basic flight training and then to Kelly Field for advanced training (Nalty, Shiner, and Watson 1994:34). The annual quota of Army pilots for 1941 was set at 33,000. The schools of the Gulf Coast Center were to train 12,000; of these, about 4,500 were to go through Randolph Field, and a new class of 400 was to begin every five weeks (Historical Office 1947:79-80).

Training had to continue to expand to provide the air and ground personnel necessary for combat. The Technical Training Command and Flying Training Command were established to give order to previously ill-coordinated training facilities. The Training Command operated more than 150 schools. In the two and one half years following Pearl Harbor, the enrollment in flight courses increased by 3,930 percent (Historical Office 1947:105). Included in this expansion of flight training was the initiation of air cadet training at Stewart Field.

4.5 The "Wings of West Point": Air Cadet Training at Stewart

The idea of flight training for West Point cadets was first raised by General Henry H. Arnold, Chief of the Army Air Corps. He was taught to fly in 1911 by the Wright brothers. Following his graduation from West Point prior to World War I, Arnold's military endeavors convinced him of the need for officers with flight training. He believed that West Point cadets should have the opportunity to take flight training, and he spent many years trying to sell his vision to the Military Academy (Dillon and Frier 1944:i).

In 1915, General Maxwell Van Zandt Woodhull, in a critical study of the U.S. Military Academy, recommended that:

> There should be attached to the Academy a complete outfit of aeroplanes and hydroplanes, and Cadets should be required to make two or three ascensions a year, and to prepare and submit reports of their observations while in the air as a part of their study of reconnoitering (Listing n.d.:1).

Nothing came of Woodhull's recommendation, but in 1922, instruction in flying was proposed at West Point. Without proper facilities, such instruction was not possible. Instead, the First Class was given a lecture on air service organization and supply by faculty of the Department of Tactics (Listing n.d.:1). By the 1929-1930 academic year, the First Class was sent to Langley Field, Virginia for instruction in aviation. The Superintendent noted that, "Should additional land adjacent to the present reservation be acquired...instruction in aviation could be given at West Point" (USMA Sup. 1930:3).

In May 1934, a War Department Board under the chairmanship of Newton D. Baker, former Secretary of War, undertook a study of the Air Corps and its relation to civilian aviation. Among its recommendations was that the cadets receive a minimum of 20 hours of aerial instruction. The

Chief of the Air Corps was requested to develop, in consultation with the Superintendent of the Military Academy, a plan for implementing this recommendation.

Major Carl Spaatz, Chief of the Training and Operations Division and a representative of the War Department General Staff, agreed on the following tentative plan to carry out the recommendation:

> (a) No actual pilot training was to be given.
>
> (b) The course was to include familiarization flights, flights in various combat positions in the airplane, including observer, aerial gunner, bomber, and navigator.
>
> (c) Instruction was to be given during the 1st class summer preferably at Langley Field, Virginia, but with Mitchel Field, Long Island, as an alternative location.
>
> (d) Because of a shortage of airplanes, the class was to be divided into two sections.
>
> (e) The time required for training of each section was two weeks.
>
> (f) The course was to include only such ground instruction as was necessary to insure that the cadets receive the maximum benefit from their aerial missions (Cannon 1970:33).

The plan was submitted to Major General William D. Connor, the Military Academy Superintendent, and Major General Benjamin Foulois, then Chief of the Air Corps, for comment. The superintendent concurred with the recommendations and suggested that the flights be made in bombers and transport planes. The Chief of the Air Corps decided to give the training in bombardment-type planes only in order to familiarize cadets with combat missions. General Connor recommended and General Foulois concurred that training be conducted at Mitchel Field to avoid excessive transportation costs. The superintendent recommended that the cadets be flown at least five hours a day for a period of one week. The Air Corps chief disagreed, citing physical and mental strain and advocated shorter flights over a longer period of time (Cannon 1970:33).

By November 1934, plans for flight training of West Point cadets in the summer of 1935 had been completed. The 280-member Class of 1936 would be organized into three groups with each receiving five days of instruction and two days of travel time. The proposed program was not well received by some West Point faculty members. As Lieutenant Lawrence J. Carr noted,

> ...in my opinion, the officials at West Point look upon this training as an interference with their more or less staid summer training procedure, and seem loathe to break this down and allow us enough consecutive time to complete the aerial experience course....I see their side of the question. They have a progressive summer training course for the four years a cadet is at the Academy. Suddenly they are required to give this 20 hours Air Corps training. It means reducing the training in the other military phases and naturally brings objections from those sources and also tends to make those other branches have a smoldering ill will toward us that is not warranted nor desirable (Cannon 1970:34).

In March 1935, at the request of Colonel C.C. Carter, Professor of Natural and Experimental Philosophy, the Superintendent secured the services of four Air Corps officers to deliver a one-hour lecture each to the Second Classmen. Those West Point graduates who were interested in aviation and physically qualified were sent to the Air Corps Training Center where they began flight training in three phases, primary, basic, and advanced, beginning in October. In the West Point classes of 1932 through 1935, between 135 and 193 graduates applied for flight training each year. Between 74 and 99 were accepted and between 47 and 88 started training. Of these, between 51 and 62 percent graduated (Cannon 1970:35).

Summer flight training for new First Classmen began in 1936. They received 25 hours of instruction. Approximately one-third of the class at a time was sent to Mitchel Field for a week. The instruction, given by Air Corps officers, consisted of 10 1/2 hours of ground instruction and 14 1/2 hours in the air (Cannon 1970:36).

Evaluation of the role of aviation in the West Point curriculum continued. The Superintendent, Brigadier General Jay L. Benedict, suggested that the Air Corps draw up a tentative schedule that would include 10 hours of flying and 20 hours of ground instruction. In August 1938, Brigadier General Barton K. Yount, Commander of the Air Corps Training School, recommended that all qualified graduates of the Military Academy who wanted flight training should be able to take it without any obligation to transfer to the Air Corps upon completion (Cannon 1970:37).

The debate about the role of aviation in the West Point curriculum was intertwined with the debate about the construction of air facilities to serve West Point. In 1926, at the same time cadets were first exposed to military aviation during their summer tour, the War Department approved the erection of one 65 by 60 foot hangar at West Point and the construction of a ramp in the North Cove on the Hudson River front to house an amphibian airplane. Three Air Corps officers and three enlisted men were assigned to West Point as an Air Corps Activities Project. The officers included Major G.E. Stratemeyer and lieutenants W.W. White and F.B. Valentine. The first airplane assigned to West Point was an OA-1A Loening amphibian (Scrapbooks n.p.).

By 1929, the original Loening had been replaced by an OA-2 with a Wright Tornado inverted engine. The Air Corps Activities Project was staffed by five officers: H.R. Harmon, Major, Air Corps (Officer-in-Charge); M.E. Gross, First Lieutenant, Air Corps (Operations Officer); J.M. Weikert, First Lieutenant, Air Corps (Supply Officer); R.E. Randall, First Lieutenant, Air Corps (Parachute Officer); and T.A. Sims, Jr., Second Lieutenant, Air Corps (Engineering Officer) (Scrapbooks 1929:n.p.). By 1932, three planes were housed at West Point. A 60 foot by 110 foot hangar was constructed to replace the original 65 by 60 foot building, and on July 26th, the Air Corps received a new Commanding Officer, First Lieutenant John M. Weikert (Dillon and Frier 1944:4).

Between 1928 and 1932, Major General William R. Smith, superintendent of West Point, developed a plan for the acquisition of additional land to provide the Academy with area for field exercises, for an airfield, and for the protection of its water supply. In 1931, Congress authorized purchase of the land but did not appropriate any funds for this purpose (Richards n.d.b:1).

During the summer of 1932, construction of a new 60 by 110 foot hangar was started on the site of the old hangar. The new hangar was completed by December. During construction, the airplanes were kept moored in the river. Pilots and passengers were either taken out to the planes in rowboats or the airplanes were run onto the ramp by crew chiefs. Because of the lack of shelter, it was

necessary to taxi the airplanes up and down the river to warm up their engines (Scrapbooks 1932:n.p.).

In 1933, a regular Air Corps Detachment with a strength of seven men was established, and all Cadets were required to report to the Detachment for an hour's lecture on airplanes, their construction, types, and capabilities. During the 1930s, stops at Langley, Wright, and Mitchel fields were included on the itinerary of summer Cadet tours of camps. The goals of these tours of observation were a familiarization with the Air Corps and its functions, and the stimulation of interest in the Air Corps (Listing n.d.:2). Throughout the 1930s cadets studied Air Corps organization, equipment and training, and received some primary flight instruction during trips to various Army air fields during the summer months. Most actual flight training followed graduation (Anonymous n.d.a:1).

In the fall of 1933, Lenor F. Loree, president of the Delaware and Hudson Railroad Corporation and a prominent New York financier, called on President Roosevelt to urge him to secure funds necessary to carry out the Smith plan for enlargement of West Point's facilities. The president referred him to General Douglas MacArthur, then Army Chief of Staff. MacArthur asked his deputy, Major General Hugh A. Drum, to designate someone to work with Mr. Loree. Major George J. Richards was appointed, and he worked with Mr. Loree to lay out a plan of action.

After examination of the plan and the future needs of West Point, it was determined to be highly desirable to enlarge the acreage requested in the plan to include enough land to assure adequate maneuver area and to control the Popolopen Watershed. This additional acreage was included in the revised plan (Richards n.d.b:1).

The original plan had called for the purchase of land south of Ladycliff Academy in Highland Falls, largely on the Morgan property, as the site for an airfield to serve West Point. However, this purchase was ruled out because of objections from large landowners on the east side of the Hudson, by the inability of the site to accommodate large planes, and by the direction of President Roosevelt. The site could have accommodated only a north-south runway of limited length with little possibility of expansion and no possibility of directional runways (Richards n.d.a:1).

After the rejection of the Ladycliff site, the search for an airfield site was broadened. Lieutenant Kenner F. Hertford, Corps of Engineers, was chosen to survey other sites in the vicinity of West Point. Hertford examined possible sites around West Point and Cornwall, and after consultation with Lieutenant J.M. Weikert of the Army Air Corps, he concluded that no suitable site was available in those areas. Hertford recalled this consultation in remarks at the twelfth anniversary of Stewart Air Force Base:

> ...Lieutenant Weikert at that time had looked over the possibility of leveling out Storm King and a few other mountains around West Point to get an airfield, and in my talks with him I said, "Well, why do you have to have such long runways—why won't a little place like this do—nice and cozy to get in there." He said, "Well, you don't understand that twenty years from now, or thirty years from now we'll need ten thousand foot runways." I'm not quite sure if he said the thousand feet, but he said several thousand feet runways. He had the foresight to realize that nothing would do around West Point (Stewart 1954:11-12).

During this search. Captain Hertford became acquainted with Archie Stewart and thus learned of the Stewart family's gift of land for an airport for the city of Newburgh (Richards n.d.a:2). Lieutenant Hertford found out that the city, with the consent of the Stewarts, might be willing to sell the property to the U.S. Army for a token sum. Hertford, Archie Stewart, Thomas W. Stewart, and Major George J. Richards toured the site together. Following discussions at the Palatine Hotel in Newburgh, the parties agreed that the site was suitable for the Army's use and developed plans to secure its transfer to the Military Academy. They agreed that following approval by the Newburgh City Council, the airport would be sold to the U.S. Army for one dollar (Richards n.d.b:2-3).

During the negotiations, it had been assumed that the land for the airfield could be purchased under the provisions of the Act of March 3, 1931 (46 Stat 1491) which had authorized the acquisition of land around West Point under the provisions of the General Smith Plan. However, because the Newburgh site was distant from West Point and had not been under consideration when the authorization act was passed, the Judge Advocate General decided that the Army did not possess the necessary authority to acquire Stewart Field. To secure this authority, a special act, the Act of May 13, 1936 (49 Stat 1271), was passed in which Congress authorized the Secretary of War to acquire the land by donation. Under the provisions of the Act, the land was officially accepted for the Army in September 1936 and was publicly dedicated by the Superintendent of the Military Academy at a ceremony held there (Richards n.d.b:3). Major Richards suggested to the Army Chief of Staff that the airport be named Stewart Field in honor of the donors of the land, and this suggestion was agreed upon (Richards n.d.a:2).

The donated tract consisted of 220 acres of land, a dirt runway, and a few permanent utility/all-purpose structures. From the beginning, the participants in development of a plan for acquisition of the airfield realized that an area larger than that of the Stewart Farm and the smaller adjacent parcels would be required to establish an acceptable airfield. Reconnaissance of additional adjacent acreage by Archie Stewart and Hertford indicated that the desired additional acreage could be secured and that construction costs would be reasonable.

Work on Stewart Field had slowed down by the summer of 1936. In that year, the U.S. Army began work on the field with funds from a $400,000 WPA appropriation. This appropriation enabled large scale construction to begin. By late fall, three shifts of workers were engaged in earth moving. Two hundred seventy men were employed of which 216 were from the Newburgh relief rolls. Hangar construction had started at the northeast corner of the airport property (Dillon and Frier 1944:6).

Major General John M. Weikert, the first commander of the Stewart Field, colorfully described the difficulties of initial construction in an anniversary celebration for the air base: "During the first five years after Stewart Field was accepted by the government the construction and the development of Stewart Field progressed like a herd of turtles going to a picnic" (Stewart 1954:13).

Work continued into 1937, and employment at the site increased daily. The first drainage system was completed in February 1937, materially aiding in the grading work. By the spring of the year about 400 men were working on airport construction (Dillon and Frier 1944:6). Work slowed down in the early portion of the summer, but resumed in earnest in July after a $120,000 WPA appropriation was received, followed by an additional $147,956 WPA allotment and $75,000 granted by the War Department (Dillon and Frier 1944:6-7).

With the increased interest in aviation at West Point came a growth in the amount of available equipment. By 1937, West Point was allotted two airplanes, a BT-7 and a BT-2B, both of which were hangared at Stewart Field. This was the first year that Stewart was used by the Army. Previously, West Point's airplanes were hangared at Mitchel Field (Hempstead, NY), Newark (New Jersey) Airport, or Walden (New York) Airport during the winter. By the end of 1938, the equipment had been further augmented and consisted of an OA-3 airplane, a BT-7 airplane, a BC-1 airplane, a V-13 crash boat, and a E-3 fuel truck (Scrapbooks 1937-1938:n.p.).

In March 1938, Brigadier General Henry H. Arnold, Acting Chief of the Air Corps, asked the Chief of Plans to furnish him with information concerning Stewart Field. Among the questions asked were:

> Considering the small amount of Air Corps instruction given at West Point now, would the Air Corps be warranted in maintaining such a field?
>
> What representations can be made to the Superintendent of the Military Academy and the Commandant of Cadets for a change in the Air Corps instruction policy of West Point? (Cannon 1970:38).

The Chief of Plans indicated that "it would be better to take each 1st class to some large Air Corps station" where the cadets could receive their instruction in a short period of time and thus make "the rest of the summer available to the Academy for other purposes." Aircraft brought to Stewart Field could not be operated as efficiently as at their home stations, and in addition, there were no gunnery or bombing ranges nearby. He also believed that any increase in the cadets' workload would be excessive. If it was decided to enlarge Stewart Field, the Chief of Plans thought that it should be made a subpost of West Point which should be charged with the construction. He further indicated that the Air Corps should be responsible for the additional personnel required and the maintenance of equipment for these additional personnel (Cannon 1970:38).

The first indication that the Army would seek additional acreage to enlarge Stewart occurred in 1938 when Brigadier General Jay L. Benedict, USMA Superintendent, appeared before the House Appropriations Committee and asserted that the airport was inadequate for large Army bombers (Dillon and Frier 1944:7). On July 1, 1938, work on the airport was suspended indefinitely due to lack of further WPA funds.

Despite doubts about the necessity of Stewart Field, its construction continued. A new $75,000 WPA grant enabled construction to resume on the field in late April 1939. A month later, one of the airport's first celebrity visitors arrived: Colonel Charles A. Lindbergh. On June 12, 1939, about 25 planes used the field in transporting Army officers to the Military Academy commencement ceremonies (Dillon and Frier 1944:8).

During 1939, West Point continued to increase its commitment to aviation. By the end of the year, eight airplanes, a Link flight trainer, as well as the fuel truck and crash boat, were assigned to Stewart. On February 14, 1939, Captain John M. Weikert was relieved from duty as an instructor in the Department of Natural and Experimental Philosophy and was assigned as Commanding Officer of the U.S. Military Academy Air Corps Detachment and the Commanding Officer of Stewart Field (Scrapbooks 1939:n.p.).

The physical plant at Stewart was enlarged during the year. Two temporary hangars were erected by early July. An apron measuring 130 by 150 feet was built in front of the hangars, a five thousand gallon fuel system was installed, and a heating plant was built onto the southeast corner of the south hangar. In addition, a lean-to was constructed on the south side of the south hangar. This addition contained barracks for 22 men, an operations office, and an observation and radio control room. The maintenance crew, which formerly commuted from West Point, lived in the barracks (Scrapbooks 1939:n.p.). In addition, a NYA aviation ground mechanics school was established at Stewart, providing an opportunity for young Newburgh area men to receive training under Army supervision (Dillon and Frier 1944:8-9).

Further additions were made to the physical plant of the airfield during the following year. In the fall, the supply, parachute, operations and headquarters departments were moved into the basement of the auxiliary barracks while construction of a new addition to the hangar was started. This addition, a lean-to to the north side of the hangar, housed the operations, radio, supply, and pilots' locker rooms on the first floor, and the parachute department, technical library, and Commanding Officer's office on the second floor (Scrapbooks 1940:n.p.).

Much of the original design of Stewart Field was completed by its first commander, John M. Weikert. In the twelfth anniversary dedication of Stewart Air Force Base, General Hertford described Weikert's role in the process:

> He was the man--an Air Corps, an Army Air Corps officer without any particular education except having gone to the Military Academy and Flying School -- and he came up here and was told to build up an air base at this place. Well, normally you get an engineer to do this, an architect engineer who makes a layout..and then you get someone else to make drawings and you get a contractor and then you go through the channels of procedures. Instead of that he designed the officers' club in the back seat of a Ford going down to New York one day, bouncing around. He did his own architect engineering except the detailed drawing....He told me all about this, how he built this building and that building (Stewart 1954:11-12).

In 1940, West Point cadets first used the field, taking off from there on their tour of training to various Eastern airfields. This was the first time that the field was used by large planes in speedy, mass takeoffs. Later in 1940, President Roosevelt approved an additional $593,607 for construction of the airport (Dillon and Frier 1944:11). This appropriation allowed money for more excavation, draining and seeding, paving of runways and taxi strips, removing obstacles, installing a lighting system, and making alterations and additions to buildings and utilities (Anonymous 1940). In early 1941, airfield workers were put on the 48-hours defense work week, enabling asphalt paving of the East-West and Southeast-Northwest runways to proceed quickly (Dillon and Frier 1944:11-12).

It was envisioned that the larger airfield would be required for passenger and air cargo service for West Point. It was also envisioned that the airfield would serve as a fighter base, primarily for the defense of the New York area against enemy air or sea attack, and secondarily for fighter defense of the Boston-Newport and Philadelphia-Baltimore areas (Richards n.d.b:2-3).

As construction of the airfield continued, personnel of the U.S. Military Academy saw the need for increased training in the Air Corps' subjects. In January 1941, Major General Robert L. Eichelberger, then Superintendent at West Point, corresponded with General Henry H. Arnold,

Chief of the Army Air Force. The correspondence pointed out the fact that while the cadets were receiving a limited amount of general aviation background training, they did not get enough, nor was it on par with their training in other branches of the service (Listing n.d.:2).

In February 1941, Brigadier General Rush B. Lincoln, who was to become Commanding General of the Technical Training Command, discussed the West Point curriculum with Air Corps officers and the superintendent of West Point. Following this discussion, General Lincoln reported his belief that changes in the flying program would receive "favorable consideration" from the Academy Superintendent. Lincoln recommended the adoption of the following program:

> During the summer of the First Class year, the cadets should receive eight or ten hours of practical training, which "could include puff target missions, reconnaissance, photographic command, and liaison work."...The cadets could take during their Second Class Year six or eight hours of lecture orientation in preparation for practical training. In the First Class academic year each cadet should receive at least five hours of Link training and from 15 to 20 hours of Air Corps conferences and map problems....Flight-qualified cadets who elected the Air Corps should be given 10 hours of dual instruction and flight training (Cannon 1970:39-40).

The first proposal for the commencement of actual flight training was made in July 1941. Following visits to the schools where West Point graduates were receiving flight training, Colonel O.J. Gatchell of the faculty of Natural and Experimental Philosophy, recommended to the superintendent the initiation at West Point of "a course in primary flying for all First Classmen who successfully pass the Air Corps physical examination and indicate a preference for that arm of the service" (Listing n.d.:3). First regular instruction of qualified USMA cadets in flying courses was begun on September 19, 1941, with classes in flying, engineering, and operations (Dillon and Frier 1944:12) held at Stewart Field (Tozeski n.d.:1).

In the middle of October 1941, Brigadier General Eichelberger requested the assignment of primary training airplanes and 20 pilots to Stewart Field for a three-month period in the spring of 1942 to provide flight training to cadet volunteers who had requested detail to the Air Corps. Eichelberger noted that this "would put the Air Corps branch instruction at the Military Academy on the same basis as that of other arms." With the use of the primary trainers, it would be possible to provide cadets sufficient dual training and to pick out those who lacked flying ability. Under the existing system, Academy graduates who lacked this ability were not eliminated until after they had received instruction at an Air Corps school. If most of the elimination was accomplished at Stewart Field prior to graduation, the number of students subsequently returned to another branch of the Army would be reduced (Cannon 1970:40).

General Arnold approved of the proposed additional flight training at West Point. He believed that all cadets should be given the examination for flight training in the Yearling (Third Class or Sophomore) Year. Those who successfully passed the physical examination would receive primary flying during their Yearling summer and the final academic year. At the end of their Yearling Year, they would relinquish two weeks of their summer furlough to take additional flight training. By the time they became First Classmen, the cadets would have advanced to the stage where they would be able to take cross-country flights in basic and advanced training. Under this concept, a cadet would have accumulated approximately 400 flying hours, including instruction three times per week and on Sundays. In a letter to the Superintendent, Arnold described his plan:

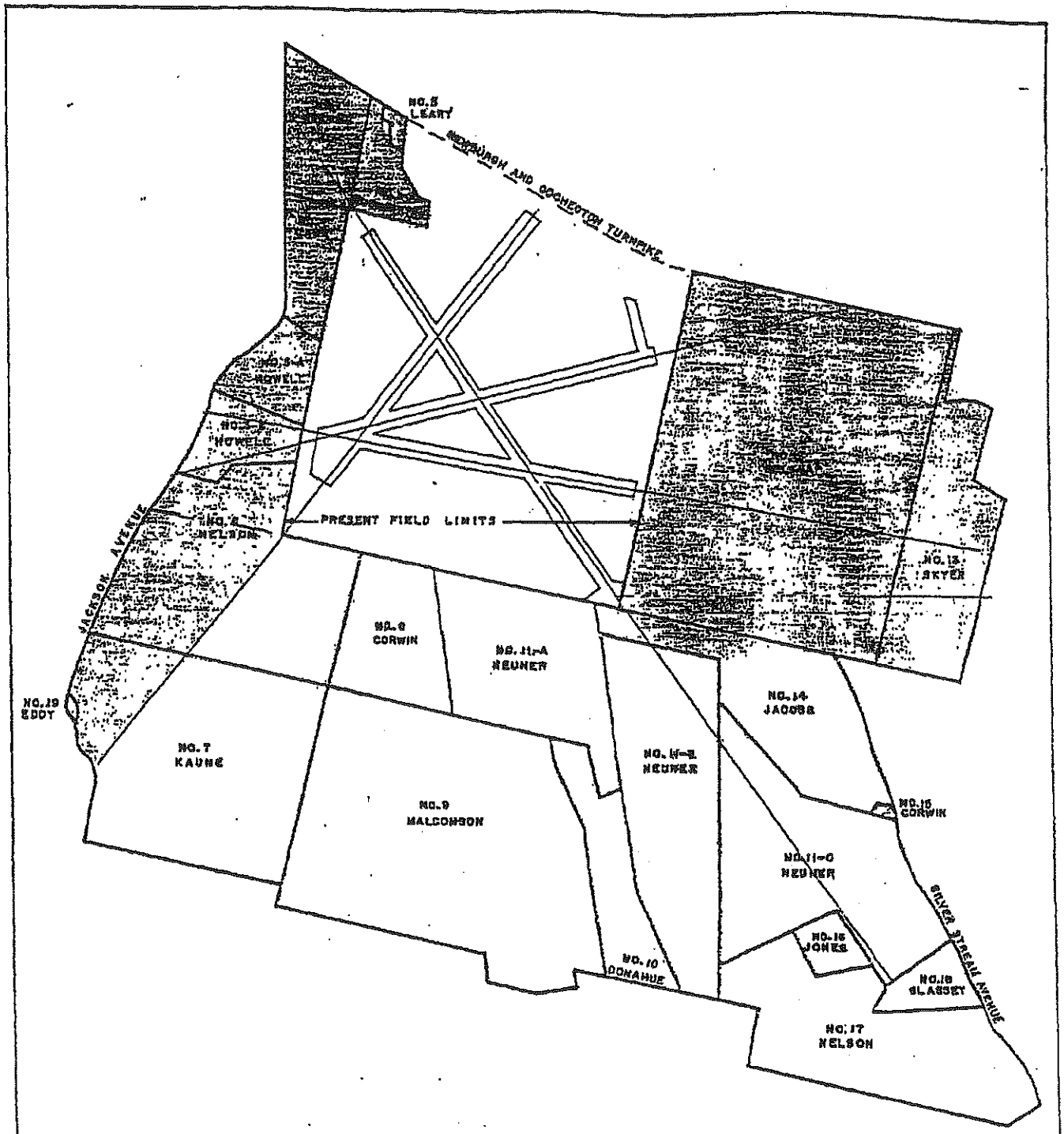
> My thought is that it is possible, if the Academic Board and the Infantry and Cavalry instructors don't put too many obstacles in our path, to give the yearling by the time he is through yearling camp approximately 60 hours, which would have him soloing in PTs [Primary Trainers]. By the end of his yearling year, assuming he can take flying instruction after Academics or by having a study period of the end of the day, instead of earlier in the day, which he could use for this purpose, he should be able to get a total of 100 hours during that year which would give him 160 hours by the time he goes on furlough. Then by concentrating on the cadet two weeks before he goes on furlough or two weeks after, he would have it ground in enough so that his instruction during his second class year should give him around 200 or 300 hours at the end of his second class year.
>
> This may be just a day dream but it would seem to me that by that time he would have enough time on the BT [Basic Trainer] or AT [Advanced Trainer] so that as a reward for giving up part of his furlough, we would, some time in the first class year, be able to give him weekend privileges with an AT or BT. By the time he graduates he should have a total of about 400 flying hours (As cited in Cannon 1970:41).

On December 3, 1941, approval was received to initiate a short course of elementary flight training at Stewart. All First Classmen who desired the training and could qualify for it would receive from 10 to 12 hours of dual instruction. This training was designed to weed out students unable to successfully complete regular flight training, as well as to waken cadet interest in the Air Corps. Those eliminated for lack of flying proficiency would not be eligible for any future flight training. The flight training would be given five afternoons per week, and Saturdays and Sundays would be available to make up time lost due to bad weather (Cannon 1970:41).

Flight instruction was provided by Air Corps personnel stationed at West Point, while noncommissioned officers stationed at Stewart provided instruction in operations and engineering. Flight training was provided in the Field's three primary trainers, powered by Luscombe motors with cruising speeds of about 100 miles per hour (Anonymous 1941b).

At the same time that plans were developed for flight training of cadets, construction at Stewart was proceeding apace. By October 1941, options had been acquired on all 19 farms needed for the planned 1,010 acre expansion of Stewart Field (Figure 10) (Anonymous 1941a). On October 29, the 226 acres of lands comprising the original portion of Stewart Field were made part of West Point in exchange for a one dollar check to the City of Newburgh (Dillon and Frier 1944:12). Eventually a total of 45 tracts were acquired, ranging in size from .35 acres to 150 acres (Figure 10 and Appendix I). The first of the tracts needed for the expansion was acquired in 1941, and the last in 1944.

In February 1942, a mammoth building program was started with $16,000,000 approved for construction. This appropriation was officially approved by the U.S. House Appropriations Committee in March as part of the sixth supplemental defense appropriation (Anonymous 1942a). John M. Weikert, Commanding Officer of Stewart Field, described his involvement in the design and construction of the installation in remarks made in 1954:



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Cultural Resources Input to the Environmental Baseline Study
Stewart Army Subpost
U.S. Military Academy, West Point
Orange County, New York

Figure 10. *Stewart Field. Land Acquisition* (USMA Office of the Quartermaster 1941).

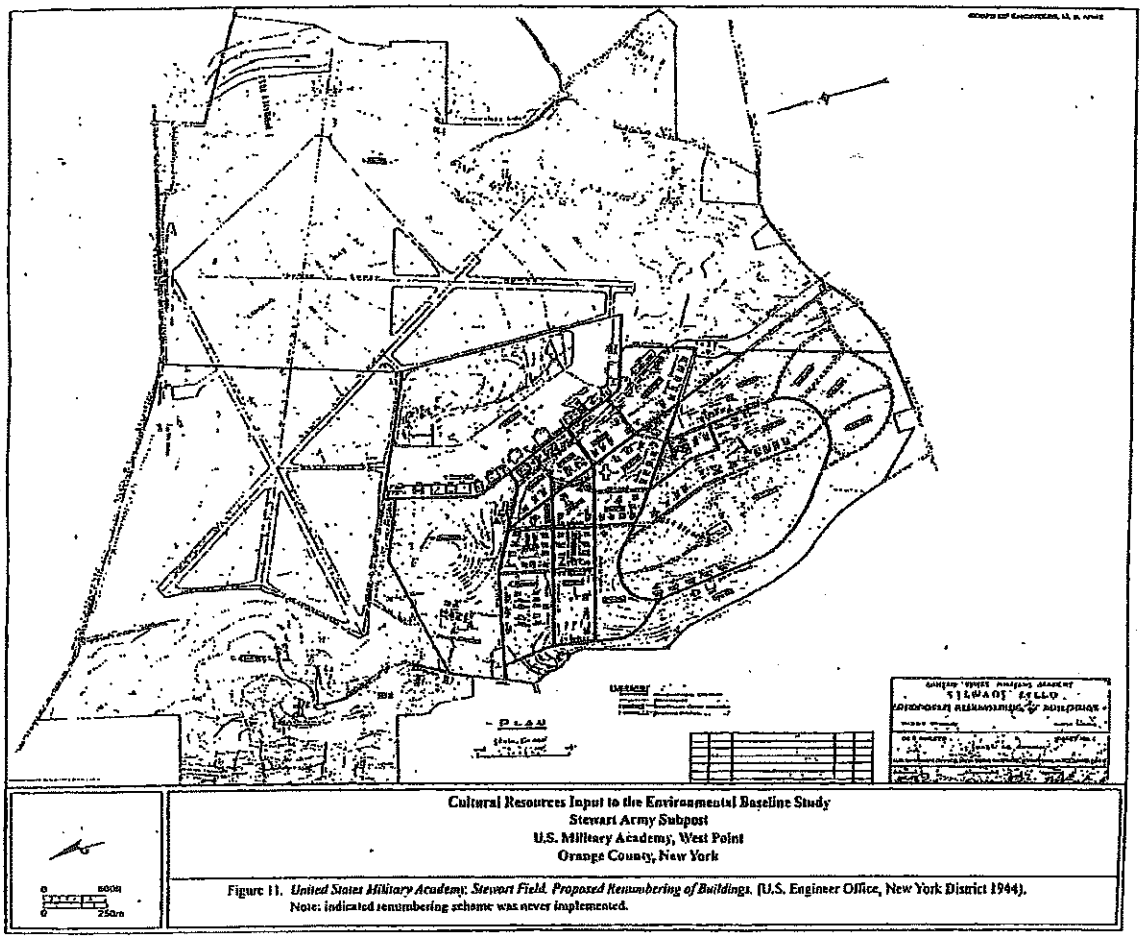

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Figure 11. *United States Military Academy, Stewart Field. Proposed Renumbering of Buildings.* (U.S. Engineer Office, New York District 1944).
Note: indicated renumbering scheme was never implemented.

Hangar 60, the new flying officers heard Lieutenant General Barton K. Yount, Commanding General of the Training Command, tell them how their military background at West Point would help make them superior officers (Dillon and Frier 1945:163).

The last class of USMA Air Cadets started their basic training at Stewart Field in July 1945. These 264 men had completed their primary training at other fields. Of this number, 210 completed the course on August 30, 1945 and returned to West Point. On March 4, 1946, the advanced phase of flight training began, and 208 cadets graduated with wings on June 4, 1946. Of the portion of this class that started primary flight training, 55.7 percent were graduated with wings. During training at Stewart Field, each cadet received approximately 173 hours in the air, and 282 hours of ground school instruction.

As in previous years, classes of Aviation Cadets were trained at Stewart Field during the winter months to better use the facilities. One class of 68 cadets completed the advanced phase of training, while another class completed all but five weeks of the advanced phase at the field.

Other aviation training was also conducted at Stewart. In June 1946 a three-month program of Air Screening-Air Indoctrination was begun for the entire First and Second classes. The course was for the purpose of indoctrinating cadets with Air Force capabilities and limitations, and screening them as to their aptitude and ability for flying. Each cadet received approximately 25 hours in the air, 5 hours in the AT-6 type aircraft, 10 hours in the AT-11, and 10 hours in the PT-13. Ground training included classroom instruction, on-the-line operational instruction, and lectures concerning analysis of maneuvers, engineering, and personal equipment (USMA Sup. 1946:28-29).

Stewart also hosted an instructors' school, aimed at alleviating the shortage of single-engine instructors. This school was conducted for about 30 twin-engine pilots during the period between the completion of Aviation Cadet classes and the beginning of the advanced phase of the USMA Air Cadets' training (USMA Sup. 1947:28-29).

The effect of the time taken away from West Point academic work for Air Cadet flight training was a source of concern to some faculty members. One anonymous faculty member of the Department of Ordnance recommended changes to the training program:

> To my mind, the best solution is to give *all* pilot training after graduation. If this is too drastic for the Air Force to agree to, I would *insist* that advanced training came after graduation and try hard to give nothing but primary training at *Stewart Field* during the three-year course. In a four-year course, all cadets may well be given more *preflight* air training (including as much time in the air as possible): Air Cadets should get as little more as can be accepted by authorities. I am strong for making cadets West Pointers first and flyers afterwards (as cited in Cannon 1970:81).

With a decreased need for Army pilots following the war, the West Point program ended. West Point archivist Sidney Forman wrote of the reasons for the discontinuation of the program:

> The introduction of aviation training, imposed on an already full academic program of essential studies, was severely handicapped by a lack of time. This was vastly emphasized by the war-time reduction of the West Point Course to 3 years. The aviation program consumed furlough and vacation time. The time

problem was also accentuated by the distance between West Point and Stewart Field, some 17 miles.

> The Class of 1944 moved to Stewart Field for full-time basic aviation training. This division between Air and Ground cadets led to branch jealousies on the part of some.... Furthermore, the problem of what to do with "wash-outs" presented new difficulties. In some cases, cadets de-emphasized their academic studies while in flying training. A Cadet "wash-out" of advanced flying lost a serious part of the training he would have ordinarily gotten in the new branch of service in which he would find himself. A possible solution would have been the "washing-out" of the Air Cadet into the administrative end of aviation. Surveys revealed no desire on the part of the cadets to become Air Force administrative officers.
>
> Experience with the program finally proved that it was impractical and undesirable from the Military Academy viewpoint and from an Air Force viewpoint. It was found that unless the Air Cadets were completely withdrawn from academic studies in the Military Academy for a period of approximately 9 months, their pilot training suffered due to a lack of continuity. In 1946, therefore, the practical flying course was suspended (Forman 1956:3-4).

On August 25, 1945, the Post War Curriculum Committee made its final report to the Military Academy's Superintendent. Concerning flight training, the committee reported:

> The Committee has given very careful consideration to the nature of aviation training at the Military Academy and believes that experience has shown that the length of time and the continuity of instruction required to qualify cadets as pilots not only deprives Air Cadets of valuable academic instruction but seriously interferes with the whole academic curriculum. Furthermore, the Committee believes that pilot training is so specialized that it is inconsistent with the mission of the Military Academy. Therefore, aviation training should be limited to that desirable for all cadets regardless of the branch of the service to which they are assigned (Cannon 1970:117-118).

In the post-war period, the Army Air Forces prepared plans for a separate air academy. In September 1947, the United States Air Force became an independent agency in the Department of Defense. With the creation of the Air Force, the Superintendent of the Military Academy and his staff ended consideration of any flight training in the West Point curriculum (Cannon 1970:118).

In planning the U.S. Air Force Academy curriculum, Brigadier General Dale O. Smith evaluated West Point's wartime experience with pilot training. His conclusions were summarized in Cannon's history, *Flying Training at West Point*:

> West Point's flying program went into effect following the decision to have the three-year program. This meant that the cadets had only the last 13 1/2 months for additional flying training, which compared unfavorable to the Air Force's 1952 flying program, in which 18 months were devoted to flying training with but few purely academic courses. Also, the cadets received 225 hours of flying as compared to 350 in the 1952 program and 270 hours through the basic stage. Since West Point had integrated little or no ground school material into its

> academic and tactics curriculum, it was necessary to have 212 hours of ground school, making a total of 437 hours in the flying program. In order to accomplish this flying, West Point excused its air cadets from 144 hours of academics and 734 hours of military training in the summer. Bad weather and the 38-mile trip to and from Stewart Field accounted for a large percentage of the 878 hours thus made available. General Smith concluded, "From the built-in handicap, it appears that the West Point experiment was doomed to fail...." He felt that the flying program at West Point had suffered from the factors mentioned and also from the adverse attitude of the Military Academy officers toward the program. He believed that professional training of potential Air Force officers should center on flying training. "I maintain," General Smith said, "that knowledge and skill in control of weapons of the air is just as essential in the professional training of an Air Force officer as knowledge and skill in the use of infantry weapons to an infantry officer...." (Cannon 1970:83).

The USMA furnished only a very small percentage of flight rated officers required by the Army Air Forces in World War II. By September 30, 1945, 657 Air Cadets from West Point had completed pilot training. Between July 1939 and August 1945, 193,443 pilots had been graduated from the advanced flying schools and commissioned in the Army Air Forces. An additional 124,000 had washed out (Cannon 1970:82).

In June 1946, it was announced that a USMA Preparatory School would be part of the future mission of Stewart Field beginning September 1. The Air Cadet area would house approximately 900 cadets. Personnel assigned to the school would include six officers, nine enlisted men, and ten civilian instructors. The Commanding Officer of Stewart, Benjamin J. Webster, indicated that he had no knowledge concerning War Department and Army Air Force plans for the remainder of the flying field (Anonymous 1946a).

The USMA Preparatory School was charged with the following missions:

> To prepare properly assigned students of the school to pass the requirements for admission to the United States Military Academy.
>
> To give such students a foundation which will assist them in their pursuit of academic, military, and physical training courses encountered throughout their attendance at the Military Academy.
>
> To indoctrinate students in the methods and practices of the Military Academy.

The Preparatory School conducted two courses of academic instruction for cadet candidates. The first course was given to prepare cadet candidates for the entrance examination in March and presented instruction in algebra, plane geometry, English, and American History. The second course was offered to those candidates who had completed the entrance examination to give them a firmer foundation for the academic courses encountered after admission. The total enrollment in the school during 1946-47 was 491, although the peak enrollment at any one time was 332 (USMA Sup. 1947:42-43).

In August 1946, it was announced that 612 enlisted personnel at Stewart Field would be leaving for reassignment. As a result of this reduction of personnel, the remaining squadrons were

consolidated in a smaller area of the facility. The headquarters base squadron enlisted men's area was consolidated in Area 16. The hospital remained open as would the Bachelor Officer Quarters and Married Officer Quarters. Non-commissioned Officers Quarters were relocated in Area 20, buildings 2000, 2002, and 2004. Other living quarters were closed, including square B and F and square A. The West Point Preparatory School occupied the entire Area 19, as well as a few buildings in Area 18 (Anonymous 1946b).

Effective October 1, 1946, technical control of Stewart Field, as well as the auxiliary fields at Walkill and Montgomery, were transferred from the Air Training Command (ATC) to the Tactical Air Command (TAC), Langley Field, Virginia. Most military and all civilian personnel at Stewart were transferred along with the command. Twenty-five aircraft based at Stewart, including 12 AT-6s, 10 B-25s, three P-47s, and two P-51s, were also transferred to the TAC. The remaining aircraft assigned to the ATC were disposed of as excess (Greene et al. 1946:2-3). The Superintendent supported the change in jurisdiction under several conditions:

> The Commanding Officer, Stewart Field, will continue to provide the facilities and aviation training necessary for cadets of the U.S. Military Academy under the aviation training program so approved by the War Department.
>
> The Commanding Officer, Stewart Field, will provide aircraft and facilities for the maintenance of proficiency flying of pilots stationed at West Point.
>
> The Commanding Officer, Stewart Field, will provide facilities and assist in staging airborne instruction and training required by personnel of West Point.
>
> Stewart Field will continue to serve as the airfield for the Military Academy.
>
> Stewart Field will continue to accommodate and maintain the West Point Preparatory School (Anonymous 1946c:1).

Shortly thereafter, the base was designated as 2002d AAF Base Unit (Base Services). At the end of 1946, the operating force of the unit totaled 53 officers, 481 enlisted personnel, and 242 civilian personnel. Because of the cessation of student flight instruction, the number of aircraft assigned to Stewart was reduced from 193 in July 1946 to 31 in October 1946 (USMA Sup. 1947:44).

Stewart Field was turned over to the newly established Department of the Air Force on July 24, 1948 (Tozeski n.d.:2). Under the terms of this transfer, the USMA Preparatory School could remain at Stewart; the Commanding Officer of Stewart Field was relieved of assignment to the USMA and was reassigned as directed by the Chief of Staff of the Air Force. In addition, the Commanding Officer of Stewart Field would provide administrative flight facilities to the USMA insofar as practicable; continue to provide aircraft and facilities for the maintenance of proficiency flying; assist in the staging or airborne training required by personnel of West Point; and continue to accommodate and maintain facilities of the USMA Preparatory School. In exchange, the USMA agreed to include in its annual maintenance budget funds to pay the Preparatory School's share of utilities (Reed, Thompson, and Russ 1948:1-2).

4.6 Stewart Air Force Base

In 1949, the newly established United States Air Force placed Stewart under the control of the Air Defense Command (ADC). The airfield was designated as Stewart Air Force Base. The first commander of the base was Colonel Hallock P.K. Walmsley (Stewart 1962:3). The first Air Force aircraft to land at the base were a squadron of F-64 Thunder Jets, the pilots of which arrived for summer training in May 1949 (Dennison 1967).

Shortly after its acquisition, the Air Force announced plans to close down the installation. According to an Air Force spokesman, the field was to be declared excess and turned over to the General Services Administration for disposal. When asked the reason for the planned closing, the spokesman reported, "It is costing us a lot of money and we get no value back from it." With the cessation of flight training at West Point, the field served no useful purpose other than the occasional landing of transport aircraft on routine training flights. The Air Force spokesman indicated that the flying officers serving as instructors at West Point would have to go to Mitchel Field on Long Island to get their monthly flying time. As of July 1, 1949, the installation had a civilian workforce of 388 (Martin 1949).

The decision to close Stewart was reversed later in 1949 as a result of increased funding for Air Force tactical units. The base was assigned the tactical role of defense of the eastern United States. In October 1949, the Department of the Army had received informal assurance that the USMA Preparatory School could continue at its Stewart location until at least June 30, 1950 (Morse and Andrus 1949).

The USMA maintained a small presence at Stewart Air Force Base throughout the period of Air Force operation of the facility. The USMA Preparatory School was located there until July 1, 1957, when it was relocated to Fort Belvoir, Virginia. In its last year at Stewart, 187 cadet candidates were enrolled. One hundred twenty-nine took the March or June West Point entrance exam, and 90 were entitled to admission to West Point (USMA Sup. 1957:93-94).

The 2nd Aviation Detachment was located at Stewart throughout the period of its operation by the Air Force. The mission of this detachment was listed as follows in the 1956 Superintendent's Report:

> Providing technical advise and assistance in Army Aviation matters and subjects to the Superintendent, Commandant of Cadets and their staffs; the Department of Tactics... and Troop units of this command;
>
> Assisting in planning and presentation of Army Aviation Training for cadets;
>
> Maintaining liaison with the Army Aviation School and other agencies for the purpose of maintaining cognizance of latest doctrine, techniques, and materiel;
>
> Conducting orientations for cadets concerning career opportunities in Army Aviation;
>
> Providing airlift and liaison service as directed by the Superintendent (USMA Sup. 1956:53).

In the 1955-56 academic year, a total of 729 hours was flown in the support of the Academy. Between January 1 and May 31, 1956, the detachment flew 43,948 passenger miles, 185 passenger hours, 163 cargo hours, and 81 training hours. During August and September 1955, a helicopter from the detachment assisted in rescuing flood refugees in the northeastern United States (USMA Sup. 1956:53-54).

In 1959, the detachment consisted of four aircraft, including two L-23s, one H-34, and one L-19. The detachment included five officers and 12 enlisted men. Support for its mission from the Air Force included hangar space, and "such assistance from aircraft specialists and base shops personnel as may be required" (Kriebel 1959).

In 1960, the 2d Aviation Detachment had an authorized force of seven enlisted men and 12 officers. Its assigned aircraft included two L-23D command type airplanes, one U-1A light transport airplane, one TL-19D observation airplane, and one H-34C light cargo helicopter. A total of 1,600 hours were flown on 548 flights. Other activities of the detachment included the conduct of eight hours of classroom instruction for the Corps of Cadets, involving the organization, function, and tactical employment of Army Aviation. In addition, a helicopter-borne operation took place as part of Phase II of the Third Class Field Exercise at Camp Buckner (USMA Sup. 1960:102).

Personnel of the 2d Aviation Detachment were divided between West Point and Stewart. A memorandum requesting authorization for additional personnel noted that the aircraft, aircraft supply, and maintenance facilities were located at Stewart Air Force Base, while the unit headquarters, unit supply, and cadet training facilities were located at West Point (Robinson 1961:2).

In 1962, Stewart Air Force Base had a garrison strength of approximately 3,000 military personnel. At that time, Stewart was the home of the 4603d Air Base Group, which had the responsibility of maintaining and running the base. Assigned to the group was the 4713th Defense Systems Evaluation Squadron, which flew B-57 twin-jet aircraft, and Detachment 1, 4650th Combat Support Squadron, which flew C-123 transport aircraft (Stewart 1962:n.p.).

By 1964, Stewart was the headquarters of the 26th Air Division (Semi-Automatic Ground Environment, or SAGE). This division was responsible for the aerospace defense of six million square miles of North America, including the 24 eastern states, Puerto Rico, and Greenland. The First Air Force Reserve Region Headquarters was also located at Stewart, as was the 4713th Defense Systems Evaluation Squadron. Tenant activities included the ADC Manpower Validation; Auditor General, USAF; Detachment 1, 4650th Combat Support Squadron; Detachment 11, 12th Weather Squadron; 221st Field Training Detachment; 579th Air Force Band; 904th Troop Carrier Group; 2000th Communications Squadron; and 4601st Support Squadron (A.W. Publications 1964:7-8, 13).

By 1969, the flight line featured T-33, B-57 Canberra, T-39, C-124, C-119, T-29, and C-54 aircraft. The facility was the Headquarters of the First Region, Army Air Defense Command, which coordinated and supervised the defense of New England, New York, Philadelphia, Baltimore, Washington, D.C., Norfolk, Miami, and Key West. Tenant units based at Stewart included the 3501st USAF Recruiting Group; 425th Munitions Maintenance Squadron; 4713th Defense Systems Evaluation Squadron; 579th USAF Band; Detachment 1374-1030 USAF Auditor

General; 2000th Communications Squadron; Detachment 1, 4650th Combat Support Squadron; 904th Military Airlift Group; and 2nd Aviation Detachment, USMA (Anonymous 1969:5, 8-9).

An Air Defense base, Stewart served as the headquarters installation for the defense of the eastern portion of the United States. The sequence of units based at Stewart included the Eastern Air Defense Force from January 1951 to January 1960; the 64th Air Division from May 1960 to July 1963; the 26th Air Division/26th NORAD (North American Air Defense Command) Region/26th CONAD Region from July 1963 to April 1966; and the First Air Force/Eastern NORAD/CONAD Region from April 1966 until its closure (Dennison 1967:4-5).

The First Air Force was also responsible for air defense forces in Greenland, Iceland, part of Alaska, and part of Canada. Included within its area of responsibility was most of the DEW (Distant Early Warning) Line. Another unit located at Stewart was the 4713th Defense Systems Evaluation Squadron. The 4713th DSES tested the effectiveness of the NORAD and SAGE system at Stewart by portraying an enemy attack over Greenland, Alaska, Canada, and the continental U.S. (Dennison 1967:5).

In 1967, the 1st Region (ARADCOM) was transferred from Fort Totten, New York to Stewart. This command moved into a newly constructed $763,000 headquarters building (Building 1708). The 1st Region contributed surface-to-air missile units to the combined air defense system of the Army, Navy, and Air Force (Dennison 1967). One of the last units operated out of Stewart was the 904th Military Airlift Group, a unit that flew transport missions carrying Vietnam War wounded back to the United States (Anonymous n.d.b).

By the late 1960s, Stewart Air Force Base military reservation occupied 2,129 acres of land with off-base facilities covering an additional 423 acres. There were 507 buildings, 66 miles of roads, and a 7,000-foot long runway. The base population included approximately 5,600, and annual payroll was approximately $3,500,000 in military and $2,500,000 in civilian wages. While the installation was primarily controlled by the Air Force, the 1st Aviation Detachment of the USMA remained at Stewart with a hangar and four aircraft (Dennison 1967).

In 1969, the Air Force announced deactivation of Stewart as of the end of the year. In February 1970, the Metropolitan Transportation Authority (MTA), a New York state agency, took over most of the area of the airfield. It was officially named the Stewart Airport and was designated a general aviation facility. In its early years, the airport handled about 6,000 landings and takeoffs per month (Anonymous n.d.b). The Department of the Army issued a license authorizing the MTA to operate the Stewart facility with the provision that the U.S. Army aviation elements operating there (USMA and ARADCOM) would be provided control tower services, navigational aids for IFR operations, weather advisory service, flight dispatch, crash rescue, snow removal, airfield maintenance, and other normal aeronautical services. All military aircraft would be granted free landing and parking rights, and the U.S. Army would retain ownership of Hangar 108 and 109 (Jeter 1970:1).

In a November 1969 memorandum in the USMA Archives, the total Army requirements for the former Stewart Air Force Base were outlined. The Army assumed total strength of 3,000 military and dependent personnel, including 189 ARADCOM (129 Military), 31 STRATCOM, 21 ARADCOM Aviation, 17 USMA aviation, 11 Army flight personnel, 12 military intelligence group personnel, and approximately 2,700 quarters occupants. Aviation requirements included hangars, an operations building, an airfield tower, enlisted men barracks, ramp space, an aviation

fuel storage and dispensing facility, ground support equipment, and unlimited landing rights. Support facilities included a post exchange, commissary, transportation motor pool, medical support, and storage space (Marks 1969).

Operation of the housing at Stewart was officially transferred by the 4784th Air Base Group, Otis Air Force Base, Massachusetts to the Director of Family Housing, USMA on May 1, 1970. A total of 591 family housing units and additional transient units were included in this transfer (USMA 1970:30). The portion of the former Air Force base not leased by MTA was designated as STAS, USMA.

4.7 Stewart Army Subpost (STAS)

By 1971, STAS was touted by Governor Nelson Rockefeller's staff as the "prime" location for a passenger and cargo jetport to take some of the pressure off Kennedy, LaGuardia, and Newark airports. According to State Senator Richard Schermerhorn, STAS could be developed into the metropolitan area's fourth major jetport (Curran 1971). Due in part to objections of local residents, STAS never assumed this role.

In July 1976, two studies concerning the future of STAS were completed by officials at USMA. The first study addressed the feasibility of closing the installation and disposing of the real property. The study's authors concluded that excessive costs would be incurred for construction of housing and additional facilities to accommodate USMA personnel and their dependents if STAS was closed. A second study addressed the conversion of base operations at STAS to commercial contract operations (USMA Sup. 1977:86). This led eventually to contracting out some STAS functions, including building maintenance and repair and road maintenance.

In the 1978 fiscal year, STAS received a new tenant when the Facilities Engineer Support Activity Detachment IV, Team B, was moved from Fort Belvoir to STAS. This 10-person team provided technical support for military installations in the northeastern United States for the operation and maintenance of high voltage power plants. During the same year, relocation of the northeastern operations center of Federal Express from Boston to Stewart Airport was begun. This construction, which was anticipated to be completed by the end of 1979, was estimated to result in up to 600 new jobs at STAS (USMA Sup. 1978:112).

In the 1979 fiscal year, the Federal Bureau of Investigation established a local office in Newburgh as a tenant of Building 1708. This office space became available when the U.S. Army Communications Command moved its communications center operations from STAS to West Point (USMA Sup. 1979:158).

In 1981, another tenant activity was established at STAS: the USAF 3516th Recruiting Squadron. This move was made to shift the squadron to a location which could provide housing, support facilities, and reduced cost. At that time the squadron was composed of 20 service members and three civilian employees (USMA Sup. 1981:160).

STAS received international attention early in 1981 when the airplane carrying the 52 hostages from the U.S. Embassy in Iran made its first landing in the United States at the airport on January 25th. The hostages were met at the MTA Terminal Building by the Superintendent of the USMA and were then taken to West Point where they spent several days at the Hotel Thayer. The former hostages departed from STAS enroute to Washington, D.C. (USMA Sup. 1981:160-161).

Stewart Airport had become a major air cargo facility by the 1980s. The key cargo tenant was Emery Worldwide. Leases were also signed with Purolator Courier, Air Express International Airlines, Camelot Courier, and Mid-Hudson Cargo. W.R. Grace, an international conglomerate, constructed a 48,000-square-foot aircraft hangar and office complex at Stewart, and development had begun on an industrial park in the northern portion of the property (Schermerhorn n.d.).

By the late 1970s, the New York Air National Guard (ANG) had determined that its facilities at Westchester Airport would be inadequate to accommodate the operations of the 105th Military Airlift Group, should the group by assigned a new mission of aircraft. A formal request for relocation was received by the USMA during the 1981-82 academic year. This request included use of 11 vacant barracks and administrative buildings at STAS plus shared use of the STAS dining facility. These facilities were anticipated to be used for approximately five years until the ANG constructed its own permanent facilities on Stewart Airport property (USMA Sup. 1982:107). In 1983, the group was relocated from Westchester to Stewart. The unit included 740 members, 160 of whom were full-time. One hundred additional personnel were anticipated upon conversion to full mission in 1984. Under a two party agreement between New York State and the Federal Government, the 105th leased 25 buildings at STAS (Tweedly and Allgauer 1983).

Groundbreaking for the new ANG facility took place in September 1984 with the local dignitaries in attendance. Construction of what was to become the largest ANG complex in the United States began in June 1985. The 243-acre complex, estimated in 1985 to cost $125 million to complete, was constructed to house the C-5A aircraft of the 105th Military Airlift Group and the KC-130T Hercules air refueling tanker squadron aircraft of an element of the 4th Marine Air Wing. The entire complex was expected to include 14 new buildings. Among these were a large hangar and an operations center (USMA Sup. 1983:137). With the assignment of eight C-5A Galaxy aircraft, the 105th Military Airlift Group became the largest in personnel of all ANG groups (USMA Sup. 1985:136).

While the ANG was the largest military unit relocated at Stewart, additional smaller units were also redeployed there. In June 1985, remodeling began on the first of two buildings to house the Material Management Center, 42nd Infantry Division, New York Army National Guard (ARNG). This unit had a full-time strength of 40 and a drill strength of 160. Also under construction during the 1980s was the new United States Army Reserve Center at STAS. This center was built to house two companies of the 11th Special Forces; HHC, 854th Engineer Battalion; and the 320th Evacuation Hospital (USMA Sup. 1985:136).

Coupled with military development of the former Air Force base was planned industrial and commercial development of portions of the tract unneeded by the airport. According to a 1986 article in the *Poughkeepsie Journal*, depending on which official was asked, development of the tract was anticipated to generate between 5,000 and 25,000 jobs within 20 years. William Boyd, president of Mid-Hudson Pattern for Progress, indicated that "Stewart will be one of the key developments of a more diversified economy in [the] area" (Anonymous 1986).

A consultant hired by the state studied the development possibilities of the tract and identified four separate areas with potential for development, totaling 1,100 acres. This development began with construction of a 300,000-square-foot regional mail-handling center and a 108,000-square-foot modular-home factory (Anonymous 1986).

In 1988, the first steps were taken toward activation of the U.S. Marine Corps Reserve C-130 Aerial Refueling Squadron at Stewart. This unit took possession of five of a requested 12 USMA buildings at STAS. Two of the buildings were acquired as administrative space, while the remaining three served as temporary barracks until completion of a new 100-man barracks. By June 30, 1988, the first of an estimated 300 full-time personnel had reported for duty at STAS (USMA Sup. 1988:168).

In 1991, representative of the USMA and the New York Department of Transportation met to discuss the possible future use of the 410 acres of the STAS. West Point spokesman Lieutenant Colonel James Hawthorne indicated:

> There is the possibility that as the Army changes shape, that will have an effect on the U.S. Military Academy and the contingent at Stewart and other units at Stewart which are not part of the Military Academy, but for which we have a responsibility (Gross 1991).

Hawthorne said that the discussion revolved around the likelihood that the STAS land could be important in the development of the airport as a regional facility:

> The land in the long term will be right square in the middle of long term development plans [for the airport]. At that time, we would have to reach agreement so as not to become a hindrance (Gross 1991).

He concluded that ideally it would suit the Army's purpose to move the residents of STAS to West Point. At that time West Point was responsible for approximately 300 Army families at the subpost and "a couple of hundred other military families for which we have support responsibility" (Gross 1991). The Military Academy anticipated completion of on-post housing for all its personnel by the year 2000.

In 1993, New York Representative Hamilton Fish urged that homeless families be housed in the Stewart Gardens townhouses, scheduled to be vacated by the Army. The USMA recommended to the Pentagon in July 1993 that at least 136 units at Stewart Gardens be demolished because of the high cost of renovation (Hall 1993a). Fish subsequently held a meeting to assess public feeling on the proposal. The consensus of opinion was summed up by New Windsor supervisor George Green: "I find it hard to believe that any single-family housing under the flight path of an airport would be considered reasonable" (Hall 1993b).

Presently, the primary mission of the STAS is to provide housing and support facilities for military personnel. A June 1981 memorandum from the Assistant Deputy Post Commander of STAS summarized the housing population of the post. A total of 579 military personnel were assigned to STAS housing. Of these, 362 or approximately 60 percent were enlisted personnel and 217 or approximately 40 percent were officers. Seventy percent of the officers living at STAS were associated with West Point, while the remainder were associated with tenant activities. The largest portion of the officers associated with tenant activities were personnel of the Readiness Group (64%). The next largest group (16%) was associated with the District Recruiting Command.

Of the 362 enlisted personnel, 221 (61%) were affiliated with West Point, 130 (36%) with tenant activities, and 11 (3%) were Waiting Wives. Tenant activities with enlisted personnel or officers residing at STAS included the Readiness Group; the District Recruiting Command; 146th

Ordnance Detail; 815th. Station Hospital; Air Force, Navy, Marine and Army recruiting; the 1814th Communications Squadron; the 535th Engineer Detail; and the 77th ARCOM (Bernstein 1981).

In addition to providing housing for USMA personnel, the STAS currently serves as the headquarters of the U.S. Army Recruiting Battalion. The battalion operates 35 recruiting stations and three Army Nurse Corps recruiting stations in southern New York (excluding New York City and Long Island), northern New Jersey, and Connecticut (Anonymous 1991).

5.0 RESULTS OF THE INVESTIGATION

5.1 Archeological Resources

5.1.1 Prehistoric Archeological Potential

The topographic setting of the project area suggests that, prior to modern construction activity, it may have possessed a moderate archeological potential. In the Paleo-Indian period, this was a dry hill, overlooking remnant proglacial lakes that might have attracted game. Considering the project area's proximity to the Stewart International Airport runways, it is relevant to note Gramly and Funk's (1990:12) suggestion that "A good strategy to follow when prospecting for Paleoindian encampments would be to consult the listing of public and private airfields published by the United States Department of Commerce and the Federal Aviation Administration." This apparent pattern seems, however, to reflect Paleo-Indian preference for sandy, elevated landforms with good drainage; in contrast, the Mardin soils in the Stewart Airport area are silt loams, only moderately well drained. The late Pleistocene lakes had turned into swampland by the Late Archaic. The presence of small Late Archaic sites in a roughly comparable setting north of the project area suggests the possibility of transient use of this location during the same period. However, there were numerous loci within a radius of a few miles that would have provided better access to wetland resources and potable water, and that would therefore probably have been preferred campsites. It is relevant to note that Curtin and Sugihara's (1987) shovel test survey of the eastern section of the South Cargo Area of the airport, about 1,000 feet west of the project area, yielded some isolated lithic flakes but no significant concentrations of prehistoric material. In any case, the prior construction that has occurred within the project area has probably resulted in disturbance and/or displacement of any substantial prehistoric cultural deposits that might once have existed in this vicinity, and the potential for significant prehistoric archeological resources is low. However, undisturbed portions of Prospect Hill (Figure 12) potentially may contain rock shelter sites.

5.1.2 Historic Archeological Potential

An examination of New York site files, published secondary sources, historic maps, and manuscript maps indicates that there are seven (7) areas of historical archeological site potential in the limits of the STAS. All of these are located along the east side of Jackson Avenue, which runs along the western slope of Prospect Hill (Hughes 1864), parallel to Beaver Dam Creek (Ruttenber and Clark 1881:212). The Catskill Aqueduct extends along the Beaver Dam Creek valley (Flinn 1989). Study of historic maps suggests that Jackson Avenue was established between 1819 and 1851. The road connected the Cochecton-Newburgh Turnpike, located north of the project area (present Route 17K), with the Little Britain Road (present Route 207). The turnpike was created during the first quarter of the nineteenth century to connect Newburgh with rapidly developing inland agricultural areas to the north and west. The Little Britain Road was an early eighteenth century overland route in the area.

The seven areas of historical archeological site potential are shown in Figure 12 and summarized in Table 3.

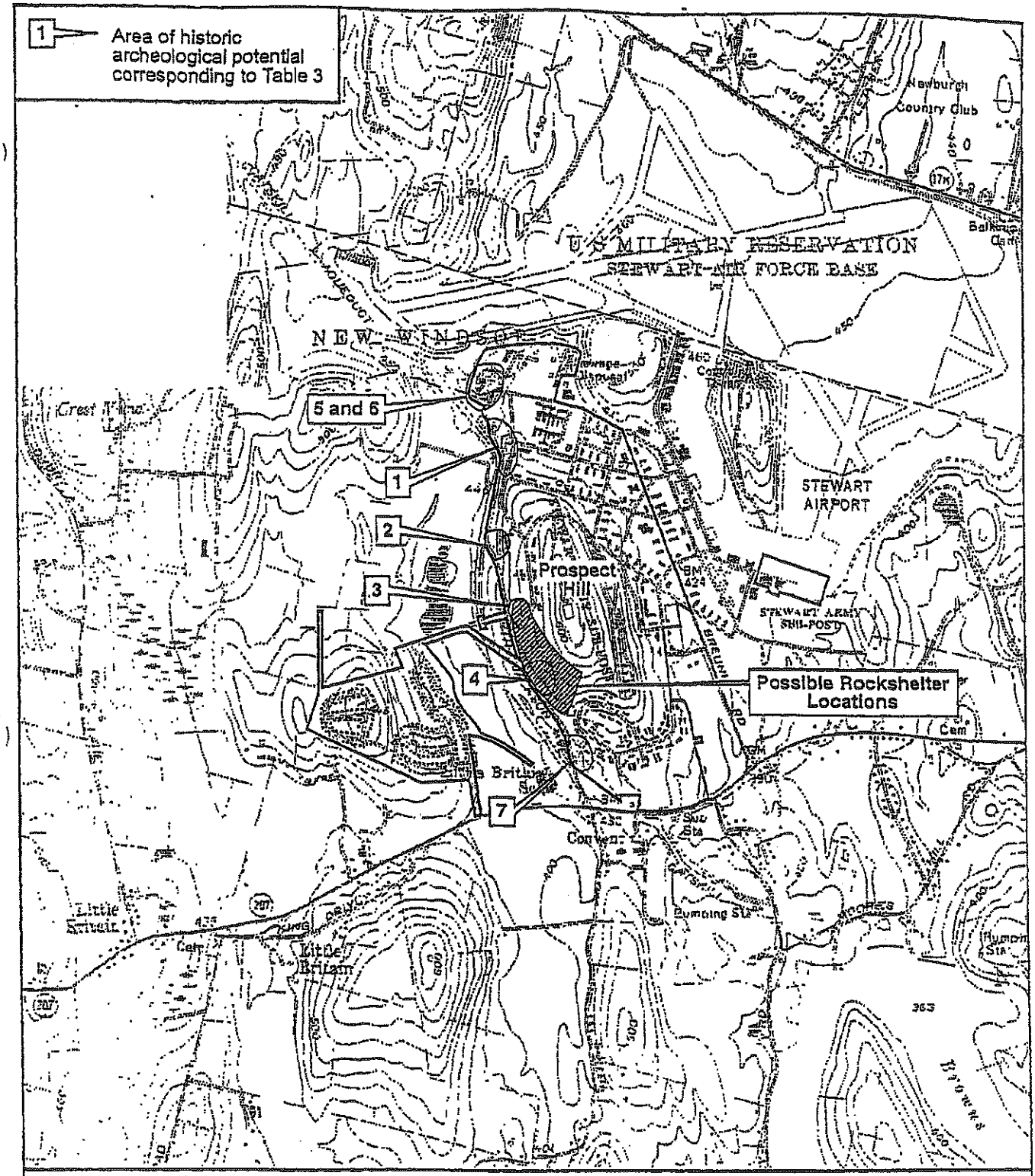

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Figure 12. Areas of archeological potential within the Stewart Army Subpost.

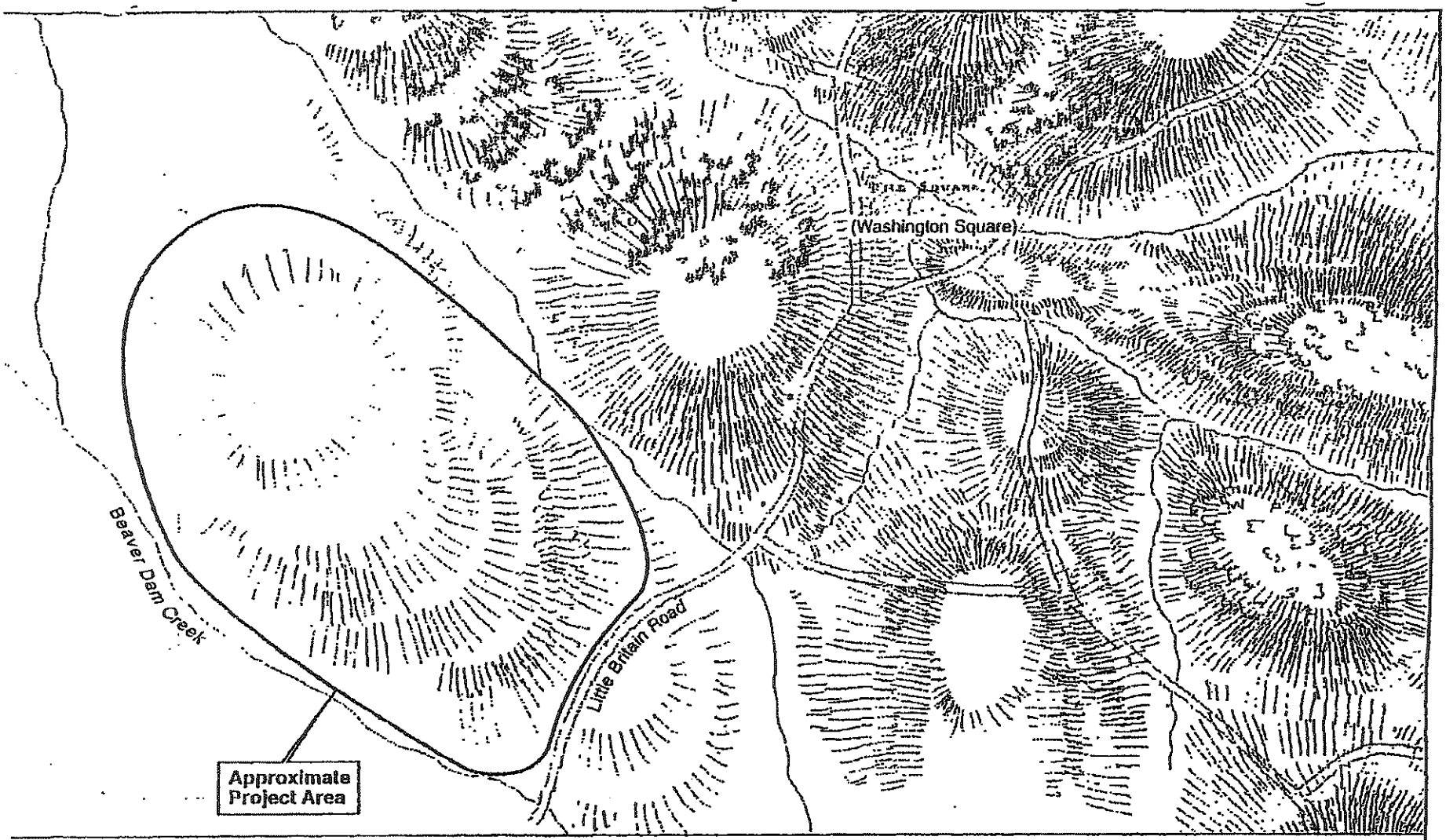

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Figure 13. Detail, *Military Topography of the Country Near Newburgh* (Kearny 1819).

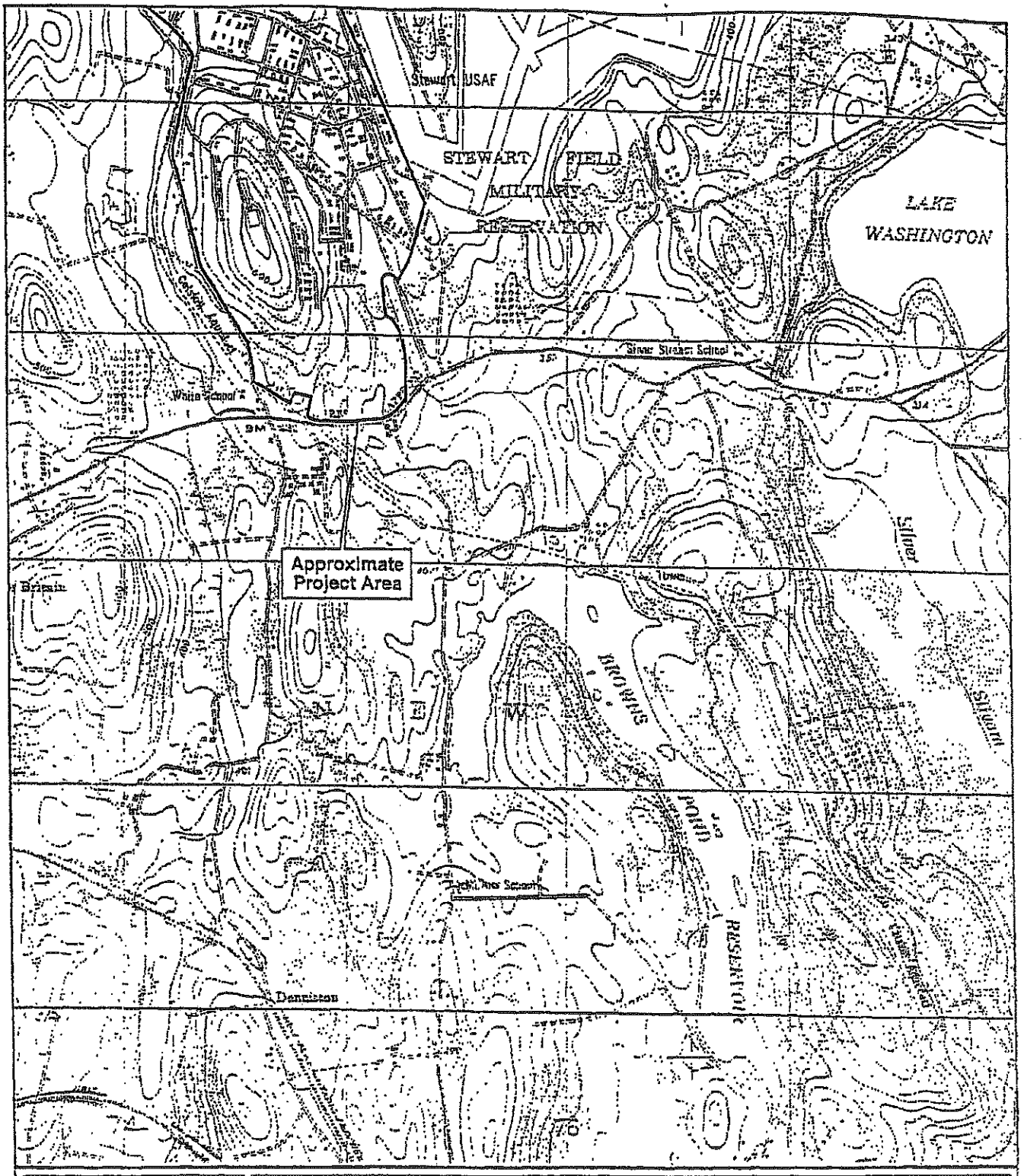

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Figure 14. Detail, *Cornwall Quadrangle 1:25,000* (USGS 1950).

Based only on documentary research, most of the potential historical archeological locations date from at least the middle of the nineteenth century. Location Number 1 includes both house and mill location; the house is the Sayre-McGregor House, (Building 2606), built in 1847, and currently occupied by the STAS base commander. The location of the mill may have been seriously impacted by construction of the Catskill Aquaduct in the first decade of the twentieth century, since it appears from an examination of the historic maps that Jackson Avenue was relocated to the east of Beaver Dam Creek due to the aqueduct construction. One of the locations, identified as Number 4 (Mrs. Denniston's), may have been abandoned after 1851, and Number 7 appears from the map evidence to have been a late (post-1875) structure, occupied in 1903 by J.K. Alexander and situated on land of Harvey Alexander.

5.2 Architectural Resources

With one exception, the buildings of STAS date from the military occupation of the property. Most of the buildings were erected during the World War II period and are of wood-framed construction, faced in brick. A smaller number of buildings postdate World War II. Among these are the present headquarters building (Building 1708) (Figure 15), the Five Star Inn (Building 2605), Base Enlisted Quarters (Building 2006), the U.S. Army Reserve building (Building 2008) (Figure 16), and the Marine Barracks (Building 1924) (Figure 17). Other post-war buildings, the Stewart Terrace Housing Area (Capehart) (Figure 18) and the Stewart Gardens Housing Area (Wherry) (Figure 19), were specifically excluded from this investigation under the terms of the Department of the Army Interim Policy for Cold War Era Historic Properties, dated November 1995.

The one surviving building that predates military ownership is the stone Sayre-McGregor House (Building 2606) (Figures 20-25), presently used as an officer's quarters. Its 1847 construction date is documented by a corner stone labeled "C. Arnot." C. Arnot was a local stone mason who was also responsible for construction of the nearby Hurd House and a no-longer extant schoolhouse at East Coldenham. Available evidence suggests that the house was constructed for Captain William Sayre, who acquired substantial property in the area during the 1830s (Seese 1941:33). Sayre was a captain on a Hudson River boat that plied the river between Newburgh and New York City. He also owned several additional boats (Anonymous 1895:501).

Sayre's heirs, through their representative, David A. Scott of Newburgh, sold the house to John McGregor in 1882. The 81.3 acre parcel was sold for $3,973.70 (Orange County Deed Book 312:261, April 1, 1882). After John McGregor's death, ownership passed to his sister, Agnes McGregor, of New Windsor Township. She sold it to L.W. Kaune in 1926 for the token sum of $10 (Orange County Deed Book 666:478, July 31, 1926). Lester W. and Della S. Kaune, in turn, sold it to the United States Government for $11,000 in 1941 (Orange County Deed Book 877:265, December 20, 1941). During construction of Stewart Field, the house was used as the office of Colonel Reedpath, resident engineer of the New York Engineering District. According to General Weikert, "He had to put an addition on to that house, which I might add was much larger than the house itself" (Stewart 1954:15).

This statement appears to be a slight exaggeration. Field examination of the property revealed probable additions to either end of a three bay, side hall plan stone house (Figure 22). A wood-framed block, sheathed in clapboards, was added to the south end. This addition contains a full basement, indicated on plans as a storage room, with a master bedroom above. The single story, stone-faced kitchen block at the north end of the house is another probable addition.

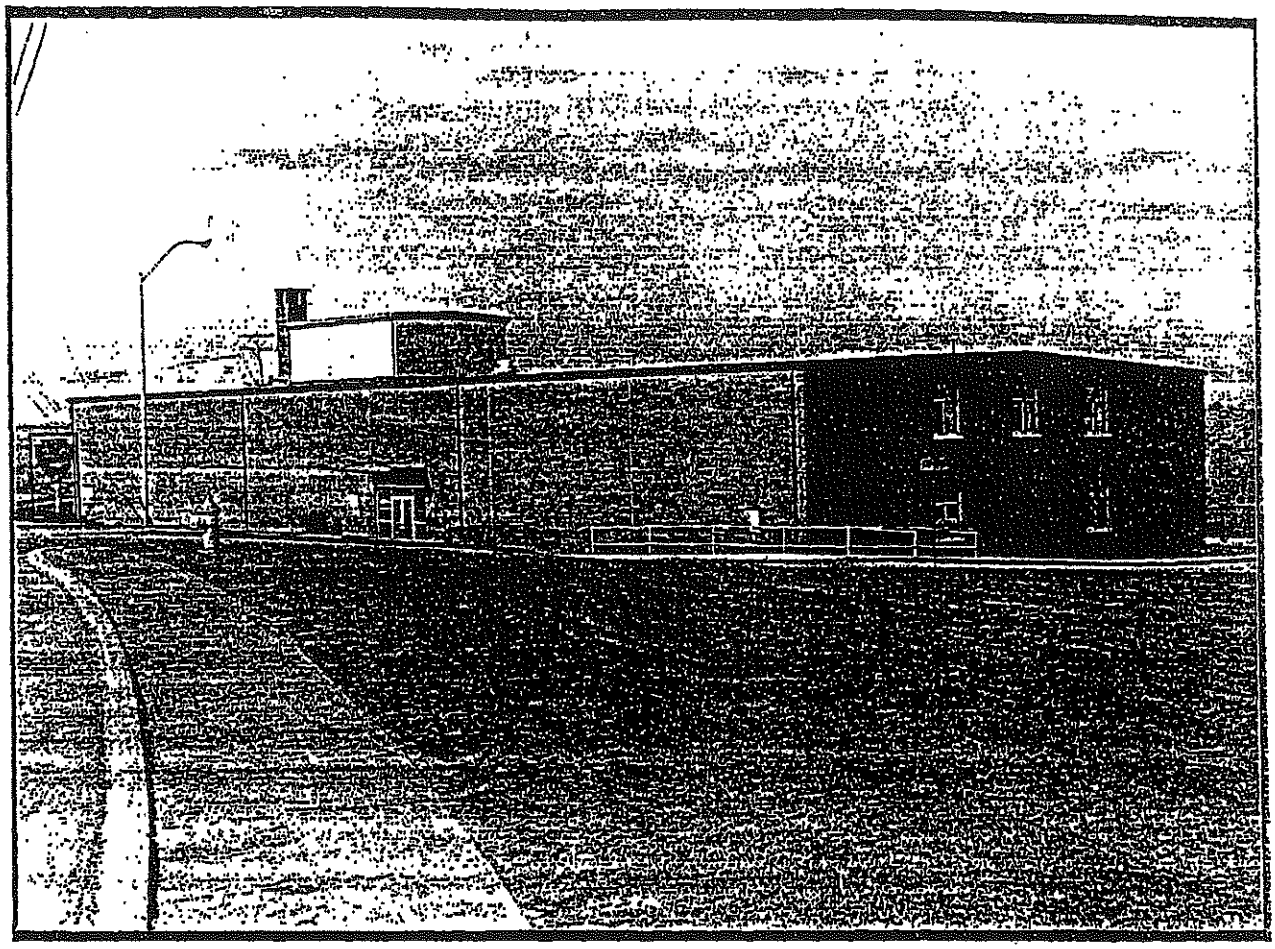


Figure 15. STAS Headquarters Building. Building 1708. Southeast facade and northeast side. Toward northwest. Photograph by Douglas C. McVarish.

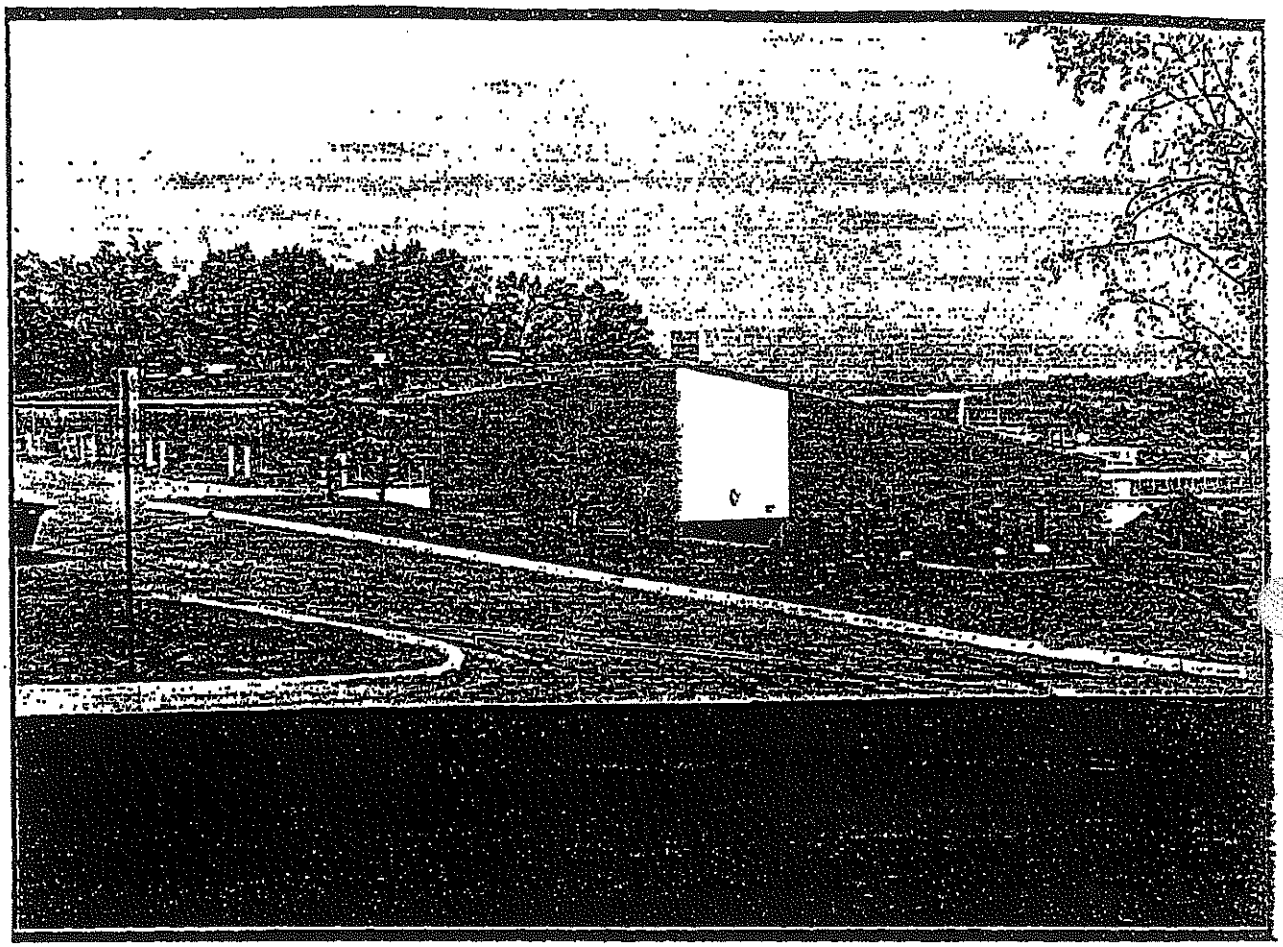


Figure 16. U.S. Army Reserve Center. Building 2008. South facade and west side. Toward northeast. Photograph by Douglas C. McVarish.

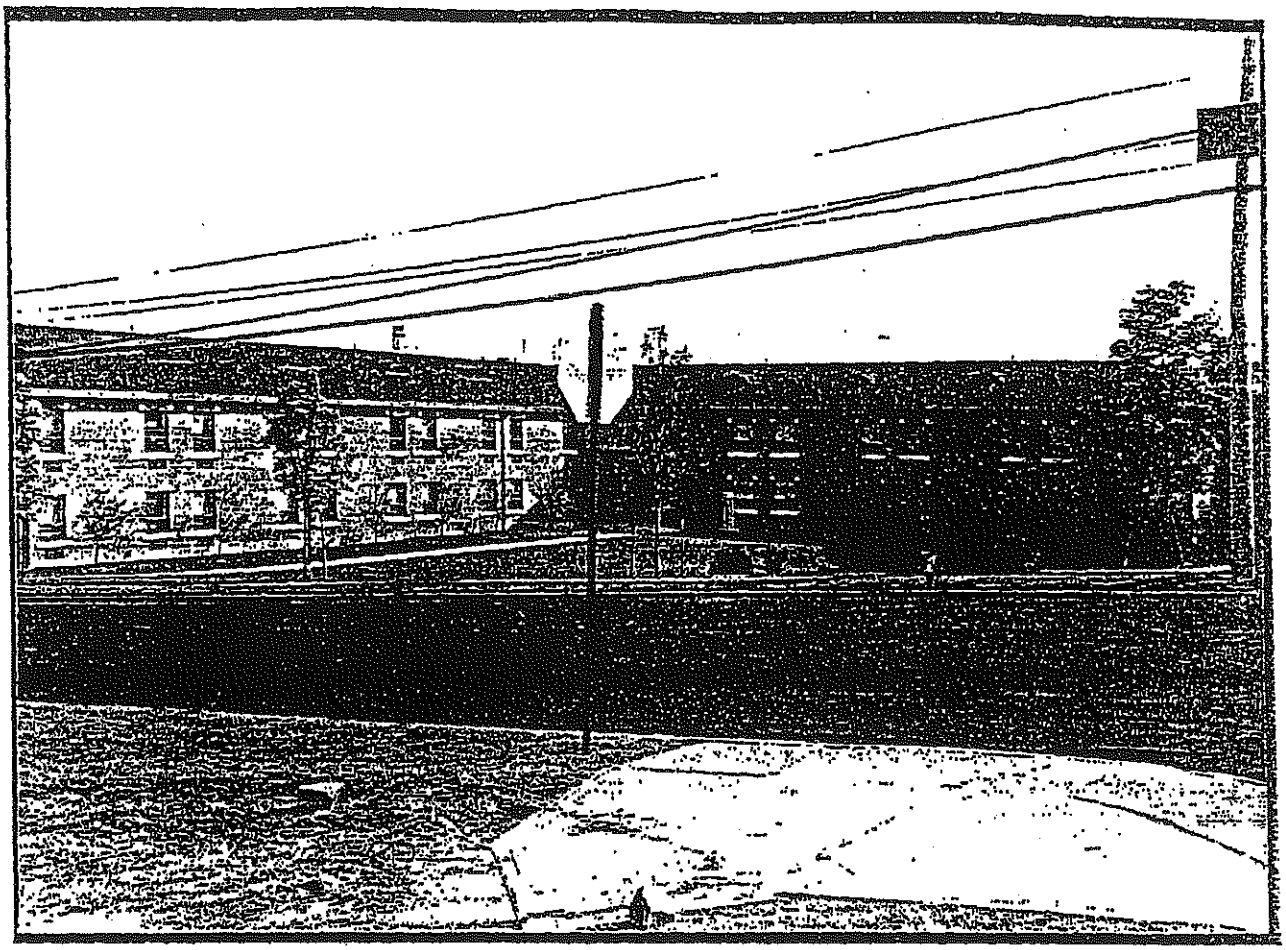


Figure 17. Marine Barracks. Building 1924. West side toward east. Photograph by Douglas C. McVarish.

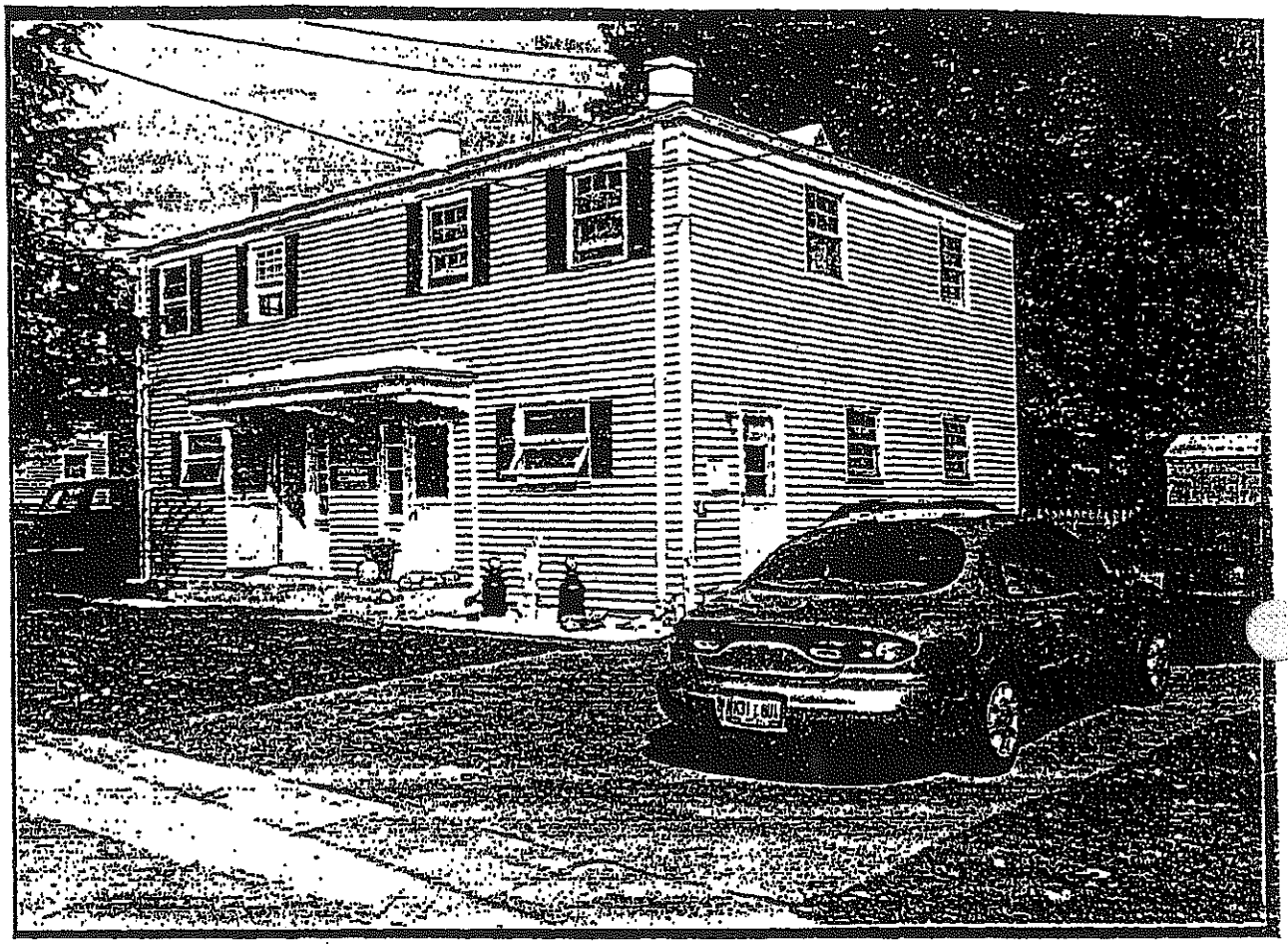


Figure 18. Capehart Housing (Stewart Terrace). Building 4013. West facade and south side. Toward northeast. Photograph by Douglas C. McVarish.

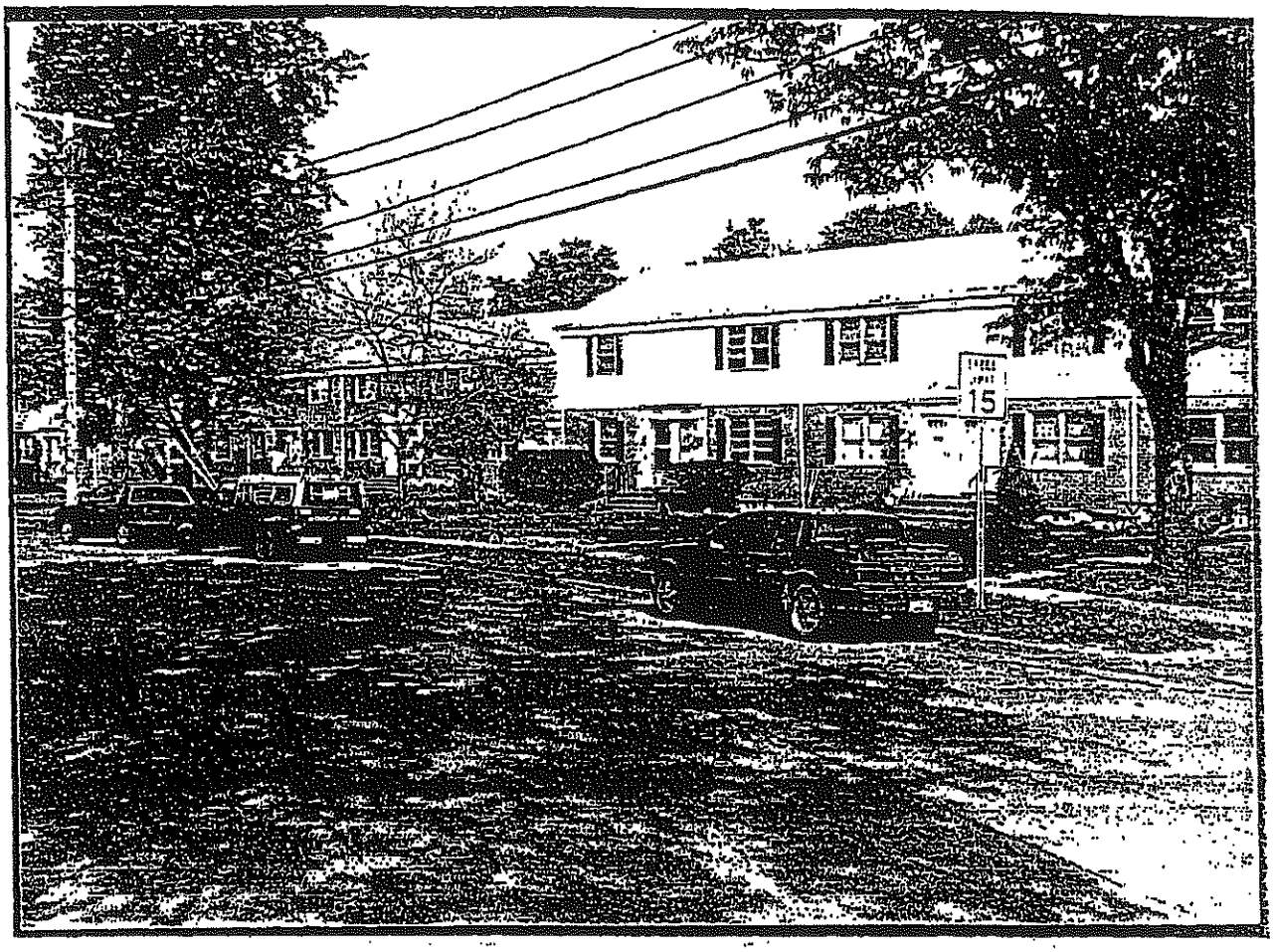


Figure 19. General view of Wherry Housing (Stewart Gardens) toward northeast. Photograph by Douglas C. McVarish.

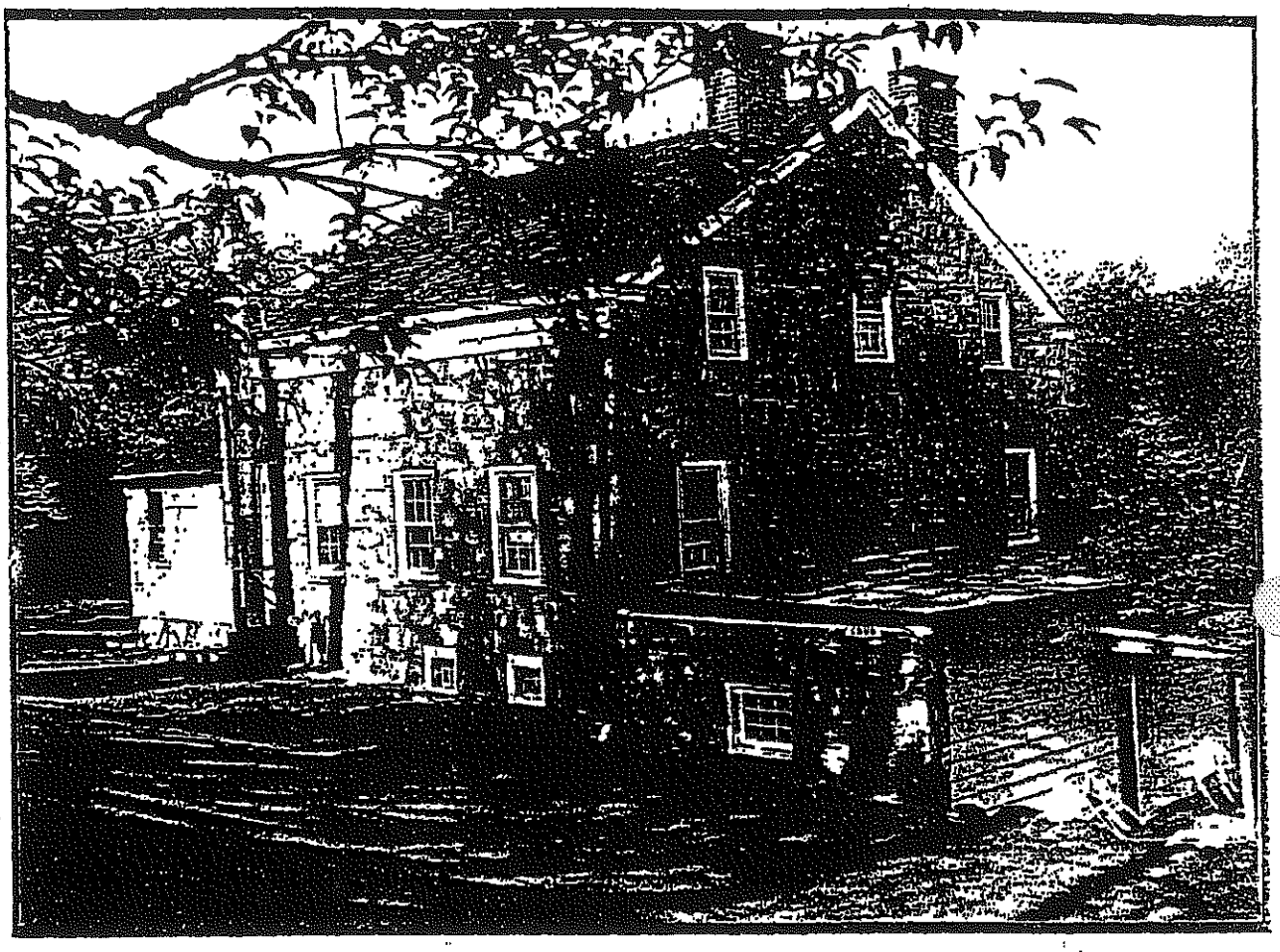
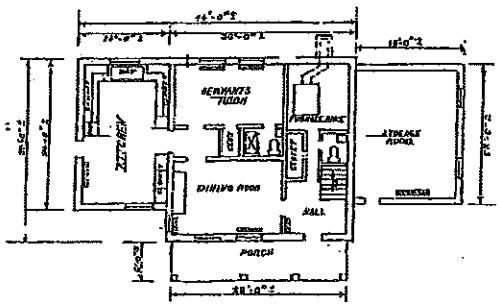
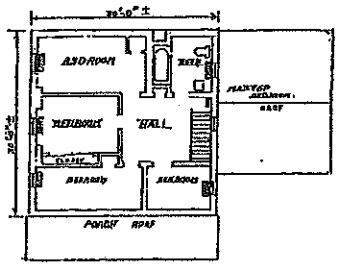


Figure 20. Sayre-McGregor House. East and north elevations. Note single story kitchen addition at right. Toward southwest. Photograph by Douglas C. McVarish.

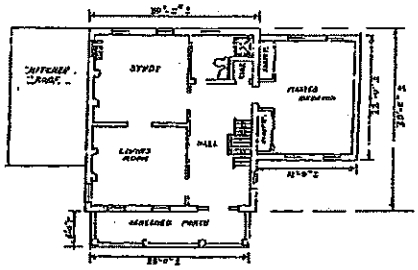
Figure 21. Sayre-McGregor House. South and west elevations. Note master bedroom addition at right. Toward northeast. Photograph by Douglas C. McVarish.



BASEMENT PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

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Figure 22. Sayre-McGregor House. Floor plans following ca.1942 additions and alterations (n.d.).

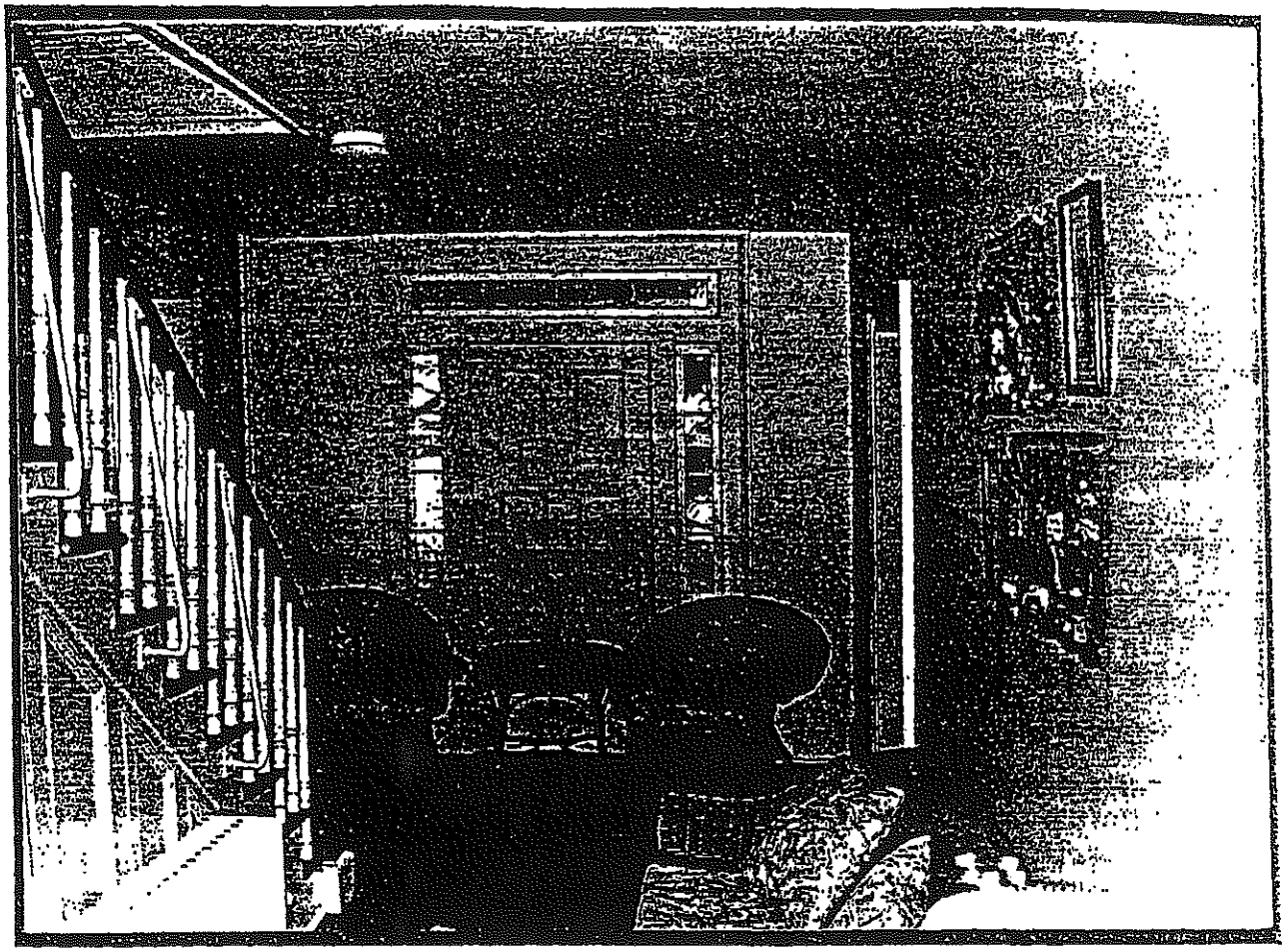


Figure 23. Sayre-McGregor House. First floor hall toward west showing staircase and main entry door with sidelights. Photograph by Douglas C. McVarish.

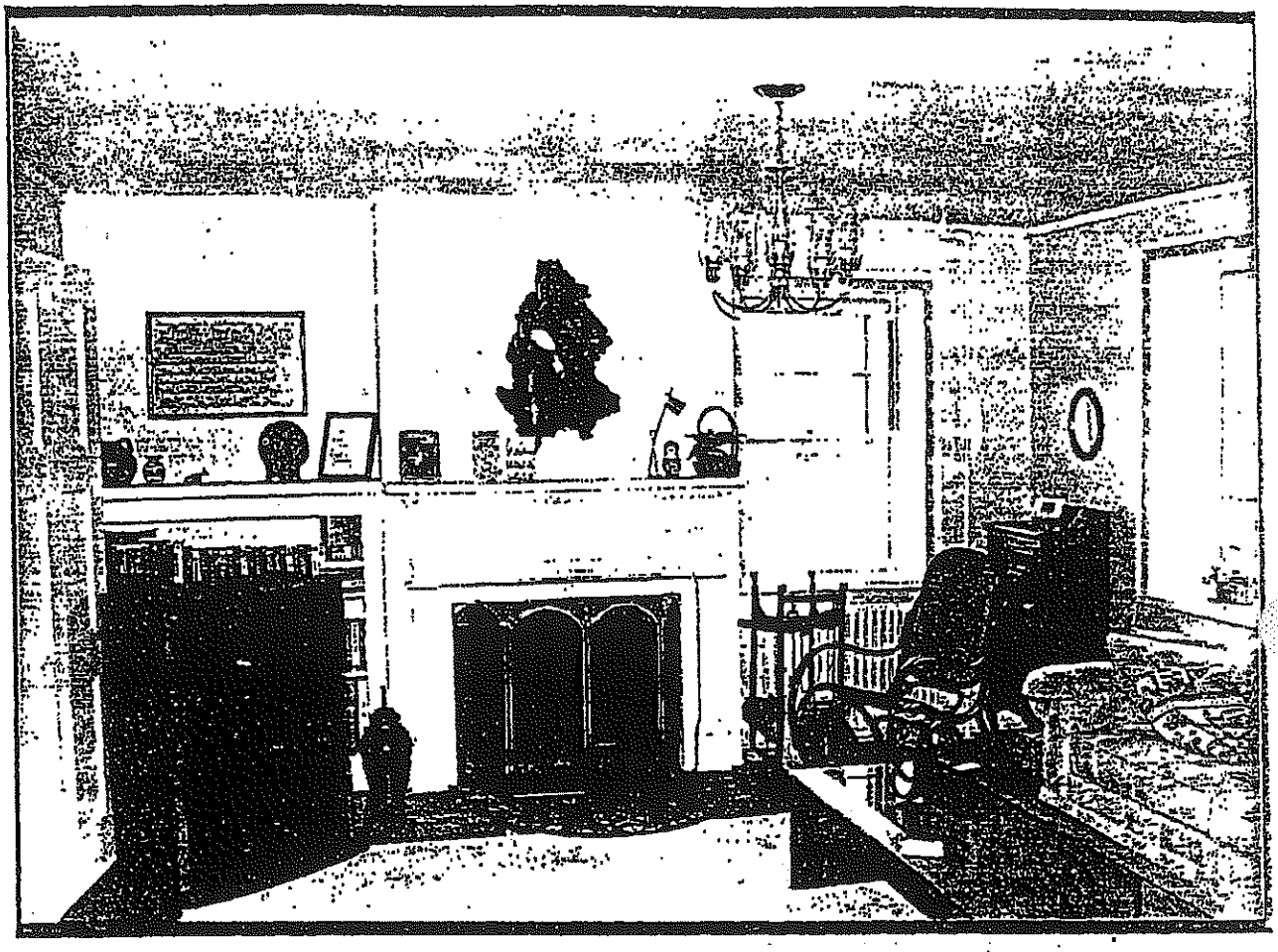


Figure 24. Sayre-McGregor House. First floor study showing fireplace with original mantle. Toward northeast. Photograph by Douglas C. McVarish.

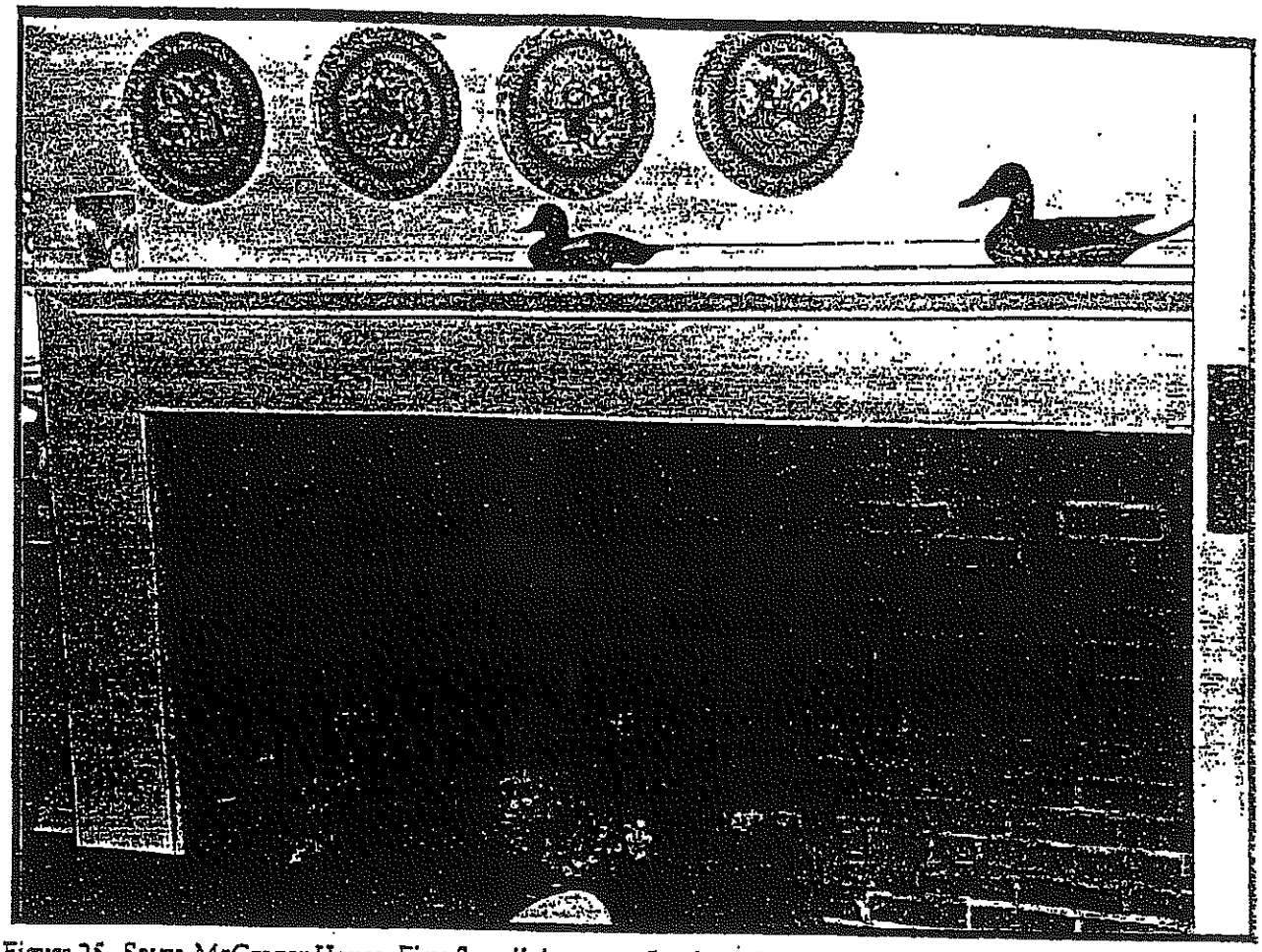


Figure 25. Sayre-McGregor House. First floor living room fireplace. Toward north. Photograph by Douglas C. McVarish.

The interior of the house contains a minimal amount of decorative woodwork. Among the decorative woodwork are the west door surround with its sidelights (Figure 23), the staircase with its turned newel post and spindle balusters, and the simple, molded wood mantels that frame the original brick fireplaces (Figures 24 and 25). At least a portion of the interior plaster of the house has been removed and replaced with drywall. The second floor has probably been reconfigured from an original open attic to accommodate additional living space.

The Sayre-McGregor House was evaluated for potential National Register eligibility under criteria B and C. Under Criterion B, the only house owner who appears to have been locally prominent was the original owner, Captain William Sayre. One of many river boat captains who plied the Hudson during the mid-nineteenth century, he does not appear to have been a person "significant in our past" as required by Criterion B (36 CFR 60.4).

Under Criterion C, the house was evaluated to determine whether it embodies the "distinctive characteristics of a type, period or method of construction" (36 CFR 60.4). As noted, the Sayre-McGregor House is a vernacular stone house with substantial later additions. Several earlier and better preserved vernacular stone dwellings exist in New Windsor Township and surrounding communities. As an altered and undistinguished example of its building type and method of construction, the Sayre-McGregor House is recommended not eligible for the National Register under Criterion C.

Military period buildings and structures of STAS were evaluated for potential National Register eligibility under Criterion A to determine whether they have been associated with "events that have made a significant contribution to the broad patterns of our history" (36 CFR 60.4). As noted, the installation was the site of World War II USMA cadet flight training. Although this training involved sizable percentages of each cadet class, the effect of this training on the Army Air Forces was very limited. As indicated, only a very small percentage of the total number of pilots was trained at West Point. Much larger numbers were trained at other installations, such as Randolph and Kelly fields, Texas. Therefore, it is doubtful whether the installation could be considered to have made a significant contribution to World War II pilot training.

Cold War era historic properties can be significant for association with the Cold War period and may need to be considered under National Register Criteria Consideration G (36 CFR 60.4). This consideration is applied to properties that are less than 50 years of age. A Cold War property may possess significance if it is associated with major historical events or persons, technological or scientific design achievement, or as a fragile survivor of a class of properties. The significance of Cold War era properties may lie at the national level in association with military themes directly tied to the Cold War, or at the state or local level under other themes. Buildings, structures, districts, sites, or objects that are intact and unique examples, built as part of the U.S. Army's Cold War research and development activities, should be evaluated for National Register eligibility under Criteria Consideration G.

Examples of properties that should be evaluated for National Register eligibility under Criteria Consideration G include, but are not necessarily limited to, facilities associated with nuclear weapons, research and development laboratories, testing and proving grounds, manufacturing, storage, and maintenance sites. These types of sites may represent the direct link between the United States' commitment to defend its territory against Soviet expansion. Base operations property types, such as motor pools, administration buildings, and housing, are not types that would be considered exceptionally important. They were built during the Cold War only as a part

of the everyday operations of the U.S. Army and are not directly associated with the Cold War in strategic or tactical terms. These property types, in some cases, may have had an exceptional impact on a state or locality and could be eligible for the National Register under other state or local themes.

The primary buildings at STAS, dating from the Cold War period, are the Capehart and Wherry housing. As noted, housing was built as a part of the everyday operations of the military and was not directly associated with the Cold War. The housing cannot be said to have had an exceptional impact on the locality or the state and is therefore not eligible for the National Register.

The buildings and structures were also evaluated for significance under Criterion C as embodying "the distinctive characteristics of a type, period or method of construction" (36 CFR 60.4). The STAS is characterized by functional, largely wood-framed, brick-clad, military construction, similar to that at many other World War II-era military installations. As was typical of installations constructed rapidly to meet wartime needs, several building plans predominate. The most common is the two-story enlisted men's barracks (Figure 26). These buildings are arranged in blocks in the central portion of STAS and include the 1200 block, 1600 block, 1800 block, 1900 block, as well as the 2500s, arrayed along the south end of Fourth Street. The buildings are rectangular, nine bays long by one bay wide, and measure approximately 90 feet by 30 feet. Each has a concrete foundation, wood-framed construction sheathed with stretcher bond brick veneer, and a hipped roof with gabled louvers at the end. Other building types include gable-roofed, single-story (Figure 27) and flat-roofed blocks, built to common plans, and unique buildings such as the chapel (Building 1700) (Figure 28) and the heating plant (Building 2102) (Figure 29), built to accommodate a particular use. Neither individual buildings nor the STAS as a whole appears to represent a significant example of military construction. Nor is the STAS notable for its building designs or building technology.

In addition, the integrity of the property was assessed. During its World War II-era period of development, Stewart Field encompassed a much larger area and contained substantially more circa 1942 buildings. Much of the original area of Stewart Field is now used as Stewart International Airport and as an industrial and corporate office park. These areas have been substantially altered through demolition of original buildings, construction of new buildings, and changes in use. Particularly notable has been the construction of several large aviation buildings for the New York ANG (Figure 30).

Because the field was used for flight training, historically associated resources include not only the barracks, officer housing, offices, support facilities, and hangars that now comprise the World War II-era portions of STAS but the runways, control tower, additional support buildings, and other hangar buildings now located on airport property. As mentioned, the present airport, which comprised the heart of Stewart Field, has been substantially changed. Because of these changes, the integrity of design, setting, materials, workmanship, feeling, and association of the former Stewart Field has been severely compromised. The property does not appear to retain the integrity necessary for National Register eligibility.

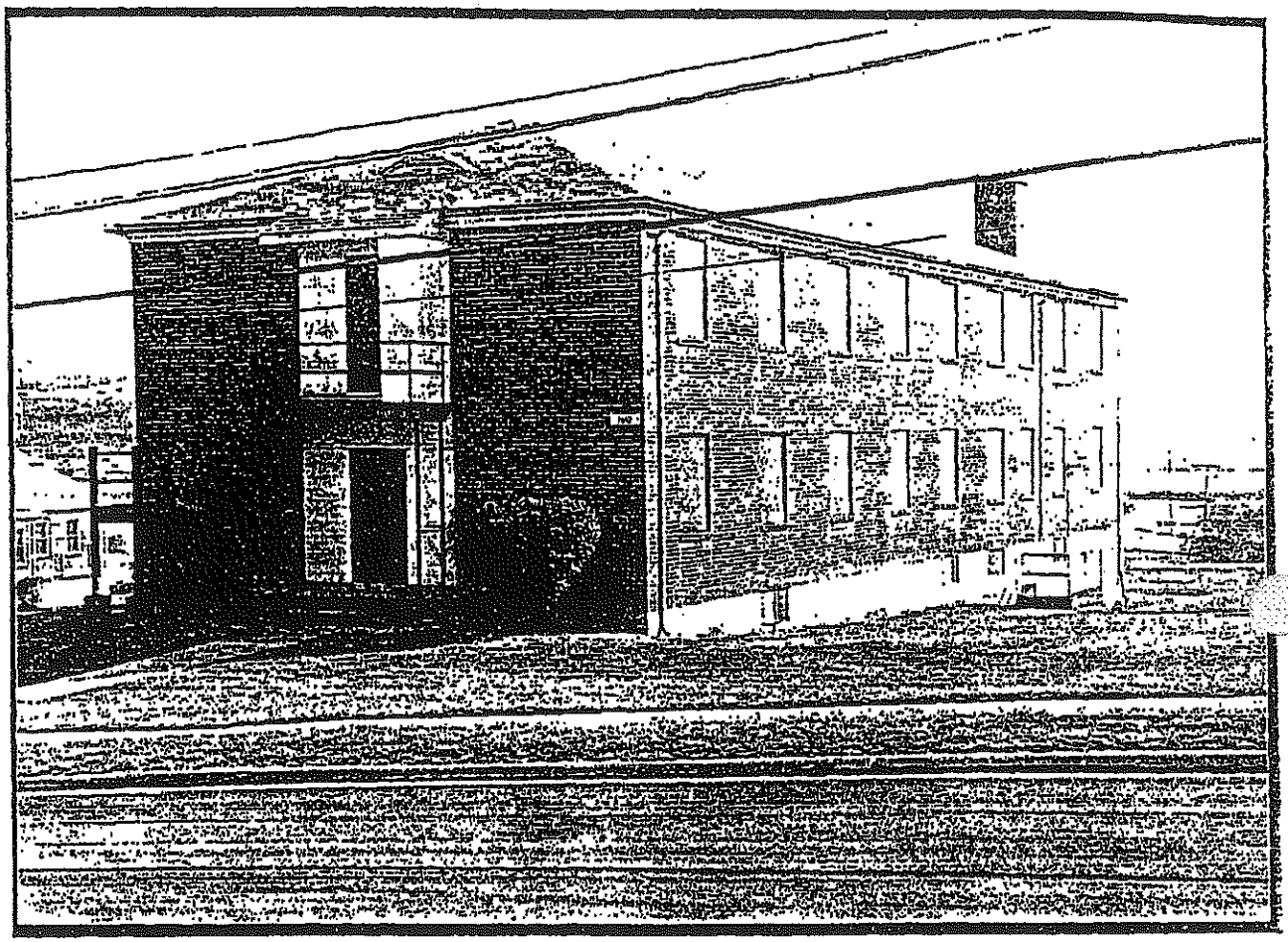


Figure 26. Standard enlisted men's barracks. Building 1610. West end and south side. Toward northeast. Photograph by Douglas C. McVarish.

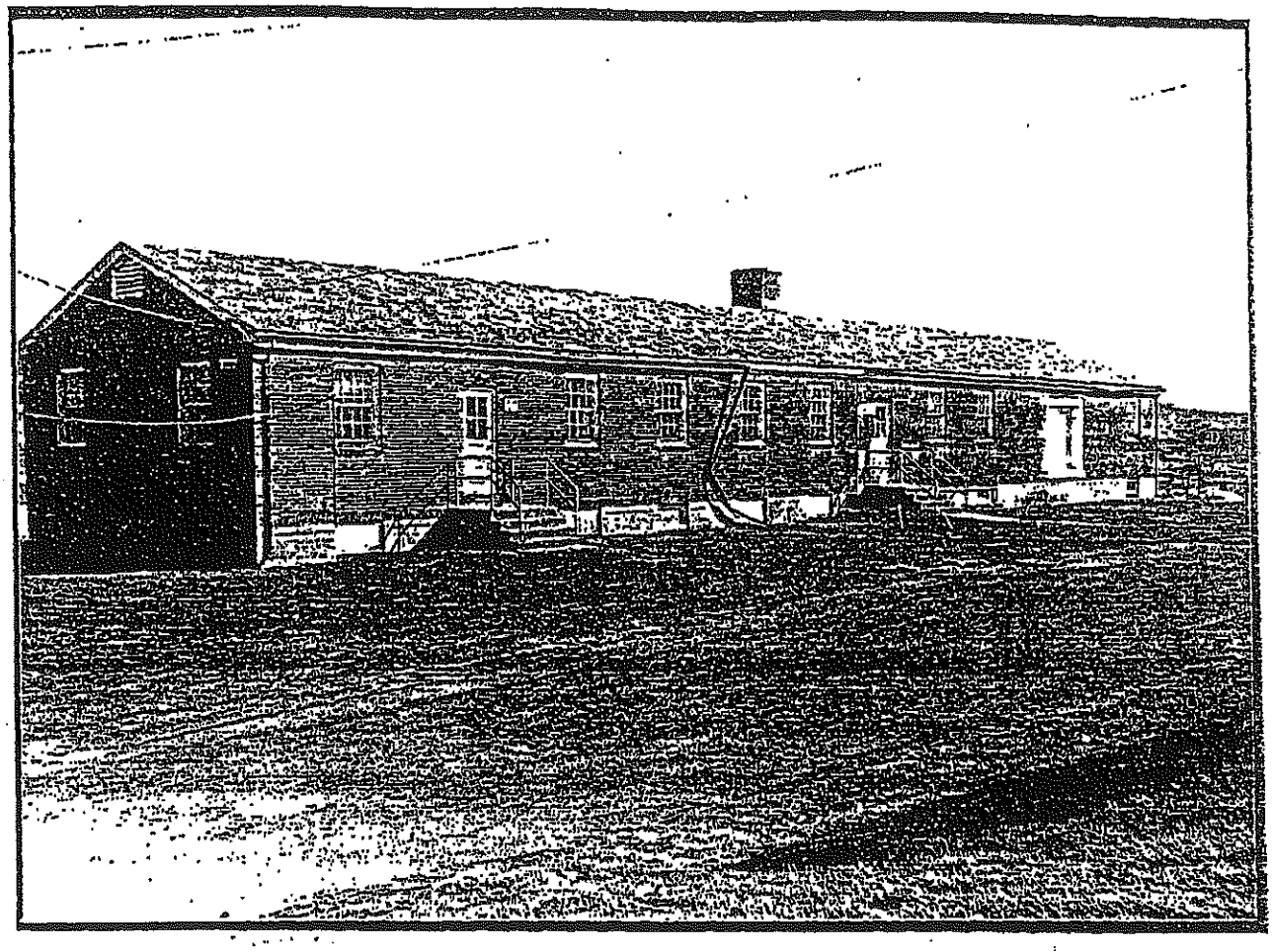


Figure 27. General storage building. Building 1802. West end and south side. Toward northeast. Photograph by Douglas C. McVarish.

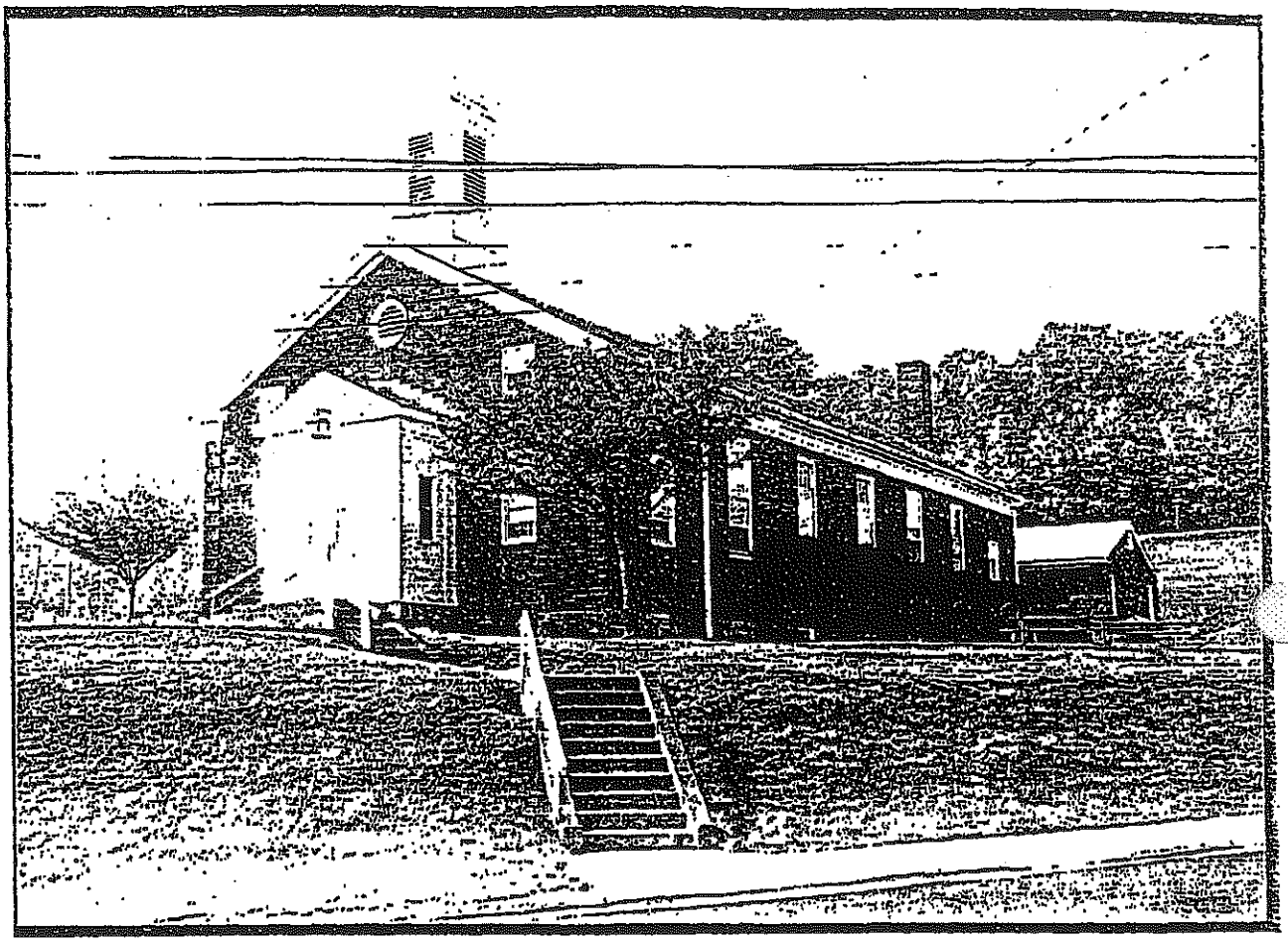


Figure 28.. STAS Chapel. Building 1700. Northeast facade and northwest side. Toward southwest. Photograph by Douglas C. McVarish.

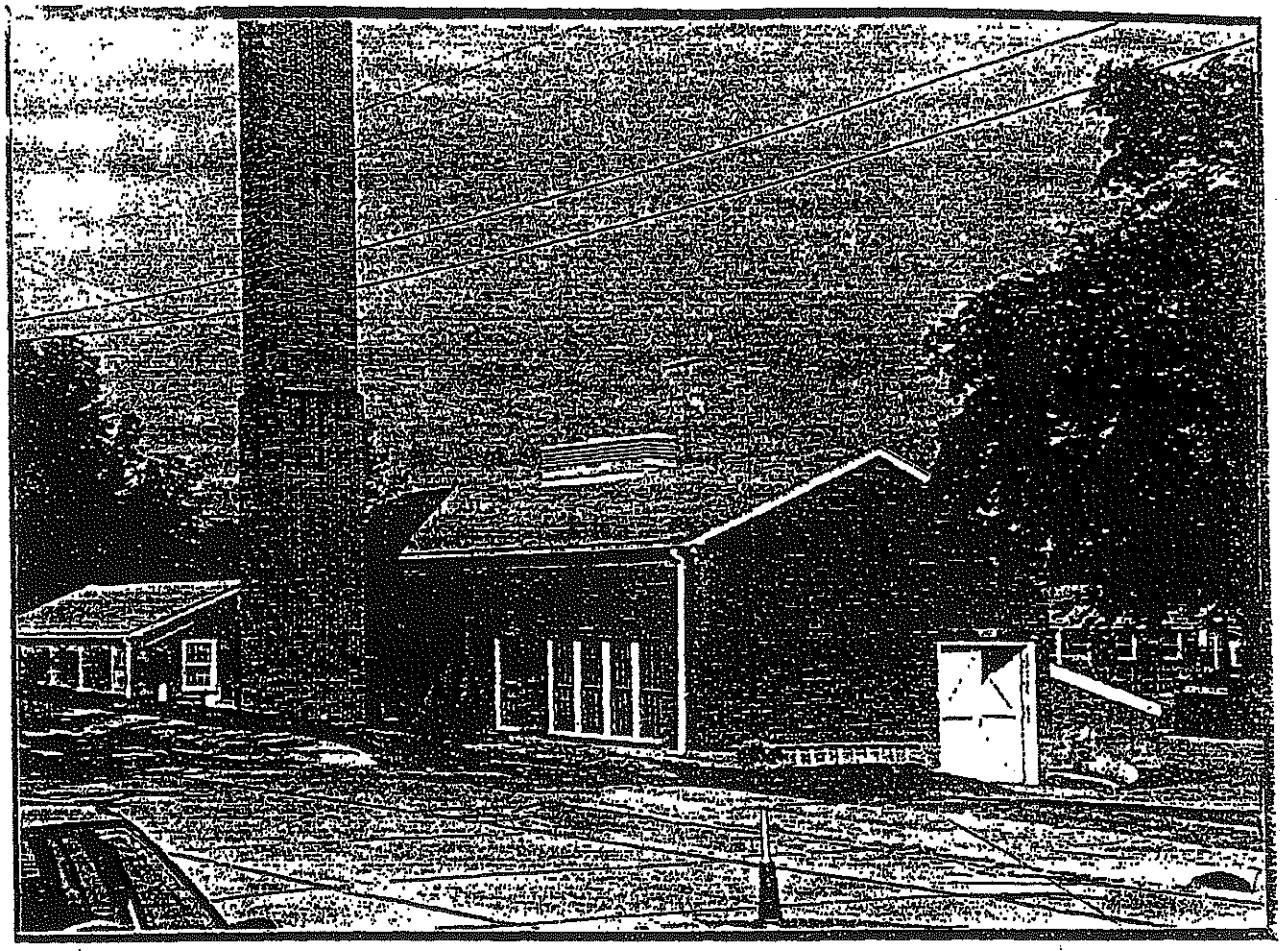
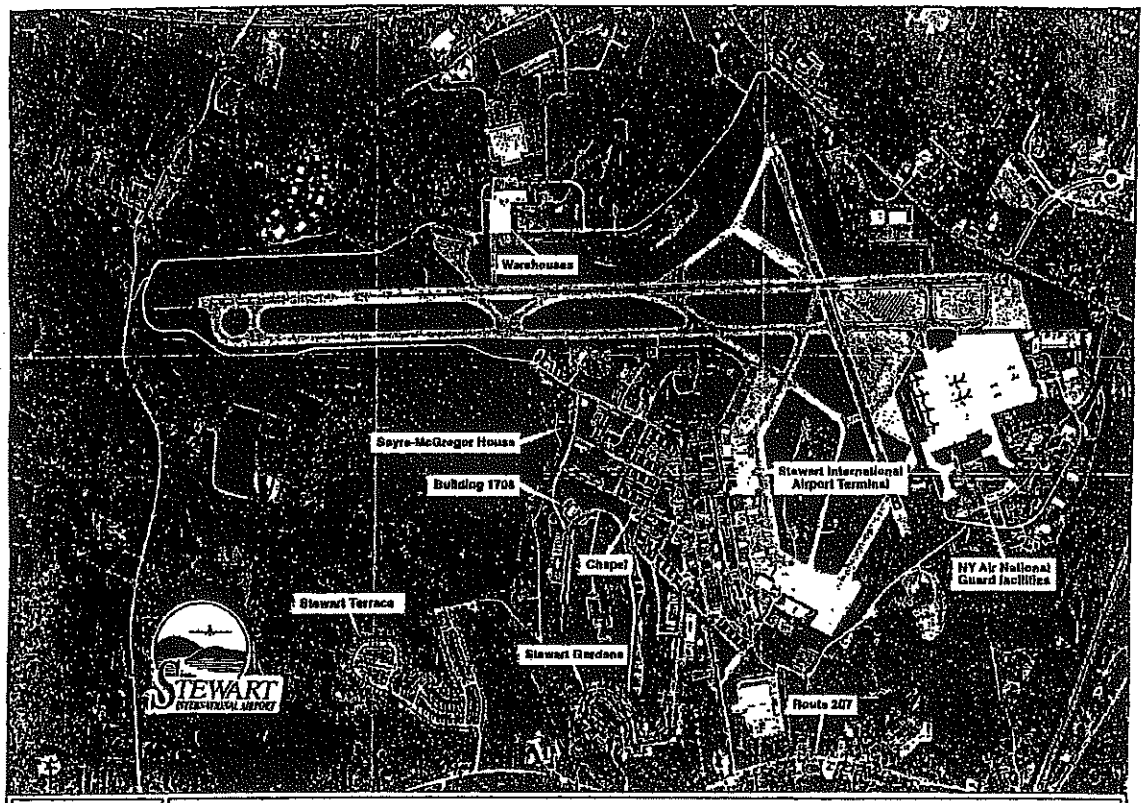


Figure 29. Heating Plant. Building 2102. East and south sides. Toward northwest. Photograph by Douglas C. McVarish.



Cultural Resources Input to the Environmental Baseline Study
Stewart Army Subpost
U.S. Military Academy, West Point
Orange County, New York

Figure 30. Stewart International Airport. Undated aerial photograph showing location of MTA Terminal, Air National Guard facilities, and Stewart Army Subpost (Stewart International Airport n.d.).

6.0 RECOMMENDATIONS AND DETERMINATION OF EFFECT

STAS represents the remnants of a facility initially constructed in the World War II period to provide flight instruction for cadets at the USMA. This training was aimed at addressing the critical shortage of commissioned officer pilots faced by the Army Air Corps (later Army Air Forces) during World War II. The program at Stewart added only a small number of new combat pilots to the Army Air Forces and was perceived to compromise the integrity of the West Point curriculum. As a result, flight training was discontinued at West Point following the war. Several years later, the airfield became Stewart Air Force Base. With this transition, West Point maintained only a small presence at the installation. Initially, the USMA Preparatory School was located there, as were aircraft and facilities of the 2nd Aviation Detachment. With removal of the preparatory school to Fort Belvoir in 1957, West Point presence was limited to the aviation detachment. Following the closure of Stewart Air Force Base in 1969, ownership of the tract reverted to West Point. Most of the property has been leased to tenants, most notably the Metropolitan Transportation Administration. The original barracks and administrative area, as well as post-war housing, were retained by West Point and are presently used for officer and enlisted personnel housing and a variety of office and administrative functions.

Based on an examination of existing archeological site files, previous archeological research in the area, historical maps, topographic conditions, and extensive previous disturbance, JMA concludes that the potential for prehistoric archeological resources within the project area is low; however, the southwest slopes of Prospect Hill potentially may contain rock shelter sites. JMA has also identified seven areas of potential historic archeological site locations dating to at least the middle of the nineteenth century. JMA recommends that a Phase I archeological survey be conducted within the areas identified as containing potential archeological sites (areas 1-7, Prospect Hill; Figure 12) to determine the presence or absence of such archeological remains. Recommendations regarding potential National Register eligibility must be deferred until Phase I and possibly Phase II field investigations confirm or refute the presence of archeological resources.

JMA also evaluated the National Register eligibility of the buildings and structures of STAS. Following definition of the historic context of STAS and its role in World War II and the Cold War, JMA concludes that the property lacks the necessary historical significance to be eligible for the National Register under Criterion A or Criteria Consideration G. The architecture of the buildings was evaluated for possible eligibility under National Register Criterion C. As typical examples of World War II military construction and Cold War era military housing, the buildings lack the necessary architectural significance for National Register eligibility. The one surviving pre-war building at STAS, the mid-nineteenth century Sayre-McGregor House, was also evaluated for individual National Register eligibility under Criterion C. A late example of a vernacular stone dwelling, it is one of many stone houses in New Windsor Township. Neither a particularly well-preserved nor particularly finely crafted example of its type, the Sayre-McGregor House appears to lack the necessary significance for National Register eligibility. Since none of the buildings and structures of STAS is recommended eligible, no additional documentation of architectural resources appears warranted.

To summarize, JMA recommends the following actions as the next steps in the identification and evaluation process.

- The southwest slopes of Prospect Hill should be examined by qualified archeologists to determine the presence or absence of prehistoric rock shelter sites. Should such sites be identified, a Phase II testing and evaluation program may be necessary to determine the integrity, extent, and significance of such sites.

- Areas 1-7 should be examined by qualified archeologists to determine the presence or absence of prehistoric rock shelter sites. Should such sites be identified, a Phase II testing and evaluation program may be necessary to determine the integrity, extent, and significance of such sites.

Depending on the results of these investigations additional steps in the identification and evaluation process may be appropriate. Once cultural resources have been fully identified and evaluated, an evaluation of effect may occur.

Three alternative actions subject to an evaluation of effect have been proposed for STAS: (1) property transaction between USMA and a Federal agency; (2) property transaction between USMA and a non-Federal agency; and (3) no property transaction. While a complete evaluation of effect is premature until cultural resources eligible for the National Register have been fully identified, several useful generalizations can be made.

Assuming that cultural resources eligible for the National Register are present, property transactions between two Federal agencies may have no effect, no adverse effect, or an adverse effect. In many cases, a determination of no adverse effect is made conditional upon the completion of an appropriate treatment program or by placing appropriate restrictions or covenants on the historic property to ensure its future protection. Similarly, property transactions between a Federal agency and a non-Federal party may be considered to have no adverse effect where "adequate restrictions or conditions are included to ensure preservation of the property's significant historic features" (36 CFI 800.9[c][3]). No action may have no effect of itself, but may lead to an adverse effect due to neglect of a cultural resource. And of course, Federal agencies may engage in other activities apart from transfer of property that are subject to Section 106 compliance and may have an effect on cultural resources. Therefore, continued consultation with the SHPO and, as appropriate, the Advisory Council on Historic Preservation is recommended as planning for the potential transfer progresses.

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APPENDIX I:

TRACTS ACQUIRED FOR STEWART AIR FORCE BASE (USMA n.d.)

STEWART AIR FORCE BASE, NEW YORK

Tract No.	Acreage	Date of Deal or Declarat./Taking	Acquisition, Cost of	Vendors' Name
1	15.66	27 Dec. 1941	$ 7,700.00	Frances M. Green & Husband
2	11.46	13 Jan. 1941	2,600.00	Louis P. Buckmaster, et al
3	1.00	3 Jan. 1942	4,400.00	Henry Leory, Jr.
4	9.90	26 Dec. 1941	7,350.00	Ernest C. Carr
5	20.20	27 Dec. 1941	3,500.00	Elwood B. Howell, et ux
6	61.00	27 Dec. 1941	6,750.00	Peter Nelson
7	77.459	26 Dec. 1941	11,000.00	Lester B. Korene et ux
8	22.60	3 Jan. 1942	500.00	Martha A. Corwin, et al
9	117.00	26 Dec. 1941	5,000.00	Thomas G. Malcomson
10	18.4	6 Jan. 1942	3,000.00	Wm. P. Donahue, et ux
11	146.6	27 Dec. 1941	8,700.00	Conrad Newner, et ux
12	150.00	17 Mar. 1942	15,000.00	J. Wesley Barnes, et al
13	37.235	6 Jan. 1942	5,700.00	Edward P. Skyer
14	38.00	6 Jan. 1942	5,350.00	Stephen Jacobs, et ux
15	.35	30 Dec. 1941	2,950.00	Chas. Corwin, et ux
16	5.24	30 Dec. 1941	1,225.00	Josiah B. Jones, et ux
17	53.54	17 Feb. 1942	10,230.00	Julius Nelson, et ux
18	7.00	26 Dec. 1941	5,000.00	Robt. H. Glassey
19	.48	2 Jan. 1942	250.00	Lillian M. Eddy
20	37.40	18 Sep. 1942	6,700.00	Claude V. Dunn
20a	0.087	18 Sep. 1942	125.00	Claude V. Dunn
21	59.936	28 Aug. 1942	6,300.00	Elmer F. Cruver et ux
22	36.957	18 Sep. 1942	3,925.00	Thos. G. Malcomson
23	74.995	18 Sep. 1942	10,120.00	Andrew Bivona
24	34.68	12 May 1943	4,400.00	Wm. H.G. Morkey
25	7.00	28 Aug. 1943	2,650.00	Vincent Diadone, et al
26	15.1	18 Sep. 1942	2,500.00	Oda Tyyska, et al
27	221.80	11 Mar. 1939	1.00	City of Newburgh
101	0.4958	27 Aug. 1943	5,250.00	Helen M. Hollberg
102	139.4292	13 Aug. 1943	18,000.00	Elwood B. Howell. et ux
103	14.075	27 Aug. 1943	2.850.00	Angelo Zozzie
104	18.50	4 Aug. 1943	4,000.00	Thos. H. Clock
105	32.589	4 Aug. 1943	2,400.00	Hassie A. Tillson
106	1.00	D/T17 Apr. 1943	4,500.00	Elsie Fost
107	45.014	6 Aug. 1943	6.500.00	Andrew Vesley et ux
108	30.834	26 Aug. 1943	8,500.00	Esther B. Cory
109	5.94	5 Aug. 1943	7,500.00	Julius L. Nelson, et ux
110	45.14	5 Aug. 1943	4,150.00	Oda Tyyska, et al
111	2.75	5 Aug. 1943	525.00	Henry Tyyska, et ux
112	4.116	6 Aug. 1943	18,375.00	Walter E. Rowe, et ux
113	7.6718	14 Aug. 1943	5,275.00	Mary Jane Wiley
114	0.9772	14 Aug. 1943	6,700.00	Louis Bresson, et ux
201	37.053	13 Aug. 1943	5,200.00	Frances M. Greene
202	2.167	13 Aug. 1943	1,910.00	Norman P. Palmer, et ux
301	8.33	27 Aug. 1943	5,000.00	Hester P. Cladwell
401	24.671	D/T11 Apr. 1944	600.00	Henry J. Britenback, et al

APPENDIX II:

LIST OF ORGANIZATIONS AND INDIVIDUALS CONTACTED

Organizations

Moffat Library, Washingtonville, New York
The New York Historic Preservation Office, Peebles Island
The New York State Library, Albany
The New York State Archives, Albany
Newburgh Free Public Library, Newburgh
Orange County Clerk's Office, Goshen
Orange County Genealogical Society, Goshen
Orange County Historian's Office, Goshen
Orange County Surrogate's Office, Goshen
Stewart Army Subpost Library
National Air and Space Museum, Smithsonian Institution, Public Affairs Office
The University of Pennsylvania Library, Philadelphia
The Free Library of Philadelphia

Individuals

Suzanne Christoff , Archivist, U.S. Military Academy, West Point, New York
Alan Aimone,. Director of Special Collections, U.S. Military Academy Library, West Point, New York
Theodore Sly, Orange County Historian, Goshen, New York
Alan Bjornsen, Environmental Office, U.S. Military Academy, West Point, New York

NORTHERN ECOLOGICAL ASSOCIATES, INC.

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FINAL ENVIRONMENTAL ASSESSMENT STEWART ARMY SUBPOST DIVESTITURE.

U.S. MILITARY ACADEMY
STEWART ARMY SUBPOST
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

Contract Number DACW51-97-D-0010
Delivery Order 0009

Prepared for:

U.S. Army Corps of Engineers
New York District
26 Federal Plaza
New York, New York 10278-0090

Prepared by:

Northern Ecological Associates, Inc.

August 31, 1999

DIRECTORATE OF HOUSING AND PUBLIC WORKS
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK

ENVIRONMENTAL ASSESSMENT
APPROVAL SHEET

DIVESTITURE OF STEWART ARMY SUBPOST
NEW WINDSOR, NEW YORK

AUGUST 1999

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UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

STEWART ARMY SUBPOST DIVESTITURE

TOWN OF NEW WINDSOR, ORANGE COUNTY, NEW YORK

I. NAME OF ACTION:

Divestiture of Stewart Army Subpost (STAS) by the United States Military Academy (USMA), Town of New Windsor, Orange County, New York.

II. DESCRIPTION OF ACTION:

a. Proposed Action: The proposed action would include the disposal of the 402.5-acre STAS. Disposal would be accomplished by: Department of Defense (DOD) Secretarial transfer of the 1500 Block, the 1900 Block, and Stewart Terrace Housing Area from the Secretary of the Army (SA) to the Secretary of the Navy (property requested by the Department of the Navy, U.S. Marine Corps [USMC]); SA approval of the transfer of building 2008 and its grounds, the 2100 block, and the majority of the 2200 Block to the U.S. Army Reserve Command (ARC); the transfer of the 100 Block (Parcel 19) to NYSDOT; and the transfer of remaining STAS property, including the STAS water treatment system, from the DA to the Town of New Windsor (TNW) in accordance with Federal Property Disposal Regulations and Special Legislation.

b. Alternatives: Disposal considerations include three (3) alternatives: (1) no action; (2) encumbered disposal; (3) and unencumbered disposal.

III. ANTICIPATED ENVIRONMENTAL IMPACTS:

There are no significant adverse environmental impacts or consequences anticipated in the proposed divestiture; there will be no change(s) in existing land use(s), and the land transfer will not involve any direct development. This action will, however, result in a change of property ownership, between the USMA and the USMC, ARC, and the TNW. Reuse of the property will be at the discretion of the new property owners. The new owners would require compliance with federal, state, and local regulatory requirements pertaining to future land use, including obtaining appropriate permits.

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ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
AIRFA	American Indian Religious Freedom Act
AP	Airport Zoning Classification
ARC	U.S. Army Reserve Command
ARPA	Archaeological Resources Protection Act
AST	Above Ground Storage Tank
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CHGEC	Central Hudson Gas and Electric Corporation
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DA	Department of the Army
dBA	Decibels, A-Weighted
DNL	Day-Night Average Sound Level
DOD	Department of Defense
DON	Department of the Navy
EA	Environmental Assessment
EBS	Environmental Baseline Study
EIFS	Economic Impact Forecast System
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GSA	General Services Administration
HUD	Housing and Urban Development
HIR	High Intensity Reuse
HVAQCR	Hudson Valley Air Quality Control Region
K	Erosion Coefficient
LBP	Lead Based Paint
LIR	Low Intensity Reuse
LRA	Local Redevelopment Authority
LWRP	Local Waterfront Revitalization Program
McKinney Act	Stewart B. McKinney Homeless Assistance Act
MHIR	Medium-high Intensity Reuse
MIR	Medium Intensity Reuse
MLIR	Medium-low Intensity Reuse
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

ABBREVIATIONS AND ACRONYMS

NWI	National Wetland Inventory
NYANG	New York Air National Guard
NYCRR	New York State Codes, Rules, and Regulations
NYMTC	New York Metropolitan Transportation Council
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDH	New York State Department of Health
NYSDOT	New York State Department of Transportation
NYSGS	New York State Geologic Survey
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OHM	Oil and Hazardous Material
OPRHP	New York State Office of Parks, Recreation, and Historic Preservation
PCB	Polychlorinated Biphenyl
PMSA	Primary Metropolitan Statistical Area
RCRA	Resource Conservation and Recovery Act
ROE	Report of Excess
SA	Secretary of the Army
SCS	Soil Conservation Service
SEQR	State Environmental Quality Review Act
SGHA	Stewart Gardens Housing Area
SHPO	New York State Historic Preservation Office
SIA	Stewart International Airport
SIAP	Stewart International Airport Master Plan Properties
SPDES	State Pollution Discharge Elimination System
STAS	Stewart Army Subpost
STHA	Stewart Terrace Housing Area
TNW	Town of New Windsor
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USMC	Department of the Navy, U.S. Marine Corps
USMCR	U.S. Marine Corps Reserve
UST	Underground Storage Tank
USMA	United States Military Academy
USLE	Universal Soil Loss Equation
WWTP	Wastewater Treatment Plant

1.0 PURPOSE, NEED, AND SCOPE

1.1 PURPOSE AND NEED

The United States Military Academy (USMA) is in the process of disposing of all of the military real property associated with the Stewart Army Subpost (STAS) located in the Town of New Windsor, Orange County, New York. The disposal of STAS was initiated by a USMA decision to relocate USMA personnel living at STAS to West Point. This decision was proposed to consolidate USMA activities at West Point and reduce costs associated with training cadets at West Point. The benefits provided under this proposal would include enhanced productivity by reducing commuter travel between STAS and West Point, the elimination of duplicate Department of the Army (DA) services at both sites, and subsequent cost savings.

For the above-stated reasons, the USMA performed a real property utilization survey that recommended the disposal of STAS because these lands and facilities are no longer required for the needs and discharge of the responsibilities of the USMA. Accordingly, STAS lands were declared excess and suitable for disposal according to guidelines established in AR 405-90, Disposal of Real Estate, as well as other federal property management regulations.

On December 9, 1993, the USMA prepared and submitted a Report of Excess (ROE) to the DA, Office of the Assistant Chief of Staff for Installation Management (OACSIM) for approval. Approval was initially withheld because the USMA did not include the required environmental, historic, and Stewart B. McKinney Homeless Assistance Act (McKinney Act) clearances, or the Department of Defense (DOD) agency screening necessary to dispose of the property. As a result, the OACSIM recommended that the 1993 ROE be held in abeyance until the USMA received funding approval for replacement housing at West Point and remaining clearances were completed.

The USMA received the required Congressional funding approval for the replacement of Army Family Housing at West Point in 1994. The Stony Lonesome II residential housing was completed in October 1998, and all units are currently occupied. Grey Ghost housing is currently being reconstructed. Seventy-seven units are scheduled to be completed by August 1999, with occupation of the first units to begin by July 1999. The USMA also received the required Congressional funding approval for the construction of a new Child Development Center at West Point, and this also was completed in 1998 (Anderson 1998). In addition, at the request of USMA, the U.S. Army Corps of Engineers (USACE), New York District, conducted a screening of STAS property among DOD agencies, declaring the availability of STAS for DOD use and occupancy. A 30-day screening period, initiated on January 23, 1997, resulted in written interests from the Department of the Navy, U.S. Marine Corps (USMC) and the U.S. Army Reserve Command (ARC). Both of these agencies currently use and occupy portions of STAS. No other DOD agencies expressed interest in the remaining property. As a result, implementation of the excess of STAS and application for the required clearances was initiated.

1.2 SCOPE

The USMA is divesting its interests in STAS, located in the Town of New Windsor, Orange County, New York. Special legislation was passed by the United States Congress and signed by President William J. Clinton on October 17, 1998, allowing the Secretary of the Army to transfer up to 291 acres of the 402-acre STAS to the Town of New Windsor. Approximately 10 acres (the 100 block) would be transferred to the New York State Department of Transportation (NYSDOT), and the remaining 111 acres would be transferred to the USMC and the ARC.

The DA considers two disposal alternatives – encumbered disposal and unencumbered disposal. Encumbered disposal involves the transfer of the property to others with reuse conditions (limitations) imposed by the DA. Unencumbered disposal involves the transfer or conveyance of the property with the removal of any existing encumbrances and without the creation of any new restrictions or encumbrances. Because encumbrances are either required by law or cannot practicably be removed, only the encumbered disposal alternative is evaluated in this Environmental Assessment (EA), as discussed further in Sections 3.5 and 5.3.

The DA also analyzes the secondary action of reuse of real property conveyed through the disposal process by evaluating reuse intensity scenarios, as discussed in Section 5.4.

1.3 PUBLIC INVOLVEMENT

The DA provides opportunities for public participation through the National Environmental Policy Act of 1969 (NEPA) process to promote open communication and improve decision-making. Public participation is invited throughout the process. All persons and organizations having a potential interest in the proposed action are urged to participate in the NEPA environmental analysis process.

A Notice of Availability (NOA) of the draft EA was announced in appropriate media (*e.g.*, local and regional newspapers) to ensure notification of persons and organizations thought to have a potential interest. In addition, copies of the final EA will be sent to individuals and organizations that requested copies during public review period preparation of the draft document.

Based on the analysis in this EA, the DA is also issuing a Finding of No Significant Impact (FONSI) with respect to disposal of the STAS property. Publication of the FONSI will be followed by a 30-day public comment period, during which time agencies, organizations, or members of the public may submit comments on the FONSI or EA. The DA will consider and incorporate these comments as appropriate into the EA before initiating the proposed action.

1.4 IMPACT ANALYSIS PERFORMED

This EA identifies, evaluates, and documents the effects of disposal and reuse of the STAS property.

An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, and historians were involved in preparing the EA. The team identified the affected resources and topical areas, analyzed the proposed action against the existing conditions, and determined the relevant beneficial and adverse effects associated with the action. Section 4.0, Affected Environment, describes the conditions of the affected resources and other areas of special interest at STAS. Along with information presented in the no action alternative, these conditions constitute the baseline for the analysis of the effects of disposal and reuse. These effects are described in Section 5.0, Environmental and Socioeconomic Consequences. Findings and conclusions regarding the potential environmental and socioeconomic effects of the proposed action are presented in Section 6.0. This document analyzes direct effects (those caused by the proposed action and occurring at the same time and place) and indirect effects (those caused by the proposed action but occurring later in time or farther removed in geographical distance from the site but still reasonably foreseeable). Cumulative effects are also addressed in Section 5.5, and mitigation measures are identified in Section 5.6 where appropriate.

1.5 FRAMEWORK FOR DISPOSAL

Numerous factors contribute to DA decisions regarding disposal of military real property. The divestiture of STAS will be accomplished by ROE, McKinney Act screening, Environmental Baseline Study (EBS), EA, and guidelines established in AR 405-90, Disposal of Real Estate. An EBS is a compilation and assessment of information provided by the Directorate of Housing and Public Works that identifies any potential risks associated with the use of the STAS property (USMA, Rev. 1998). A comprehensive EBS was conducted in 1996, and was presented in report form in June 1997, and revised the following June (USMA, Rev. 1998). Relevant information from the EBS is incorporated into this EA.

In addition, the DA complies with appropriate statutes, regulations, and Executive Orders pertaining to environmental restoration and protection of cultural and natural resources that bear specifically on the disposal and reuse of STAS property. Environmental restoration and conservation legislation includes the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Community Environmental Response Facilitation Act (CERFA); the Resource Conservation and Recovery Act (RCRA); the Clean Air Act (CAA); the Coastal Zone Management Act (CZMA); and the Clean Water Act (CWA). The DA also conducts surveys and reports to document and protect cultural and natural resources in compliance with the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act (ARPA), the American Indian Religious Freedom Act (AIRFA), and the Endangered Species Act (ESA). Additionally, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations* (Executive Order 12898) *and Protection of Children from Environmental Health Risks and Safety Risks* (Executive Order 13045) also are addressed. No other permits or approvals, such as zoning variances, building permits, or additional environmental permits or clearances, will be required for this action.

Directives and guidance contained in these procedural and legislative requirements provide a framework for defining the baseline conditions outlined in Section 4.0, Affected Environment, and for determining the environmental effects described in Section 5.0, Environmental and Socioeconomic Consequences.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 INTRODUCTION

The USMA intends to dispose of all of the military real property associated with STAS, as presented in Section 2.2. The proposed disposal of STAS would be accomplished by: DOD Secretarial transfer of the 1500 Block, the 1900 Block, and Stewart Terrace Housing Area (STHA) from the Secretary of the Army (SA) to the Secretary of the Navy (property requested by the Department of the Navy, USMC); SA approval of the transfer of Building 2008 and its grounds, the 2100 Block, and the majority of the 2200 Block to the ARC; the transfer of the 100 Block (Parcel 19) to NYSDOT (treated separately, and not considered part of this EA); and the transfer of remaining STAS property, including the STAS water treatment system, from the DA to the Town of New Windsor (TNW) in accordance with Federal Property Disposal Regulations.

In addition, if any future development/redevelopment or new operations are proposed, the new owners would be responsible for ensuring these developments or operations comply with all applicable environmental review procedures and permit requirements. The ARC currently has no development or redevelopment projects planned through fiscal year 2003 for the property identified for transfer from USMA to the ARC. The ARC plans in the near future to maintain the existing activities and operations performed on the subject property (Love 1998). The USMC also has no development or redevelopment projects currently planned for the property to be transferred from the USMA to the USMC. The USMC plans in the near future to maintain the existing activities and operations performed on the subject property (Coleman 1998). However, the USMC plans to construct a lift station in front of the STAS Wastewater Treatment Plant (WWTP) and sewage line along "A" Street to connect to the TNW existing sewage treatment system (Doherty 1998). The NYSDOT plans to use the existing facilities associated with the 100 Block for aviation purposes consistent with their current use. The plans also include the lease back (no fee) to USMA of Hangar 108 for the purpose of continuing use by the 2nd Aviation Detachment. The TNW plans to develop the remaining portion of STAS in accordance with the special legislation and existing town zoning ordinances. The TNW may enact a minor change to the Airport zoning that will allow hotel/conference center uses.

2.2 PROPERTY DESCRIPTION

The current STAS property includes 402.5 acres of land and 324 buildings, including the housing units within the STHA, located immediately south of the Stewart International Airport (SIA) in the Town of New Windsor, Orange County, New York (Figure 1). Although the STAS property is surrounded on three sides by the SIA, the current STAS property boundary associated with the proposed action does not include the airfield or any of the airfield support facilities. The disposal of Parcel 19 (100 Block) is a separate action, but will be evaluated in the cumulative impacts section (Section 5.5) of this EA.

STAS primarily is used by the USMA to provide housing and other services for military personnel assigned to West Point and other DOD agencies. Accordingly, land use reflects only the residential and community support nature of the activities that currently occur on STAS. Each building on

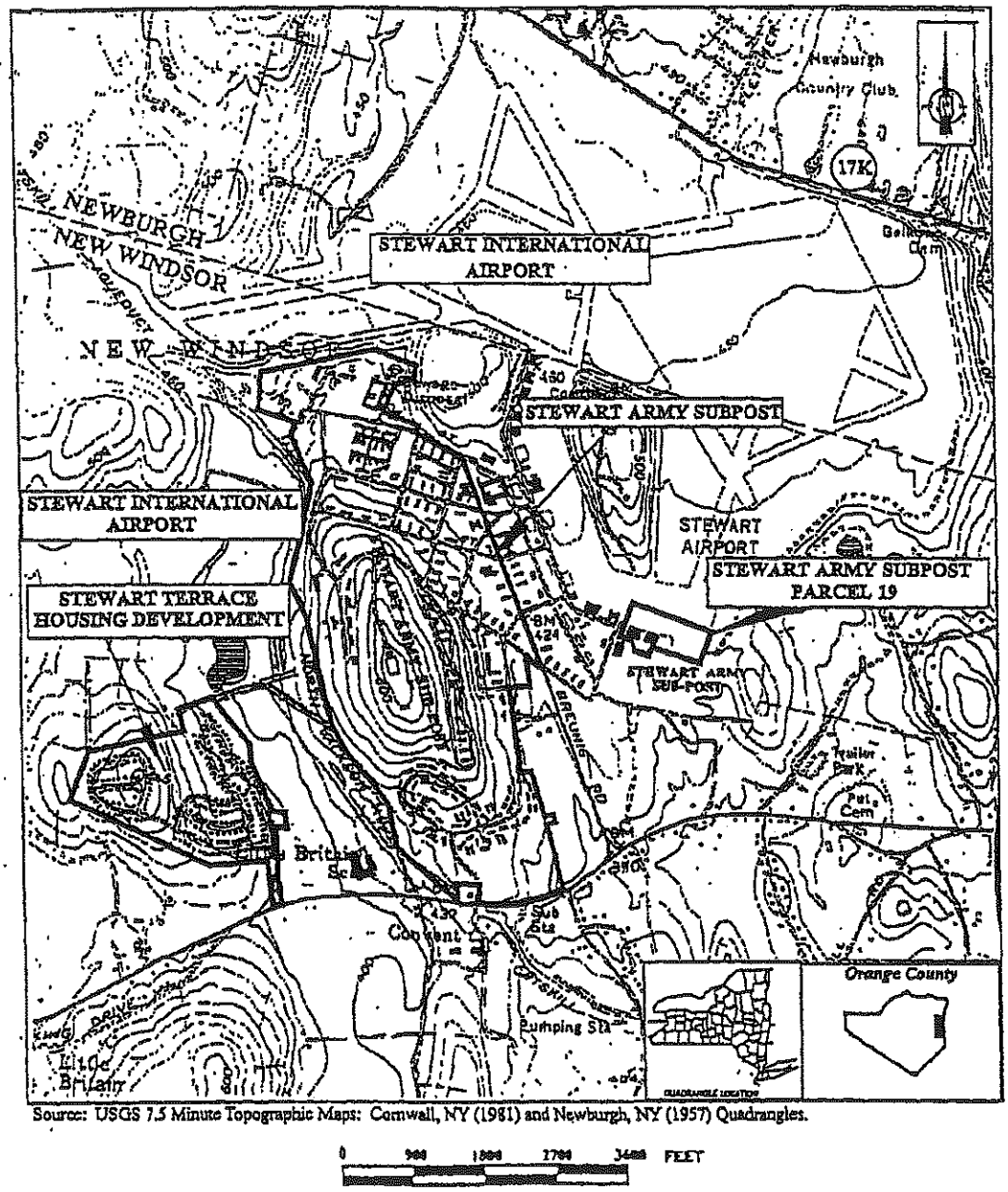


Figure 1. Location of Stewart Army Subpost (STAS) Land Transfer, Town of New Windsor, Orange County, New York

STAS is numbered according to the block in which it is located. Figure 2 shows the limits of each block, and Table 1 lists the types of uses that are ongoing in these blocks.

Parcel 19 (100 Block) and Parcel 20 (1000 Block) are currently part of STAS, although they are not contiguous to the main STAS property boundary. The DA plans to transfer Parcel 19 to NYSDOT for aviation purposes. As stated previously, this action is treated in the cumulative impacts section (Section 5.5) of this EA. Parcel 20 contains one building that serves as the focal point for telephone service for the SIA complex and STAS, and as administrative office space occupied by the New York Telephone Company.

The residential buildings on STAS consist of single-family, duplex, and multiple-family units, generally two stories in height. As the new residential buildings are completed at West Point, the existing housing at STAS will be vacated. Existing housing at STAS is located at the Stewart Gardens Housing Area (SGHA) and STHA, as described below.

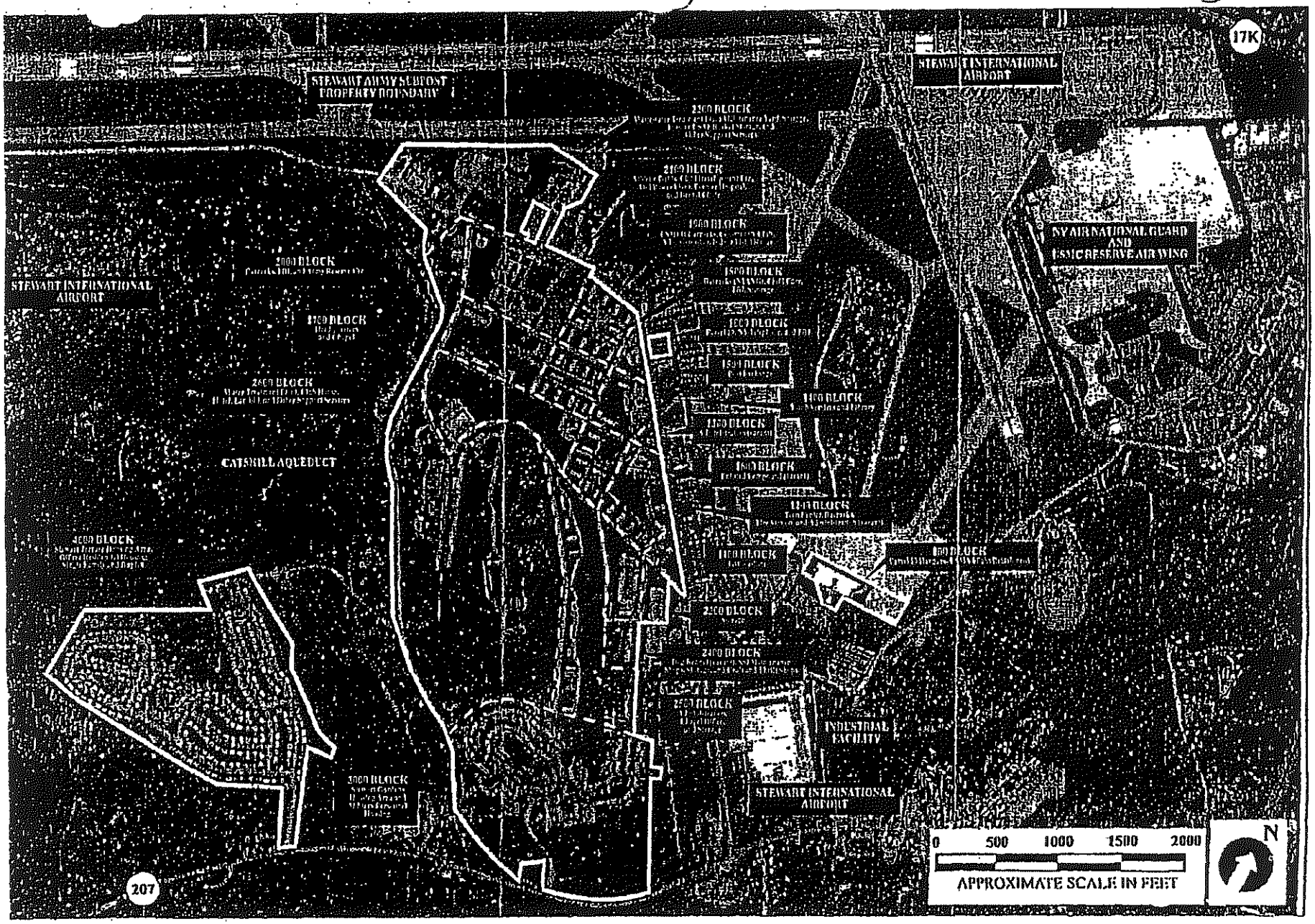
The SGHA is located at the 3000 Block of STAS (see Figure 2). The majority of the housing units at SGHA have been demolished (Anderson 1999b). Demolition Phases I, II, and III-A have been completed, and Phase III-B is expected to be completed before divestiture such that no structures will exist in the 3000 Block at divestiture.

Phase III-B demolition consists of the 13 remaining buildings in the 3000 Block totaling 49,049 square feet (SF). Phase III-B also includes demolition of six buildings in the 2600 Block totaling 21,908 SF.

The STHA is located at the 4000 Block of STAS (see Figure 2). The STHA includes 136 single-family houses and 82 duplex buildings (which contain a total of 164 dwelling units), for a total of 300 dwelling units (USMA, Rev. 1998). The STHA is currently occupied by USMA personnel in support of the operation of STAS and West Point, as well as USMC and other personnel. The USMC expressed interest in ownership and operation of the buildings at the STHA during the DOD screening period, and therefore this housing is not planned for demolition.

As part of its ongoing remediation program, the USMA is in the process of upgrading numerous aboveground storage tanks (ASTs) and removing and disposing of underground storage tanks (USTs). In addition, the USMA plans to perform remediation of groundwater contamination associated with Buildings 2602 and 2308 (to be transferred to the TNW) that could continue beyond the date of the real property transfer (see Sections 4.8, 5.4.8, and Appendix C).

The STAS water pumping, storage, and treatment system will be transferred to the TNW by special legislation. This system consists of the STAS water pumping station (Building 2604) from the Catskill Aqueduct, comprising approximately 0.26 acres; the water filtration, storage and treatment system situated atop Reservoir Road, comprising approximately 3.17 acres; and Buildings 2618 and 2620, various equipment and water-related appurtenances. The government will issue a perpetual easement to the TNW for the operation, maintenance, and repair of the water distribution lines, structures, facilities, and associated appurtenances associated with the buildings and land to be transferred to the USMC and ARC.



ɡure 2. Land Uses at the Stewart Army Subpost.

Table 1. STAS Properties Proposed for Divestiture.

Block	Number of Buildings	Gross Square Footage	Land Use
1000	1	3,907	Parcel 20 (Currently Occupied by New York Telephone Company)
1100	1	16,969	Gymnasium
1200	7	36,926	Teen Center, Barracks, Fire Station, and Administration (Vacant)
1300	1	3,564	Administration (Vacant)
1400	3	29,972	Youth Services and Library
1500	1	16,367	Post Exchange
1600	7	41,946	Enlisted Compound (Vacant)
1700	2	44,622	Headquarters and Chapel
1800	10	57,532	Barracks (NYANG), Child Care, and Storage
1900	9	81,053	USMCR Barracks, Community Club, Administration, and Indoor Pistol Range
2000	5	90,639	Barracks and Army Reserve Center
2100	9	29,123	Athletic Fields, Child Development Center, Old Power Plant, Former Hospital, and Dental Clinic
2200	9	54,053	Wastewater Treatment Plant Maintenance Yard, Storage, Former USAF Rocket Storage, and Other Support Services
2300	2	2,259	Storage
2400	11	35,722	Dog Kennel (Vacant), SSI Maintenance Shops, Storage, and Craft and Thrift Shops
2500	9	48,497	Administration, Chapel Office, and Storage
2600	16	93,043	Water Treatment Plant, Club House, Hotel, Landfill, and Other Support Services
4000	221	524,011	Stewart Terrace Housing Area, Officer Residential Housing and Single Family and Duplex
TOTALS	324	1,210,205	

Source: Anderson 1999a

2.3 PROPOSAL IMPLEMENTATION

Property disposal can be either encumbered or unencumbered. Encumbered disposal involves conveying the property with conditions imposed by the DA. Encumbered disposal might be required to protect DA interests, such as easements to ensure access to a retained piece of property in order to address on-site contamination problems or to limit certain types of future activities based on the past uses of a particular parcel. Encumbrances also may be appropriate to preserve or protect federally protected resources such as historic properties, wetlands, or species listed as endangered or threatened. Encumbrances of this nature can recognize and sustain protected resources; preserve rights of access for necessary ingress and egress, hastening the availability of property; and facilitate mitigation of disposal-related effects. Section 3.3.1 provides information on the DA's procedures for identifying encumbrances. Unencumbered disposal involves transferring the property with no conditions imposed by the DA or other agencies. Unencumbered disposal does not necessarily mean that a specific property would be entirely clean or free of restrictions for all potential land uses. For example, local zoning restrictions might limit potential future land uses. Disposal of STAS will be encumbered. Encumbered and unencumbered disposal alternatives are further described in Section 3.3.

The process of disposal is, in part, a two-step screening procedure that assesses the demand for the facilities. The first step involves screening for demand among DOD and other federal agencies (refer to results reported in Section 1.1), as well as providers of assistance for homeless persons through McKinney Act screening (described below). The second step involves screening for demand of any remaining property among state and local agencies and organizations.

McKinney Act clearances are applicable to the excess of STAS. The purpose of the McKinney Act is to balance economic redevelopment concerns with homeless needs by specifying procedures for closing military bases. First, the local community develops a reuse plan, which will include addressing the needs of the homeless in the community. Second, the U.S. Department of Housing and Urban Development (HUD) reviews the plan to determine whether the needs of the homeless are adequately met. If HUD finds these needs are addressed adequately, the plan would be forwarded to DOD for reuse without further McKinney Act Screening. This act requires, at a minimum, a 60-day Notice of Availability published in the Federal Register based upon a determination of property suitability rendered by the HUD.

Property screening has been performed for all STAS property, including 324 buildings that cover 1,210,205 gross square feet (Table 1) (Anderson 1999c). However, certain STAS property is exempt from McKinney Act screening. Blocks 1500, 1900, 2100, 4000, 4100, and 4200 are exempt from McKinney Screening because they will be retained by either the USMC or ARC. The STAS Water Treatment Plant and pumping station also are exempt because they are currently leased by the TNW and will be transferred to the TNW pursuant to special legislation named as the Defense Department Fiscal Year 1999 Authorization Bill signed by President Clinton on October 17, 1998 (Appendix A). The STAS Bowling Alley (Building 810), former NCO pool (Facility 910), and pump house (Building 912) are exempt because they were granted to the United States of America by conditional use contained in the 1971 Quitclaim Deed and therefore are not owned by the DA. Finally, the STAS sewage pumping station (Building 712) is

exempt from the McKinney Act by conditional easement that provides for its transfer upon sewage connection to the TNW sewage treatment system and plant.

Property not transferred to another federal agency becomes available for local redevelopment. The reuse of the approximately 10-acre 100 Block (Parcel 19) for aviation purposes, which is a separate action considered in the cumulative effects section (Section 5.5) of this EA, will be determined by the NYSDOT, with the exception of Hangar 108 which will continue to be used by the 2nd Aviation Detachment. Redevelopment of the remaining 281 acres will be guided by the TNW pursuant to the special legislation and in accordance with applicable TNW zoning regulations.

2.4 Disposal Process

The following subsections discuss actions that would occur prior to transfer or conveyance and the steps required to accomplish disposal.

2.4.1 Caretaking of Property Until Disposal

The DA recognizes that maintenance of an installation plays a key role in ensuring its redevelopment. The USMA plans to transfer the majority of STAS personnel to fill vacant positions and housing at, or to be otherwise integrated into, West Point by the proposed date of divestiture, September 30, 1999. The majority of these transfers are expected to occur by June 30, 1999. The USMA will retain those STAS personnel required to conduct routine installation maintenance activities between July 1, 1999 and the proposed date of divestiture on September 30, 1999. Following land transfer, the USMA will perform no further maintenance or other installation activities, with the exception of those ongoing remediation activities identified in Section 2.3.2, and closure of the sewage treatment plant.

2.4.2 Cleanup of Contaminated Sites

As part of its ongoing remediation program, the USMA is implementing specific remediation plans as detailed in Section 5.3.8. These activities will be completed by the proposed date of divestiture on September 30, 1999. However, the USMA will continue to perform remediation of groundwater contamination associated with petroleum leaks from UST's located at Buildings 2602 and 2308, until such time as the New York State Department of Conservation (NYSDEC) issues a "no further action" letter for each site.

2.4.3 Interim Uses

The USMA does not plan to lease or license STAS property to other parties on an interim basis. Instead, it plans to dispose of STAS property directly to the new owners on September 30, 1999. However, the dog kennel (Building 2402) and gym (Building 1102) will be leased to the TNW from July 1 to September 30, 1999.

2.4.4 Real Estate Disposal Process

2.4.4.1 Disposal as a Package or in Parcels

DA policy provides that, upon completion of all required hazardous waste cleanup activities, property subject to disposal should generally be disposed of as a single entity. Alternatively, the DA may dispose of property in parcels. Identified reuse proposals, potential for tax revenue generation, and potential for job creation are among the factors to be considered in deciding whether to dispose of the property as a whole upon completion of site-specific contamination cleanup activities. There are no site-specific hazardous waste cleanup activities required at STAS.

2.4.4.2 Disposal Process

Methods available to the USMA for STAS property disposal include transfer to another federal agency, special legislation, and negotiated sale. These methods are summarized below.

- *Transfer to another federal agency.* The DA may transfer real property to another federal agency.
- *Special legislation.* Special legislation that provides for the conveyance of property to a local government entity may be prepared and sponsored by a Congressional representative, passed by the United States Congress, and signed by the President of the United States.
- *Negotiated sale.* The DA may negotiate the sale of property to state or local agencies or private parties at fair market value.

3.0 ALTERNATIVES

3.1 INTRODUCTION

This section addresses alternatives to the DA's primary action (property disposal) and to the secondary action (property reuse) by other parties. Disposal and the no action alternative are described in the following paragraphs. Further reuse of STAS property is described in the context of land use intensity levels as presented in Section 3.4.2. The land use intensity-based scenarios are used to inform DA decision-makers and the public of the environmental effects reasonably expected to occur within the range of reuses that may be implemented by future property owners. Figure 3 is a diagram of the evaluation process. The DA considers the stated redevelopment objective of the special legislation within current, or slightly modified, TNW zoning regulations as the primary factor in defining the intensity-based probable reuse scenarios to be considered. A copy of the special legislation and relevant correspondence from the TNW is provided as Appendix A.

The DA's preferred disposal alternative is encumbered disposal, as described in Section 2.2. The DA expresses no preferred alternative with respect to reuse alternatives because others will make that decision.

3.2 NO ACTION ALTERNATIVE

Inclusion of the no action alternative is prescribed by the President's Council on Environmental Quality (CEQ) regulations and serves as a benchmark against which federal actions can be evaluated. The no action alternative involves not acting on the ROE and special legislation, and operating and maintaining *status quo* conditions at STAS. The DA would perform minimal activities intended primarily to ensure security, health, and safety and to avoid physical deterioration, and would include periodic maintenance of landscaping around occupied structures and the fence line, as necessary, to protect them from fires or nuisance conditions.

3.3 DISPOSAL ALTERNATIVES

The DA considers two basic disposal alternatives, encumbered and unencumbered. Encumbered disposal involves transfer of the property to others with constraints on future use. Encumbrances promote continued protection of sensitive resources and foster environmentally sustainable redevelopment.

Unencumbered disposal involves transfer of the property without any DA-imposed constraints on the future use or development of the property. The following section describes the encumbered disposal alternative. Unencumbered disposal is described in Section 3.5.1.

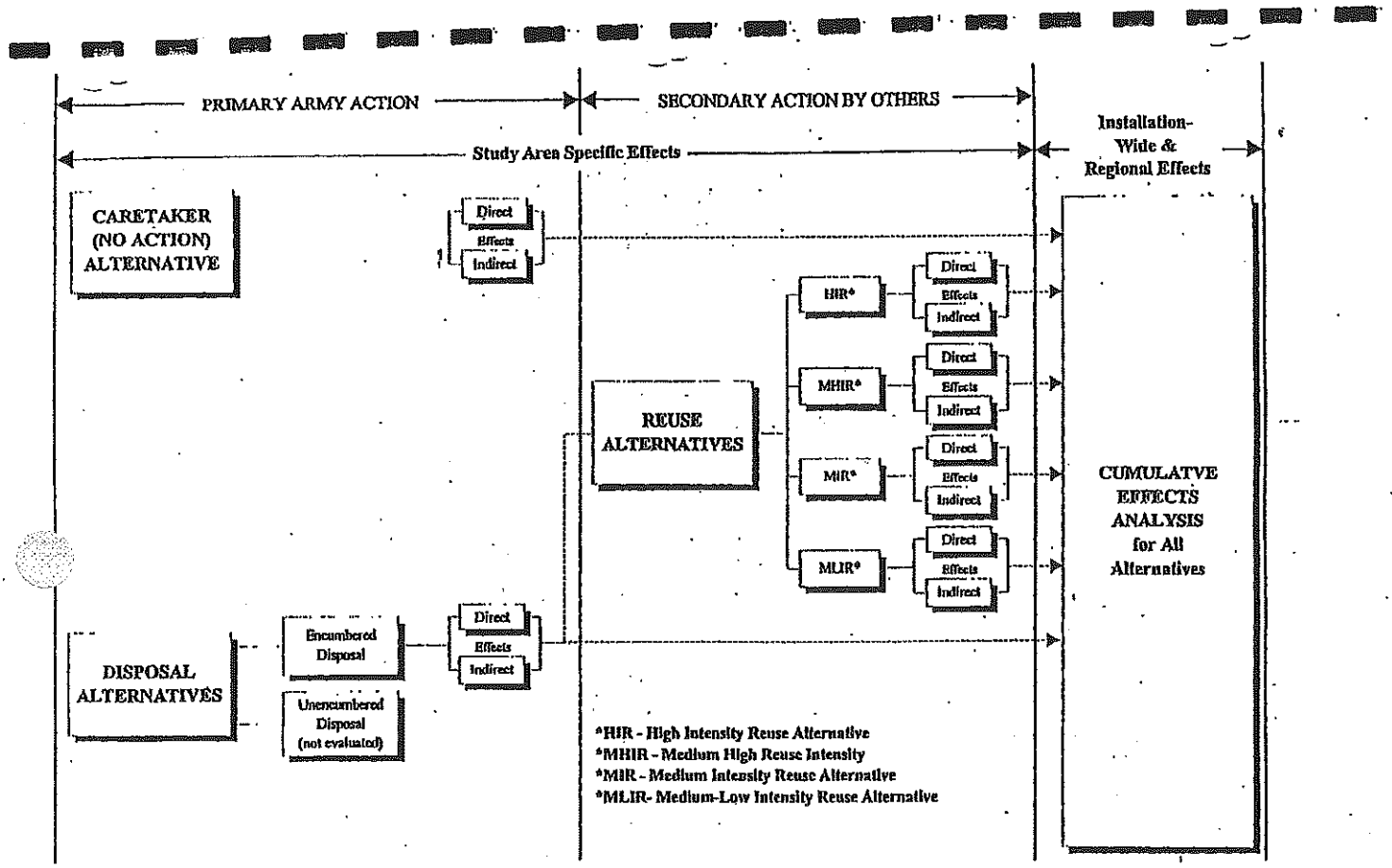


Figure 3. Alternatives evaluation process for Stewart Army Subpost Divestiture, Town of New Windsor, New York.

3.3.1 Encumbered Disposal

In the interest of promoting continued protection of sensitive resources and fostering environmentally sustainable redevelopment on transferring properties, the DA uses a methodology that identifies natural or man-made resources that should be afforded wise use or protection after transfer of federal ownership. For BRAC actions, information developed by the DA from the EBS early in the NEPA process is provided to the local redevelopment authority (LRA) for consideration in the development of its reuse plan. However, because STAS Divestiture is not a BRAC action, no LRA exists. Nonetheless, the DA would coordinate with the TNW for this non-BRAC action. In this way, environmental stewardship is effectively transferred and development of an environmentally sustainable reuse plan is encouraged.

The DA uses the term "encumbrances" to generically describe the resources or conditions for which special protection or other measures may be appropriate. Encumbrances also can identify other factors that could influence reuse such as retention of real estate easements or an extended cleanup process. By following this methodology, the TNW can develop a reuse plan that can both satisfy community redevelopment goals and objectives and establish sound environmental management standards. The process is endorsed by regulatory and environmental agencies.

Encumbrances are typically applied for constraints such as threatened and endangered species, jurisdictional wetlands, critical habitat, historic properties and sites, archaeological sites, and legacy resources. Encumbrances also retain DA access to remediation sites, as well as retention of easements and utility/infrastructure rights-of-way. Some conditions may require consideration because they relate to hazardous materials. These include asbestos-containing material, lead-based paint, radon, polychlorinated biphenyls, and radiological material. Hazardous material-related conditions normally can be accommodated without constraining redevelopment. Other conditions that may be identified to the TNW are excessive slope areas, poor construction soil conditions, a high water table, overflow easements, heavy rock outcrops, zoning ordinances, and the requirement to consider the needs of homeless persons in the development of the plan.

Based on the nature of the encumbrances identified, the DA might find it necessary to include specific constraints to future use in conveyance documents. Constraints might be required to protect environmental values or to comply with federal law, or they might also result from agency negotiations or the necessity to meet specific residual DA needs on the property. The DA does not impose restricted deed provisions solely to promote state or local environmental protection or planning objectives. Through the NEPA process, however, new owners are informed of their obligations for management of state- and locally-protected resources.

3.3.1.1 Major Categories of Encumbrances (General)

There are six major categories of encumbrances:

Easements and rights-of-way. Real estate may be conditioned with utility system, other infrastructure-related, roadway, or access easements and rights-of-way.

Use restrictions. Activities on property may be limited by existing conditions or in recognition of adjacent land uses. For example, a public benefit conveyance for recreational uses would preclude development of a parcel for any other use. Additionally, use restrictions may be applied to provide continued access to areas undergoing remediation.

Habitat and wetlands protection. The presence of federally listed endangered or threatened species of wildlife or plants and wetlands may constrain unlimited use of property.

Historic buildings or archaeological site protection. Negotiated terms of transfer or conveyance may result in requirements for new owners to maintain the *status quo* of historic buildings or archaeological sites or may impose a requirement for consultation with the State Historic Preservation Office (SHPO) prior to any actions affecting such resources.

Water rights. Protective covenants may be required to protect existing water rights.

Utility dependencies. Utilities operated as a single system create dependencies among future owners unless the systems are individualized to separate parcels or facilities. Wastewater collection and treatment, potable water supply and distribution, telecommunications, gas, and electricity should be available to each property owner. An encumbrance may be needed wherever a parcel's or facility's future use depends on a common provider or distribution system for these services. As part of property disposal, the DA would cooperate with new owners and local utility companies to make arrangements for utility services, including creating or preserving appropriate easement across transferred land.

3.3.1.2 Encumbrances Identified at STAS

Table 2 describes the specific encumbrances that were considered in relation to the encumbered disposal alternative for STAS and could be expected to apply at the time of transfer of STAS property.

3.3.2 Unencumbered Disposal

Unencumbered disposal is discussed in Section 3.5.1.

3.4 Reuse Alternatives

The CEQ regulations require evaluation of reasonably foreseeable actions, without limitation on the party conducting them, and evaluation of the probable consequent environmental effects. Accordingly, reuse of the property is evaluated as an action secondary in time, following the primary action of DA disposal. The following subsections discuss the methodology used to define the reuse scenarios to be considered. This EA analyzes likely intensity-based reuses of STAS property that encompass the economic development objective of the special legislation and applicable TNW zoning ordinances, and that might reasonably be expected to occur. It should be noted that the nature of the actual reuse of the facility cannot be precisely identified at this time.

Table 2. Summary of Encumbrances at STAS.

Type	Description
Access easement	In conjunction with remedial activities that might be required following disposal, the DA would retain the right to conduct investigations and surveys; to conduct remedial field activities carried out by government personnel and contractors; and to construct, operate, maintain, or undertake any other response or remedial action as required.
Access easement	The ARC stands to acquire A Street, a portion of Fifth Street, and a portion of B Street. The DA will encumber the ARC to provide an easement to the Town of New Windsor on these roads.
Utility easements	USMA currently grants easements to Central Hudson Gas and Electric Corporation for gas and electric utilities. Following land transfer, new owners (USMC, ARC, and TNW) will be required to grant similar easements to Central Hudson Gas and Electric Corporation. The USMC and ARC also will be required to grant water and sewer utility easements to the TNW. The easements will be required in perpetuity.

3.4.1 Development of Reuse Alternatives

The reuse planning process is dynamic, and the ultimate reuse is often dependent on market forces and general economic conditions beyond the control of the reuse planning authority. In recognition of these dynamics, the DA uses intensity-based probable reuse scenarios to identify the range of reasonable reuse alternatives required by NEPA and by DOD implementing directives. That is, instead of attempting to predict exactly what will occur at a site, the DA considers the LRA's reuse plan, if available, or reuse objectives (*e.g.*, redevelopment) or restrictions (*e.g.*, zoning ordinances), and establishes ranges or levels of activity that might reasonably occur. These levels of activity, referred to as reuse intensities, enable analysis of the environmental effects of a range of different kinds of reasonable uses that could occur at a location. Reuse intensities also can take into account the effects that encumbrances can have on reuse.

3.4.2 Description of Land Use Intensity Categories

The DA considers five intensity-based levels of land use for evaluating the potential environmental and socioeconomic effects of redevelopment. The five intensity categories include low intensity reuse (LIR), medium-low intensity reuse (MLIR), medium intensity reuse (MIR), medium-high intensity reuse (MHIR), and high intensity reuse (HIR). However, analysis of all

five levels of intensity might not be appropriate at any given site due to historical usage, physical limitations, or other cogent reasons. Because approximately 121.3 acres (30 percent) of the 402.5 acres of military real property will be reused by other federal or state agencies in accordance with existing uses, the DA does not consider the LIR intensity category as being potentially feasible. As a result, this EA analyzes the remaining four intensity categories, including MLIR, MIR, MHIR, and HIR.

Indicators of levels of intensity may be quantified by counting the number of people (employees, cadets, or residents) at a location, the potential number of vehicle trips generated as a result of the nature of the activity, or the number of dwelling units. Other indicators of the intensity of use are the rates of resource consumption (electricity, natural gas, and water) and the amount of building floor space per acre (identified as the floor area ratio [FAR], expressed as the number of square feet per acre). The DA uses residential density, employee density (general spaces), employee density (warehouse spaces), FAR, and development ratio as representative and illustrative quantifying parameters of intensity of use. Development ratio is based on the amount of developed property in relation to the total amount of property subject to land use planning at a given location. The parameters used in defining these intensity levels at STAS are presented in Table 3.

Levels of reuse intensity can be viewed as a continuum. At STAS, all intensity reuse categories analyzed in this EA include *status quo* use of existing buildings, infrastructure, and land uses of the approximately 121.3 acres (30 percent) of STAS property to be transferred to federal and state agencies. This *status quo* use represents the anticipated post-disposal baseline condition, which exceeds the development ratio threshold for an LIR (refer to Section 3.2.2), and is thus considered an MLIR. A MLIR also would involve some occupancy and a low level of economic development of TNW parcels, including some building or infrastructure improvements with minimal demolition and new construction. A MIR represents the upper threshold of existing building or infrastructure improvement, with a moderate amount of demolition and new construction that expands existing land uses within the context of applicable TNW zoning ordinances. A MHIR and HIR represent even greater use intensity including, for example, a combination of hotel/conference facilities, commercial and administrative office areas, and open space. These intensities involve multistoried structures, resulting in greater FAR and activities that generate a more intensive demand on environmental resources such as commercial or light industrial functions requiring substantial water or electricity demands and involving higher numbers of vehicle trips by employees or customers. At STAS, a MHIR or HIR only is achievable by conversion or replacement of the existing structures and/or construction of additional buildings for housing or commercial or light industrial uses.

3.4.3 Baseline Land Use Intensity

In applying the intensity categories in Table 3 to the analysis of reuse of STAS, a description of the intensity level at the time of this EA provides a measure of comparison with the likely reuse of the site. In evaluating intensity in terms of site development, STAS consists of 402.5 acres with 324 buildings. Existing conditions as STAS are best described by the MLIR land use intensity parameters provided in Table 3.

Table 3. Land Use Intensity Parameters for STAS.

Land Use Intensity and Intensity-based Reuse Scenario Level	Residential Density[1]	Square Feet per Employee (General)	Square Feet per Employee (Warehouse)	Floor Area Ratio	Development Ratio
LIR	<2	>800	>15,000	<0.05	<0.2
MLIR	2-6	061-800	8,001-15,000	0.05-0.10	0.2-0.4
MIR	6-12	401-600	4,001-8,000	0.10-0.30	0.4-0.6
MHIR	12-20	200-400	1,000-4,000	0.30-0.70	0.6-0.8
HIR	>20	<200	<1,000	>0.70	0.8-1.0

[1] Dwelling units per acre.

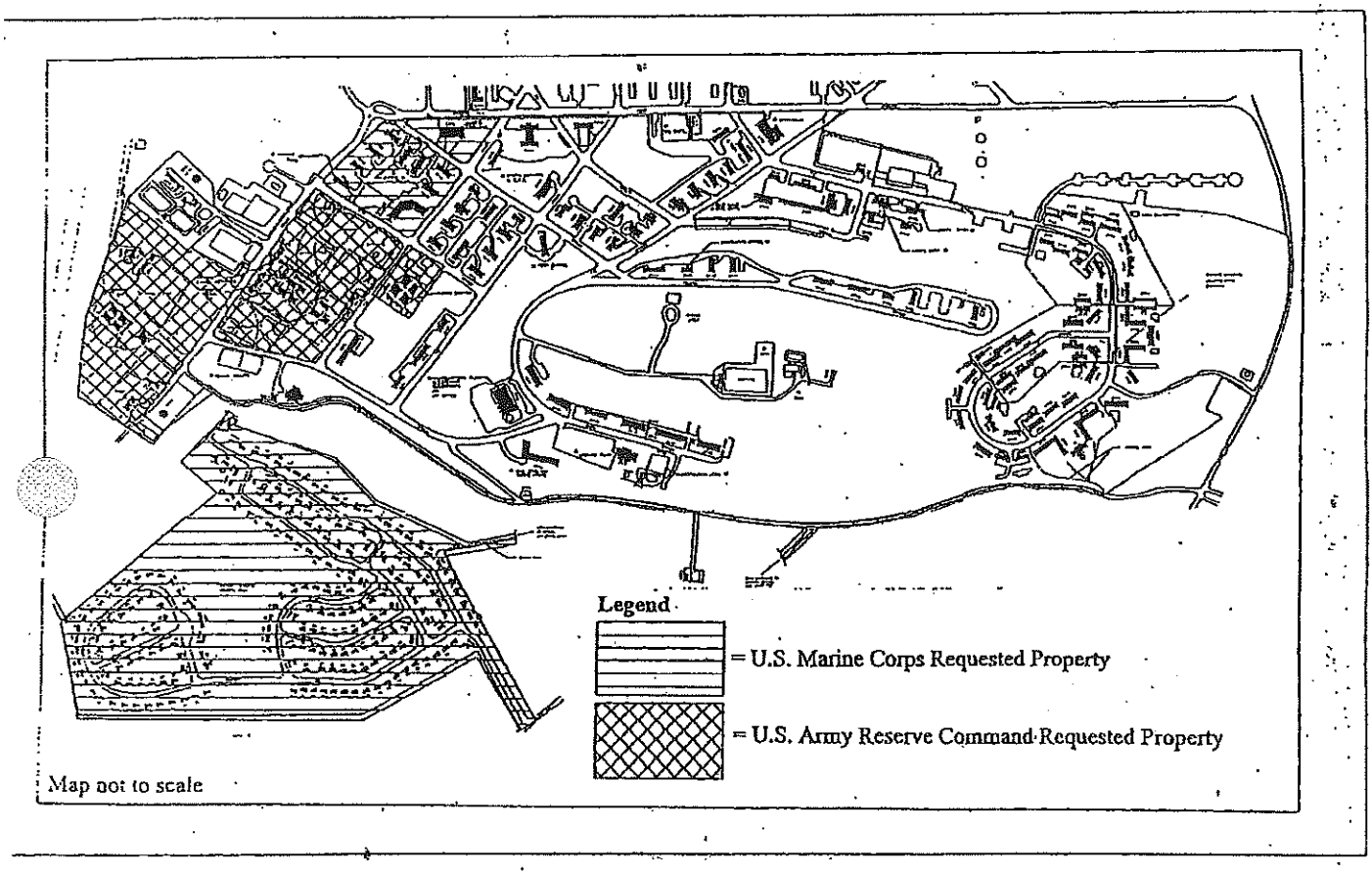
Sources: HQDA, 1993; Lynch and Hack, 1994; Tompkins and White, 1984; ULI, 1987, 1988, 1994; USACE, 1993.

3.4.4 Local Reuse Plans

The DA proposes to dispose of all 402.5 acres of the military real property associated with STAS, as detailed in Section 2.2. The DA decided to dispose of STAS property by parcel, rather than to a single entity, based on expressed interest and in consideration of regulatory disposal procedures. Of the potential methods available to the DA for property disposal, the DA intends to dispose of its military real property by DOD Secretarial transfer to other federal agencies, by negotiated sale to NYSDOT, and by special legislation to the TNW. The military real property to be disposed by each method is described below.

Transfer to another federal agency. The DA intends to transfer approximately 89.2 acres of military real property by DOD Secretarial transfer from the SA to the Secretary of the Navy for property requested by the Department of the Navy, USMC. The USMC has requested the 1500 Block, the 1900 Block, and Stewart Terrace Housing Area (Figure 4). The DA also intends to transfer approximately 22.0 acres of military real property by SA approval to the ARC. The ARC has requested Building 2008 and its grounds, the 2100 Block, and the majority of the 2200 Block (Figure 4). These federal agencies intend in the near future to maintain the existing activities and operations performed on the subject property (Coleman 1998, Doherty 1998), with the exception of minor infrastructure improvements proposed by USMC to connect to the STAS Wastewater Treatment Plant (Doherty 1998).

Negotiated sale. The DA intends to transfer the military real property associated with the approximately 10.1-acre 100 Block, also referred to a Parcel 19, to NYSDOT by negotiated sale (no fee with long term lease of Hangar 108). The NYSDOT plans to use the existing facilities associated with the 100 Block for aviation purposes consistent with their current use. This would include the continued use of Hangar 108 by the 2nd Aviation Detachment. The disposal of Parcel 19 is a separate action, but is considered in the cumulative impacts section (Section 5.5) of this EA.



ure 4. Location of Stewart Army Subpost Properties Proposed for Transfer to the U.S. Marine Corps and U.S. Army Reserve Command.

Special legislation. The DA intends to transfer the remaining 281.2 acres of military real property, including the STAS water treatment system, by special legislation to the TNW. Special legislation was passed by the United States Congress and subsequently signed by President William J. Clinton on 17 October 1998. This special legislation, known as Public Law #105-261, and as Defense Department Fiscal Year 1999 Authorization Bill, is provided in Appendix A. The special legislation permits the TNW to develop this property for economic purposes. The TNW has not developed a specific local reuse plan, such that the nature of the actual reuse of the property cannot be precisely identified. Accordingly, as identified in Section 3.2, this EA analyzes reasonable intensity-based reuses of STAS property. These levels of reuse are analyzed based on the economic development objective of the special legislation, within the context of applicable TNW zoning ordinances. The TNW has stated that it intends to maintain the current Airport zoning classification for the entirety of STAS, but is considering enacting a minor change to all areas designated pertinent to the Airport classification that will allow hotel/conference center type uses (McGoey 1999a). Current zoning ordinances allow for a wide-range of development options, including, but not limited to, open space, agricultural uses, office and warehouse space, and light manufacturing and industrial development. A complete summary of Airport zoning regulations is provided in Appendix B.

3.5 ALTERNATIVES NOT ADDRESSED IN DETAIL

3.5.1 Unencumbered Disposal

Unencumbered disposal would involve the transfer or conveyance of the property without the creation of any restrictions or with the removal of any existing restrictions. The encumbrances described in Table 3 are either required by law or cannot practicably be removed. Therefore, unencumbered disposal is unreasonable and its effects are not analyzed in this EA.

3.5.2 Low Intensity Reuse

Approximately 30 percent (121.3 acres) of the 402.5 acres of military real property will be transferred by DOD Secretarial transfer to other federal agencies (*e.g.*, USMC and ARC) or by negotiated sale to state agencies (*e.g.*, NYSDOT). These agencies will occupy and use the subject property in accordance with existing uses. This 30 percent occupancy and reuse of STAS exceeds the 0.20 development ratio threshold identified in Table 3 for LIR, such that the post-disposal baseline condition would be considered a MLIR. Any further occupancy or reuse of the remaining 281.2 acres of STAS property by the TNW would increase the intensity of reuse of this post-disposal baseline condition to a higher intensity level (*e.g.*, MLIR, MIR, MHIR, and HIR). As a result, the DA does not consider the LIR intensity category as being potentially feasible. Accordingly, this EA does not analyze the LIR intensity category.

4.0 AFFECTED ENVIRONMENT

4.1 INTRODUCTION

This section describes the environmental and socioeconomic conditions at STAS, Town of New Windsor, Orange County, New York. It provides baseline information from which to identify and evaluate environmental and socioeconomic changes resulting from implementation of the proposed action, disposal and reuse of STAS. The environmental and socioeconomic effects of the proposed action and alternatives, including the no action alternative, on the baseline conditions are described in Section 5.0.

4.2 LAND USE

4.2.1 Regional Geographic Setting and Location

STAS is located approximately 4 miles west of the City of Newburgh, New York. It is adjacent to the Stewart International Airport, which is administered by the NYSDOT. STAS is accessible by road from New York State Route 207, Interstate 87 (I-87), and Interstate 84 (I-84). STAS is approximately 14 miles north of the United States Military Academy, and about 65 miles north of New York City.

4.2.2 Installation Land and Airspace Use

The general land use of STAS is essentially unchanged since the 1940s. The project area has historically changed operations from an Army Air Corps facility, to an Air Force Base, to the present DA subpost; the facilities have been primarily used for barracks, administration, and storage space. Appendix C presents a comprehensive summary of the individual buildings and areas on STAS including their known uses and property classification.

The current STAS property is a USMA subpost that is used primarily for housing of administrative and military personnel. The STAS property boundary considered for the proposed action does not include the airfield and land use reflects only the residential and community support nature of the activities that currently occur on STAS. Each building on STAS is numbered according to the block in which it is located. Figure 2 shows the limits of each block, and Table 1 lists the types of uses that are ongoing in these blocks. Parcels 19 (100 Block) and 20 (1000 Block) are currently part of STAS, although they are not contiguous to the main STAS property boundary. (Parcel 19 is being transferred to NYSDOT, and is not being considered in this EA.)

USMA evaluated the transfer of Parcel 19 to NYSDOT for aviation purposes in a separate EA. This parcel contains two interconnected aviation hangars. Hangar 109 was permitted to USMC Air Wing Reserve in 1996, and is used for aviation-related materials storage. Hangar 108 is occupied by the USMA, 2nd Aviation Detachment, First Battalion, First Infantry assigned to West Point, and is used primarily for aircraft (helicopter and fixed-wing) storage and maintenance. The concrete aircraft apron adjacent to the hangar buildings is used for aircraft operations in support

of West Point. This support includes use of the apron by large cargo and transport aircraft. The transfer of Parcel 19 is considered in the Cumulative Effects Section (Section 5.5).

Parcel 20 contains one building that serves as the focal point for telephone service for the SIA complex and STAS. This building is currently occupied by the New York Telephone Company.

The STAS water pumping station, storage, filtration, and treatment facility, and use of the Catskill Aqueduct tap has been under lease to the NYSDOT since 1988. By concurrent agreement, the same has been operated by the TNW on behalf of the NYSDOT for the same period. The divestiture will exclude lateral water lines adjacent to individual buildings on STAS.

Current USMA residents of STAS are located at the STHA, and will be relocated to West Point as new housing is constructed at West Point. Housing demolition activities at the SGHA will be complete prior to divestiture, as detailed in Section 2.2.

STAS is located within the airport (AP) zoning classification of the Town of New Windsor (TNW 1997) that encompasses the NYSDOT SIA. This zoning code permits a variety of land uses including airports and heliports, agricultural activities, light industrial and commercial uses, parks, and other land uses (TNW 1997) as summarized in Appendix B. The zoning code restricts certain lighting and structure heights.

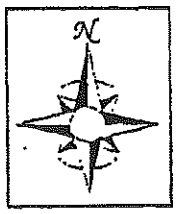
4.2.3 Current and Future Development

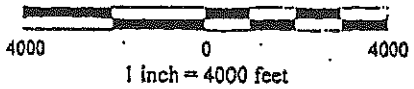
As described in the Stewart Airport Access Improvement DEIS, the Stewart International Airport Master Plan Properties (SIAP) FEIS identified approximately 1,200 acres of airport lands as suitable for development for industrial, assembly, warehouse/distribution, "flex" space, and office uses. Development of the SIAP would proceed as dictated by the demand for space.

According to the 1998 SIAP Update, ongoing or proposed airport development includes expansion of the terminal area and the relocation of the Federal Aviation Administration (FAA) Air Traffic Control Tower (to Commissary Hill, north of the terminal area). Several airport sites were identified for aviation-related or industrial development, including the South Cargo/Aviation Maintenance Area (an area of about 197 acres adjacent to Taxiway A, south of the airfield) which is designated for future development of approximately 264,000 square feet of air cargo or aviation-related facilities. The Airport Master Plan Update also calls for a new access road from Drury Lane to the Main Terminal Area. The DEIS on the Stewart Airport Access Improvement states that the airport's future growth will provide the conditions for spin-off business activities (NYSDOT 1999).

A Draft EIS on the Stewart Airport Access Improvement project describes its purpose to improve access to SIA from I-84 via a new interchange at Drury Lane to an east-west connector road, which aligns with "C" Street on STAS lands. Currently, the sole access to the existing airport passenger facility at SIA is provided along Breunig Road at its intersection with New York State (NYS) Route 207 (Figure 5). In general, the influence of improved highway access on land use

Base Map Source: NYS DOT 7.5 Minute Quadrangles
Information Source: Stewart Airport Access Improvement DEIS.





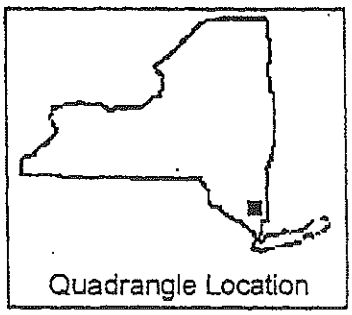


Figure 5. Stewart Airport Access Improvements

can extend up to one-half mile radius from major access points (Berger 1998). Upon transfer of portions of the STAS to the Town of New Windsor it is the intention of the TNW to raze existing buildings to make way for modern commercially leased facilities. In addition to a major business park, new facilities potentially include a hotel and conference center, a pilot training facility, and an assisted-living or nursing home facility (Newburgh/Hudson Valley Record Weekly 1999).

4.3 Air Quality

4.3.1 Ambient Air Quality

Ambient air quality refers to the atmospheric concentration of specific pollutants at a particular geographic location. It is determined by the interaction among three groups of factors – the types, amounts, and locations of pollutants emitted into the atmosphere; the physical processes affecting the distribution, dilution, and removal of these pollutants; and chemical reactions that transform pollutant emissions into other chemical substances.

Regional air quality is described in the 1990 Environmental Impact Statement for the SIA Property (NYSDOT and U.S. Department of Transportation [USDOT] FAA 1990). STAS is located in the Hudson Valley Air Quality Control Region (HVAQCR). Northern Orange County is currently classified as an attainment area for all National Ambient Air Quality Standard (NAAQS) criteria pollutants (carbon monoxide, nitrogen dioxide, particulate matter, lead, and sulfur dioxide), except ozone (NYSDEC 1996c, 1996d). Southern Orange County is classified as a nonattainment area for ozone (NYSDEC 1996d), whereas Northern Orange County is an ozone "Transport" area, or transitional zone.

4.3.2 Air Pollution Emissions

The USMA does not operate any facilities at STAS that result in air pollution emissions requiring any air permits.

4.4 Noise

The Noise Control Act of 1972 (Public Law 92-574) directs federal agencies to comply with applicable federal, state, interstate, and local noise regulations. In 1974 the U.S. Environmental Protection Agency (USEPA) published results on negative effects of noise, identifying indoor and outdoor noise limits to protect public health and welfare (*e.g.*, to prevent hearing damage, sleep disturbance, and communication disruption) (USEPA 1974).

The primary noise generating facilities in the area of STAS are road traffic on Breunig Road and NYS Route 207, and aircraft operations at the SIA. Airport noise standards listed in FAR 36 state that all new turbojet and transport category aircraft conform to the most stringent standards (Stage 3) in order to be certified for flight in the U.S. An Airport Noise Compatibility Plan (Part 150 Study) was conducted in 1992. The noise measure used for assessing noise exposures is the Day-Night Average Sound Level (DNL), in units of A-weighted decibels (dBA). "A-weighted" denotes the adjustment of the total sound energy of a noise event to represent the way in which the human ear responds to that sound. DNL is the time-average sound level generated by all

aviation-related activities around an airport during a representative day, with the nighttime noise events emphasized by adding a 10 dBA penalty or weighting. The 1992 NYSDOT study predicted noise exposure (dBA contours) in the vicinity of STAS as shown in Figure 6 (NYSDOT 1992).

4.5 GEOLOGY

4.5.1 Physiography/Topography

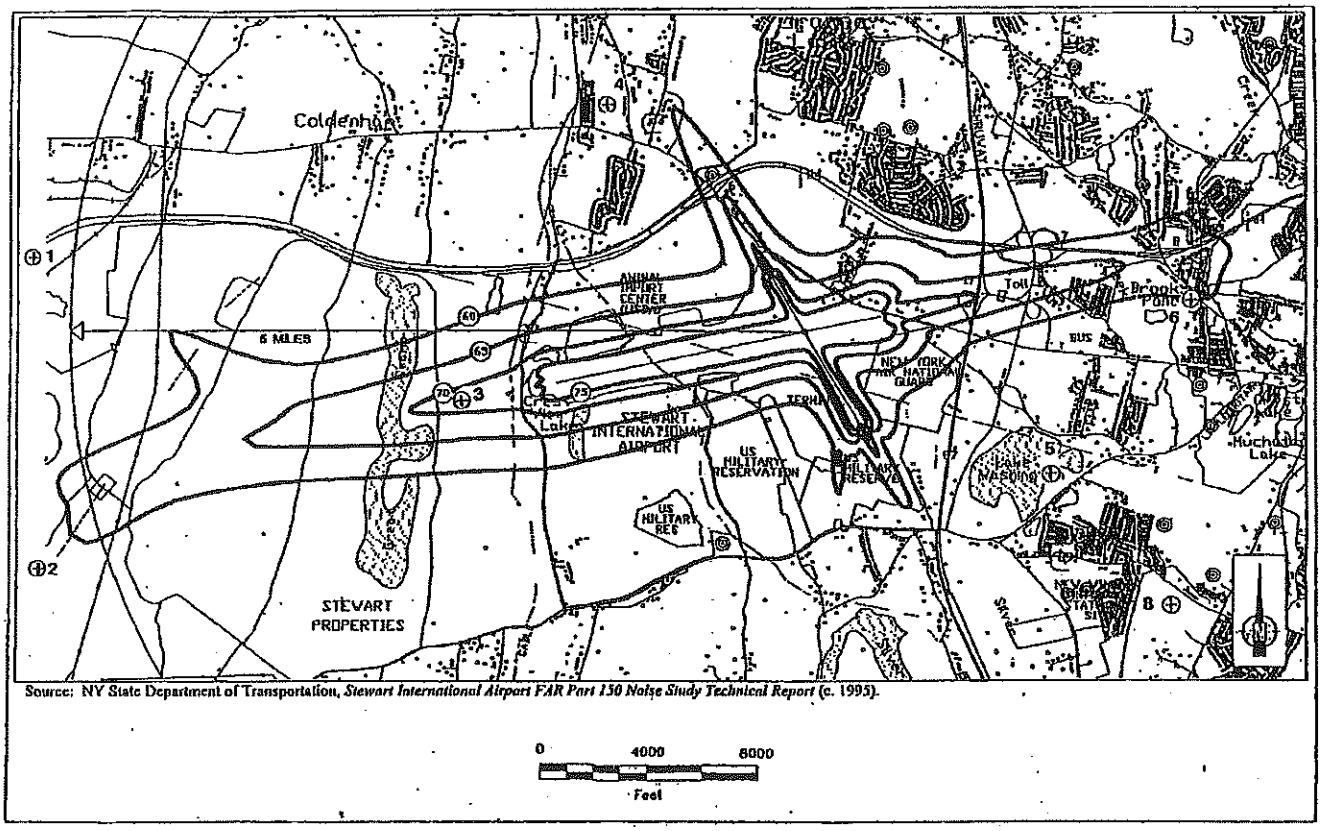
STAS is located in northeastern Orange County, New York, near the boundary of two physiographic provinces, the Hudson Mohawk Lowland to the west and north, and the New England Uplands on the south and east. The surrounding landscape consists of gently rolling hills and valleys typically created by the differential erosion of soft shale and carbonate sediment and erosion-resistant sandstone.

4.5.2 Structure and Stratigraphy

Bedrock in this area is characterized as sedimentary rock (limestone, shale, sandstone, dolostone) formed during the Middle Ordovician period (438-505 million years ago) of the Paleozoic era and Phanerozoic eon (New York State Geologic Survey [NYSGS] 1986). The surficial sediments associated with STAS are composed almost entirely of glacial till deposited from the late Wisconsinian (Woofordian) glaciation roughly 28,000 years ago (Cadwell 1989). These sediments are characterized as having variable texture (*e.g.*, clay, silt-clay, boulder-clay) and thickness (1-50 meters), and are relatively impermeable due to a loamy matrix. The geological foundation of STAS consists of sedimentary rocks (including shale, argillite, and siltstone) of the Normanskill Formation within the Trenton Group (NYSGS 1995).

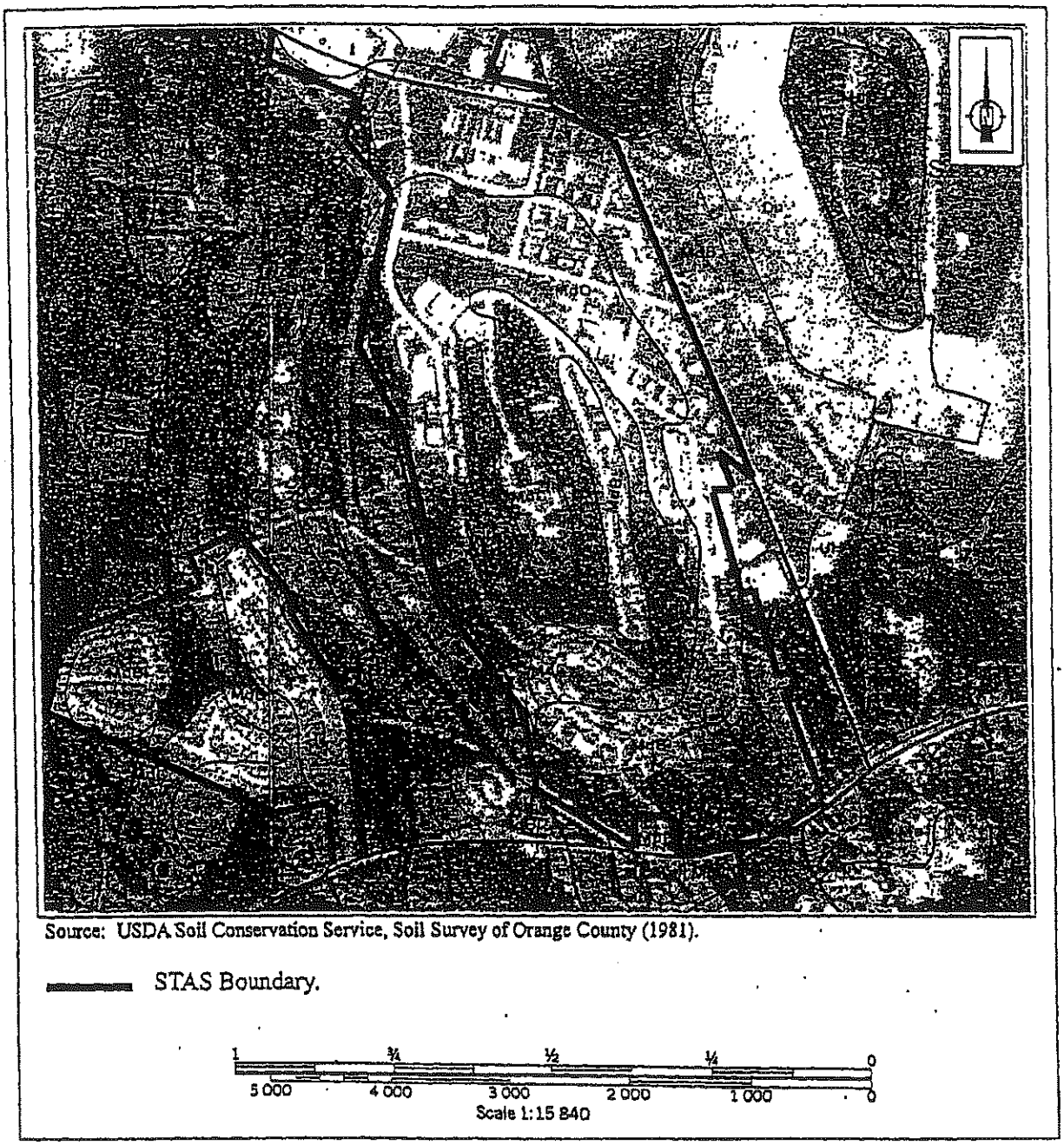
4.5.3 Soils

STAS property contains eleven different soil types (see Figure 7 and Table 4) within the Mardin-Erie Association. These soils are characterized as upland (non-wetland) soils that are deep, moderately well drained to somewhat poorly drained, with medium texture located on dominantly gently sloping and sloping terrain. Within this association, soils from the Mardin series are dominant (U.S. Department of Agriculture [USDA] Soil Conservation Service [SCS] 1981).



Source: NY State Department of Transportation, *Stewart International Airport FAR Part 150 Noise Study Technical Report* (c. 1995).

Figure 6. New York State Department of Transportation (1997) Noise Exposure Map for the Stewart International Airport.



Source: USDA Soil Conservation Service, Soil Survey of Orange County (1981).

STAS Boundary.

1 ¾ ½ ¼ 0

5 000 4 000 3 000 2 000 1 000 0

Scale 1:15 840

Figure 7. Soil Types on Stewart Army Subpost.

STAS soils have four dynamic physical and chemical properties (*i.e.*, hydrologic, erosion, frost action, and excavation) that are of special concern to any planned construction and/or excavation projects, as described on Table 4. The Erosion Coefficient (K) is one of six factors used in the Universal Soil Loss Equation (USLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. It is based on the percentage of silt, sand, and organic matter in the soil, as well as on soil structure and permeability. Based on the properties depicted on Table 4, STAS soils can generally be described as being unfavorable for excavation and construction activities.

STAS is not part of an agricultural district of the State of New York (NYSDOT 1994), and the farmland soils are not actively being farmed.

Neither of the two hydric soils found on STAS is located within federally mapped National Wetland Inventory (NWI) wetlands, but the 0.36-acre Ca soil is located within a NYSDEC-mapped Freshwater Wetland (see Table 4).

4.5.4 Seismicity

Orange County, New York, is an area of relatively low seismic activity (International Conference of Building Officials 1994). The potential for seismic activity in the area has been described by Algermissen *et al.* (1982) who formulated seismic source zones based on both seismotectonic and historical seismic data to assist in predicting potential seismic activity for the United States. STAS is located in Seismic Zone 104 (associated with the Ramapo fault), which is characterized by approximately 5.5 Intensity V (Modified Mercalli Scale) earthquakes, with a maximum magnitude of 7.3 or higher (Richter Scale), every 100 years (Algermissen *et al.* 1982). The Modified Mercalli Scale measures the intensity of felt movement, sounds, and visible effects on structures and landscapes, whereas the Richter Scale measures the recorded seismic wave used to determine magnitude on a logarithmic scale (Dombroski 1990). The Ramapo is described as a young, southwest-to-northeast oriented fault located near New York City (Howard *et al.* 1975). The most recent known displacement of the Ramapo fault occurred before the late Cenozoic period (more than 15 million years ago). Its current seismicity has been interpreted to suggest that it is possibly active, despite the fact that the youngest faulted rocks preserved in the vicinity are hundreds of millions of years old (Howard *et al.* 1975).

Soil liquefaction, a potential geologic hazard, is a phenomenon in which saturated, cohesionless soils such as fine sands and silts from the Holocene Age, temporarily lose their strength and liquefy when subjected to forces such as intense and prolonged ground shaking. However, given the relatively low potential for tectonic activity, and absence of uniform sediment size in the soils observed at STAS, the potential for soil liquefaction in the vicinity of STAS is minimal. In addition, because no landslides have been recorded in the vicinity of STAS (Fickies and Brabb 1989), the area is considered to have a low landslide probability.

Table 4. Types and Associated Properties of Soils on Stewart Army Subpost.

Soil Series Name	Map Unit	Area (Acres)	Frost Action	Shallow Excavations [1]	Erosion (K) [2]	Depth to Bedrock	Hydro Group [3]	Soil Productivity Index	Prime Farmlands [4]	Statewide Importance [5]	Hydric [6]
Canandaigua Silt Loam	Ca	1.09	High	Severe: wetness, frost action	0.49	>60"	D	42	N	Y	Y
Chenango Silt Loam 3-8% slopes	CnB	2.55	Moderate	Severe: sm. stones, cutbanks cave	0.24	>60"	A	92	Y	N	N
Dump - miscellaneous soils consisting of excavations that have been filled or are being filled with refuse and trash	Du	6.78	Moderate	Moderate: wetness, rubbish, unconsolidated material	N/A	>60"	N/A	N/A	N	N	N
Erie Extremely Stony Soils, gently sloping	ESB8	8.73	High	Severe: wetness, lg. stones	0.24	>60"	C	N/A	N	N	N
Madalin Silt Loam	Ma	0.36	Moderate	Severe: wetness	0.49	>60"	D	18	N	N	Y
Mardin Gravelly Silt Loam, 3-8% slopes	MdB	122.17	Moderate	Severe: wetness	0.24	>60"	C	77	N	Y	N
Mardin Gravelly Silt Loam, 8-15% slopes	MdC	135.98	Moderate	Severe: wetness	0.24	>60"	C	66	N	Y	N
Mardin Gravelly Silt Loam, 15-25% slopes	MdD	47.27	Moderate	Severe: slope, wetness	0.24	>60"	C	54	N	N	N
Swartswood and Mardin very stony soils, sloping	SXC	47.27	Moderate	Moderate to severe: slope,	0.28 - 0.24	>60"	C	N/A	N	N	N
Udorthents, smoothed	Ud	18.91						N/A	N	N	N
Urban Land	Ur	18.18						N/A	N	N	N
TOTAL		402.51									

Source: USDA Soil Conservation Service, Soil Survey of Orange County (1981). Compiled by Northern Ecological Associates, Inc.

All soils belong to the Mardin-Erie Association: Dominantly gently sloping and sloping, deep, moderately well drained and somewhat poorly drained, medium textured soils; on uplands.

* These soils are mostly excessively drained.

1 "Severe" indicates that soil properties or site features are so unfavorable or so difficult to overcome that special design measures, and possibly increased maintenance activities, are required when excavating these soils (USDA 1981).

2 "K" values in Orange County typically range from 0.05 to 0.69, with a higher value indicating a greater susceptibility to erosion (USDA 1981). Based on "K", the soils on STAS can generally be described as being moderately susceptible to erosion.

3 Hydrologic soil groups are used to estimate runoff from precipitation. Hydrologic group "C" is characterized by having a slow infiltration rate when thoroughly wet, and consequently have a moderately high runoff potential following substantial precipitation events. Group "A" are soils having a high infiltration rate and a low runoff potential, and Group "D" are soils having a very slow infiltration rate and thus a high runoff potential (USDA 1981).

4 Prime Farmland is defined as land best suited for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed.

5 Farmland of Statewide Importance is land, in addition to prime and unique farmland, that is of statewide importance for the production of crops.

6 Hydric soils typically are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

4.6 WATER RESOURCES

4.6.1 Floodplains

STAS is not located in a floodplain or flood hazard zone. STAS lies within Zone C, defined as an area of minimal flooding by the U.S. Department of Housing and Urban Development, National Flood Insurance Program, Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FEMA 1978). The closest Zone A flood hazard area, defined as an area of 100-year flood, is located south of the STHA and NYS Route 207 (Figure 8).

4.6.2 Navigable Waterways

The nearest waterway subject to USACE jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 is the Hudson River and an adjacent portion of Quassaic Creek, located approximately 4 miles east of the SIA (Nieves 1997).

4.6.3 Designated Coastal Zones

All of STAS lies outside the New York State Coastal Management Program designated coastal zone associated with the Hudson River (Dailey 1997). Appropriately, no Local Waterfront Revitalization Program (LWRP) exists for the property.

4.6.4 Surface Water

STAS is located within the Moodna Creek sub-basin of the Lower Hudson River Basin, which is located within the North Atlantic Slope Basin. Stormwater runoff from the eastern half of STAS property typically follows a path from Silver Stream to Moodna Creek before entering the Hudson River (McGoey 1997). Alternatively, the western half of STAS property, including STHA, drains into Beaver Dam Lake (McGoey 1997). As described below, two streams enter STAS property, and one additional stream runs along the eastern perimeter of the STHA, as shown on Figure 9.

The first mapped stream presented on Figure 9 is unnamed, but is identified Waters Index Number H-89-12-P-234-6A, as specified in Title 6, New York State Codes, Rules, and Regulations (NYCRR), Chapter X, Part 862 (NYSDEC 1996a, Beech 1997, Tucker 1997). This stream enters and exits the northwest corner of STAS (Figure 9). This stream receives discharge water from the STAS WWTP as well as runoff from the airport runways before joining a tributary named Gillick Brook (Waters Index Number H-89-12-P234-1). The water then drains south along the eastern edge of STHA, crosses NYS Route 207, and enters Beaver Dam (Ramsdell) Lake. This stream is a Class C subtributary of Ramsdell Lake as defined by the New York State Protection of Waters Program, 6 NYCRR, Chapter X, Parts 700-705 (NYSDEC

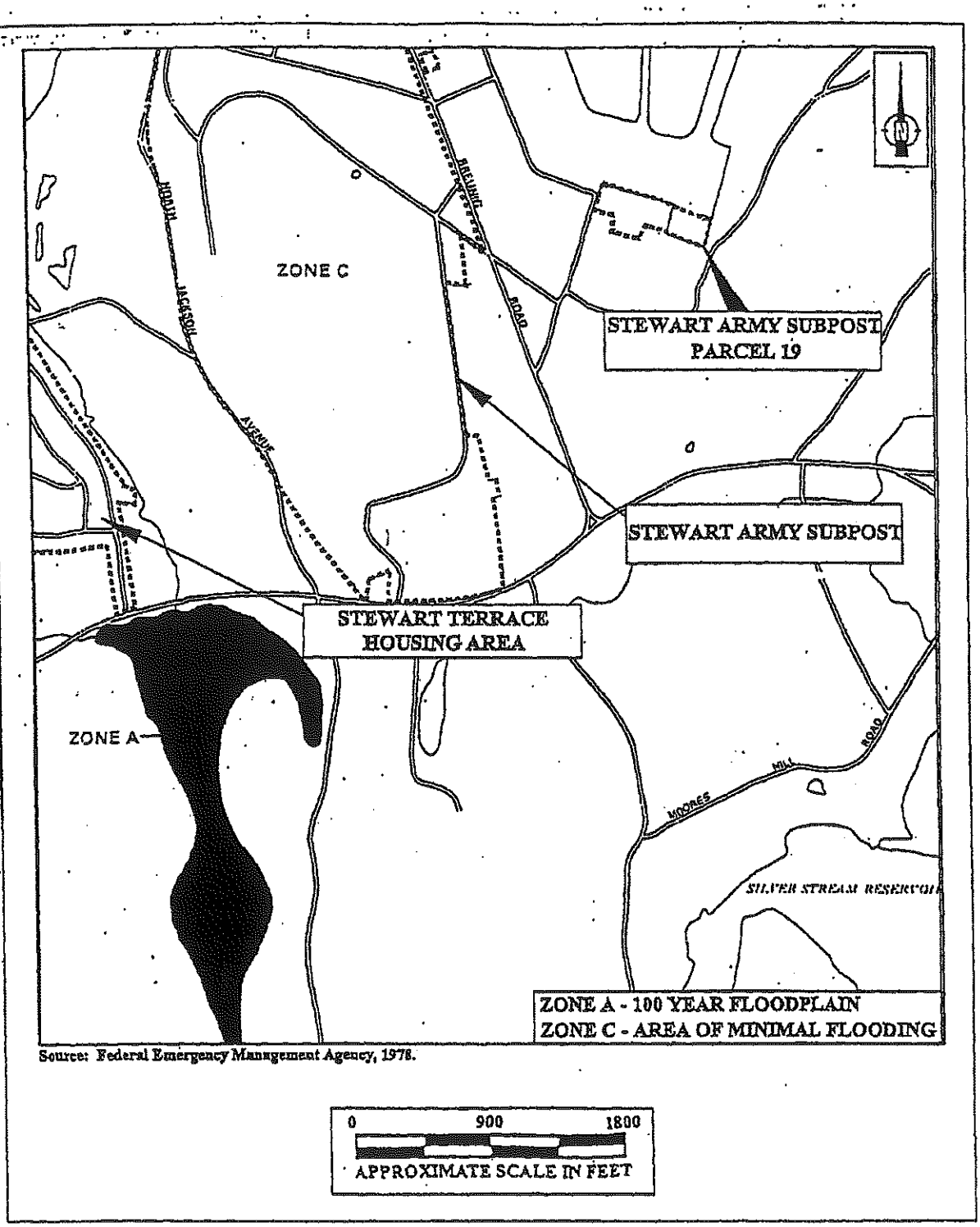


Figure 8. Location of Federal Emergency Management Agency (FEMA) Floodplain Zones in the Vicinity of Stewart Army Subpost.

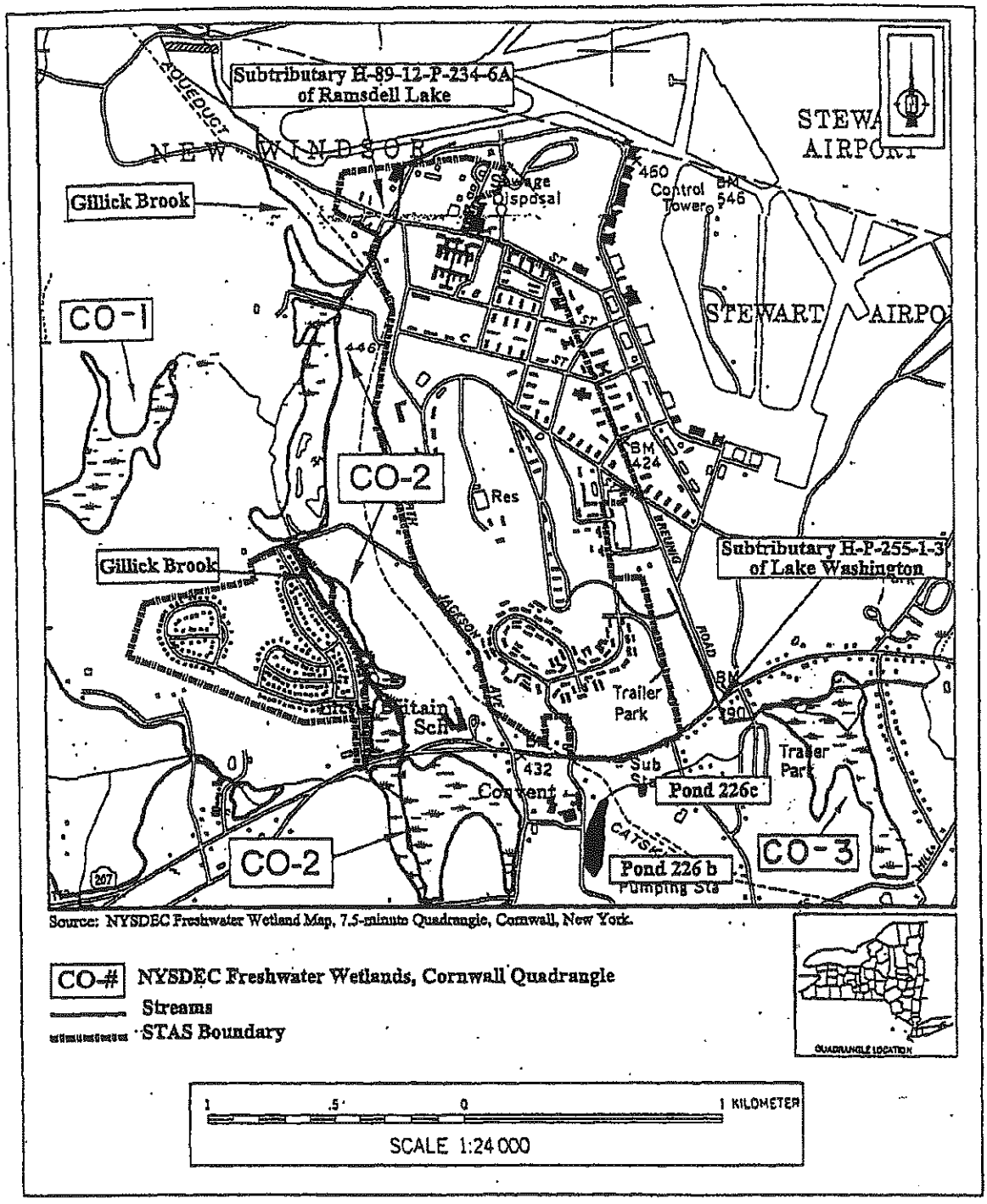


Figure 9. Waterbodies in the Vicinity of Stewart Army Subpost.

1994). The best use of Class C water is fishing, as these waters are defined as suitable for fish propagation and survival.

The second mapped stream on Figure 9 that enters STAS is identified Waters Index Number H-P-225-1-3 (NYSDEC 1996a, Beech 1997, Tucker 1997). This stream drains the southeast portion of the property and is a Class A subtributary of Lake Washington as defined by the New York State Protection of Waters Program (NYSDEC 1994). The best uses of Class A waters are as a source of water supply for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing.

Based on a review of the 1996 Priority Waterbodies List for the Lower Hudson River Basin, no state-designated Priority Waterbodies are located in the area of STAS (NYSDEC 1996b).

On STAS, large storm events lead to significant sewage infiltration from stormwater runoff (McGoey 1997) because the STAS sewage treatment system is antiquated and is known to leak (Bjornsen 1998). The combination of relatively impermeable soils (as discussed in Section 4.5.3), drainage from airport runways, potentially contaminated soils, sewage infiltration, and wastewater back-up at pump stations make runoff a critical issue on STAS property.

4.6.5 Hydrogeology/Groundwater

There are no nationally-designated Sole Source Aquifers located near STAS (USEPA 1996). Additionally, there are no state-designated Primary or Principal Aquifers located in the vicinity of STAS, the closest such aquifer being the *Fishkill and Sprout Creeks Area* located approximately 10 miles to the east of STAS (Bugliosi and Trudell 1988).

There is very low potential for water well yields from unconsolidated deposits in the area of STAS. Wolcott (1987) identified one area to the east of the Catskill Aqueduct with a limited potential yield of less than 10 gallons per minute.

4.7 INFRASTRUCTURE

4.7.1 Potable Water Supply

The water supply for STAS is provided under contract by the TNW, Water District 9, from the Water Treatment Plant (WTP) located at the top of Reservoir Hill on STAS proper (Figure 10). The WTP also supplies water to the SIA and Metal Container Corporation adjacent to STAS. The water supply originates from the Catskill Aqueduct that carries water from the Ashokan Reservoir, west of Kingston, to New York City (Flinn 1989). Water is pumped from a tap off the Catskill Aqueduct via pipeline to the top of Reservoir Hill for treatment. Water is treated at the WTP by clarification (settling), trickling filtration, additional settling and sand bed filtration, and chlorination (USMA, Rev. 1998). Treated water is stored in an uncovered reservoir located at the top of the Reservoir Hill adjacent to the plant. Plant capacity is approximately 500,000 gallons per day (USMA, Rev. 1998). Because of recent downsizing at STAS, as well as the demolition of the SGHA, USMA uses less water than it did in 1980. The WTP is operated by CAMO Pollution, under contract with TNW. The USMA is currently in the

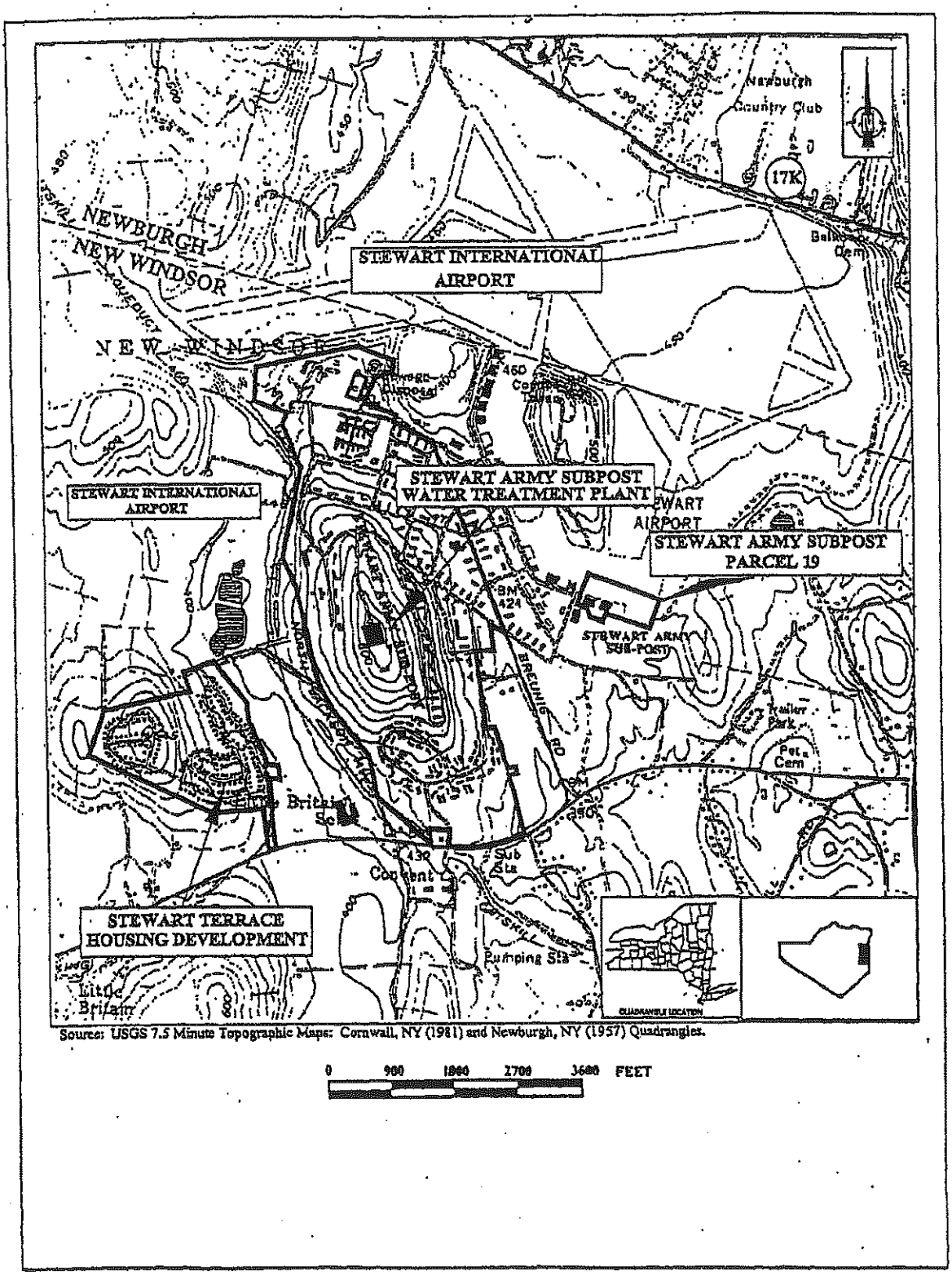


Figure 10. Location of Stewart Army Subpost Water Treatment Plant on Reservoir Hill.

process of conveying the STAS primary water treatment and distribution system to TNW under the authority of the 1998 special legislation, Defense Department Fiscal Year 1999 Authorization Bill.

Fourteen public water supply wells are located within a 1-mile radius of STAS (Garry 1997). The approximate locations of these wells are shown on Figure 11; the actual well locations are indicated by corresponding location labels on Figure 11. The closest wells are associated with the Hill-n-Dale trailer park located 1,500 feet to the east of STAS, and the Silver Stream trailer court and Masons apartments located south of NYS Route 207 (Figure 10). No public water supply wells are located on STAS, as the Catskill Aqueduct is the water supply for STAS.

4.7.2 Wastewater Treatment

All of STAS is connected to a single wastewater (sewage) treatment system. Wastewater is treated at the STAS WWTP located at the far northern end of the STAS property, near the SIA perimeter road. The WWTP provides a trickling filter type of treatment system that has been in operation since the airfield was established in 1942. The treatment system processes up to 500,000 gallons per day. Treated wastewater outfalls from the WWTP, joins two tributaries to Orange Lake (Waters Index Numbers H-89-12-P234-1-6A and H-89-12-P234-1), and traverses along the western boundary of STAS before eventually emptying into Beaver Dam Lake.

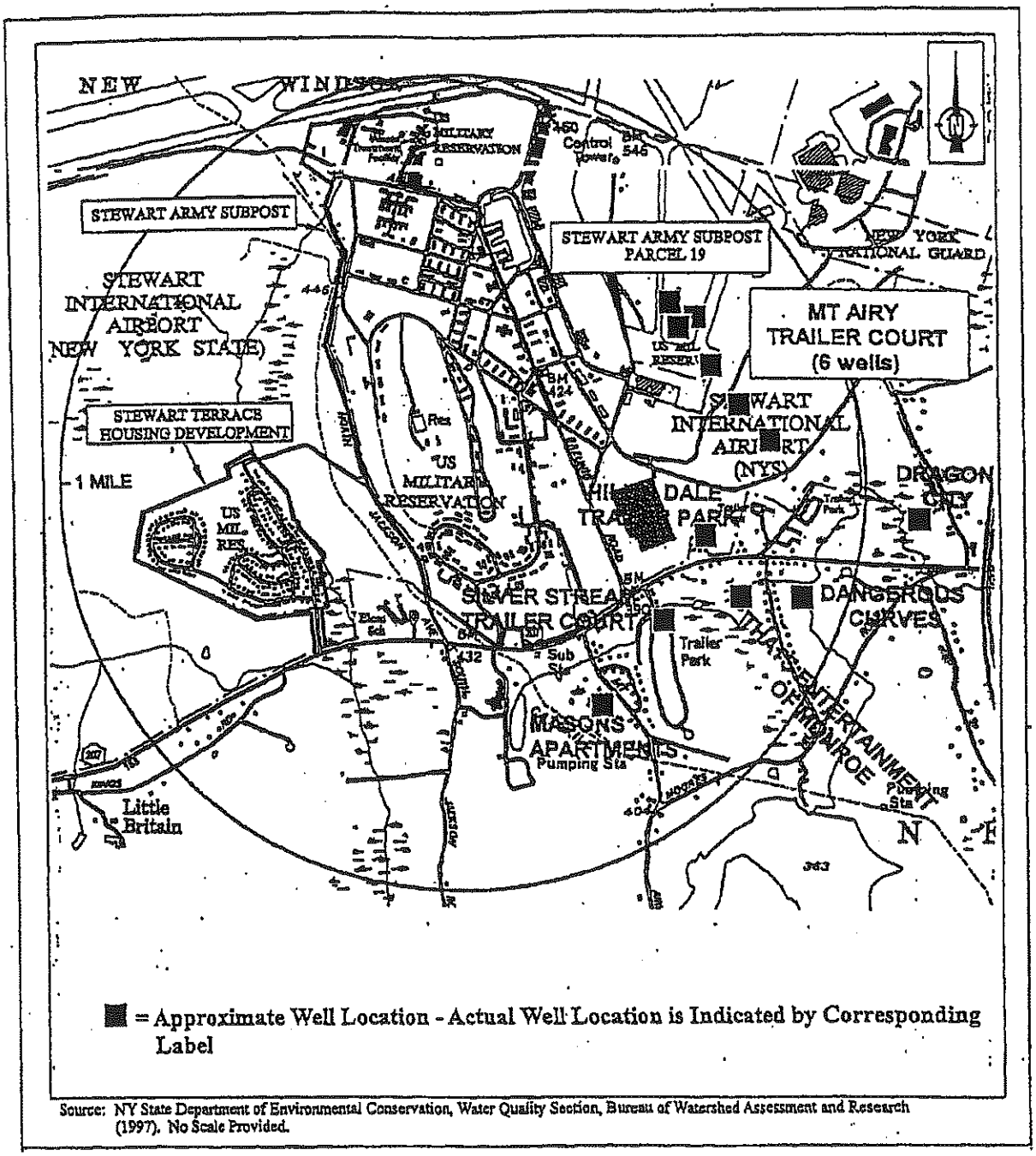
4.7.3 Solid Waste/Landfills

Fill or other inert, nonputrescible construction debris will be generated during the demolition of the remaining 19 structures within the 3000 and 2600 Block. This debris will be disposed of at an approved off site location.

A 4-acre landfill area is located on the STAS property at the south end of Reservoir Hill. This landfill has been used for the purpose of minor demolition and street sweeping waste since 1978, and no other historical use has been indicated. Access to the landfill is controlled by a key-locked gate at the end of Reservoir Hill. Based on investigation of the site as reported in the EBS (USMA, Rev. 1998), little environmental risk is associated with the current use of the landfill.

4.7.4 Traffic and Transportation

The primary access to STAS facilities and to the SIA is provided by Breunig Road, a three-lane, two-way road that intersects with NYS Route 207 to the south of STAS (see section 3.12.5) (NYSDOT 1999). Breunig Road begins at a signalized intersection with NYS Route 207 and follows a generally northern route. The majority of traffic volume in the vicinity of STAS results from SIA activities as well as USMA staff commuting between STAS and West Point. Traffic on the STAS property is primarily limited to STAS residents and employees, and visitors to STAS. As part of the Master Plan to accommodate estimated traffic flow in support of STAS privatization, access to the SIA and the South Cargo Area will be provided from a proposed 4-lane east-west roadway from Drury Lane, as described in the Design Report/Draft Environmental Impact Statement Volumes I and II for the Stewart Airport Access Improvement Project



Source: NY State Department of Environmental Conservation, Water Quality Section, Bureau of Watershed Assessment and Research (1997). No Scale Provided.

Figure 11. Location of Public Water Supply Wells in the Vicinity of Stewart Army Subpost.

(NYSDOT 1999). Breunig Road is maintained by the State of New York, but all other roads on STAS are maintained by USMA.

4.7.5 Energy

Electricity and gas service are provided by the Central Hudson Gas and Electric Corporation (CHGEC). On March 10, 1997, the U.S. Army signed an agreement to allow transfer of ownership of the STAS electrical distribution system, to include transformers, electric lines, and utility poles situated within STAS, to CHGEC. Although no such agreement has been reached for gas service at this time, CHGEC will continue to provide electric and gas service to this site.

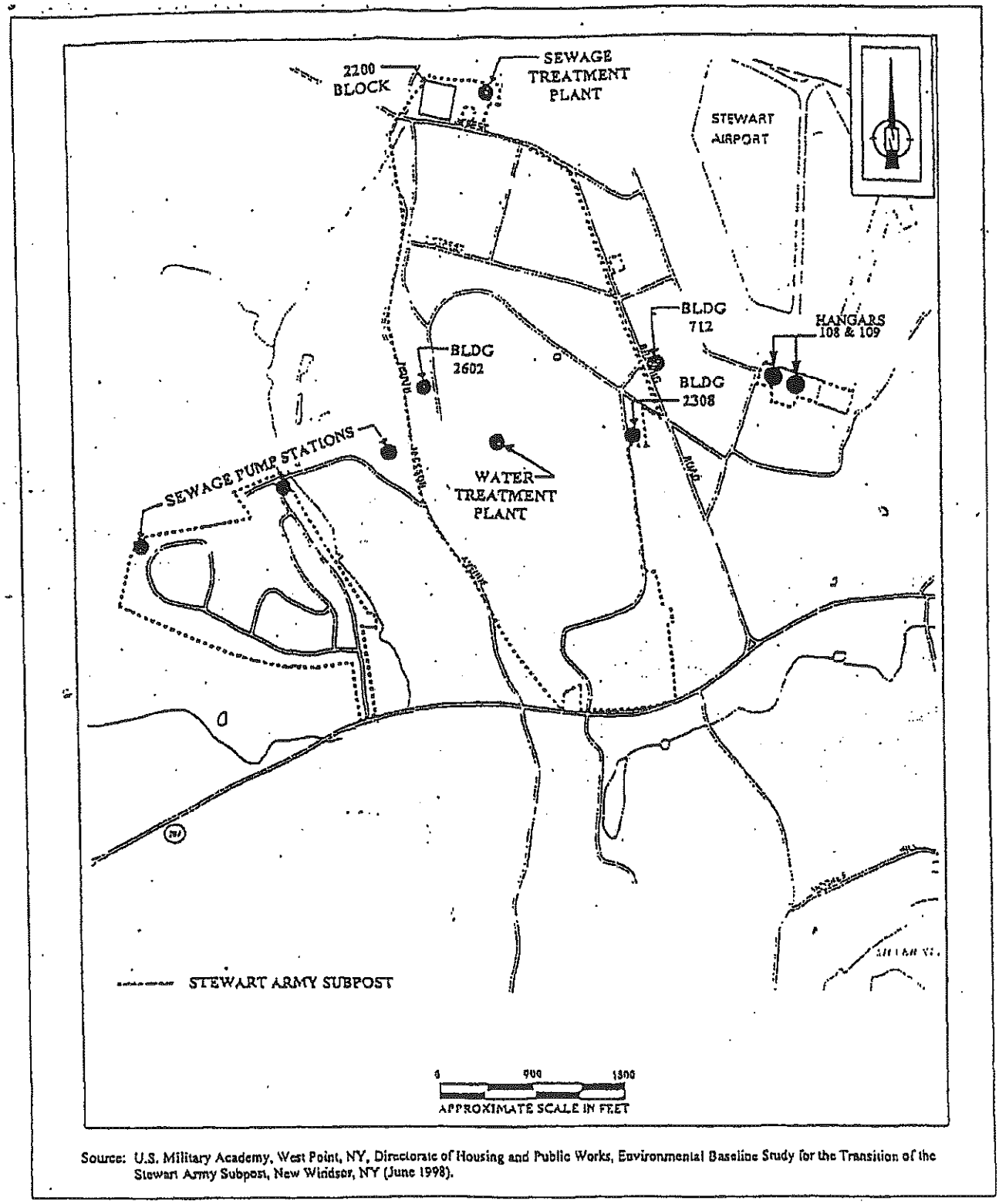
4.7.6 Communication Systems

Telephone service for STAS is provided by Bell Atlantic.

4.8 Hazardous and Toxic Substances

USMA completed a comprehensive Environmental Baseline Study (EBS) in 1997 (USMA 1997) and a revised EBS in 1998 (USMA, Rev. 1998). Appendix C contains a table that was included in the USMA 1998 revised EBS (USMA, Rev. 1998) which describes building uses and property types. The EBS classified each facility as Type I, Type II or Type III. Type I facilities are defined as sites with little or no potential environmental contamination or disruption from past, present or proposed activities, provided maintenance and mitigation measures continue as planned. Type II facilities are defined as sites with some potential for environmental contamination or disruption from past, present or proposed activities. Type III facilities are defined as sites where contamination is know to exist due to past land use.

Based on the USMA 1998 revised EBS (USMA, Rev. 1998), there are 20 areas of potential environmental concern. These areas are identified in Table 5 and shown on Figure 12. Table 5 contains two columns that list the current status of each area and pertinent remarks. Three of the 20 areas listed in Table 5 have been reclassified as Type I. Fifteen of the twenty areas will remain Type II. The two remaining Type III areas require continued remediation and will be reclassified as Type I after completion of the remediation.



Source: U.S. Military Academy, West Point, NY, Directorate of Housing and Public Works, Environmental Baseline Study for the Transition of the Stewart Army Subpost, New Windsor, NY (June 1998).

Figure 12. Areas of Concern Based on Land Uses at Stewart Army Subpost.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status.

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Site Support Facilities						
Landfill	Landfill	Type II	Visual Phase I site inspection performed. Surface and subsurface sampling performed.	Subsurface investigation to be performed in 1997. No hazardous waste encountered. Landfill composition primarily C&D debris.	Analysis of subsurface soil samples completed in 1997 confirmed metals, PCBs, and volatile organic compounds are not present at hazardous levels.	No further action is planned by USMA.
Building 2618	Water Treatment Plant	Type II	Past and present storage and use of chemicals typically used for water treatment that may be listed as hazardous chemicals. Plant transferred to the Town of New Windsor, New York. Inspection of UST performed in November 1996.	Testing of soil around UST.	USMA removed the UST, petroleum contaminated soil and submitted a closure report to the NYSDEC in 1997.	A "No Further Action" letter was received from the NYSDEC.
Trickling Filter Beds	Part of Wastewater Treatment Operation	Type II	Potential concentration of heavy metals in the sand beds.	Tests determined that no contamination exists.	No heavy metal contamination is expected to occur from current or future STAS activities.	USMA plans to leave the sand in the filter beds after the wastewater treatment plant shuts down.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Hangar Area						
108 and 109	Parcel 19 Hangar	Type II	Past and present storage and use of chemicals typically used for aviation activities that may be listed as hazardous chemicals.	Will be transferred directly to NYSDOT. Analysis of soil borings near former 1,000-gallon used oil UST is planned.	The oil/water separators requiring the borings were not closed, due to clarification of the applicable requirements. Therefore, no subsurface work will be performed.	None.
Sewage Pump Stations						
712 4055 4056 4275	Sewage Pump Stations	Type II	OHM used and stored on site.	Test on Building 712 confirmed no significant contamination from wastewater. Continue scheduled inspection and maintenance program for pump and back-up generator.	Same as in EBS.	None.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Vehicle Maintenance Areas						
2221	Army Maintenance Service Area	Type II	Past and present storage and use of petroleum products typically used for vehicle maintenance activities. No visible contamination has been identified.	Continue to perform inspections of oil/water separator operation and maintenance records.	Same as in EBS.	None.
2218	Storage for Engineering	Type II	Past storage and use of petroleum products typically used for vehicle maintenance activities. No visible contamination has been identified.	None. Continuation of existing use by DOD agency.	A 1,000-gallon fuel oil UST was removed in 1998. Soil samples from the tank excavation indicated no parameters were present above NYSDEC action levels.	This tank is exempt from NYSDEC requirements, but a closure report was prepared and is on file at USMA.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Vehicle Maintenance Areas (continued)						
2220	Autocrafts Shop	Type II	Past and present storage and use of petroleum products typically used for vehicle maintenance activities.	None. Continuation of existing use by DOD agency.	A 275-gallon used motor oil UST was removed in 1998. Based on visual examination and olfactory senses, no petroleum contamination is present.	Confirmatory samples of the soil were taken and analyzed. No contamination was found. Report to be submitted to NYSDEC.
2228	Vehicle Maintenance Area	Type II	Past and present storage and use of petroleum products typically used for vehicle maintenance activities. Class I non-friable asbestos containing material around heating systems for fire protection. No visual signs of pesticides or herbicides. UST closed and removed in April 1994; one closed and removed in 1996. One AST closed and removed recently.	None. Continuation of existing use by DOD agency.	A total of four USTs were removed from this site between 1994 and 1998 and a large quantity of petroleum contaminated soil. A closure report was prepared in 1998 and submitted to the NYSDEC.	A "No Further Action" letter was received from the NYSDEC.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Miscellaneous Areas						
2229	Former Rocket Storage for USAF	Type II	Possible past storage of rocket materials. Visual inspection shows no signs of ordnance-related activities. A UST was closed and removed in September 1996.	None. Continuation of existing use by DOD agency.	The UST was actually an AST.	None.
1914	Former Target Zeroing Pistol Range in basement of Administrative Building	Type II	Lead shot contaminated sand.	Removal of sand containing lead shot in basement. Abatement design and removal will be performed in June 1998. Change in classification to Type I anticipated.	Lead shot and sand removed.	Reclassified as Type I.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Miscellaneous Areas (continued)						
2308	Vacant	Type III	Former gas pump house and motor pool area. UST closed in 1988. Analysis of soil borings revealed localized groundwater contamination.	Additional mitigation is planned.	A large quantity of petroleum contaminated soil has been removed.	USMA plans to remove additional petroleum contaminated soil and obtain confirmatory soil samples before transfer of the property. Reclassify as Type I after completion of remediation.
2402	Dog Kennel (Vacant)	Type II	Past storage and use of small arms materials.	Additional research of records and, if warranted, testing for contamination from ordnance.	Records indicate this building was an administrative office, consequently no small arms material would have been used or stored.	Testing not warranted. Reclassified as Type I.
2404	Storage (Vacant)	Type II	Past storage use of materials used for gas mask training exercises.	Additional research of records and, if warranted, testing for contamination from chemical storage.	Records indicate this building was an administrative office, consequently gas mask training exercises would not have been conducted.	Testing not warranted. Reclassified as Type I.

Table 5. Principal EBS Areas of Potential Concern and Current Environmental Status

Building No.	Land Use	EBS Property Classification	EBS Remarks	Planned Programs Listed in EBS	Current Status	Current Remarks
Miscellaneous Areas (continued)						
2602	Stewart Club	Type III	Former 1,000-gallon fuel oil UST leaked. Localized groundwater contamination was discovered. Groundwater monitoring wells were installed.	Continued monitoring and remedial efforts are anticipated.	USMA plans to remove petroleum contaminated soil.	Remedial activities may extend beyond the date of the property transfer. USMA plans to obtain an easement or right-of-way, if needed, to complete the remedial measures. Reclassify as Type I after completion of remediation.
2627	Storage of Community Swimming Pool Supplies.	Type II	Chlorine and other chemicals for swimming pool maintenance.	Continue good housekeeping practices.	Same as in EBS.	None.

4.9 PERMITS AND REGULATORY AUTHORIZATIONS

Existing permits are in place for the occupancy and use of STAS, as presented in Table 6. The USMA will maintain these permits, as applicable, until disposal of affected property or termination of permitted activities. The new owner(s) of disposed property will be required to obtain any relevant federal, state, regional, or local permits as may be necessary for future land use activities.

Table 6. Existing Permits Held by the USMA for Operations at STAS.

Type	Number	Expiration Date	Comments
RCRA Generator	NY2210025357	NONE	90 Day Storage
SPDES	NY0023221	09/01/2002	Sewage Treatment Plant (2210)
PBS	3-166804	06/05/2002	Aboveground Storage Tanks (ASTs)/ Underground Storage Tanks (USTs). Extensive removal projects are planned

4.10 BIOLOGICAL RESOURCES

4.10.1 Vegetation

In 1996, a Biological Resource Report was prepared for STAS (Barbour 1996) that reported the results of surveys conducted on three tracts of undeveloped land, the D-Street Tract, Route 207 Tract, and Stewart Terrace Tract (Figure 13). These tracts are considered to be representative of undeveloped lands on STAS because the remainder of vegetation on the property is grass (lawn) and other landscaped or artificially-cultured urban vegetation (*i.e.*, yards associated with STHA).

The Stewart Terrace Tract is a forested area that consists of Norway spruce, black cherry, pin oak, apple trees, and black haw shrubs (Barbour 1996). The area also includes an early successional hardwood forest dominated by white ash and scarlet oak, and an early successional black walnut forest with sycamore, big-tooth aspen, shagbark hickory, and dense shrubs that include northern arrowwood, gray dogwood, and multiflora rose.

The D-Street Tract is mostly forested ranging from very disturbed successional growth to mature woods. The successional hardwood forest consists of an overstory that includes red oak, sugar maple, black cherry, and white ash, and a dense shrub layer dominated by bush honeysuckle, common buckthorn, nannyberry, red cedar, and gray dogwood. The ground cover consists primarily of non-native herbs (*e.g.*, garlic mustard), poison ivy, and virginia creeper (Barbour 1996).

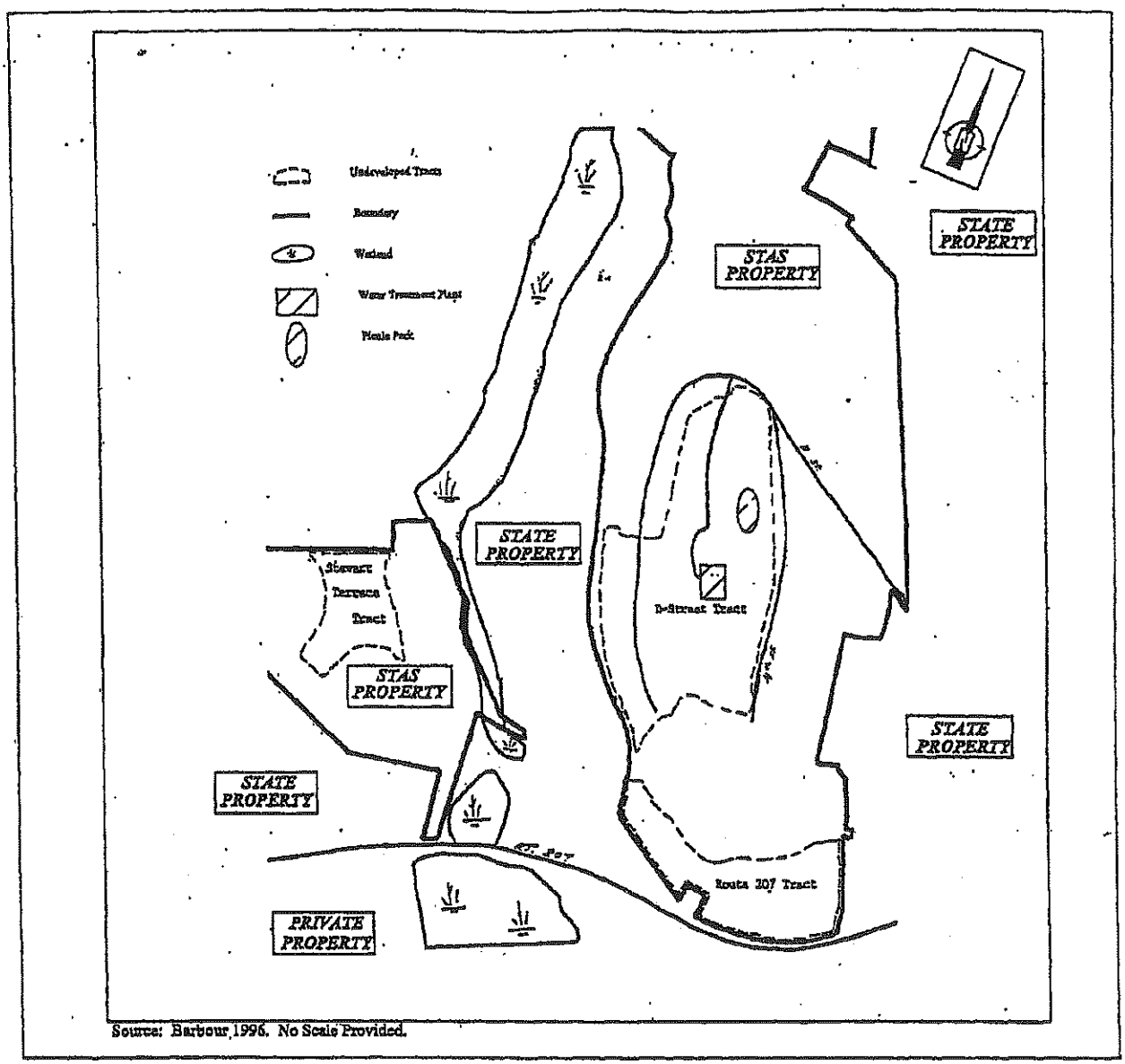


Figure 13. Location of Undeveloped Tracts of Land on Stewart Army Subpost.

The Route 207 Tract contains stream H-P-225-1-3 and supports a variety flora, including areas of red maple swamp and successional hardwood forest. According to Barbour (1996), the understory consists mostly of bush honeysuckle, garlic mustard, and some native spicebush. Successional forests in the wet areas of this tract consist of pin oak and red maple. Drier areas of the tract had different tree species (apple, black cherry, white ash) and the tall shrub common buckthorn, as well as honeysuckle and garlic mustard.

4.10.2 Wildlife

STAS does not contain any sensitive or significant wildlife habitat or resources of federal or state significance or concern. The vegetation resources on STAS generally support common wildlife species that have adapted to an urban environment.

Fisheries

Gillick Brook and the unnamed stream on STAS discussed in Section 3.3.2 are not designated by the NYSDEC as important fisheries. Gillick Brook potentially may contain fishes (*e.g.*, rainbow trout, brown trout, panfish, smallmouth bass, *etc.*) that have migrated upstream from Lake Washington.

4.10.3 Sensitive Species

Except for occasional transient individuals, no federally-listed or proposed endangered or threatened species are known to exist in the project area (Morgan 1997). Additionally, there are no known occurrences of New York State designated rare animals in the vicinity of STAS (Flood - 1997).

No Federal (Morgan 1997) or New York State designated critical and/or significant wildlife habitats are known to exist in the vicinity of STAS (Flood 1997).

4.10.4 Wetlands

Two Federal jurisdictional wetlands mapped by the NWI (U.S. Department of the Interior [USDI], Fish and Wildlife Service [USFWS] 1990a, 1990b) and one mapped New York State Freshwater Wetland (NYSDOT 1973a, 1973b) are present within the STAS boundary area (see Figures 14 and 15, respectively).

Of the two federally-mapped wetlands located on STAS proper (see Figure 14), the first is a Riverine, Unconsolidated Bottom, Permanently Flooded, Excavated (R2UBHx) wetland on the northwestern portion of STAS. This wetland is the same as the NYSDEC stream (Subtributary H-89-12-P-234-6A of Ramsdell Lake) shown on Figure 9. The second wetland mapped as a Palustrine, Unconsolidated Bottom, Permanently Flooded, Artificial, Excavated (PUBHrx) wetland, is actually the concrete-bottom open water pool associated with the STAS WTP (see Figure 14). One mapped New York State Freshwater Wetland (CO-2) runs along the entire eastern boundary of STHA from the intersection of Jackson Avenue/Clark Street south to NYS Route 207 (Figure 14). This is a Class II wetland, which is defined as providing important

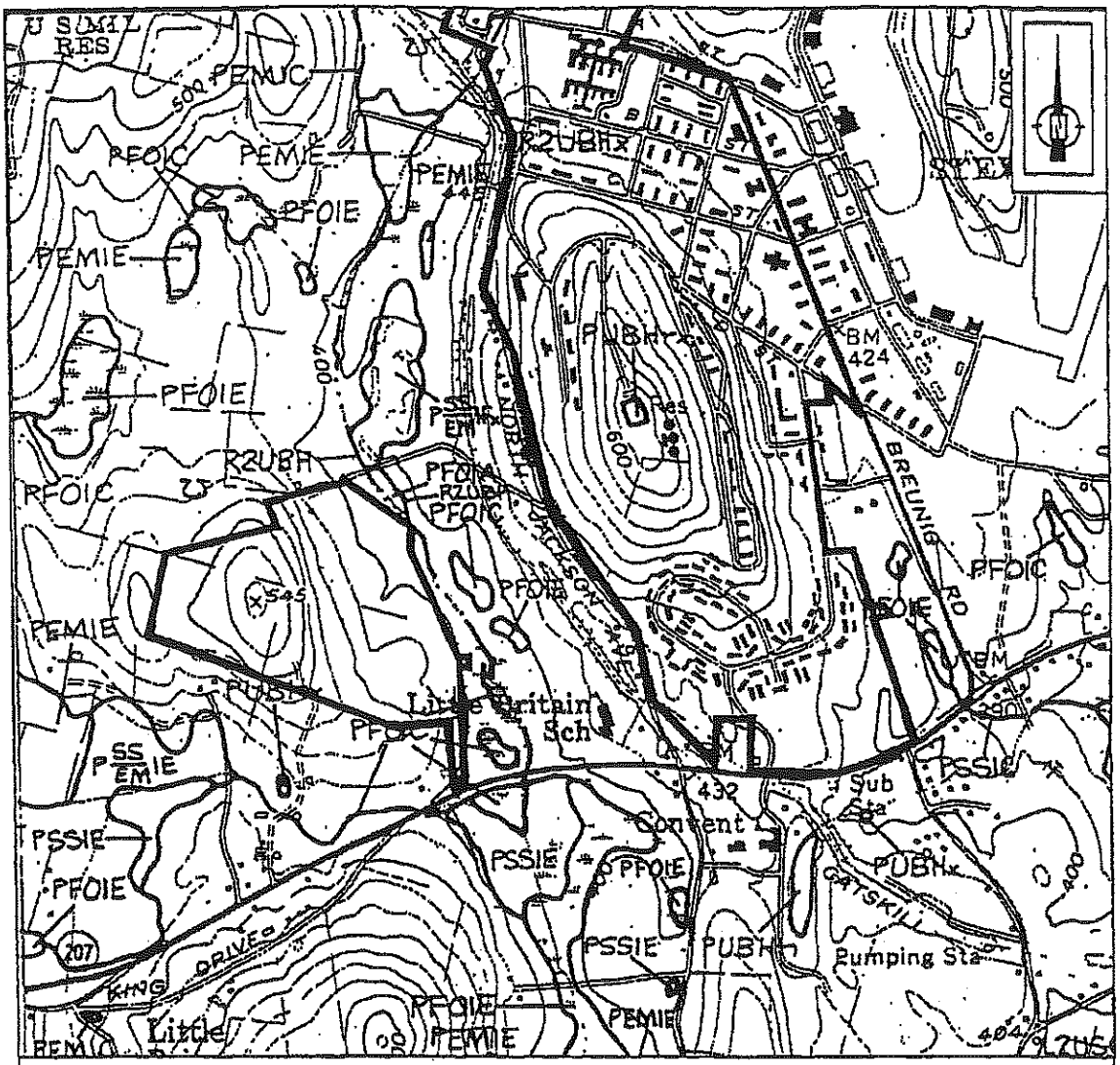
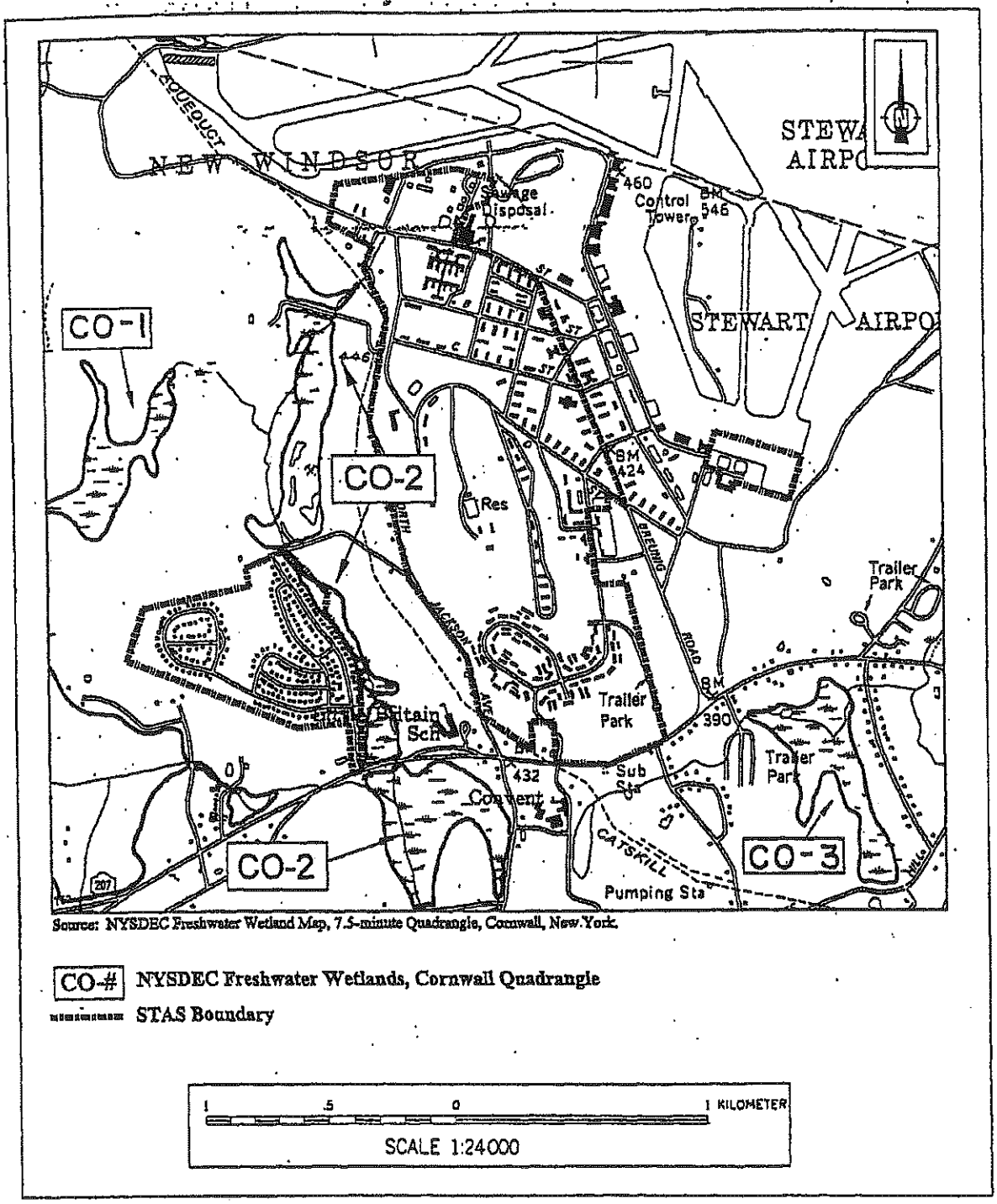


Figure 14. Federally Mapped Freshwater Wetlands in the Vicinity of Stewart Army Subpost.



Source: NYSDEC Freshwater Wetland Map, 7.5-minute Quadrangle, Cornwall, New York.

CO-# NYSDEC Freshwater Wetlands, Cornwall Quadrangle

STAS Boundary

Figure 15. New York State Designated Freshwater Wetlands in the Vicinity of Stewart Army Subpost.

wetland benefits, the loss of which is acceptable only in very limited circumstances. No other New York State Freshwater Wetlands occur on STAS.

No NYSDEC-designated tidal wetlands are located the vicinity of STAS (Ballard 1997).

4.11 Cultural Resources

Preliminary steps to identify cultural resources on STAS were undertaken by an independent contract in 1996, and were presented in the 1998 document, *Cultural Resources Input to the Environmental Baseline Study (Phase IA): Stewart Army Subpost, U.S. Military Academy, West Point, New Windsor and Newburgh Townships, Orange County, New York.* The purpose of this study was to identify all known archaeological and architectural resources on STAS property, and to assess STAS for unknown areas with potential for archaeological sites (prehistoric and historic) or architectural resources (Meyer 1998).

The 1998 *Cultural Resources Input* document indicated that there are no cultural resources currently listed on, or determined eligible for, the National Register of Historic Places (NRHP) for STAS. Building 2606, which was constructed in 1847, and is currently used to house senior officers, does not possess the characteristics required for NRHP listing. Results of this study suggest that there may be some localized low potential for significant prehistoric archaeological resources. The study also indicates potential for historic archaeological resources in several locations. In addition, the study indicated that there are no architectural resources recommended as eligible for the NRHP on STAS.

Formal assessment of the results of the cultural resource investigations conducted for STAS were completed by the New York State Historic Preservation Office (SHPO). The SHPO accepted and approved the 1998 *Cultural Resources Input* (Phase IA) document, as well as the Phase IB archaeological survey (Pan American 1999) for the areas identified as containing potential for archaeological sites. The Phase IB investigation of seven (7) potential sites indicated the presence of no historic archaeological resources (Cinquino 1999). In addition, the SHPO also concurs with recommendations that there are no architectural resources eligible for the NRHP on STAS (Kuhn 1998; Brighton 1998a, 1998b).

4.12 Economic Development

4.12.1 Regional Economic Activity

4.12.1.1 Employment

In 1996, there were 148,806 total jobs within Orange County, New York (Table 7). The number of jobs in the county has grown at an average annual rate of 1.2 percent between 1990 and 1996. During the 1980's, job growth averaged 2.7 percent annually with an average of 3,465 additional jobs created in the county each year during the latter half of the decade. During the 1990's, the number of additional jobs created each year within the county economy averaged almost 1,800.

Table 7. Economic Indicators, Orange County, New York
(Estimates 1975, 1980, 1985, 1990, 1995, 1996 Forecasts 1999, 2000, 2020)

	1975	1980	1985	1990	1995	1996	1999	2000	2020
Total Jobs [1]	95,198	106,614	121,528	138,852	147,044	148,806	154,273	156,140	198,600
Average Annual Change (#)	1,038	2,283	2,983	3,465	1,638	1,762	1,822	1,867	2,123
Average Annual Change (%)	1.1%	2.3%	2.7%	2.7%	1.2%	1.2%	1.2%	1.2%	1.2%
Average Earnings per Job [2]	$26,966	$25,345	$27,071	$29,128	$27,977	$27,779	$28,006	$28,081	$29,641
Goods-producing Sectors [3]	$31,097	$30,878	$32,036	$33,259	$31,453	$30,810	$30,695	$30,657	$29,908
Services-producing Sectors [4]	$24,312	$23,046	$24,056	$26,131	$24,536	$24,445	$24,471	$24,480	$24,654
Government Sectors [5]	$28,359	$25,259	$30,111	$33,745	$35,748	$35,811	$35,495	$35,390	$33,360
Per Capita Personal Income [2]	$18,198	$19,940	$22,791	$24,674	$24,386	$24,659	$25,234	$25,429	$29,658

[1] Total Jobs are average annual full- and part-time jobs, by place of work.

[2] Average Earnings per Job and Per Capita Personal Income were converted to constant 1999 dollars using the implicit price deflator for gross domestic product, personal consumption expenditures.

[3] Goods-producing Sectors include agriculture, construction, mining, and manufacturing.

[4] Services-producing Sectors include transportation-public utilities, wholesale trade, retail trade, services, and finance-insurance-real estate.

[5] Government Sectors include state and local government civilian, federal civilian, and federal military.

Sources: U.S. Bureau of Economic Analysis, 1998; 1997; 1996; NYSDOT, 1999.

The services and retail trade sectors supported the greatest number of jobs in Orange County in 1996 with 27.4 percent and 19.2 percent of total jobs, respectively (Figure 16). Manufacturing, with 8.4 percent of total jobs in 1996, and construction, with 4.8 percent, provided the bulk of jobs within goods-producing sectors (including agriculture, mining, manufacturing, and construction). There were 15,547 jobs, or 10.4 percent of total jobs, in the local government sector in 1996. Federal government, including both civilian and military personnel, provided about 8.1 percent of all county jobs, while the state government supported about 2.2 percent of total jobs.

An employment forecast prepared by the New York Metropolitan Transportation Council (NYMTC) as cited in a draft Environmental Impact Statement for access improvement to Stewart International Airport (NYSDOT 1999) predicts the number of jobs in Orange County to increase at an average rate of 1.2 percent annually between 1996 and 2020 to 198,000 total jobs by 2020. Based on this average annual growth rate, total jobs in the county are forecast at 154,273 in 1999 and 156,140 in 2000.

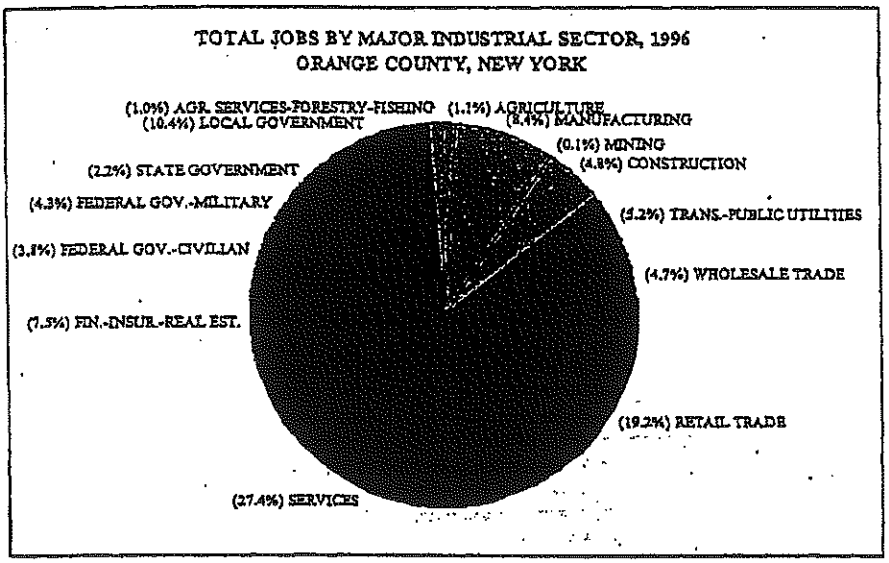


Figure 16. Total Jobs by Major Industrial Sector, 1996, Orange County, New York.

4.12.1.2 Labor Force and Unemployment

In 1998, the unemployment rate was 3.4 percent in Orange County, with an average of 5,299 unemployed workers and 149,989 employed workers throughout the year. The number of unemployed workers and the unemployment rate have been declining steadily in Orange County since 1992 when there was an average of 10,014 unemployed workers comprising 6.5 percent of the county labor force.

4.12.1.3 Earnings and Personal Income

Average earnings per job in Orange County were $27,779 (in constant 1999 dollars) in 1996, down from an average level of about $29,368 per job in 1992. Average earnings per job declined steadily between 1972 through 1982 and then rebounded from $24,888 in 1982 to $29,520 by 1988. Between 1988 and 1992, average earnings levels in Orange County were relatively stable. Average earnings per job are greatest in the state government sector ($46,541 per job in 1996) and the Federal government-civilian sector ($42,408 per job). Of the services-producing sectors, average earnings are greatest in transportation-communication-public utilities ($41,706 per job), wholesale trade ($37,336), and services ($25,800). Of the goods-producing

sectors, mining ($38,846) and manufacturing ($37,659) provided the greatest average annual job earnings in 1996 (Figure 17).

County per capita personal income was $24,659 in 1996, down slightly from a 28-year[1] peak level of $25,080 recorded during 1989. Prior to 1989, county per capita personal income had increased steadily from a level of about $18,198 in 1975.

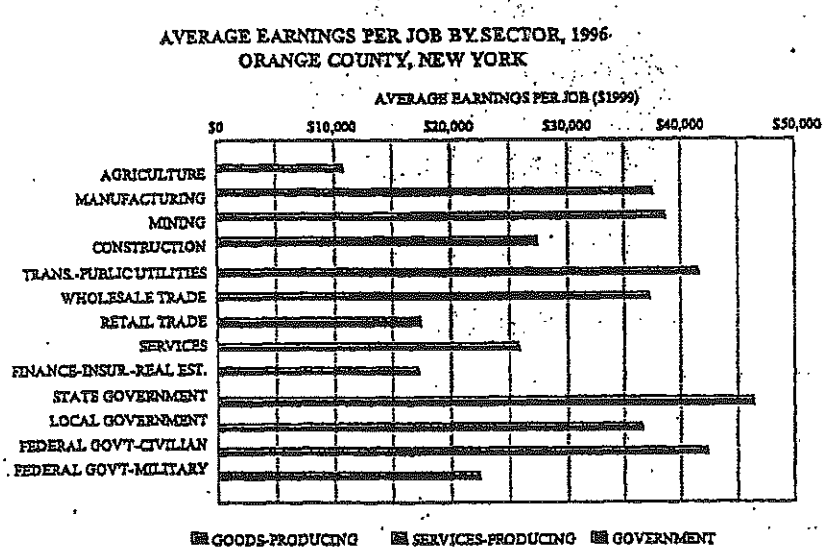


Figure 17. Average Earnings per Job by Sector, 1996, Orange County, New York.

4.12.2 Installation Contribution, Local Expenditures

STAS supports a total level of procurement within Orange County of $5.33 million annually (USMA 1999).

4.12.3 Installation Workforce Structure and Salaries

There are currently 53 civilian and 3 military personnel stationed at STAS with associated payroll expenditures $1.91 million annually. Average annual salary levels are $32,371 for civilian personnel and $63,890 for military personnel at STAS (USMA 1999).

[1] annual data were available from the BEA for 1969-96 period.

4.13 SOCIOLOGICAL ENVIRONMENT

4.13.1 Demographics

4.13.1.1 County Population

The total population of Orange County increased from 308,792 persons in 1990 to 329,220 in 1998 (Table 8). A forecast by the NYMTC (as cited in a draft Environmental Impact Statement for access improvement to Stewart International Airport [NYSDOT, 1999]) anticipates the county population to increase to 435,000 persons by 2020, with an average annual growth rate of 1.3 percent between 2000 and 2020. At approximately the same rate of growth as that experienced during the 1990-98 period, the total population in Orange County would increase to 331,854 persons in 1999, and 334,509 persons by 2000.

Table 8. Population Estimates and Forecasts for Orange County, New York. [1]

	1975	1980	1985	1990	1995	1998	1999	2000	2020
Total Population [2]	245,270	260,512	279,432	308,792	321,966	329,220	331,854	334,509	435,000
Average Annual Change (#) [3]	4,471	3,048	3,784	5,872	2,635	2,418	2,634	2,655	5,025
Average Annual Change (%)	1.9%	1.2%	1.4%	2.0%	0.8%	0.7%	0.8%	0.8%	1.3%

[1] Estimates 1975, 1980, 1985, 1990, 1995, 1998 and Forecasts 1999, 2000, 2020.
[2] Total Population is a mid-year estimate prepared by the U.S. Bureau of the Census.
[3] Average Annual Change in each column is calculated over the period of years from the preceding column; for the 1975 column, the change is calculated for the 1970-75 period.

Sources: U.S. Bureau of the Census 1999, U.S. Bureau of Economic Analysis 1998, NYSDOT 1999.

4.13.1.2 Local Jurisdictions

The populations of the Towns of Montgomery, New Windsor, and Newburgh, which surround STAS, were estimated at 18,501, 22,937, and 26,454 persons, respectively, in 1990 (U.S. Bureau the Census 1999).

4.13.2 Housing

4.13.2.1 Regional Housing

In 1990, there were 110,814 total housing units within Orange County (U.S. Bureau of the Census 1999). During the 1990's, housing growth in the Newburgh NY-PA Primary Metropolitan Statistical Area (PMSA), which includes Orange County, NY and Pike County,

PA[2], ranged from 926 new units permitted in 1991 to 2,429 units permitted in 1996. Single-family units comprise the bulk of new units permitted, ranging from 722 units in 1991 to 1,651 units in 1998. The number of new duplex, triplex, and fourplex units ranged from 39 units permitted in 1994 to 106 new units in 1997. New housing complexes permitted with more than five dwelling units per structure have ranged from 58 units in 1997 to 1,071 in 1996 (Table 9).

Table 9. New Privately Owned Residential Building Permits Issued, Newburgh, NY-PA PMSA, 1990-1998.

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Newburgh NY-PA PMSA	1,010	926	1,038	1,656	1,599	1,861	2,429	1,548	1,940
Single-Family units	785	722	898	1,522	1,394	1,301	1,294	1,384	1,651
Two-Family units	84	34	32	40	24	30	30	44	34
Three- and Four-Family units	11	24	20	11	15	28	34	62	10
Five- or more Family units	130	146	88	83	166	502	1,071	58	245

Source: U.S. Bureau of the Census, 1999.

4.13.2.2 Local Jurisdictions

Housing growth in the Towns of Montgomery, New Windsor, and Newburgh has increased steadily from 1996 through 1998 (Table 10). The number of new units permitted in the Town of Montgomery nearly doubled between 1996 and 1997 and more than tripled by 1998, when 78 units were permitted. The majority of permits issued were for single-family units and no units were issued for units to accommodate three or more families per structure. The number of new units permitted in the TNW more than doubled between 1996 and 1998. In the TNW, 58 new single-family units, 2 duplex units, and 7 triplex and fourplex units were permitted in 1998. In the two previous years, fewer single-family units, but a greater number of multi-family units were permitted in TNW. The number of new units permitted in the Town of Newburgh nearly doubled between 1996 and 1998, when 205 units were permitted. In each of the past three years, the Town of Newburgh issued permits for between 76 and 88 new single-family units and 14 and 18 duplex units. During 1997, 12 triplex or fourplex units and 36 units in complexes with 5 or more units per structure were permitted in the Town of Newburgh, while 102 new units in the larger complexes were permitted within the town in 1998.

[2] housing data were not available separately for Orange County, NY. Pike County, PA had a population of 27,966 persons in 1990 and 40,172 in 1998. In 1990, there were 30,852 total housing units in Pike County, of which 18,369 were vacant units held for seasonal, recreational or occasional use.

Table 10. New Privately-Owned Residential Building Permits Issued in the Towns of Montgomery, New Windsor and Newburgh, 1996-1998.

	1996	1997	1998
Town of Montgomery	25	48	78
Single-Family units	21	44	76
Two-Family units	4	4	2
Three- and Four-Family units	0	0	0
Five- or more Family units	0	0	0
Town of New Windsor	32	47	67
Single-Family units	21	29	58
Two-Family units	0	6	2
Three- and Four-Family units	11	12	7
Five- or more Family units	0	0	0
Town of Newburgh	104	138	205
Single-Family units	88	76	85
Two-Family units	16	14	18
Three- and Four-Family units	0	12	0
Five- or more Family units	0	36	102

Source: U.S. Bureau of the Census 1999.

4.13.3 Public Services

STAS is currently subject to an exclusive jurisdiction, whereby the DA provides comprehensive sole-source services to its base community (*e.g.*, fire, security, highway, sanitation, *etc.*). Appropriately, USMA has maintained and operated such facilities for STAS. The only current exception is the transfer of the water supply and treatment plant to the TNW (see Section 3.3.3).

4.13.4 Homeless and Other Special Programs

Although USMA does not specifically provide homeless or other special programs, Orange County has a number of shelters and assistance programs for individuals and families in need of temporary placement due to lack of a fixed, regular, or adequate residence. These programs are supported by a mix of government and private funding. The Town of New Windsor does not sponsor any homeless shelters or assistance programs. There are several emergency housing shelters and programs offered in Newburgh and Middletown, two cities within Orange County. There is an emergency housing, and a youth shelter in Middletown, approximately 20 miles from the TNW. A Project Life shelter, which houses homeless families until they find work and

private housing, and a safe home for battered women can be found in the Newburgh area. A Meals on Wheels program, various soup kitchens, and Our Lady of Comfort Mission in Newburgh, distribute food to those in need, and Our Lady of Comfort Mission has future plans to temporarily house women in need. There is also an Orange County Homeless Task Force, which is a consortium of human service agencies that serves as an identifying and planning body to address needs of the homeless community (Norman 1999).

4.14 Quality of Life

4.14.1 Schools

A limited number of STAS family members attend local public and private schools (Kiggins 1998). Currently 419 children of STAS personnel attend schools within the Washingtonville School District. The Washingtonville School District received $302,171 in aid from the State Department of Education for FY 99. Orange County Community College located in Middletown, Marist College located in Goshen, Mt. St. Mary College located in Newburgh, and the United States Military Academy located in West Point, New York are sources for higher education in Orange County.

4.14.2 Family Support

The USMA does not currently offer any family support services at STAS. However, within Orange County there are a variety of support services ranging from counseling to emergency housing. The county maintains a crisis hotline that is teletypewriter (TTY)-accessible.

4.14.3 Shops and Services

The proximity to the Town of Newburgh and the TNW provides ample opportunity for shopping. A shopping mall in the Town of Wallkill, contains both major department stores and numerous specialty stores. The county also has many banks, restaurants, and other businesses within easy access of county residents. In addition, the county's proximity to New York City provides easy access to the types of stores and services typically associated with a major urban area.

4.14.4 Recreation

No federal, state, or local designated recreation areas or parks (NYSDOT 1992a), National Natural Landmarks (USDI National Park Service 1994), National Wild and Scenic Rivers (USDA Forest Service and USDI National Park Service 1992), state Wild, Scenic, or Recreational Rivers, or state Lands of Statewide or Regional Significance (*e.g.*, Resource Areas, Greenways and Recreationways, Waterway Access) (NYSDEC and New York State Office of Parks, Recreation and Historic Preservation [OPRHP] 1995) are located on or in the vicinity of STAS.

Recreation resources on the STAS property formerly included: a library, picnic area, several ball fields, tennis courts, a community club, teen club, designated recreation area, gymnasium, bowling alley, and swimming pool. These have been, or will be closed, closed by June 30, 1999.

There are two streams on STAS which are NYSDEC classified as being suitable for recreational fishing (NYSDEC 1994). In addition, the proximity to the Hudson River, and several lakes and streams creates opportunity for additional fishing, boating, swimming, and other water related recreational activities. Other recreational activities available include golfing, skiing, camping, picnicking, and hiking. The county has historic sites, art centers, theaters, including the Orange County Ballet Theater, and recreation and amusement centers, which are within easy driving distance from the TNW. Finally, all the cultural resources associated with New York City are within an hour and a half drive of the TNW.

4.14.5 Visual and Aesthetic Values

The majority of the viewshed at STAS consists of supporting structures for SIA (*e.g.*, aircraft, taxiways, runways, hangar buildings, service buildings, control tower). The surrounding countryside, however, maintains a rural, farm-like quality representative of current and historic land uses.

5.0 ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES

5.1 INTRODUCTION

This section describes the environmental and socioeconomic consequences of implementing the primary DA proposed action (disposal of excess property), the secondary action to be taken by other parties (property reuse), and the no action alternative. This section also reports the results of the Economic Impact Forecast System (EIFS) used in the analysis (see Appendix D).

Cumulative effects resulting from the disposal and reuse of the STAS are provided in a summary analysis at the end of this section. A summary of mitigation actions planned is also presented at the end of this section.

5.2 NO ACTION ALTERNATIVE

5.2.1 Introduction

Under the no action alternative, there would be no change to the affected environment as described in Section 4.0. The DA would retain ownership of all properties.

5.2.2 Analysis of No Action Alternative

Implementation of the no action alternative would result in no adverse environmental effects on land use, climate, air quality, noise-sensitive resources, water resources, geology, the management of hazardous and toxic substances, permits and regulatory authorizations, biological resources, cultural resources, economic development, sociological environment, or quality of life.

An exception to the lack of adverse effects associated with the alternative would be the possible progressive deterioration of existing facilities and grounds if not regularly maintained. Deterioration could, over time, limit the potential reuse of existing facilities and adversely affect the future marketability of the property.

5.2.3 Mitigation

Under the no action alternative, the USMA would continue to operate and maintain STAS under current conditions. Accordingly, USMA would continue to implement its ongoing hazardous waste remediation and mitigation activities. No other mitigation activities would be required.

5.2.4 Cumulative Effects

No cumulative effects would be expected as a result of the no action alternative.

5.3 DISPOSAL ALTERNATIVES

5.3.1 Introduction

Section 3.3 discusses the rationale for development of alternatives associated with the primary DA action of disposal of excess property at STAS. The encumbered disposal alternative has been formulated to consider the type and degree of reuse constraints to be imposed on future owners as a condition of disposal and reuse. These encumbrances are imposed by the DA to protect natural and cultural resources, to protect future DA requirements or interests, to make property available as soon as possible through the expedient disposal and reuse of STAS property that is determined to be available and suitable for the intended reuse, to transfer the use of deed restrictions or covenants, or to meet special mitigation requirements or additional deed restrictions that are mutually agreed upon by the DA and a regulatory agency. Encumbrances applicable to STAS are discussed in Section 3.3.1.

Various encumbrances at STAS are either required by law or cannot practicably be removed. These would include the DA's ongoing remedial efforts (Section 4.8) that are conducted in compliance with CERCLA, if appropriate. Because of these conditions, unencumbered disposal is not further evaluated.

Sections 5.3.2 through 5.3.15 identify the potential direct and indirect environmental and socioeconomic effects of encumbered disposal of excess STAS property.

5.3.2 Land Use

Encumbered Disposal, Direct.
No impacts are expected from the encumbered disposal because the proposed restrictions on site remediation, street access, and utility easements would support maintenance of existing land use intensities.

Encumbered Disposal, Indirect.
There would likely be a long-term beneficial effect on land use patterns from restriction of reuse activities that are consistent with the preservation of present conditions. Restrictions on site remediation, street access to Drury Lane from I-84, and easements to electrical, gas, water, and sewer systems at the STAS would support maintenance of existing land use intensities.

5.3.3 Air Quality

Encumbered Disposal, Direct
Short-term minor beneficial effects would be expected. In addition to ongoing remediation efforts, reuse of the site might require the maintenance and/or cleanup of special hazardous materials (*e.g.*, asbestos containing material [ACM] and LBP) found inside buildings and elsewhere on the site, which would in turn improve or benefit air quality. The potential exists for some trace contaminants to be released into the air during the cleanup process. However, these trace contaminants related to remedial activities would be localized and considered negligible.

The Clean Air Act requires federal agencies to ensure that their actions are consistent with the CAA and with federally enforceable air quality management plans. EPA's General Conformity Rule requires federal agencies to make written conformity determinations for federal actions in, or affecting, NAAQS nonattainment areas or maintenance areas (nonattainment areas that have been redesignated as attainment areas based on NAAQS compliance). However, certain federal actions are exempt from this requirement because they would result in no increase in emissions, or an increase that is clearly *de minimis*. Among the recognized exemptions are "transfer of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or methods of the transfer" (40 CFR 51.853). Because the DA's proposed disposal action will involve the sale or other title transfer of the federal property, a Record of Non-Applicability (RONA) concerning the General Conformity Rule has been prepared (see Appendix E).

Encumbered Disposal, Indirect
No effects would be expected.

5.3.4 Noise

Encumbered Disposal, Direct
Short-term minor adverse effects would be expected. Potential cleanup actions for special hazardous materials (*e.g.*, ACM, LBP) on site might require use of equipment that would increase ambient noise levels in the immediate area. However, such effects would be short-term and should not greatly affect nearby residences of other local receptors because of their distance from the site.

Encumbered Disposal, Indirect
No effects would be expected.

5.3.5 Geology

Encumbered Disposal, Direct and Indirect.
No effects would be expected.

5.3.6 Water Resources

Encumbered Disposal, Direct
No effects would be expected.

Encumbered Disposal, Indirect
Long-term minor beneficial effects would be expected. The DA would perform necessary remediation at contaminated sites. This would ensure that, over the long term, soil and groundwater would meet the current NYSDEC criteria for groundwater Human Health Protection (contained in STARS Memo #1, "Petroleum - Contaminated Soil Guidance Policy, August 1992).

5.3.7 Infrastructure

Encumbered Disposal, Direct and Indirect
No effects would be expected.

5.3.8 Hazardous and Toxic Substances

Encumbered Disposal, Direct
If remediation of contaminated sites is needed beyond the transfer date, it will be the responsibility of the federal government to the extent that such a remediation requirement is attributable to activities of the government prior to divestiture. DOD policy with regard to LBP and ACM is to manage them in a manner that is protective of human health and the environment. DOD would manage LBP at STAS in accordance with the provisions of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102-550). Information regarding ACM on the property would be provided to prospective purchasers or transferees. Where ACM was determined to be in such condition as to pose a threat to human health at the time of the transfer, it would be remediated.

Encumbered Disposal, Indirect
No effects would be expected.

5.3.9 Permits and Regulatory Authorizations

Encumbered Disposal, Direct and Indirect
No effects would be expected.

5.3.10 Biological Resources

Encumbered Disposal, Direct and Indirect
No effects would be expected.

5.3.11 Cultural Resources

Encumbered Disposal, Direct and Indirect
No effects would be expected because no NRHP-eligible historic properties of known archeological resources are present at STAS.

5.3.12 Economic Development

Encumbered Disposal, Direct
No direct impacts on the Orange County economy are anticipated as the proposed site remediation, street access, and utility easement encumbrances would likely serve to enhance planned economic development of the STAS.

Encumbered Disposal, Indirect
Indirect impacts of encumbered disposal on the economy of Orange County are not anticipated.

5.3.13 Sociological Environment (Including Environmental Justice)

Encumbered Disposal, Direct
No direct impacts on the Orange County population and housing are anticipated as the proposed site remediation, street access, and utility easement encumbrances would likely serve to enhance planned development of the STAS.

Encumbered Disposal, Indirect
Indirect impacts of encumbered disposal on population and housing within Orange County are not anticipated.

5.3.14 Quality of Life

Encumbered Disposal, Direct and Indirect
No effects would be expected.

5.3.15 Mitigation

To avoid, reduce, or compensate for adverse effects that might occur as a result of disposal, the DA would implement the following:

- continue to work with local entities to identify available options for the use of buildings;
- continue to work with the TNW, ARC, and DON/USMC to ensure that, to the maximum extent feasible, encumbered disposal transactions are consistent with the community reuse plan;
- until final disposal, maintain installation buildings, infrastructure (including fences), and natural resources in caretaker status to the extent provided by DA policy and regulations; and
- ensure that accepted pollution control measures are used during remediation efforts, and for any other special hazardous material maintenance and cleanup actions.

Conveyance documents would notify future owners of the property of particular obligations concerning natural and cultural resources that would be imposed as a result of the DA's determination of the applicability of an encumbrance.

5.3.16 Cumulative Effects

No significant cumulative effects would be expected as a result of encumbered disposal. The granting of right-of-way or access easements would ensure utility (electric, gas, water, sewer) service is provided to new owners on STAS and Parcel 19 (100 Block), and remediation of contaminated sites is completed.

5.4 REUSE SCENARIOS

5.4.1 Introduction

The reuse scenarios evaluated in this document are based primarily on the TNW special legislation and zoning ordinances, and include the HIR, MHIR, MIR, and MLIR scenarios, with the MIR scenario most closely approximating the potential future development of STAS. As noted in Section 3.4.1, these reuse scenarios are planning-level concepts that forecast the possible future development, but do not attempt to predict the exact nature of pattern of reuse activities that might ultimately occur at STAS. The scenarios are beneficial in identifying likely activities and the range of associated effects that would be expected to occur under various levels of reuse intensity.

This section identifies the environmental consequences of these probable reuse scenarios. The reuse scenarios are evaluated based on the assumption that the DA would proceed with the encumbered disposal alternative.

5.4.2 Land Use

Master Plans provide general guidelines for land development which are further implemented through provisions in a municipal zoning ordinance. The zoning districts define specific land uses that are either permitted by right or are conditional uses, allowed pending approval of the town's planning board. In addition to use regulations, each district incorporates provisions regulating the density of development, such as minimum lot size, maximum lot coverage, and maximum building height.

The Town of New Windsor *Master Plan* was adopted in 1975. The plan promotes the concentration of commercial and industrial development along major highways, with most development focused along both sides of I-87, and a lesser amount along a narrow strip along NYS Route 207. STAS lies within a substantial portion of the TNW that is designated as airport industrial with a corresponding zoning of AP. The AP zoning district allows the following uses by right: professional offices, offices combined with warehousing/distribution space, laboratories, specific types of manufacturing and assembling, printing and publishing operations, and other planned office and industrial uses. Bulk storage, airports, and railroads are allowed by special permit. Density requirement range from minimum lot sizes of 40,000 square feet to 5 acres. Most uses require site plan approval by the planning board. When specific developments are proposed, they will be subject to environmental review under guidelines of the New York State Environmental Quality Review Act (SEQR), which provides opportunities for public comment.

The assessment of land use impacts focuses primarily on whether an alternative would be consistent with adopted land use plans, and compatible with land uses on and adjacent to the project site. The potential for demolition and construction activities to affect nearby land uses is generally related to air pollutant emissions, noise, and traffic that would be generated by those

activities. Air quality, noise, and traffic are addressed in Sections 5.4.3, 5.4.4, and 5.4.7, respectively, and are not further addressed in this land use analysis.

Project alternatives would have the potential for significant impacts if any of the following criteria are met:

- an alternative would conflict with adopted plans and goals of the community;
- an alternative would result in a substantial alteration of the present or planned land use of an area; or
- an alternative would result in substantial new development or prevent such development elsewhere, it could have significant indirect impact.

Direct impacts are defined by guidelines prepared by the CEQ as "caused by the action and occur at the same time and place." Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable" (40 CFR 1508.8).

5.4.2.1 Land Use Intensity Categories Described

As described in Section 3.4.2, the EA for the property disposal actions at STAS considers five levels of land use intensity for evaluating potential environmental and socioeconomic effects. Table 11 contains estimates of developable square footage under the following five levels of land use intensity: LIR, MLIR, MIR, MHIR, and HIR. Future buildout of the 281.2 acres under the jurisdiction of the TNW will be in the MIR range, according to the Engineer for the TNW (McGoey 1999a). Buildout of the remaining 121.3 acres of the total STAS consisting of 402.5 acres would remain at baseline conditions since no further development of the remaining is proposed.

High Intensity Direct Impacts
Reuse development to this population level would create a land use intensity above conditions that existed when the STAS was fully occupied. New and expanded use could include office, commercial, light industrial, and manufacturing activities. Residential uses would be restricted to military personnel and their families on land (STHA) retained by the Federal government, or transferred to a private developer for housing or other development purposes. The TNW would need to amend the AP Zoning Classification to allow hotel/conference center uses or assisted-living types of developments.

The existing infrastructure serving the STAS is not presently designed to accommodate high intensity development uses. Potable water supplies and wastewater treatment processes are limited by existing agreements and design capacities. The Catskill Aqueduct along the western portion of the site would limit development through right-of-way setbacks and access easements for maintenance. The prominence of Reservoir Hill and the existing sloping topography of this currently undeveloped portion of the site also constrains development at the High Intensity Reuse (HIR). The existing internal roadway network has one primary access road that serves the water reservoir and radar site which is fully built-out on top of Reservoir Hill. Therefore, further buildout of Reservoir Hill is infeasible.

Table 11. Amount of Building Space by Reuse Scenario (Square Feet).

Reuse Scenario	Floor Area Ratio [1]	Development Ratio [2]	Building Space (Square Feet)
LIR	0.05	0.2	122,400
MLIR	0.075	0.3	275,400
MIR	0.2	0.5	1,224,000
MHIR	0.5	0.7	4,284,100
HIR	0.7	0.9	7,711,400

[1] Floor Area Ratio (FAR) is expressed as the ratio of building space to land area.

[2] Development Ratio is based on the amount of developed property in relation to the total amount of property subject to land use planning at a given location. For example, for the LIR, it is assumed that only 0.2 or 20% of the total site area of 281 acres, or 56.2 acres could be developed. If a FAR of 0.05 is then applied, the total building are would be 2.81 acres or by multiplying by 43,560 (the number of square feet in an acre), 122,404 square feet. Estimates are rounded to the nearest hundred.

Source: Ogden Environmental & Energy services Company, Inc. 1999. Table based on midrange of ratios contained in Table 3, Section 3.4.2.

Primary access to the STAS is from Breunig Road on the east and North Jackson Avenue on the west. In the future, a proposed connector road from Drury Lane to I-84 to serve the SIA is planned (NYSDOT 1999). It is likely that primary access to a potential hotel/conference center would be from the new connector road at "C" Street and Breunig Road (McGoey 1999b). Before the TNW Planning Board can approve a project, it would need to be approved by the New York State Health Department (NYSHD) and NYSDEC for availability of water and sewer capacities (McGoey 1999b). Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

High Intensity, Indirect

The high intensity reuse alternative would require major upgrades of water and sewer infrastructure prior to new development approvals. Developers of a hotel/conference center would need to obtain land use permits and environmental clearances from the TNW. Because such development would be consistent with surrounding land use, no adverse land use impacts would be expected. Buildout under the high intensity reuse alternative could create long-term, adverse indirect effects on local surface waters, local roadways, parking demand, and solid waste capacity, as addressed in Section 5.4.7, Infrastructure. The planned extension of a connector roadway from I-84 to Drury Lane and SIA is the subject of an EIS prepared by the Federal Highway Administration (FHWA) and the New York State Department of Transportation (NYSDOT 1999). Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

Medium-High Intensity, Direct
Long-term adverse effects to land use would be expected because water and wastewater services are not presently sufficient to serve the amount of development estimated under the MHIR scenario. Considerations discussed in the direct HIR alternative would also apply to the direct MHIR scenario. Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

Medium-High Intensity, Indirect
Long-term, adverse indirect effects would be expected because water, wastewater, and road capacities serving the project site and surrounding area would not be sufficient to serve the amount of development estimated under the MHIR scenario. Considerations discussed in the indirect HIR scenario would also apply to the indirect MHIR scenario. Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

Medium Intensity, Direct
Long-term adverse direct effects to land use would be expected because water and wastewater capacities may not currently be sufficient to serve the amount of development estimated under the MIR scenario. Considerations discussed in the direct HIR alternative would also apply to the direct MIR scenario, but on a lesser scale. Before the TNW Planning Board can approve a project, it would need to be approved by the NYSHD and NYSDEC for availability of water and sewer capacities (McGoey 1999b). Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

Medium Intensity, Indirect
Long-term, adverse indirect effects would be expected because water, wastewater, and road capacities serving the project site and surrounding area may not be sufficient to serve the amount of development estimated under the MIR scenario. Considerations discussed in the indirect HIR scenario would also apply to the indirect MIR scenario on a lesser scale. Because no building permits would be issued if water and sewer capacities are unavailable, no adverse land use impacts would occur.

Medium-Low Intensity, Direct
The Medium-Low Intensity scenario approximates the level of intensity experienced when the STAS was fully occupied and operational; it represents the most feasible of the reuse scenarios because it approximates the number of square feet of developable area when the STAS was fully operational. It assumes that the water and sewer infrastructure which served the STAS would be available upon divestiture to serve new development. As with the HIR scenario, the types of land uses allowed by the AP Zoning Classification may be more intense than those which occurred at the STAS. This would increase traffic and parking demand, and create noise and air quality impacts. Because development proposed within areas under the jurisdiction of the TNW would be required to obtain land use permits and environmental clearances, and because such permitting is consistent with long-range plans, no adverse land use impacts would occur.

Medium-Low Intensity, Indirect
Development at the MLIR intensity level assumes that water and wastewater services would be sufficient to serve proposed development. Should infrastructure services need to be altered or expanded, minor adverse effects would be expected as discussed in Section 5.4.7.

5.4.3 Air Quality

High Intensity, Direct
Short-term and long-term adverse direct effects to air quality would be expected to be minor for high intensity reuse. Potential short-term effects could include increased temporary emissions from construction/demolition activities. These emissions may include dust and exhaust from heavy equipment and vehicular traffic that would be confined primarily to the project site.

Any new stationary sources of air pollution that would result from reuse would be required to comply with all federal and state air quality rules, regulations, and standards including NAAQS. This might require obtaining applicable air quality permits from the NYSDEC. These permits would specify emission limits and types, in consideration of existing air quality, and thereby may restrict or deny proposed developments that would produce certain emissions in excess of NAAQS. Adherence to these procedures would ensure that only minor adverse direct long-term impacts on air quality would result.

High Intensity, Indirect
Some long-term minor adverse indirect effects would be expected from the expected increased traffic in the area. With a high intensity development, the number of vehicles and frequency of trips within and around the project site would increase. This would generate a minor increase in emissions in the surrounding area, particularly at major intersections. Therefore, it is expected that only minor adverse direct impacts on air quality would result.

Medium-High Intensity, Direct
Short-term and long-term minor adverse direct effects would be expected. Considerations applicable to the direct HIR scenario would apply to the direct MHIR scenario but on a lesser scale.

Medium-High Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the indirect HIR scenario would apply to the indirect MHIR scenario but on a lesser scale.

Medium Intensity, Direct
Short-term and long-term minor adverse direct effects would be expected. Considerations applicable to the direct MHIR scenario would apply to the direct MIR scenario but on a lesser scale.

Medium Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the indirect MHIR scenario would apply to the indirect MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
Short-term and long-term minor direct adverse effects would be expected. Considerations applicable to the direct MIR scenario would apply to the direct MLIR scenario but on a lesser scale.

Medium-Low Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the indirect MIR scenario would apply to the indirect MLIR scenario but on a lesser scale.

5.4.4 Noise

High Intensity, Direct
Short-term and long-term adverse direct effects on noise would be expected to be minor for direct high intensity reuse. Potential short-term effects could include increased temporary noise from construction/demolition activities. These activities typically occur during daylight hours and would be limited to the immediate project area.

Long-term direct effects could depend upon the type and hours of operation of the development on the project site. Stationary noise-producing facilities would require state approval pursuant to SEQR, as well as local approvals consistent with AP zoning regulations, and would be required to comply with noise regulations and abatement requirements identified during these review processes. As a result, these facilities would be consistent with local land use and noise regulations, and would result in no significant direct adverse impact on noise.

High Intensity, Indirect
Possible minor indirect impacts may include an increase in daytime commuter traffic, nighttime tractor-trailer traffic, and overall ambient noise in the area. However, it is expected that only minor adverse indirect noise impacts would result, as these noise producing activities would be consistent with AP zoning regulations and surrounding land uses approved by the TNW.

Medium-High Intensity, Direct
Short-term and long-term minor adverse direct effects would be expected. Considerations applicable to the direct HIR scenario would apply to the direct MHIR scenario but on a lesser scale.

Medium-High Intensity, Indirect
Long term minor adverse indirect effects would be expected. Considerations applicable to the indirect HIR scenario would apply to the indirect MHIR scenario but on a lesser scale.

Medium Intensity, Direct
Short-term and long-term minor adverse direct effects would be expected. Considerations applicable to the direct MHIR scenario would apply to the direct MIR scenario but on a lesser scale.

Medium Intensity, Indirect
Long term minor adverse indirect effects would be expected. Considerations applicable to the indirect MHIR scenario would apply to the indirect MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
Short-term and long-term minor direct adverse effects would be expected. Considerations applicable to the direct MIR scenario would apply to the direct MLIR scenario but on a lesser scale.

Medium-Low Intensity, Indirect
Long term minor adverse indirect effects would be expected. Considerations applicable to the indirect MIR scenario would apply to the indirect MLIR scenario but on a lesser scale.

5.4.5 Geology

High Intensity, Direct
Short-term and long-term minor adverse direct effects to geology would be expected for high intensity reuse. Short-term effects could include soil erosion due to construction/demolition activities. There will be no mining within the project site, but potential activities that can affect geological resources could include well drilling and excavation for building foundations. These activities typically result in only minor adverse direct geological impacts.

High Intensity, Indirect
Short-term minor adverse indirect effects to geology would be expected for high intensity reuse. Potential short-term effects could include minor siltation of existing waterbodies and ditches in the area. However, use of erosion control best management practices during construction and demolition activities at the project site minimizes these effects. In addition, use of borrow areas for construction materials would increase in proportion to the amount of construction activities. Therefore, it is expected that only minor adverse indirect geological impacts would result.

Medium-High Intensity, Direct
Short-term and long-term minor adverse direct effects would be expected. Considerations applicable to the direct HIR scenario would apply to the direct MHIR scenario but on a lesser scale.

Medium-High Intensity, Indirect
Short-term minor adverse indirect effects would be expected. Considerations applicable to the indirect HIR scenario would apply to the indirect MHIR scenario but on a lesser scale.

Medium Intensity, Direct
Short-term and long-term minor direct adverse effects would be expected. Considerations applicable to the direct MHIR scenario would apply to the direct MIR scenario but on a lesser scale.

Medium Intensity, Indirect
Short-term minor adverse indirect effects would be expected. Considerations applicable to the indirect MHIR scenario would apply to the indirect MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
Short-term and long-term minor direct adverse effects would be expected. Considerations applicable to the direct MIR scenario would apply to the direct MLIR scenario but on a lesser scale.

Medium-Low Intensity, Indirect
Short-term minor adverse indirect effects would be expected. Considerations applicable to the indirect MIR scenario would apply to the indirect MLIR scenario but on a lesser scale.

5.4.6 Water Resources

High Intensity, Direct
No direct effects on water resources would be expected to result from the HIR. There are no nationally-designated Sole Source Aquifers, or state-designated Primary or Principal Aquifers located in the vicinity of STAS, and there are no public water supply wells located on STAS. Therefore, groundwater should not be directly affected. Surface waters also should not be directly affected. STAS is not located within a designated Zone A flood hazard area, or a state-designated coastal zone, and there are no navigable waterways located in the vicinity of STAS; they should, therefore, not be directly affected.

High Intensity, Indirect
Short-term and long-term significant adverse indirect effects on water resources would be expected to result from HIR. Extensive demolition and new construction could adversely affect the surface water quality if turbidity and siltation were to occur due to inadequate or inappropriate application of erosion control practices. Increased use of roadways, parking areas, and the airport runway during construction and long-term use associated with future development could cause higher concentrations of automotive and aircraft contaminants (*e.g.*, lubricants, coolants, and deicers), in storm water runoff to enter the local surface waters, wetlands, and groundwater. Improper application of fertilizers, pesticides, and herbicides could also result in an increase of pollutants entering surface water and groundwater. A significant groundwater contamination event could potentially adversely effect the 14 public water supply wells located within a 1-mile radius of STAS. However, the likelihood of a significant groundwater contamination event is low because future development would be required to comply with federal and state clean water regulations. Depending on the extent of new areas of impervious surface on the property, development at this intensity could cause an increase in storm water runoff entering drainage ditches, local surface waters, and wetland areas.

Long-term significant beneficial indirect effects also would be expected under all of the reuse scenarios. Use of the STAS WWTP will be discontinued. Sewage flow will be redirected to the TNW pump station and collection system.

Medium-High Intensity, Direct
No effects would be expected.

Medium-High Intensity, Indirect
Short–term and long-term significant adverse and long-term significant beneficial indirect effects would be expected. Considerations applicable to the HIR scenario would apply to the MHIR scenario but on a lesser scale.

Medium Intensity, Direct
No effects would be expected.

Medium Intensity, Indirect
Short-term and long-term minor adverse and long-term significant beneficial indirect effects would be expected. Considerations applicable to the MHIR scenario would apply to the MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
No effects would be expected.

Medium-Low Intensity, Indirect
Short-term and long-term minor adverse and long-term significant beneficial indirect effects would be expected. Considerations applicable to the MIR scenario would apply to the MLIR scenario but on a lesser scale.

5.4.7 Infrastructure

High Intensity, Direct
Long-term significant beneficial direct effects would be expected. The HIR scenario would involve a large increase in activity associated with the development and use of the facility. Given that the WWTP current capacity is 500,000 gallons per day (Egitto 1998) and it would be closed following divestiture, new construction, infrastructure upgrades, and installation of a sewer system would be needed to support the activities under the HIR scenario. These upgrades and improvements would thereby benefit wastewater handling and treatment in the project area.

Long-term significant adverse direct effects also would be expected. The HIR scenario also could cause an increase in the demand for water from the WTP. The water is pumped into the WTP from the Catskill Aqueduct, thus future development will need to comply with allowable withdrawal limits from the Catskill Aqueduct pursuant to the TNW water contract with New York City. HIR could lead to an increase in utility usage and could require an increase in utility related infrastructures on the property to be supplied by CHGEC and Bell Atlantic. An HIR scenario could lead to an increase in air and land traffic that could lead to development of new traffic patterns and roads, and development of parking areas. The demolition and construction associated with future development could cause an increase in the amount of solid waste.

High Intensity, Indirect
Long-term significant adverse and beneficial indirect effects would be expected to occur. One of the local surface waters in the project area (Water Index Number H-89-12-P-234-6A on Figure 9) receives discharge from the STAS WWTP. Therefore, the closure of the STAS WWTP eliminates WWTP outflow to the stream, and thereby potentially improve its water quality. The construction of additional roads and or parking areas associated with the increase in traffic volume would increase the amount of impervious surface area, thereby increasing the volume and velocity of storm runoff and the potential for flooding. An increase in solid waste generated under an HIR would increase demand on local landfills and thereby decrease local soil quality.

Medium-High Intensity, Direct
Long-term significant adverse direct effects would be expected. Considerations applicable to the HIR scenario would apply to the MHIR scenario but on a lesser scale. In addition, long-term beneficial direct effects would be expected as wastewater treatment infrastructure upgrades and improvements would benefit wastewater handling and treatment in the project area.

Medium-High Intensity, Indirect
Long-term significant adverse indirect effects would be expected. Considerations applicable to the HIR scenario would apply to the MHIR scenario but on a lesser scale.

Medium Intensity, Direct
Long-term minor adverse direct effects would be expected. Considerations applicable to the MHIR scenario would apply to the MIR scenario but on a lesser scale. In addition, long-term beneficial direct effects would be expected as wastewater treatment infrastructure upgrades and improvements would benefit wastewater handling and treatment in the project area.

Medium Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the MHIR scenario would apply to the MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
Long-term minor adverse direct effects would be expected. Considerations applicable to the MIR scenario would apply to the MLIR scenario but on a lesser scale. In addition, long-term beneficial direct effects would be expected as wastewater treatment infrastructure upgrades and improvements would benefit wastewater handling and treatment in the project area.

Medium-Low Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the MIR scenario would apply to the MLIR scenario but on a lesser scale.

5.4.8 Hazardous and Toxic Substances

High Intensity, Direct
Long-term minor adverse direct effects would be expected. HIR scenario has the potential to introduce hazardous materials to the site. The storage, use, and disposal of such materials would be the responsibility of the TNW, and would require compliance with federal, state, and local

regulatory requirements pertaining to hazardous materials and substances, including obtaining appropriate permits.

In addition, the USMA has identified in the EBS (USMA, Rev. 1998) those remaining potential, but dormant, risks that would require future remediation in the event of any proposed future disturbance of these facilities. In the event disturbance to dormant risk sites is proposed by future owners, the USMA would be required to implement future remediation activities as necessary. Any potential, but dormant, risks would be identified and disclosed as part of any future property transfer agreements.

High Intensity, Indirect
Long-term minor adverse indirect effects would be expected. As the storage, use, and disposal of hazardous and toxic substances increases, a corresponding increase in the number of hazardous waste responders, transporters, and disposal areas would be required. Such an increase would require new owners to handle, transport, and dispose of, and potentially respond to spills of hazardous and toxic substances in accordance with CERCLA, RCRA, SPDES, and other applicable federal and state regulations.

Medium-High Intensity, Direct
Long-term minor adverse direct effects would be expected. Considerations applicable to the HIR scenario would apply to the MHIR scenario but on a lesser scale. As with the HIR scenario, if hazardous materials are to be introduced to the site, they must comply with applicable regulatory requirements. In addition, disturbance to any unknown or unidentified dormant sites may require future remediation, to be implemented by the DA.

Medium-High Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the HIR scenario would apply to the MHIR scenario but on a lesser scale.

Medium Intensity, Direct
Long-term minor adverse direct effects would be expected. Considerations applicable to the MHIR scenario would apply to the MIR scenario but on a lesser scale. As with the MHIR scenario, if hazardous materials are to be introduced to the site, they must comply with applicable regulatory requirements. In addition, disturbance to any unknown or unidentified dormant sites may require future remediation, to be implemented by the DA.

Medium Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the MHIR scenario would apply to the MIR scenario but on a lesser scale.

Medium-Low Intensity, Direct
Long-term minor adverse direct effects would be expected. Considerations applicable to the MIR scenario would apply to the MLIR scenario on a lesser scale. As with the MIR scenario, if hazardous materials are to be introduced to the site, they must comply with applicable regulatory requirements. In addition, disturbance to any unknown or unidentified dormant sites may require future remediation, to be implemented by the DA.

Medium-Low Intensity, Indirect
Long-term minor adverse indirect effects would be expected. Considerations applicable to the MIR scenario would apply to the MLIR scenario but on a lesser scale.

5.4.9 Permits and Regulatory Authorizations

High Intensity, Direct
Under all reuse scenarios, long-term minor beneficial direct effects would be expected. The SPDES permit for the WWTP discharge will be terminated. The existing RCRA Generator permit and the existing PBS permit will be terminated upon divestiture. The new owner of disposed property will be required to obtain or transfer any relevant federal, state, regional, or local permits as may be necessary for future land use activities.

High Intensity, Indirect
No indirect effects would be expected.

Medium-High Intensity, Direct
Under all reuse scenarios, long-term minor beneficial direct effects would be expected. The new owner of disposed property will be required to obtain or transfer any relevant federal, state, regional, or local permits as may be necessary for future land use activities. The SPDES permit for the WWTP discharge will be terminated. The existing RCRA Generator permit and the existing PBS permit will be terminated upon divestiture.

Medium-High Intensity, Indirect
No indirect effects would be expected.

Medium Intensity, Direct
Under all reuse scenarios, long-term minor beneficial direct effects would be expected. The new owner of disposed property will be required to obtain or transfer any relevant federal, state, regional, or local permits as may be necessary for future land use activities. The SPDES permit for the WWTP discharge will be terminated. The existing RCRA Generator permit and the existing PBS permit will be terminated upon divestiture.

Medium Intensity, Indirect
No indirect effects would be expected.

Medium-Low Intensity, Direct
Under all reuse scenarios, long-term minor beneficial direct effects would be expected. The new owner of disposed property will be required to obtain or transfer any relevant federal, state, regional, or local permits as may be necessary for future land use activities. The SPDES permit for the WWTP discharge will be terminated. The existing RCRA Generator permit and the existing PBS permit will be terminated upon divestiture.

Medium-Low Intensity, Indirect
No indirect effects would be expected.

5.4.10 Biological Resources

High Intensity, Direct
Short-term and long-term adverse direct impacts to biological resources would be expected to be minor under this scenario. Increased human activity and loss of existing habitat could have an adverse impact on biological resources at STAS. Adverse impacts may include clearing or conversion of vegetation communities and related wildlife habitat loss. High intensity use of STAS could result in increased disturbance to vegetation including conversion of forested land to non-forested land and an increase in the presence of non-native species.

Disturbance to vegetation could result in direct loss or modification of wildlife habitat. In particular, development in the three undeveloped tracts at STAS could eliminate habitat for various species of forest dwelling birds such as wood thrushes, red-eyed vireos, and chestnut-sided warblers. Additionally, populations of small mammals such as short-tailed shrews, deer mice, and squirrels could decline as a result of increased development and woodland habitat loss. Conversion of forested communities to non-forested communities such as lawns could increase habitat for wildlife species adapted to open space such as American robins and house sparrows. In addition, increased human presence and activity associated with this reuse scenario, such as increased automobile traffic, could adversely affect wildlife resources. However, because the wildlife and habitat resources currently available at STAS are common to the area and upstate New York, this direct loss or conversion of habitat would be considered minor.

The HIR scenario may adversely impact jurisdictional wetland resources on STAS. Short-term impacts could include reduction of wetland acreage and wetland habitat loss due to development. However, compliance with current wetland regulations would require mitigation to replace lost wetland acreage and habitat values. Minor short-term impacts could include increased siltation caused by erosion during construction activities. However, use of proper standard erosion and sedimentation controls during construction activities could alleviate this impact.

High Intensity, Indirect
Long-term minor adverse indirect impacts would be expected under this scenario. Impacts to wildlife could result in the displacement of species that do not tolerate constant human presence. Indirect adverse impacts to wetlands could include increased runoff and pollution from new parking facilities or roadways. Additionally, pollutants entering wetlands or surface waters could potentially enter the food chain and adversely affect wildlife, if not properly treated in storm water management facilities.

Medium-High Intensity, Direct
Short-term and long-term minor adverse direct impacts would be expected under this scenario. The direct adverse impacts to vegetation, wildlife, and wetland resources would be similar to the HIR, but to a lesser extent. For example, MHIR may not involve conversion of forested areas into buildings or parking facilities which provide little beneficial wildlife habitat, but may involve conversion to lawns with ornamental hedgerows and shade trees that may provide suitable habitat for some species of wildlife.

Medium-High Intensity, Indirect
Long-term minor adverse indirect impacts would be expected under this scenario. The indirect adverse impacts to vegetation, wildlife, and wetland resources would be similar to the HIR, but to a lesser extent. For example, construction of new structures or parking lots may be designed in a manner that they would be located away from sensitive resources such as wetlands or waterbodies, which would prevent pollutants from entering the food chain.

Medium Intensity, Direct
Short-term and long-term minor adverse direct impacts would be expected under this scenario. The direct adverse impacts to vegetation, wildlife, and wetland resources would be similar to the MHIR, but to a lesser extent. Because only a moderate amount of new development would be anticipated under this scenario, impacts to wetlands and clearing/conversion of vegetation could be minimized. As a result, loss of wildlife habitat also would be minimized.

Medium Intensity, Indirect
Long-term minor adverse indirect impacts would be expected under this scenario. The indirect adverse impacts to vegetation, wildlife, and wetland resources would be similar to the MHIR, but to a lesser extent. This scenario would likely not affect wildlife species that tolerate occasional human disturbance. Impacts to wetlands could include a slight increase in erosion and siltation from new facilities if construction erosion controls are not properly applied.

Medium-Low Intensity, Direct
Long-term and short-term minor adverse direct impacts would be expected under this scenario. The direct adverse impacts to vegetation, wildlife, and wetland resources would be similar to the MIR, but to a lesser extent. The existing conditions at STAS reflect stable ecological communities that are adapted to a medium-low intensity use. Direct adverse impacts present under this scenario include occasional disturbances to wildlife from human activities and regular vegetation maintenance such as lawn and roadside mowing.

Medium-Low Intensity, Indirect
Long-term minor adverse indirect impacts would be expected under this scenario. The indirect adverse impacts to vegetation, wildlife, and wetland resources would be similar to the MIR, but to a lesser extent. Indirect impacts to biological resources under this scenario include occasional displacement of wildlife from human activities and occasional contaminated runoff entering wetlands from parking lots and streets.

5.4.11 Cultural Resources

High Intensity, Direct and Indirect
Effects on cultural resources would be expected to be minor because cultural resource investigations and the New York State Historic Preservation Office (SHPO) found that there are no cultural resources currently listed on, or determined eligible for, the National Register of Historic Places (NRHP) on STAS. However, the 1998 *Cultural Resources Input* (Phase IA) document indicated that there was a localized low potential for significant prehistoric archaeological resources and potential for historic archaeological resources in several locations. A Phase IB archaeological survey within these areas was conducted in 1999 (Pan American), and

has ensured that there are no potential for adverse impacts to cultural resources at STAS. Because future development/redevelopment actions would need to comply with applicable cultural resource protection regulations, as well as DA encumbrances, no undue adverse impacts on cultural resources are anticipated.

Medium-High Intensity, Direct and Indirect
Effects on cultural resources would be expected to be the same as would apply to the HIR scenario, possibly on a lesser scale.

Medium Intensity, Direct and Indirect
Effects on cultural resources would be expected to be the same as would apply to the MHIR scenario, possibly on a lesser scale.

Medium-Low Intensity, Direct and Indirect
Effects on cultural resources would be expected to be the same as would apply to the MIR scenario, possibly on a lesser scale.

5.4.12 Economic Development

Each of the four reuse scenarios analyzed in this section would offset negative effects related to closure of STAS, as summarized in Table 12. Regional sales are estimated to decline by $8.9 million within Orange County due to closure of STAS. This includes both direct and indirect effects of closure, and represents a loss of 0.13 percent of total annual regional sales within Orange County. These estimates were provided by application of the *EIFS* model (see Appendix D) and summarized in Table 12. The total number of jobs are estimated to decline by 45 (5 direct jobs—2 civilian and 3 military—and 40 indirect jobs) within the county due to closure of STAS. This decline represents a loss of 0.03 percent of total jobs within Orange County. Total personal income is estimated to decline by $1.0 million due to closure of STAS, representing a loss of 0.01 percent within Orange County.

High Intensity, Direct
The development of 7.1 million additional square feet of building space would support 371 direct construction jobs annually over a period of 20 years.[3] At the land use intensity specified for the HIR scenario, reuse of the 281 acres of STAS property would support an estimated 12,852 direct

[3] A direct construction job estimate of 7,420—or an annual average of 371 jobs over 20 years—was based on ultimate development of more than 7.7 million square feet (sf) of non-residential building space (7.1 million sf new construction; 0.6 million sf currently existing at STAS) using land use intensity parameters from Table 4 for the HIR scenario (note: the same output per job estimate of $115,198 for the new construction sector in New York is used for all scenarios [U.S. Bureau of Economic Analysis 1992]):

$$7{,}420 = \{[(281 \times 43{,}560 \times 0.9 \times 0.7) - 588{,}613] \times \$120\} \div \$115{,}198$$

direct const. jobs = {[(acres × sf per acre × development ratio × floor area ratio) – existing sf] × cost per sf) ÷ output per job

peration jobs.[4] A total of 13,223 direct jobs, including construction and operation, would account for more than 31 percent of anticipated job growth within Orange County between 2000 and 2020.

Total earnings of direct construction workers associated with reuse activities would be $10.2 million (in constant 1999 dollars) annually, over a 20-year construction period, based on forecast average earnings of $27,504 for construction workers in Orange County in 2000. Total earnings of direct operation workers associated with reuse activities, at full build-out, would be $316.9 million annually, based on forecast average earnings of $24,654 for services-producing workers in Orange County in 2020. Total direct earnings of more than $327.1 million annually—including construction and operation—would account for about 22 percent of anticipated total earnings growth within Orange County between 2000 and 2020.

Table 12. Summary of Economic Effects of STAS Closure and Reuse. *

		Reuse Scenario			
	STAS Closure	MLIR	MIR	MHIR	HIR
Total Jobs	(45)	389	1,907	8,252	24,670
Direct	(5)	209	1,022	4,420	13,223
Construction	0	0	33	193	371
Operation	(5)	209	989	4,227	12,852
Indirect	(40)	180	885	3,832	11,447
Construction	0	0	31	183	352
Operation	(40)	180	854	3,649	11,095
Total Earnings (millions, $ 1999)	($1.0)	$9.3	$45.6	$197.7	$589.3
Direct	($0.3)	$5.2	$25.3	$109.5	$327.1
Construction	$0.0	$0.0	$0.9	$5.3	$10.2
Operation	($0.3)	$5.2	$24.4	$104.2	$316.9
Indirect	($0.7)	$4.1	$20.3	$88.2	$262.2
Construction	$0.0	$0.0	$0.9	$5.2	$10.1
Operation	($0.7)	$4.1	$19.4	$82.9	$252.1

*The first full year of STAS closure effects would occur in 2000. For each of the reuse scenarios, construction jobs and earnings are annual averages based on a 20-year development period, and operation jobs and earnings are those expected at completion of development.

[4] A direct operation job estimate of 12,852 was based on ultimate development of more than 7.7 million sf of non-residential building space using land use intensity parameters from Table 4 for the HIR scenario (note: the weighted average of 600 sf per job, below, implicitly assumes 16.7 of the building space would be dedicated to general land uses and the remaining 83.3 percent would be used for warehousing):

12,852 = (281 × 43,560 × 0.9 × 0.7) ÷ 600

direct operation jobs = (acres × sf per acre × development ratio × floor area ratio) ÷ weighted average sf per job

High Intensity, Indirect

An estimated 352 additional indirect jobs in all industrial sectors would be supported by new construction activity associated with reuse of STAS under the HIR scenario (based on a direct effect job multiplier of 1.9483 in the new construction industry in New York [U.S.-Bureau of Economic Analysis, 1992]). As many as 11,095 additional indirect jobs in all industrial sectors would be supported by operation activity associated with reuse of STAS under the HIR scenario (based on a direct effect job multiplier of 1.8633, a weighted average for services-producing industries in New York [U.S. Bureau of Economic Analysis 1992]).

Total earnings of indirect workers associated with construction reuse activities would be $10.1 million annually, over a 20-year construction period (based on a direct effect earnings multiplier of 1.9894 in the new construction industry in New York [U.S. Bureau of Economic Analysis, 1992]). Total earnings of indirect workers associated with operation reuse activities, at full build-out of the HIR scenario, would be $252.1 million annually (based on a direct effect earnings multiplier of 1.7957, a weighted average for services-producing industries in New York [U.S. Bureau of Economic Analysis 1992]).

Medium-High Intensity, Direct

The development of 3.7 million additional square feet of building space would support 193 direct construction jobs annually over a period of 20 years.[5] At the land use intensity specified for the MHIR scenario, reuse of the 281 acres of STAS property would support 4,227 direct operation jobs.[6] A total of 4,420 direct jobs, including construction and operation, would account for 10.4 percent of anticipated job growth within Orange County between 2000 and 2020.

Total earnings of direct construction workers associated with reuse activities would be $5.3 million annually, over a 20-year construction period.[7] Total earnings of direct operation workers associated with reuse activities, at full build-out, would be $104.2 million annually. Total direct earnings of more than $109.5 million annually, including construction and operation, would account for about 7.3 percent of anticipated total earnings growth within Orange County between 2000 and 2020.

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[5] A direct construction job estimate of 3,850—or an annual average of 193 jobs over 20 years—was based on ultimate development of more than 4.3 million sf of non-residential building space (3.7 million sf new construction; 0.6 million sf currently existing at STAS) using land use intensity parameters from Table 4 for the MHIR scenario:

$3{,}850 = \{[(281 \times 43{,}560 \times 0.7 \times 0.5) - 588{,}613] \times \$120\} \div \$115{,}198$

direct const. jobs = {[(acres × sf per acre × development ratio × floor area ratio) – existing sf] × cost per sf } ÷ output per job

[6] A direct operation job estimate of 4,227 was based on ultimate development of more than 4.3 million sf of non-residential building space using land use intensity parameters from Table 4 for the MHIR scenario (note: the weighted average of 1,013.5 sf per job, below, implicitly assumes 20 percent of the building space would be dedicated to general land uses and the remaining 80 percent would be used for warehousing):

$4{,}227 = (281 \times 43{,}560 \times 0.7 \times 0.5) \div 1{,}013.5$

direct operation jobs = (acres × sf per acre × development ratio × floor area ratio) ÷ weighted average sf per job

[7] The same average earnings per job estimates used for the HIR scenario to calculate direct construction and operation earnings were applied for all scenarios.

Medium-High Intensity, Indirect
An estimated 183 additional indirect jobs in all industrial sectors would be supported by new construction activity associated with reuse of STAS under the MHIR scenario.[8] As many as 3,649 additional indirect jobs in all industrial sectors would be supported by operation activity associated with reuse of STAS under the MHIR scenario..

Total earnings of indirect workers associated with construction reuse activities would be $5.2 million annually, over a 20-year construction period. Total earnings of indirect workers associated with operation reuse activities, at full build-out of the MHIR scenario, would be $82.9 million annually.

Medium Intensity, Direct
The development of 0.6 million additional square feet of building space would support approximately 33 direct construction jobs annually over a period of 20 years.[9] At the land use intensity specified for the MIR scenario, reuse of the 281 acres of STAS property would support an estimated 989 direct operation jobs.[10] A total 1,022 direct jobs, including construction and operation, would account for 2.4 percent of anticipated job growth within Orange County between 2000 and 2020.

Total earnings of direct construction workers associated with reuse activities would be $0.9 million annually, over a 20-year construction period. Total earnings of direct operation workers associated with reuse activities, at full build-out, would be $32.7 million annually. Total direct earnings of $33.6 million annually, including construction and operation, would account for 2.2 percent of anticipated total earnings growth within Orange County between 2000 and 2020.

Medium Intensity, Indirect
An estimated 31 additional indirect jobs in all industrial sectors would be supported by new construction activity associated with reuse of STAS under the MIR scenario. As many as 854 additional indirect jobs in all industrial sectors would be supported by operation activity associated with reuse of STAS under the MIR scenario.

Total earnings of indirect workers associated with construction reuse activities would be $0.9 million annually, over a 20-year construction period. Total earnings of indirect workers

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[8] The same job and earnings direct effect multipliers used for the HIR scenario were applied for all scenarios.

[9] A direct construction job estimate of 662—or an annual average of 33 jobs over 20 years—was based on ultimate development of more than 1.2 million sf of non-residential building space (0.6 million sf new construction; 0.6 million sf currently existing at STAS) using land use intensity parameters from Table 3 for the MIR scenario:

$662 = \{[(281 \times 43{,}560 \times 0.5 \times 0.2) - 588{,}613] \times \$120\} \div \$115{,}198$

direct const. jobs = {[(acres × sf per acre × development ratio × floor area ratio) – existing sf] × cost per sf } ÷ output per job

[10] A direct operation job estimate of 989 was based on ultimate development of more than 1.2 million sf of non-residential building space using land use intensity parameters from Table 3 for the MIR scenario (note: the weighted average of 1,237.6 sf per job, below, implicitly assumes 35 percent of the building space would be dedicated to general land uses and the 65 percent would be used for warehousing):

$989 = (281 \times 43{,}560 \times 0.5 \times 0.2) \div 1{,}237.6$

direct operation jobs = (acres × sf per acre × development ratio × floor area ratio) ÷ weighted average sf per job

associated with operation reuse activities, at full build-out of the MIR scenario, would be $19.4 million annually.

Medium-Low Intensity, Direct
The development of 0.3 million square feet of building space would not require new construction—STAS currently has 0.6 million square feet of non-residential building space available for reuse activity. At the land use intensity specified for the MLIR scenario, reuse of the 281 acres of STAS property could support an estimated 209 direct operation jobs.[11] These direct operation jobs account for 0.5 percent of anticipated job growth within Orange County between 2000 and 2020.

Total earnings of direct operation workers associated with reuse activities, at full build-out, would be $5.2 million annually. Direct operation earnings would account for about 0.3 percent of anticipated total earnings growth within Orange County between 2000 and 2020.

Medium-Low Intensity, Indirect
As many as 180 additional indirect jobs in all industrial sectors would be supported by operation activity associated with reuse of STAS under the MLIR scenario. Total earnings of indirect workers associated with operation reuse activities, at full build-out of the MLIR scenario, would be $4.1 million annually.

5.4.13 Sociological Environment

Total population is anticipated to decline by 12 persons due to STAS closure. This change represents a negligible change in the Orange County population (less than 0.005 percent). Each of the four reuse scenarios analyzed in this section would offset negative effects related to closure of STAS, although no population estimates for reuse were included in this analysis.

High Intensity, Direct
The increases in population and the required number of housing units within Orange County attributable to reuse activities at STAS under the HIR scenario–including all direct workers, plus members of their households–is dependent on the number of existing or future county residents that would otherwise (*i.e.*, without reuse) live elsewhere. No population estimates are included in this analysis, however, the population growth attributable to reuse activity at STAS—based on the share of total county job growth under this scenario indicated in Section 5.4.12—would represent a substantial percentage of the total population increase of 94,474 persons expected in Orange County between 2000 and 2020.[12] Housing unit estimates also are not provided in this

[11] A direct operation job estimate of 209 was based on ultimate development of 0.3 million sf of non-residential building space using land use intensity parameters from Table 3 for the MLIR scenario (note: the weighted average of 1,317.703 sf per job, below, implicitly assumes half of the building space would be dedicated to general land uses and the other half would be used for warehousing):

$209 = (281 \times 43{,}560 \times 0.3 \times 0.075) \div 1{,}317.703$

direct operation jobs = (acres × sf per acre × development ratio × floor area ratio) ÷ weighted average sf per job

[12] A review of 37 different reuse alternatives at 11 U.S. Air Force bases scheduled for closure or realignment during the 1990s indicated that population changes were forecast at between 8 and 157 percent of the change in total jobs within each region, with an average ratio of 72 percent.

analysis, but housing requirements attributable to the HIR scenario would likely represent a substantial percentage of the total housing unit increase expected in Orange County by 2020.

High Intensity, Indirect
Similar to direct effects, indirect population and housing growth within Orange County attributable to the HIR scenario depends on the number of indirect workers—plus members of their households—that would be induced to reside in the county, but would otherwise work and live elsewhere. Although no estimates of indirect population or housing requirements are included in this analysis, such effects under the HIR scenario would likely represent a substantial percentage of population and housing growth in Orange County by 2020.

Medium-High Intensity, Direct
As indicated under the HIR scenario, population and housing growth effects under the MHIR scenario are dependent on the number of existing or future residents that would not otherwise live in the county. While no estimates of population or housing requirements are included in this analysis, effects under the MHIR scenario would likely represent a large percentage of population and housing growth in Orange County by 2020, based on the share of total county job growth under this scenario indicated in Section 5.4.12.

Medium-High Intensity, Indirect
Indirect population and housing growth within Orange County attributable to the MHIR scenario is also dependant on the number of indirect workers—plus members of their households—that would be induced to reside in the county, but would otherwise work and live elsewhere. Indirect population or housing requirements under the MHIR scenario would likely represent a large percentage of population and housing growth in Orange County by 2020.

Medium Intensity, Direct
As indicated under the HIR scenario, population and housing growth effects under the MIR scenario are dependent on the number of existing or future residents that would not otherwise live in the county. Direct population and housing requirements under the MIR scenario would likely represent a small percentage of population and housing growth in Orange County by 2020, based on the share of total county job growth under this scenario indicated in Section 5.4.12.

Medium Intensity, Indirect
Indirect population and housing requirements under the MIR scenario would likely represent a small percentage of population and housing growth in Orange County by 2020.

Medium-Low Intensity, Direct
Direct population and housing requirements under the MLIR scenario would likely represent a negligible percentage of population and housing growth in Orange County by 2020.

Medium-Low Intensity, Indirect
Indirect population and housing requirements under the MLIR scenario would likely represent a negligible percentage of population and housing growth in Orange County by 2020.

5.4.14 Quality of Life

High Intensity, Direct and Indirect
Long-term direct and indirect impacts to visual and aesthetic values, as well as local shops, services, and recreational opportunities, may occur under the high intensity use level. Developing the undeveloped portions of STAS could degrade the visual and aesthetic values of the area. An increase in development could create an increased demand for small shops and service-orientated businesses. Loss of open space could decrease outdoor recreational opportunities under the HIR use level. However, existing indoor recreational opportunities such as the gym/activities center and bowling could increase in popularity.

An HIR use level would likely impact schools and family support services. The development that would likely take place at STAS, services and light industry, could create new jobs and indirectly increase the demand for additional schools or family support services.

Medium-High Intensity, Direct and Indirect
Long-term direct and indirect impacts to visual and aesthetic values, as well as local shops, services, and recreational opportunities may be impacted under the medium-high intensity use level, but on a lesser scale. In addition, schools and family support services may be indirectly impacted under this scenario.

Medium Intensity, Direct and Indirect
Long-term direct and indirect impacts to visual and aesthetic values, as well as local shops, services, and recreational opportunities may be impacted under the medium intensity use level, but on a lesser scale. In addition, schools and family support services may be indirectly impacted under this scenario.

Medium-Low Intensity, Direct and Indirect
Long-term direct and indirect impacts to quality of life services would not be impacted under this development scenario because STAS is currently classified as a medium-low intensity use.

5.4.15 Environmental Justice

In accordance with Executive Order 12898, issued by President Clinton on February 11, 1994, federal agencies are required to identify and address the potential for disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations. The majority of STAS is not a residential area, and the remaining structures at the STHA comprise military personnel and associated family housing. This housing is not considered to be a minority neighborhood. In addition, the divestiture of STAS would have a negligible direct impact and a beneficial long-term impact on population in Orange County, as well as a net beneficial impact on the socioeconomic environment in Orange County. Finally, no adverse human health impacts are anticipated.

Because there would be no adverse impact on minority neighborhoods, population, socioeconomic environment, or human health, the proposed action would not have a disproportionately high and adverse impact on human health or the environment. As a result, no

mitigation measures are required to address disproportionately high and adverse impacts to minority and low-income populations.

5.5 Cumulative Impacts

Cumulative environmental effects would be the result of the proposed action being added to effects of other past, present, and reasonably foreseeable future actions, regardless of the agency or person responsible for such other actions. The analysis contained in this section examines the divestiture of the STAS, as well as the potential actions occurring in the vicinity of STAS. Planned or ongoing developments are described in the EA and Section 4.2.3 and include the following activities:

- The proposed divestiture of the STAS and subsequent reuse by the USMC, ARC, and TNW.
- The transfer of Parcel 19 (100 Block) to the NYSDOT.
- The proposed transfer of STAS electric and gas utility and distribution systems to CHGEC.
- The transfer of the WTP and associated distribution system to the TNW.
- Development of industrial, assembly, warehouse/distribution, office, and other floor space as described in the 1998 Stewart International Airport Master Plan Update.
- Implementation of the Stewart Airport Access Improvement project which will improve access to the SIA from I-84 via a new interchange at Drury Lane to an east-west connector road, which aligns with "C" Street on Stewart Army Subpost lands.
- Potential privatization of SIA properties lands (maximum estimate of 1,200 acres).

The impacts of the total potential cumulative development in the vicinity of the Stewart International Airport are summarized below by resource area, including geology/soils, water resources, land use, economic development, air quality, and noise.

Land Use. Development contemplated by the TNW's AP zoning on STAS would be consistent with proposed cumulative development. Projects proposed for the area surrounding the SIA would support land uses on the STAS, such as professional offices, offices combined with warehousing/distribution space, laboratories, specific types of manufacturing and assembling, printing and publishing operations, and other planned office and industrial uses. Similarly, development on the STAS would be consistent with the Stewart International Airport Master Plan and Stewart Airport Access Improvement project. Taken together, projects proposed in the vicinity of the SIA would be mutually supportive, as privatization of the SIA increases demand for commercial and industrial space supported by major transportation improvements to the SIA terminal area provided through STAS property.

The issuance of land use permits and regulatory authorizations would not be affected under the cumulative development scenario. The zoning districts for the Towns of Montgomery,

Newburgh, and New Windsor define specific land uses that are either permitted by right, or are conditional uses, allowed pending approval of the respective town's planning board. In addition to use regulations, each district incorporates provisions regulating the density of development, such as minimum lot size, maximum lot coverage, and maximum building height. Before a planning board can approve a project, it would need to be approved by the NYSDH and NYSDEC for availability of water and sewer capacities. Because no building permits would be issued if water and sewer capacities are unavailable, no adverse cumulative land use impacts would occur.

Air Quality. The implementation of past, present, and reasonably foreseeable future development in the region of influence may have short-term and long-term adverse direct indirect impacts on air quality. Planned and reasonably foreseeable future developments may result increased direct emissions from construction and demolition machinery (exhaust) and activities (fugitive dust) and new stationary emission sources. Short-term construction and demolition emissions would be minor and confined primarily to the project site. Operators of any new stationary sources of air pollution would be required to comply with all federal and state air quality rules, regulations, and standards including NAAQS, and to obtain any applicable air quality permits from the NYSDEC. These permits would specify emission limits and types, in consideration of existing air quality, and thereby may restrict or deny proposed developments that would produce certain emissions in excess of NAAQS. Adherence to these procedures would ensure that only minor adverse direct long-term impacts on air quality would result.

Planned and reasonably foreseeable future development also may have a long-term minor adverse indirect effect on air quality as a result of increased automobile and aircraft traffic in the region of influence. Increased development would indirectly result in a corresponding increase in the number of vehicles and frequency of trips within northern Orange County. This would generate a minor increase in emissions in the surrounding area, particularly at major intersections and within the AP zone.

Noise. The implementation of past, present, and reasonably foreseeable future development in the region of influence likely would have short-term and long-term direct, but minor impacts on noise. Planned and reasonably foreseeable future developments may result in increased noise from construction and demolition activities and new stationary noise-producing facilities. Short-term construction and demolition noise would be minor because it typically occurs during daylight hours and is confined primarily to the project site. Direct noise impacts associated with any new stationary noise-producing facilities may vary depending on the type of facility, hours of operation, and duration of operation. Operators of new stationary noise-producing facilities would require state approval pursuant to SEQR, as well as local approvals consistent with AP zoning regulations and noise ordinances, and would be required to comply with noise regulations and abatement requirements identified during these review processes. As a result, these facilities would be consistent with local land use and noise regulations, and would result in no significant direct adverse impact on noise.

Planned and reasonably foreseeable future development also may have a long-term minor adverse indirect effect on noise as a result of increased automobile and aircraft traffic in the region of influence. Increased development would indirectly result in a corresponding increase

in the number of vehicles and frequency of trips within northern Orange County. This would generate a minor increase in noise levels in the surrounding area, particularly at major intersections and within the AP zone, as these noise producing activities would be consistent with AP zoning regulations and surrounding land uses approved by the TNW or adjacent municipal planning commissions.

Geology/Soils. The implementation of past, present, and reasonably foreseeable future development in the region of influence likely would have minor short-term direct impacts on soils. Planned and reasonably foreseeable future developments may result in soil erosion and sedimentation due to construction and demolition activities. However, the use of site-specific erosion control best management practices during construction and demolition activities would reduce potential erosion and sedimentation effects to a level that is not undue or significant.

Planned and future developments also may result in minor long-term direct impacts on geologic resources due to well drilling and excavation for building foundations. These activities typically result in only minor adverse direct impacts on geological resources. In addition, use of borrow areas for construction materials would increase in proportion to the amount of construction activities. Because existing or permitted borrow areas would be used, increased consumption of borrow materials is expected to have only minor adverse indirect impacts on geological resources.

Water Resources. The implementation of past, present, and reasonably foreseeable future development in the region of influence likely would have no direct or indirect impacts on surface water or groundwater resources. New owners or developers would be required to avoid, minimize, or mitigate potential adverse impacts on these resources to a level that is not significant in accordance with federal and state regulations, and the application of best management practices for erosion and sedimentation control and hazardous and toxic material spill control and remediation. Potential cumulative effects on potable water supplies are discussed below in the *Infrastructure* section.

Infrastructure. The implementation of past, present, and reasonably foreseeable future development in the region of influence likely would increase long-term demands on existing infrastructure. Increased demand would require significant construction of new, or upgrading of existing, transportation, utility (electric, gas, communications), water treatment and distribution, wastewater and stormwater collection and treatment, and solid waste disposal facilities in the TNW and adjacent affected communities. The currently transportation improvements proposed by NYSDOT for new interchanges at I-84 and I-87 and associated connector roadways likely would provide adequate transportation capacity for expected increases in traffic, but additional improvements to handle new traffic patterns and increase parking demand may be necessary. Potable water demands of planned and foreseeable future developments may exceed existing capacities provided by water treatment plants and allowable withdrawal limits from the Catskill Aqueduct under the TNW's contract with New York City, and may require new or upgraded potable water sources and treatment and distribution systems. Demands on existing wastewater and stormwater management systems also likely would be exceeded and require substantial improvement. Corresponding increases in energy and communications use may require new or upgraded infrastructure from CHGEC and Bell Atlantic. Finally, the demolition and

construction associated with future development could cause an increase in amount of solid waste generated and demands for proper disposal sites.

New owners or developers would be required to obtain applicable federal, state, regional, and local permits and authorizations for the construction and operation of all such infrastructure improvements. These permits and authorizations would ensure compliance with existing regulations, and the avoidance, minimization, or mitigation of potentially significant impacts on socioeconomic or environmental resources. As a result, the implementation of past, present, and reasonably foreseeable future development in the region of influence would result in long-term, but minor impacts on socioeconomic and environmental resources.

Hazardous and Toxic Substances. The implementation of past, present, and reasonably foreseeable future development in the region of influence likely would increase long-term requirements to store, use, transport, and dispose of hazardous and toxic substances, as well as increase the potential for spills and the introduction of hazardous or toxic substances to the environment. New owners or developers would be required to store, use, transport, and dispose of, and potentially respond to spills of, hazardous and toxic substances in accordance with CERCLA, RCRA, SPDES, and other applicable federal and state regulations, as well as obtain and comply with applicable permits. These activities also would require new owners or developers to increase the number and use of hazardous waste responders, transporters, and disposal areas. Because of these permit and proper handling requirements regarding hazardous and toxic substances, the implementation of past, present, and reasonably foreseeable future development would therefore result in a long-term, but minor adverse direct effect on the environment.

Permits and Regulatory Authorizations. The implementation of past, present, and reasonably foreseeable future development in region of influence likely would require new owners or developers to obtain various permit or regulatory authorizations. These may include various federal, state, regional, or local permits or authorizations required for construction, operation, dredge, fill, demolition, disposal, or transportation activities. New owners or developers would be required to obtain all such necessary permits or authorizations prior to project construction, and to comply with all required permit conditions during construction and operation activities. As a result, permits and regulatory authorizations would have a long-term minor beneficial cumulative effect on the implementation of planned and future development in the region of influence by ensuring compliance with existing regulations, and the avoidance, minimization, or mitigation of potentially significant impacts on socioeconomic or environmental resources.

Biological Resources. The implementation of past, present, and reasonably foreseeable future development in region of influence would increase the potential for short-term and long-term adverse impacts on biological resources, including the long-term direct loss or conversion of vegetation types or wetlands habitats, and subsequent short-term direct loss or indirect displacement of wildlife and fisheries. Because existing biological resources in the region of influence are common in Orange County and upstate New York, these impacts would be considered minor. Any potential significant impacts on rare, threatened, or endangered (RTE) species or vegetation communities would be avoided, minimized, or mitigated to a level that is not significant in accordance with the Endangered Species Act of 1973 (as amended) and state

RTE protection laws. In addition, any impacts to jurisdictional wetlands also would be avoided, minimized, or mitigated to a level that is not significant in accordance with Section 404 of the Clean Water Act, Article 15 (Protection of Waters) of the NYSECL, Article 24 (Freshwater Wetlands) of the NYSECL, and NYSDEC 401 Water Quality Certification.

Cultural Resources. The implementation of past, present, and reasonably foreseeable future development in region of influence would increase the potential for impacts on cultural and historic resources. However, any future developments would be required to comply with the National Historic Preservation Act for the protection of properties listed or eligible for listing on the National Register of Historic Places, as well as other applicable regulations. As a result, no undue adverse cumulative impacts on cultural resources are anticipated.

Economic Development. A recent analysis of planned development over the next two decades in the general vicinity of STAS was prepared using information provided by local planning officials during preparation of an environmental impact statement for the proposed I-84/Drury Interchange transportation improvement (NYSDOT 1999). This analysis identified 19 potential commercial-industrial projects in the Towns of Montgomery, Newburgh, and New Windsor with the potential to provide as much as 8.5 million additional square feet of non-residential building space between now and 2022. Two additional transportation-related developments, the I-84/ Drury Interchange and privatization of SIA, may serve to enhance the market potential of STAS property, increasing the overall viability of development at the site. The cumulative effect of STAS and these two transportation projects, in particular, could spur additional financial investment in the area, adding stimulus to the economic development potential for reuse of STAS and possibly increasing the likelihood of development at a higher land use intensity than would otherwise occur. The cumulative effect may also decrease the time period necessary to accomplish development of STAS under any of the reuse scenarios than would otherwise occur, and could also increase the potential for economic development of other properties in vicinity of STAS. At the same time, depending on the amount of regional demand for office, retail, and other commercial-industrial property, the cumulative effect of this redevelopment activity may simply offer increased competition to available or currently planned non-residential properties in the local area surrounding STAS.

Sociological Environment and Quality of Life. The implementation of past, present, and reasonably foreseeable future development in region of influence would have a long-term significant beneficial impact on socioeconomic conditions, including increasing the availability public services and quality of life services.

Environmental Justice. The implementation of past, present, and reasonably foreseeable future development in region of influence would have a long-term significant beneficial impact on socioeconomic conditions, including increasing the availability of jobs, public services, and quality of life services. These cumulative benefits would generally improve conditions for low income and minority populations in the region of influence. Accordingly, there would be no cumulative disproportionately high and adverse human health or environmental impacts on minority populations and low income populations in the region of influence.

Impact Summary. Table 13 provides a summary of direct, indirect, and cumulative impacts.

Table 13. Summary of Effects.

Resource Areas/ Environmental Condition	No Action			Disposal			Reuse								
	Direct Effects	Indirect Effects	Cumulative Effects	Encumbered Direct	Encumbered Indirect	Cumulative Effects	High Intensity Direct	High Intensity Indirect	Medium-High Intensity Direct	Medium- High Intensity Indirect	Medium Intensity Direct	Medium Intensity Indirect	Medium-Low Intensity Direct	Medium-Low Intensity Indirect	Cumulative Effects
Land Use															
Air Quality				⊕											
Noise				⊖											
Geology															
Water Resources															
Infrastructure	⊖														
Hazardous & Toxic Subs.															
Permits & Regulatory Auth.															
Biological Resources															
Cultural Resources															
Economic Development															
Sociological Environment															
Quality of Life															

Impacts Legend

- Long-term Minor Beneficial Effect
- Short-term Minor Adverse Effect
- Long-term Significant Adverse Effect
- Short-term Minor Beneficial Effect
- Long-term Significant Beneficial Effect
- Short-term Significant Adverse Effect
- Long-term Minor Adverse Effect
- Short-term Significant Beneficial Effect
- No Effects Expected

5.6 MITIGATION SUMMARY

Because reuse planning and execution of redevelopment actions are the responsibility of non-DA entities, the DA does not propose the implementation of specific mitigation actions for intensity-based reuse scenarios. The following are general mitigation actions that could be implemented by new owners for the avoidance, reduction, or compensation of effects resulting from their actions. Potential mitigation actions are suggested for those resource areas most likely to be affected by adverse effects associated with reuse.

- *Air quality.* The permit process established by the Clean Air Act provides effective controls for potential stationary air emission sources. Adherence to the State Implementation Plan's provisions for mobile sources could address that source category. Additional mechanisms, such as application of best management practices to control fugitive dust during demolition or construction, could be used to control airborne contaminants.

- *Noise.* The adverse effects of noise generated in association with construction and demolition or normal facility operations can be reduced by timing activities during normal working hours and by conducting noise-generating activities indoors to the extent possible.

- *Biological resources.* Three wetland areas and two streams have been identified on STAS property. A jurisdictional boundary determination should be completed for wetlands and streams prior to any land disturbances in these areas to protect potential biological resources. The federal and state permit processes established by Section 404 of the Clean Water Act, and by Article 15 (Protection of Waters) and Article 24 (Freshwater Wetlands) of the New York State Environmental Conservation Law, provide effective impact avoidance, reduction, or compensation controls on potential development projects.

- *Cultural resources.* If previously undiscovered archaeological resources are uncovered during site development activities, the SHPO should be contacted.

- *Transportation infrastructure.* The potential future MHIR or HIR reuse intensities at STAS would substantially increase traffic volume and parking demands. The development of a Transportation Management Plan, that is coordinated with SIA privatization efforts and the NYSDOT's proposed roadway improvement project, would assist in reducing transportation-related problems. The plan may provide busing and/or van pooling to and from work sites, and off-site parking areas where visitors can leave their automobiles and be transported to and from the site.

- *Utility infrastructure.* The local and state permit processes established by the TNW, NYSDH, and NYSDEC provide effective requirements that would ensure adequacy of available water supply, water treatment, and wastewater treatment infrastructure and capacity. Proposed developers would need to demonstrate adequate availability of such infrastructure and capacity prior to implementation of proposed development projects.

- *Hazardous and toxic substances.* In the event disturbance to existing but dormant hazardous and toxic substance risk sites is proposed by future owners, the DA would implement future remediation activities as necessary. Any potential, but dormant risks would be identified and disclosed as part of any future property transfer agreements.

- *Land Use.* Any proposed future demolition, new development, or redevelopment would be required to be consistent with existing TNW AP zoning regulations. In the event a proposed future development would be inconsistent with local AP zoning regulations, the applicant would be required to submit a zoning variance request that would need to be approved by the TNW prior to implementation of the proposed development project. As a result, adequate zoning controls are in place to ensure any future developments are consistent with local land use and zoning regulations.

6.0 FINDINGS AND CONCLUSIONS

The proposed action to implement the 1993 ROE and dispose of the 402.5-acre STAS property and the no action alternative have been reviewed in accordance with the National Environmental Policy Act as implemented by the regulations of the Council on Environmental Quality and Army Regulation 200-2. Baseline environmental and socioeconomic conditions at STAS have been described, and the environmental and socioeconomic consequences of implementing the proposed action have been evaluated. Evaluation of the preferred alternative (implementation of the proposed action) and the no action alternative indicates that environmental resources at STAS, and in the region of influence, would not be significantly affected.

Implementation of the preferred alternative and likely redevelopment at the MIR level would not substantially alter baseline environmental conditions. In the short-term, development at all reuse intensity levels would involve minimal transfer of military and civilian jobs, and the loss of local procurement representing an insignificant percentage of the regional economy. In the long-term under the MIR, MHIR, and HIR development levels, approximately one-third of the property would be reused in accordance with current uses, and approximately two-thirds of the property would involve new uses in compliance with local zoning restrictions, applicable federal, state, and local regulations. The application of mitigation measures (see Section 5.6) would further reduce adverse direct, indirect, or cumulative impacts. New uses in compliance with these restrictions, regulations, and measures would not cause any significant effects on the natural and socioeconomic resources at STAS or in the region of influence.

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10.0 PERSONS CONSULTED

Table 14 provides a comprehensive listing of agencies and persons consulted.

Table 14. Listing of Agencies and Persons Consulted.

Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Allen Roos USACE	Environmental Baseline Study	8/1/97	8/5/97
Chuck Stroble USMA	STAS Guide and Project Maps	8/7/97	8/7/97
Mike Anderson USMA	Report of Excess of STAS	9/9/97	9/9/97
Sue Cabrera Orange County Soil and Water Conservation District	Agricultural Districts Prime or Unique Farmland Farmland of Statewide Importance Hydric Soils	9/16/97	9/29/97
International Conference of Building Officials	Seismic Zonation Map of the United States	9/9/97	9/17/97
New York State Geological Survey	Map and Chart 40, the Lower Hudson Surficial Geology	9/5/97	9/25/97
USGS	Open Report 82-1033 Preliminary Map of Young Faults in the United States as a Guide to Possible Fault Activity	9/30/97	10/8/97
NYSGS-New York State Museum	Generalized Bedrock Geology of New York Landslide Inventory Map of New York	9/25/97	9/25/97
United States Environmental Protection Agency	Nationally Designated Sole Source Aquifers	9/8/97	9/8/97
Leslie Surprenant NYSDEC-Lands & Forests, Forest Rangers, Fish and Wildlife	Maps for Lake Washington and Stewart Cooperative Ponds	10/7/97	10/7/97
Jeff Meyers NYSDEC-Division of Water	Priority Waterbodies List for New York State Priority Waterbodies List for the Lower Hudson River Basin	9/10/97	9/11/97
James Garry NYSDEC-Division of Water	Location of Public Water Supplies within 1 mile of STAS	10/8/97	10/9/97

Table 14. Listing of Agencies and Persons Consulted.

Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Jim Beech NYSDEC-Water Resources Division	Copies of the Cornwall and Newburgh Quadrangle Maps Showing the Location and Numbers of Lakes, River, and Ponds in the Vicinity of STAS Water Quality Regulations (Parts 700-705)	9/19/97	9/19/97
Colby Tucker NYSDEC-Water Resources Division	Confirmation of Tributary Names and Locations	10/6/97	10/6/97
Bill Adrience, Timothy Cooke NYSDEC-Division of Environmental Permits	Confirmation that no Article 15 or 24 Permits were needed	9/18/97	9/24/97
NYSDEC-Region 3 Fisheries	Fish Stocking Areas Warm and Coldwater Fishing Areas	9/17/97	9/24/97
George Nieves USACE-New York District	Confirmation that no Section 404b or Section 10 permit is required	9/12/97	10/14/97
IRIS, Cornell University	Cornwall NWI Map	9/5/97	9/12/97
Rich Spiedle NYSDEC	New York State Freshwater Wetland Maps	9/4/97	9/4/97
Syracuse Blueprint Company	New York State Freshwater Wetlands Map	9/5/97	9/10/97
Alan Bjornsen, Kelen Kimmey USMA-Environmental Management Branch	Wetland Delineations, Aerial Photographs Current Permits for STAS	9/15/97	9/19/97
Scott Ballard NYSDEC-Division of Environmental Permitting	Tidal and Freshwater Wetlands	9/10/97	9/10/97
Bill Dailey NYSDEC-Division of Water	Applicable Coastal Zone Management Plans (LWRP)	10/6/97	10/6/97
Michael Stoll, Sherry Morgan USFWS	Endangered Species	9/8/97	9/15/97
Jean Petrusiak, Carole Flood NYSDEC-Wildlife Resources Center	Biologically Important Resources	9/8/97	9/22/97

Table 14. Listing of Agencies and Persons Consulted.

Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Michael Sissenwine NMFS	Identification of Endangered and Threatened Species Under Section 7 of the MMPA	9/10/97	no response
Alan Bjornsen USMA	Biological Resources	9/3/97	9/4/97
NYSDEC	Conserving Open Space in New York State 1995	9/23/97	9/29/97
Richard McGoey Town of New Windsor	New Windsor Zoning Map	9/25/97	9/25/97
Orange County Planning Department	Comprehensive Development Plan	9/25/97	9/25/97
Phillip Crotty Town Attorney, Town of New Windsor	Stewart Airport development map	9/25/97	9/25/97
National Park Service	National Wild and Scenic Rivers System Map National Registry of Natural Landmarks	9/11/97	9/24/97
NYDOT	Orange County 1:75,000 Scale Map	9/25/97	9/25/97
Kevin Barrett City of Newburgh Historian	Cultural Resource Information	9/29/97	no response
Glenn Marshall Town of New Windsor Historian	Cultural Resources Information	9/29/97	no response
Orange County Historical Society	Cultural Resources Information	9/29/97	10/1/97
Raymond Halbritter Oneida Indian Nation	Cultural Resources Information	9/29/97	no response
Leon Shenandoah Onondaga Nation	Cultural Resources Information	9/29/97	no response
USACE-New York District	Cultural Resources Document	8/6/97	9/11/97
Ann Barber Orange County Partnership	Demographic Data for Orange County. Letter from Lt. Col. Thomas Kiggins	9/25/97	9/25/97
Orange County Planning Department	Census Profiles	9/9/97	9/12/97

Table 14. Listing of Agencies and Persons Consulted.

Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Mike Anderson USMA	Population Statistics for STAS	9/11/97	9/11/97
Dorothy Hansen Town of New Windsor	Town of New Windsor Proposed Development Plan	9/25/97	9/27/97
Don Fagan Stewart International Airport	DEIS for SIA, SIA Part 150 Noise Study, Aerial Photograph of SIA	9/25/97	9/25/97
NYSDEC-Division of Solid and Hazardous Materials	Report to the New York State Legislature on Generation and Management in New York State, 1995, 1996	9/9/97	9/23/97
Robert Kuhn and Ruth Pierpont NY State Office of Parks, Recreation and Historic Preservation	Cultural Resources Information	1/98	2/27/98 and 4/16/98
Nancy Brighton U.S. Army Corps of Engineers, NY District	Cultural Resources Information	2/12/98	2/12/98
Tom Smith NY State Department of Transportation, Region 8	Traffic Count Data	4/27/98	4/27/98
Bob Mannix NY State Department of Transportation, Region 8	Interstate 84/Drury Land Interchange	5/1/98	5/1/98
Mark Edsall Engineer for Town of New Windsor, NY	TNW AP Zoning Use/Bulk Table	3/9/99	3/9/99
Richard McGoey, P.E. Town of New Windsor, NY	Future Development Plans	3/15/99	3/18/99
Jean Petrusiak, Carole Flood NYSDEC, Natural Heritage Program	Biologically Important Resources	3/22/99	4/6/99
Michael Stoll, David Stilwell U.S. Fish and Wildlife Service	Endangered Species	3/22/99	4/6/99
Mike Anderson USMA	Summary of STAS Property	4/5/99	4/20/99
Alan Bjornsen, CEP USMA	Utility Easements	4/20/99	4/20/99

Source: Compiled by Northern Ecological Associates, Inc.

APPENDIX A

TOWN OF NEW WINDSOR SPECIAL LEGISLATION

BILL # HR3616
SIGNED BY PRESIDENT CLINTON ON 10/17/98
KNOWN AS PUBLIC LAW #105-261
NAMED AS: DEFENSE DEPARTMENT FISCAL YEAR 1999
AUTHORIZATION BILL

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 2845. LAND CONVEYANCE, STEWART ARMY SUB-POST, NEW WINDSOR, NEW YORK.

(a) CONVEYANCE AUTHORIZED- The Secretary of the Army may convey, without consideration, to the Town of New Windsor, New York (in this section referred to as the "Town"), all right, title, and interest of the United States in and to a parcel of real property, including improvements thereon, consisting of approximately 291 acres at the Stewart Army Sub-Post in New Windsor, New York, for the purpose of permitting the Town to develop the parcel for economic purposes.

(b) EXCLUSION- The real property to be conveyed under subsection (a) does not include any portion of the approximately 89.2-acre parcel at Stewart Army Sub-Post that is proposed for transfer to the jurisdiction and control of the Marine Corps or the approximately 22-acre parcel at Stewart Army Sub-Post that is proposed for transfer to the jurisdiction and control of the Army Reserve.

(c) CONDITIONS OF CONVEYANCE- The conveyance authorized by subsection (a) may only be made subject to the following conditions:

(1) The Town must agree to provide connections to the local wastewater and sewage treatment system for all existing and future improvements to the parcels of real property referred to in subsection (b).

(2) The Town must agree to provide wastewater and sewage treatment service to such parcels at a rate established by the appropriate Federal or State regulatory authority.

(d) DESCRIPTION OF PROPERTY- The exact acreage and legal description of the real property to be conveyed under subsection (a) shall be determined by a survey satisfactory to the Secretary. The cost of the survey shall be borne by the Town.

(e) ADDITIONAL TERMS AND CONDITIONS- The Secretary may require such additional terms and conditions in connection with the conveyance under subsection (a) as the Secretary considers appropriate to protect the interests of the United States.

APPENDIX B

AIRPORT ZONING REGULATIONS

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL nea@neanewyork.com

March 15, 1999

Mr. Richard D. McGoey, P.E.
Engineer for the Town
Town of New Windsor
555 Union Avenue
New Windsor, New York 12553

Re: Request for Information Regarding Reasonably Forseeable Future Development Following Divestiture of Stewart Army Subpost, Town of New Windsor, New York

Dear Mr. McGoey:

Northern Ecological Associates, Inc. (NEA) has been contracted by the United States Military Academy to assist in the preparation of an Environmental Assessment (EA) in accordance with the National Environmental Policy Act for the divestiture of the Stewart Army Subpost (STAS), Town of New Windsor, New York. As you are aware, a Draft EA was prepared and submitted for public comment in October 1998. We have received your letter comments dated November 12, 1998, and are in the process of incorporating public comments and responses into the EA.

In support of this effort, NEA requests your assistance in providing relevant information regarding current and reasonably foreseeable future development plans in the vicinity of STAS, including STAS and adjacent lands (*i.e.*, Stewart International Airport, Bruenig Road, *etc.*). Specifically, please identify, describe, or characterize current development plans in the vicinity of STAS, as well as reasonably foreseeable future development of STAS and adjacent lands after the Town of New Windsor assumes ownership of STAS lands under Legislative Bill #HR3616.

Based on previous consultation with the Town of New Windsor (Mr. Mark J. Edsall on March 9, 1998), we understand that STAS is located in the airport or "AP" zoning classification (Zoning Map, Town of New Windsor, Adopted 3 May 1989, Latest Revision 14 March 1997). We also have previously received the Town of New Windsor Zoning Regulations, § 48-21(C) (Airports and heliports), as well as the Table of Use/Bulk Regulations for the AP zoning classification. In general, it is our interpretation that current AP zoning regulations allow a wide range of potential land uses. These uses, as identified in the bulk regulations, are summarized in Attachment A.

Please confirm that these documents (received March 9, 1998) are still current and comprise the complete set of zoning regulations applicable to STAS and adjacent lands, or provide revised or complete applicable zoning regulations at your earliest possible convenience. In addition, please identify whether the zoning classification or zoning regulations applicable to STAS and adjacent lands are likely to change following assumption of ownership of STAS lands by the Town of

New Windsor. If the Town of New Windsor plans to change the zoning classification or regulation of STAS or adjacent lands, please specify what changes are anticipated. Finally, please describe or characterize how current and reasonably foreseeable future development would be restricted or regulated by current and future zoning regulations.

This information is necessary and important for preparation of the subject EA. To expedite preparation of the EA, we would greatly appreciate responses to these requests at your earliest possible convenience. If you have any questions regarding this request, please do not hesitate to contact me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Att.

cc: George J. Meyers, Supervisor, Town of New Windsor
Philip Crotty, Attorney for the Town of New Windsor
Col. Thomas Kiggins, U.S. Military Academy
Eugene Rood, U.S. Military Academy
Gregory Menegio, U.S. Army Corps of Engineers

ATTACHMENT A

SUMMARY OF TABLE OF USE/BULK REGULATIONS
AIRPORT (AP) ZONING CLASSIFICATION
TOWN OF NEW WINDSOR

Uses Permitted by Right

1. The following commercial agricultural operation and accessory uses, provided that there shall be no stable or similar animal housing nor storage of manure or other odor- or dust-producing substances or use, except spraying and dusting to protect vegetation, within 50 feet of any lot line
   a. Raising of field and garden crops, vineyard and orchard farming and the maintenance of nurseries
   b. Keeping, breeding and raising of cattle (including dairies), sheep, goats, pigs, and horses, on lots of 20 acres or more
   c. Keeping, breeding and raising of fowl on lots of 5 acres or more
2. Buildings, structures, and uses owned and operated by the Town of New Windsor
3. Public parks and playgrounds
4. Commercial forestry
5. Outdoor recreational facilities, including golf courses, ice skating rinks, swimming pools, parks, playfields, and ski areas
6. Professional business, executive and administrative offices and buildings
7. Businesses which combine office space with a warehouse or a center for the distribution of products wherein such warehouse or distribution center is incidental to the main purpose of the business
8. Businesses which combine office space with a research laboratory or its equivalent for the purpose of testing a product or products, provided that no manufacturing or assembly shall take place therein
9. Laboratories and related offices engaged in product testing and research
10. Assembly or packaging of products from previously prepared materials, including cloth, plastic, paper, leather and precious or semi-precious stones
11. Manufacturing, assembly, and/or packaging of electronics, electronic components, instruments, precision tools and time pieces
12. Planned office building development groups
13. Planned industrial development groups
14. Printing plant or publishing house
15. Office buildings for editorial, business and professional offices and research, design and development laboratories, including incidental clinics, cafeterias and recreational facilities for the exclusive use of company employees
16. Manufacturing, assembling, converting, altering, finishing, cleaning, or any other processing or incidental storage of products or materials involving the use of only oil, gas or electricity for fuel, and which operation, in the opinion of the Planning Board, will not create any dangerous, injurious, noxious or otherwise objectionable fire, explosive, radioactive or other hazard; noise or vibration; smoke, dust, odor or other form of air pollution; electromagnetic or other disturbance; or glare, harmful discharge, storage or dispersal of liquid or solid wastes in a manner or amount as to adversely affect the surrounding area
17. Truck transfer terminals
18. Lumber and building material and equipment sales and storage, provided that any lot

ATTACHMENT A

SUMMARY OF TABLE OF USE/BULK REGULATIONS
AIRPORT (AP) ZONING CLASSIFICATION
TOWN OF NEW WINDSOR

Uses by Special Permit of the Planning Board or Town Board

1. Accessory to commercial agriculture operations, 1-story buildings for display and sale of agricultural and nursery products grown primary on the premises, provided that any such building does not exceed 1,000 square feet in floor area and is set back 30 feet from any lot line
2. Trailers for business, office and commercial purposes not exceeding 6 months duration
3. 1 dwelling unit only on any lot for the exclusive use of an attendant, watchman or caretaker in employed in connection with any permitted use on said lot
4. Railroad, public utility, radio and television transmission antennas and rights-of-way
5. Airports and heliports
6. Cemeteries on plots of 10 acres or more
7. Commercial dog or veterinarian kennel
8. Bulk storage, including warehouses and oil and gas storage, above the ground
9. Manufacture of bricks or concrete blocks
10. Municipal refuse compacting and recycling centers
11. Public utility generating plant
12. Reservoirs on plots of 3 acres or more

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (914) 563-4615
Fax: (914) 563-4693

Engineer for the Town

March 18, 1999

Northern Ecological Associates, Inc.
33 Park Street
P.O. Box 287
Canton, NY 13617

ATTENTION: STEPHEN COMPTON,
PROJECT MANAGER

SUBJECT: STEWART ARMY SUBPOST – TOWN OF NEW WINDSOR
ORANGE COUNTY, NY

Dear Mr. Compton:

In response to your 15 March 1999 letter, we offer the following comments:

1. The documents received by your office, including the zoning map adopted 3 May 1989, last revision 14 March 1997, and the table of use/bulk regulations for the AP zoning classification are current and have not been revised since your receipt of same on 9 March 1998.

2. The Town of New Windsor is presently considering a minor change to the AP zone, which will allow hotel/conference center type uses.

3. It is not the intention of the Town of New Windsor to change the zoning classification of the STAS property and, therefore, all land uses within the STAS property will be developed in accordance with the AP zoning requirements.

We are hopeful that the above is satisfactory for your use, however, if you should have any additional questions, please contact our office.

Very truly yours,

Richard McGoey, P.E.
Richard D. McGoey, P.E.,
Engineer for the Town of New Windsor

RDM:mlm

Cc: George J. Meyers, Supervisor
Philip Crotty, Attorney for the Town
Mark Edsall, P.E. – McGoey, Hauser & Edsall

APPENDIX C

BUILDING USES AND PROPERTY TYPE CATEGORY

(This table was taken directly from the EBS, which represents conditions at STAS as of June 1998)

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1102 (1942)	Gymnasium.	Gymnasium.	UST Registration No. 1102. 8,000-gallon UST for No. 2 fuel. Tank was closed and removed in December 1997.	Potential asbestos and LBP based on age of building. No visible ACM. Possible LBP under surface coat. No LBP on exterior. Interior in good repair. Incidents of wastewater backup into basement through floor drains. There are now backflow preventers on the floor drains.	Type I	None.
1200 (1942)	Dining hall.	Teen Center.	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. All painted surfaces in good repair.	Type I	None.
1202 (1942)	Day room for enlisted men.	Administration (Vacant).	1,000 gallon UST for No. 2 fuel oil. Was closed and removed in August 1997.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
1204 (1942)	Barracks for enlisted men.	Storage for West Point Credit Union.	None identified.	Potential asbestos and LBP based on age of building. LBP identified on exterior covered entryway.	Type I	Testing to identify extent and condition of asbestos.
1206 (1942)	Barracks for enlisted men.	Barracks.	None identified.	Potential asbestos and LBP based on age of building. LBP identified on exterior covered entryway.	Type I	Testing to identify extent and condition of asbestos.
1208 (1942)	Barracks for enlisted men.	Barracks.	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1214 (1942)	Fire Station.	Fire Station.	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. Lead-based paint in good repair.	Type I	None.
1216 (1942)	Unit Supply.	Warehouse.	None identified.	Potential asbestos and LBP based on age of building. No visible friable ACM. Non-friable asbestos floor tile present. Lead-based paint on exterior and interior in good repair. Potential PCB's in fluorescent light ballasts. Natural gas heat.	Type I	None.
1300 (1942)	Administration.	Administration (Vacant).	1,000 gallon No. 2 fuel oil UST Out of Service (steel construction, no secondary containment).	Potential asbestos and LBP based on age of building. Possible asbestos floor tiles. Building in very good repair.	Type I	Closure and removal planned for FY 99.
1400 (1942)	Service club, film developing.	Youth services.	None identified.	Potential asbestos and LBP based on age of building. Potential use and storage of chemicals associated with film developing. Photo lab used for public relations activities by the U.S. Air Force for small-scale film developing operations with quantities below minimum reporting requirements.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1402 (1942)	Library.	Library.	None identified.	Potential asbestos and LBP based on age of building. Possible asbestos floor and ceiling tile. Potential PCBs in fluorescent light ballasts. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1404 (1942)	Former post Headquarters.	Administration (Vacant).	3,000-gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building. Potential PCBs in fluorescent light ballasts.	Type I	Testing to identify extent and condition of asbestos.
1500 (1942)	Post Exchange.	Post Exchange, Credit Union, Drop off for laundry and dry cleaning.	1,000-gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1600 (1942)	Recreation day room.	Day room (Vacant).	1,000-gallon UST for No. 2 fuel oil closed and removed April 1994.	Potential asbestos and LBP based on age of building. All visible ACM removed. Potential PCBs in fluorescent light ballasts.	Type I	Testing to identify extent and condition of asbestos.
1602 (1942)	Barracks for enlisted men.	Barracks (Vacant).	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent and condition of asbestos.
1604 (1942)	Barracks for enlisted men.	Barracks (Vacant).	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent and condition of asbestos.
1606 (1942)	Barracks for enlisted men.	Barracks (Vacant).	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1608 (1942)	Barracks for enlisted men.	Barracks (Vacant).	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
1610 (1942)	Barracks for enlisted men.	Barracks (Vacant).	275-gallon AST for No. 2 fuel oil closed and removed.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
1612 (1942)	Unit supply.	Storage (Vacant).	None identified.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	Testing to identify extent and condition of asbestos.
1709 (1942)	Chapel.	Chapel.	1,000-gallon UST for No. 2 fuel oil. Tank was closed and removed in September 1997.	Potential asbestos and LBP based on age of building. Building converted to gas heat.	Type I	Testing to identify extent and condition of asbestos.
1708 (1967)	Headquarters for Army and Air Force Operations.	Subpost headquarters, Administration for FBI, Army Readiness Group, USA REC, Satellite Testing Station.	UST Registration No. 1700A. 5,000-gallon tank for No. 2 fuel oil installed in 1967, used to store diesel fuel for emergency generator. Was cleaned out, closed and abandoned in-place in November 1997. UST Registration No. 1708B: 4,000-gallon tank for No. 2 fuel oil installed in 1957, was cleaned out, closed, and abandoned in-place. November 1997 analysis of soil borings in the vicinity of the USTs was performed as part of the closure. A 500-gallon diesel AST with secondry containment, spill catchment basin, and overfill protection.	Potential asbestos and LBP based on age of building. All visible ACM removed.	Type I	None.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1800 (1942)	Barracks for enlisted men.	Barracks for New York Air National Guard (NYANG).	None identified.	Potential asbestos based on age of building. LBP on exterior trim. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1802 (1942)	Unit Supply.	Storage-MEDAC.	None identified.	Potential asbestos and LBP based on age of building. LBP on exterior trim. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1804 (1942)	Barracks for Women's Air Force (WAF).	Barracks for NYANG.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1806 (1942)	Barracks for enlisted men.	Barracks for NYANG.	275-gallon AST outside stores No. 2 fuel oil for hot water heater was closed and removed, and replaced with a natural gas hot water heater.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1808 (1942).	Barracks for enlisted men.	Barracks for NYANG.	275-gallon AST outside stores No. 2 fuel oil for hot water heater. Was closed and removed, and replaced with a natural gas hot water heater.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1810 (1942)	Administration, USMA Classroom.	Administration (Vacant).	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent of asbestos.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1812 (1942)	Airmen's Mess.	Storage for FBI.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1814 (1942)	Administration, child-care center, day room.	Storage.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1816 (1942)	Barracks for enlisted men.	Administration for FBI.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
1818 (1942)	Barracks for enlisted men.	Barracks for NYANG.	275-gallon AST for No. 2 fuel oil outside mechanical room. Scheduled to be removed and replaced with natural gas hot water heater.	Potential asbestos and LBP based on age of building.	Type I.	Testing to identify extent and condition of asbestos.
1906 (1942)	Mess hall for cadets.	NCO club.	1,000-gallon UST for No. 2 fuel oil. Closed and removed September 1997.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. No visible potentially friable ACM in building. Potential LBP based on age of building.	Type I	Building was surveyed to identify extent and condition of asbestos.
1908 (1942)	Barracks for cadets.	Administration for USMCR.	1,000-gallon UST for No. 2 fuel oil. Closed and removed September 1997.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. No visible, potentially friable ACM in building. Potential LBP based on age of building.	Type I	Building was surveyed to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1910 (1942)	Barracks for cadets.	Barracks for USMCR.	1,000-gallon UST for No. 2 fuel oil. Closed and removed in September 1997.	Potential asbestos and LBP based on age of building.	Type I	Building was surveyed to identify extent and condition of asbestos.
1912 (1942)	Barracks for cadets.	Administration for NYANG.	1,000-gallon UST for No. 2 fuel oil. No secondary containment. Scheduled for closure and removal.	Potential asbestos and LBP based on age of building.	Type I	Surveyed to identify extent and condition of asbestos. Testing and removal of any contaminated soil will be performed as part of the UST closure.
1914 (1942)	Visitor area for cadets, with pistol range in basement, then beauty parlor, FESA detachment, and supply area.	Administration for USMCR.	1,000-gallon UST for No. 2 fuel oil. Closed and removed October 1997.	Asbestos identified in October 1988 report by Kasselaan & D'Angelo Associates, Inc. Potential LBP based on age of building. Sand containing lead shot residual from former pistol range in basement. Approximately 208 cubic feet of sand was removed and disposed in September 1998.	Type II	Building was surveyed to identify extent and condition of asbestos.
1916 (1942)	Administration for supply and cadet support.	Storage for USMCR.	1,000-gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type I	Damaged, friable asbestos to be abated.
1918 (1942)	Barracks.	Barracks.	1,000-gallon UST for No. 2 fuel oil. Closed and removed September 1997.	Potential asbestos and LBP based on age of building.	Type I	Surveyed to identify extent and condition of asbestos.
1920 (1942)	Barracks for cadet.	Barracks for USMCR.	1,000-gallon UST for No. 2 fuel oil. Closed and removed October 1997.	Potential asbestos and LBP based on age of building.	Type I	Surveyed to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
1924 (1990)	Barracks for USMCR.	Barracks for USMCR.	None identified.	No asbestos or LBP based on age of building.	Type I	None.
2000 (1943)	Living quarters for married enlisted men.	Bachelor officers quarters.	1,000-gallon UST for No. 2 fuel oil. Closed and removed October 1997.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2002 (1943)	Living quarters for married enlisted men.	Guest house, living quarters.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2004 (1943)	Living quarters for married enlisted men.	Storage for FBI.	1,000-gallon UST for No. 2 fuel oil closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2006 (1942)	Barracks for enlisted men.	Barracks.	UST Registration No. 2006. 8,000-gallon tank closed and removed October 1997.	Potential asbestos and LBP based on age of building. No visible ACM. Converted to natural gas.	Type I	Testing to identify extent and condition of asbestos.
2008 (1988)	Army Reserve Center.	Army Reserve Center.	None identified.	No asbestos or LBP based on age of building.	Type I	None.
2100 (1942)	Hospital Garage.	Ambulance Garage and engineer's storage.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	No visible ACM.	Type I	None.
2102 (1942)	Heating plant for Hospital.	Central heating plant.	UST Registration No. 2102A 10,000-gallon UST. Closed and removed December 1997. 5,000-gallon UST closed and removed May 1994.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent and condition of asbestos.
2104 (1942)	Day Room.	Child-care for toddlers.	None. Central oil heating is from Bldg. No. 2102 for 2100 Area.	LBP on exterior window surface. No visible ACM.	Type II	Testing to identify extent and condition of LBP.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2106 (1942)	Barracks and Hospital for WAF.	Child development center.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible ACM. No visible LBP.	Type I	None.
2108 (1942)	Barracks and Hospital for WAF.	Child development center.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. LBP on raised covered walkway. No visible ACM. No visible LBP.	Type I	Testing to identify extent and condition of LBP.
2122 (1942)	Barracks for WAF.	Scout and Community Activities.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible friable ACM. LBP on exterior and interior window surfaces.	Type I	Testing to identify extent and condition of LBP.
2124 (1942)	Medical ward for WAF COMB.	Vet facility and message center.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible friable ACM. LBP on exterior and interior window surfaces.	Type I	None.
2126 (1942)	Surgical for WAF.	Dental Clinic.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. No visible ACM.	Type I	None.
2128 (1942)	Administration for WAF Hospital complex.	Army community services.	None identified. Central oil heating is from Bldg. No. 2102 for 2100 Area.	Potential asbestos and LBP based on age of building. LBP on exterior double doors under covered walkway and other exterior services. No visible ACM.	Type I	None.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2200 2202 2204 2206 2208 (1945)	Wastewater treatment plant.	Wastewater treatment plant buildings.	None identified.	Potential asbestos and LBP based on age of building. All visible ACM abated.	Type II	Testing to determine contamination from wastewater treatment processes, specifically heavy metals in sands from trickling filter process. Sludge and discharge tested on a regular basis.
2210 (1995)	Wastewater treatment plant.	Wastewater treatment plant.	UST Registration No. 2210. 550-gallon UST for storing diesel fuel. Closed and removed March 1998. Replaced with a 480-gallon AST with secondary containment, spill catchment basin, and overfill protection.	Potential asbestos and LBP based on age of building. All visible ACM abated.	Type II	Testing to identify extent of asbestos. Testing to determine contamination from wastewater treatment processes. Specifically heavy metals in sands from trickling filter process. Sludge and discharge tested on a regular basis.
2216 (1988)	Salt and sand storage dome.	Salt and sand storage dome.	Two empty abandoned USTs were formerly stored on the site. One 3,000-gallon UST and one 275-gallon UST were removed and disposed of.	No asbestos or LBP based on age of building. Possible discharge to surface water with elevated concentrations of salt. Facility will be relocated due to New York Department of Transportation roadway project.	Type II	None.
2218 (1961)	Salvage and reclamation.	Storage for Engineering.	1,000-gallon UST for No. 2 fuel oil. No secondary containment. Scheduled to be closed and removed.	Potential asbestos and LBP based on age of building. No visible ACM. Potential contamination due to OHM associated with salvage and reclamation activities.	Type II	Testing and removal of any contaminated soil will be performed as part of the UST closure. Testing of soil for heavy metals.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2219 (1965)	Defueling facility and repair.	Transportation motor pool.	UST Registration No. B37. 5,000-gallon UST for gasoline. Closed and removed August 1997. UST Registration No. A37. 4,000-gallon UST for diesel fuel closed and removed August 1997. Both B37 and A37 were adjacent to building 2228, but associated with building 2219. UST Registration No. A26. 275-gallon UST for used oils, removed in 1979. 550-gallon UST for No. 2 fuel oil closed and removed March 1998. Replaced with 1,000-gallon AST with secondary containment, spill catchment basin, and overfill protection. Two 2,000-gallon USTs for storage of gasoline and diesel fuel closed and removed in 1996.	Potential friable asbestos and LBP based on age of building. Past storage and use of OHM associated with vehicle fueling and maintenance activities. Does not appear to be any LBP on exterior of building. Used for parking of school buses in winter months. No visible contamination. Surface area free of stain. Most building components relatively new.	Type II	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2220 (1945)	Warehouse and vehicle maintenance.	Auto Craft Shop.	275-gallon UST for used oil. Closed and removed April 1998. 55-gallon drum for waste antifreeze. UST Registration No. 027. 3,000-gallon UST installed in 1952, closed and removed in 1992. 2,000-gallon AST installed in 1992 with built-in secondary containment, spill catchment basin, and overfill protection.	Potential asbestos and LBP based on age of building. Past storage and use of OHM associated with vehicle storage and maintenance activities.	Type II	Testing to identify extent and condition of asbestos.
2221 (1977)	Vehicle Maintenance.	Army maintenance service area No. 4 (AMSA #4).	UST Registration No. 028. 2,500-gallon UST installed in 1987. Secondary containment is provided by the double-walled tank construction. A leak detection system is planned for installation September 1998. Tested in April 1989 and found to be tight. Two oil/water separators-one for wash rack.	Potential asbestos and LBP based on age of building. No visible ACM. Past storage and use of OHM associated with vehicle storage and maintenance activities.	Type II	Testing to identify extent of asbestos. Testing to confirm presence or absence of OHM contamination due to past usage. Continue to perform inspections and maintenance of oil/water separator.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2228 (1942)	Maintenance shop and storage shed.	Roads and grounds maintenance contractor building.	One 500-gallon AST for diesel fuel and one 500-gallon AST for gasoline. One 275-gallon AST outside the garage for storing used oil, but removed recently. 480-gallon AST for No. 2 fuel oil inside garage. 480-gallon AST for No. 2 fuel oil outside the west boiler room. All existing ASTs have secondary containment, spill catchment basins, and overfill protection.	Potential asbestos based on age of building, transite ductwork, and transite sheets for fireproofing. Suspect ACM floor tiles. No thermo pipe insulation. LBP identified on overhead doors. Past storage and use of OHM associated with vehicle storage and maintenance activities. Potential PCBs in light fixture ballasts based on age of building. Past storage of pesticides, herbicides, and fertilizers.	Type II	None. Building was surveyed for friable ACM.
2229 (1955)	Rocket storage for USAF.	Storage for AMSA #4 and USMA Admissions.	500-gallon UST closed and removed September 1996.	Asbestos on heating plant riser and lines. Potential LBP based on age of building. Past storage of rocket materials.	Type II	Testing to identify extent and condition of asbestos.
2297 (1945)	Electric primary power plant.	Auxiliary power plant.	250-gallon UST for diesel, removed in September 1996.	Potential asbestos and LBP based on age of building.	Type II	Testing to identify extent and condition of asbestos. Small generator to be removed and disposed of.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2308 (1942)	Gas oil supply.	Gas pump house, storage RGS (Vacant).	12,000-gallon UST used for gasoline was closed in place in 1988. Soil sampling revealed localized groundwater combination near abandoned pipes.	Potential asbestos based on age of building. LBP on exterior trim. Past storage and use of OHM associated with gas pumping activities.	Type III	Additional mitigation is planned. Testing to identify extent and condition of asbestos.
2310 (1942)	Dispatch office for motor pool.	Vacant.	1,000-gallon No. 2 fuel oil UST. Closed and removed August 1997.	Potential asbestos and LBP based on age of building. Past storage and use of OHM associated with motor pool activities.	Type I	Testing to identify extent and condition of asbestos.
2400 (1942)	Chemical bomb magazine administrative area.	Storage (Vacant).	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2402 (1942)	Small arms magazine (apparently administrative area).	Dog kennel (Vacant).	None identified.	Potential asbestos and LBP based on age of building. Past storage and use of small arms materials.	Type II	Testing to identify extent and condition of asbestos. Additional research of records, and if warranted, testing for contamination of ordnance materials.
2404 (1942)	Gas chamber training.	Storage (Vacant).	None identified.	Potential asbestos and LBP based on age of building. Possible past storage and use of materials used for gas mask training exercises. No. 2 fuel oil smell identified. Service line cut and not sealed.	Type I	Testing to identify extent and condition of asbestos. Additional research of records and, if warranted, testing for contamination from ordnance materials.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2408 (1942)	Administration and Warehouse.	Craft Shop.	1,000-gallon No. 2 fuel oil UST closed and removed September 1997. Two 275-gallon replacement ASTs installed.	Potential asbestos and LBP based on age of building. No visible ACM. No visible LBP on exterior.	Type I	Additional research of records and, if warranted, testing for contamination from ordnance materials. Testing to identify extent and condition of asbestos.
2410 (1942)	Ordnance warehouse administration, then Class VI store.	Thrift shop.	1,000-gallon No. 2 fuel oil UST closed and removed September 1997. Two 275-gallon replacement ASTs installed.	Potential asbestos and LBP based on age of building. Scheduled for natural gas conversion.	Type I	Testing to identify extent and condition of asbestos.
2412 (1942)	Lumber shed.	Lumber shed.	None identified.	None identified.	Type I	None.
2414 (1942)	Plumbing and sheet metal shop.	Maintenance shop.	Two 275-gallon ASTs for No. 2 fuel oil. Recently closed and removed.	Potential asbestos and LBP based on age of building. Potential PCBs in fluorescent light ballasts. 30+ water coolers, possibly containing lead, stored on site. Natural gas heat.	Type II	Testing to identify extent and condition of asbestos.
2416 (1942)	Carpenter shop and office.	Engineer shop and office.	None identified.	Potential asbestos and LBP based on age of building. Natural gas heat.	Type II	Testing to identify extent and condition of asbestos.
2418 (1942)	Administration.	Administration (Vacant).	1,000-gallon No. 2 fuel oil UST closed and removed August 1997.	Potential asbestos based on age of building. LBP identified under Latex paint. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2420 (1942)	Engineer's office.	Engineer's office START.	Two 275-gallon AST's for No. 2 fuel oil recently closed and removed.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2422 (1942)	Engineering compound.	Engineering compound.	None identified.	Potential asbestos and LBP based on age of building. Potential PCBs in fluorescent light ballasts. Natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2500 (1942)	Barracks.	Administration (Vacant).	1,000-gallon No. 2 fuel oil UST closed and removed May 1994.	Potential asbestos based on age of building. LBP on exterior trim, under Latex paint.	Type I	Testing to identify extent and condition of asbestos.
2506 (1942)	Barracks.	Storage (Vacant).	1,000-gallon UST closed and removed April 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2508 (1942)	Day room recreation.	Administration.	1,000-gallon No. 2 fuel oil. UST closed and removed October 1997.	Potential asbestos and LBP based on the age of building. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2510 (1942)	Dining room (mess hall).	Administration.	1,000-gallon No. 2 fuel oil UST closed and removed November 1997..	Potential asbestos and LBP based on age of building. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2512 (1942)	Administration supply.	Administration storage.	1,000-gallon No. 2 fuel oil UST closed and removed November 1997.	Potential asbestos and LBP based on age of building. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2514 (1942)	Barracks.	Administration (Vacant).	None identified.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2516 (1942)	Barracks.	Administration (Vacant).	1,000-gallon UST for No. 2 fuel oil removed May 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2518 (1942)	Administration.	Chapel Office.	1,000-gallon UST for No. 2 fuel oil closed and removed November 1997.	Potential asbestos and LBP based on age of building. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2520 (1942)	Administration supply.	Chapel Annex.	1,000-gallon UST for No. 2 fuel oil closed and removed November 1997.	Potential asbestos and LBP based on age of building. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2600 (1942)	Snack bar, tennis courts, and administration.	Snack bar, pool, and Stewart Club.	No heating system.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2602 (1942)	Officer's club.	Stewart Club.	1,000-gallon UST for No. 2 fuel oil closed in-place November 1997. Localized groundwater contamination discovered.	Potential asbestos and LBP based on age of building. Converted to gas heat.	Type III	Testing to identify extent and condition of asbestos.
2603 (1962)	Bath house.	Bath house and Stewart Club pool.	No heating system.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2604 (1942)	Water pump station.	Water pump station.	550-gallon UST for gasoline was closed and removed in September 1996 and was replaced by a 550-gallon AST with secondary containment. 1,000-gallon AST for No. 2 fuel oil with secondary containment installed September 1996.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2605 (1942)	Bachelor officers quarters.	Five Star Inn.	UST Registration No. 2605. 8,000-gallon UST for No. 2 fuel oil. Closed and removed October 1997.	Potential asbestos and LBP based on age of building. No visible ACM.	Type I	Testing to identify extent and condition of asbestos.
2608 (1942)	Bachelor officers quarters.	Storage (Vacant).	1,000-gallon UST removed April 1994.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2609 (1967)	Bachelor officers quarters and Bachelor enlisted quarters.	Bachelor officers quarters and Bachelor enlisted quarters.	Three 550-gallon USTs, one 1,000-gallon UST, and one 275-gallon AST, for No. 2 fuel oil were closed and removed in March 1998.	Potential asbestos and LBP based on age of building.	Type I	Testing to identify extent and condition of asbestos.
2610 (1942)	Married Quarters.	Bachelor enlisted quarters, and unaccompanied living space.	1,000-gallon UST for No. 2 fuel oil. Closed and removed September 1997.	Potential asbestos based on age of building. LBP on exterior trim. Converted to natural gas heat.	Type I	Testing to identify extent and condition of asbestos.
2611 (1958)	Garage.	Garage.	None.	LBP on exterior.	Type I	None.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2612 (1942)	Married officers quarters.	Guest house (Vacant).	1,000-gallon No. 2 fuel oil UST closed and removed September 1997.	Potential asbestos based on age of building. LBP on exterior trim.	Type I	Testing to identify extent and condition of asbestos.
2613 (1958)	Garage.	Garage.	None.	LBP on exterior.	Type I	None.
2614 (1942)	Married quarters.	Married quarters.	1,000-gallon UST for No. 2 fuel oil removed in July 1996 (no closure report).	Potential asbestos based on age of building. LBP on exterior trim.	Type I	Testing to identify extent and condition of asbestos.
2615 (1958)	Garage.	Garage.	None.	LBP on exterior.	Type I	None.
2616 (1942)	Family quarters.	Family quarters.	1,000-gallon UST for No. 2 fuel oil removed in July 1996 (no closure report).	Potential asbestos based on age of building. LBP on exterior trim.	Type I	Testing to identify extent and condition of asbestos.
2617 (1958)	Garage.	Garage.	None.	LBP on exterior.	Type I	None.
2618 (1942)	Water treatment plant.	Water treatment plant.	1,000-gallon No. 2 fuel oil UST closed and removed July 1997.	Potential asbestos and LBP based on age of building. No visible friable asbestos. Paint is in good condition.	Type II	None.

APPENDIX C

Building Uses and Property Type Category
(continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2619 (1957)	Radio Tower Station.	Storage.	550-gallon No. 2 fuel oil AST closed and removed August 1996.	Potential asbestos and LBP based on age of building. Possible past storage of OHM materials. Clean and empty 55-gallon plastic drums in building. Building has individual septic system of undetermined location.	Type II	Testing to identify extent of asbestos. Additional research of records and, if warranted, testing for contamination of stored OHM materials.
2620 (1942)	Water treatment plant.	Water treatment plant.	None identified.	Past and current use as chlorine injection point.	Type II	Testing to identify extent and condition of asbestos.
2623 (1957)	Communications transmitter for USAF.	Storage (Vacant).	3,000-gallon No. 2 fuel oil UST closed and removed March 1997. 275-gallon No. 2 fuel oil AST removed.	Asbestos used on generator parts and thermo pipe systems. Potential LBP based on age of building. Possible past storage of OHM materials. Building has individual septic system at undetermined location.	Type II	Testing to identify extent and condition of asbestos. Additional research of records and, if warranted, testing for contamination of stored OHM materials.

APPENDIX C

Building Uses and Property Type Category (continued)

Building Number (Year Built)	Original and Past Use	Present Use	Observations		Property Category	Planned Program
			Storage Tanks	Other		
2626 (1957)	Electronics and communications support.	Federal Aviation Administration building and radar platform.	None identified.	Potential asbestos and LBP based on age of building. No visible ACM. No surface LBP. Oil related to electronic equipment changed regularly and removed by FAA through ongoing contract. Electric space heat.	Type II	Testing to identify extent and condition of asbestos. Additional research of records and, if warranted, testing for contamination of stored OHM materials.
2627 (1987)	Storage for community swimming pool supplies.	Storage for community swimming pool supplies.	None identified.	Chlorine and other chemicals associated with swimming pool maintenance.	Type II	None.
4055 (1961)	Sewage Pump Station #2.	Sewage Pump Station #2.	None identified.	Potential friable asbestos and LBP based on age of building. Emergency generator powered by natural gas.	Type II	Testing to identify extent and condition of friable asbestos. Continue scheduled inspection maintenance program for pump and back-up generator.
4056 (1961)	Sewage Pump Station #3.	Sewage Pump Station #3.	None identified.	Potential friable asbestos and LBP based on age of building. Emergency generator powered by natural gas.	Type II	Testing to identify extent and condition of friable asbestos. Continue scheduled inspection maintenance program for pump and back-up generator.

APPENDIX E

RECORD OF NON-APPLICABILITY

APPENDIX E

RECORD OF NON-APPLICABILITY CONCERNING THE GENERAL CONFORMITY RULE (40 CFR PART 51)

The Stewart Army Subpost (STAS) supports housing and quality of life services for a portion of U.S. Department of the Army (DA) personnel assigned to the U. S. Military Academy at West Point. Based on a Report of Excess initially prepared on December 9, 1993, and subsequently approved by the Office of the Assistant Chief of Staff for Installation Management, STAS was declared excess and no longer required for military purposes. Therefore, the DA proposes to dispose of approximately 402.5 acres that are excess to DA military needs. This proposed action requires that the DA complete a conformity review to determine whether the action is subject to the U.S. Environmental Protection Agency's General Conformity Rule (40 CFR Part 93).

STAS is located in an area that is in moderate nonattainment status (a "Transport" or transitional zone) for ozone. The General Conformity Rule provides that actions proposed to occur within nonattainment areas must, unless otherwise exempt, be accompanied by a Conformity Determination. Among the recognized exemptions are "transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regarding the form or method of the transfer" [40 CFR 93.153(c) (2) (XIV)]. Because the DA's proposed disposal action will involve the sale or other title transfer of federal property, it has been determined that the action is exempt from the General Conformity Rule requirement to prepare a full Conformity Determination. Impacts on air quality that might occur from reuse of the disposal property will not be a result of federal agency action. It will be the responsibility of the new landowners to meet any requirements for ensuring conformity with federal or state air quality plans.

Proponent: U.S. Military Academy, West Point, New York 10996

Responsible Official: Arnold Smith — 2 Sep 97

ARNOLD SMITH — Date
COL, FA
Garrison Commander

APPENDIX E

RECORD OF NON-APPLICABILITY

APPENDIX F

LISTING OF AGENCY PERSONNEL CONSULTED

APPENDIX F

LISTING OF AGENCY PERSONNEL CONSULTED AND CORRESPONDENCE

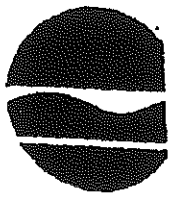
Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Sue Cabrera Orange County Soil and Water Conservation District	Agricultural Districts Prime or Unique Farmland Farmland of Statewide Importance Hydric Soils	9/16/97	9/29/97
Leslie Surprenant NYSDEC-Lands & Forests, Forest Rangers, Fish and Wildlife	Maps for Lake Washington and Stewart Cooperative Ponds	10/7/97	10/7/97
Jeff Meyers NYSDEC-Division of Water	Priority Waterbodies List for New York State Priority Waterbodies List for the Lower Hudson River Basin	9/10/97	9/11/97
James Garry NYSDEC-Division of Water	Location of Public Water Supplies within 1 mile of STAS	10/8/97	10/9/97
Bill Adrience, Timothy Cooke NYSDEC-Division of Environmental Permits	Confirmation that no Article 15 or 24 Permits were needed	9/18/97	9/24/97
George Nieves USACE-New York District	Confirmation that no Section 404b or Section 10 permit is required	9/12/97	10/14/97
Alan Bjornsen, Kelen Kimmey USMA-Environmental Management Branch	Wetland Delineations, Aerial Photographs Current Permits for STAS	9/15/97	9/19/97
Scott Ballard NYSDEC-Division of Environmental Permitting	Tidal and Freshwater Wetlands	9/10/97	9/10/97
Bill Dailey NYSDEC-Division of Water	Applicable Coastal Zone Management Plans (LWRP)	10/6/97	10/6/97
Michael Stoll, Sherry Morgan USFWS	Endangered Species	9/8/97	9/15/97
Jean Petrusiak, Carole Flood NYSDEC-Wildlife Resources Center	Biologically Important Resources	9/8/97	9/22/97
Alan Bjornsen USMA	Biological Resources	9/3/97	9/4/97
Richard McGoey Town of New Windsor	New Windsor Zoning Map	9/25/97	9/25/97
Orange County Planning Department	Comprehensive Development Plan	9/25/97	9/25/97

Appendix F (continued)

Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Phillip Crotty Town Attorney, Town of New Windsor	Stewart Airport development map	9/25/97	9/25/97
Kevin Barrett City of Newburgh Historian	Cultural Resource Information	9/29/97	no response
Glenn Marshall Town of New Windsor Historian	Cultural Resources Information	9/29/97	no response
Orange County Historical Society	Cultural Resources Information	9/29/97	10/1/97
Raymond Halbritter Oneida Indian Nation	Cultural Resources Information	9/29/97	no response
Leon Shenandoah Onondaga Nation	Cultural Resources Information	9/29/97	no response
Robert Kuhn and Ruth Pierpont NY State Office of Parks, Recreation and Historic Preservation	Cultural Resources Information	1/98	2/27/98 and 4/16/98
Tom Smith NY State Department of Transportation, Region 8	Traffic Count Data	4/27/98	4/27/98
Bob Mannix NY State Department of Transportation, Region 8	Interstate 84/Drury Land Interchange	5/1/98	5/1/98
Jean Petrusiak, Carole Flood NYSDEC-Wildlife Resources Center	Biologically Important Resources	3/22/99	4/6/99
Michael Stoll, David Stilwell USFWS	Endangered Species	3/22/99	4/6/99

Source: compiled by Northern Ecological Associates, Inc.

New York State Department of Environmental Conservation
Division of Environmental Permits - Room 538
50 Wolf Road, Albany, New York 12233-1750
Telephone: (518) 457-2224
Fax: (518) 457-5965



John P. Cahil
Commissione

September 24, 1997

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park St.
Canton, NY 13617

Dear Mr. Compton:

I am writing with regard to your September 18, 1997 letter to Mr. Bill Adriance of this Division requesting confirmation of the information you obtained from Mr. Ballard and Mr. Beech of our Region 3 - New Paltz office concerning wetlands and streams at the Stewart Army Subpost and STAS Parcel 19 in the Town of New Windsor, Orange County, New York.

The information you outlined is not totally complete or correct. Corrections are as follows:

1. The tributary of Ramsdell Lake is correctly numbered as H-89-12-P234-1 (not 6A) and is class C.

2. The subtributary of Lake Washington is correctly numbered as H-P-225-1-3 (not 3-3) and is class A.

3. There are two ponds south of Rt. 207 and just east of the Convent (see my Attachment 1) which are classified waters - pond 226b is class B and pond 226c is class D.

4. Lastly, your wetlands discussion failed to note that part of wetland CO-2, a class 2 wetland, extends in a linear fashion to the north and west of "Little Britain" (see Attachment 2).

You are correct in stating that no Article 15 or 24 permits are required for the land transfer discussed in your letter. Permits would be required for any actions physically effecting these resources should that take place in the future.

Please feel free to call me at 518/457-8817 if you have any further questions.

Sincerely,

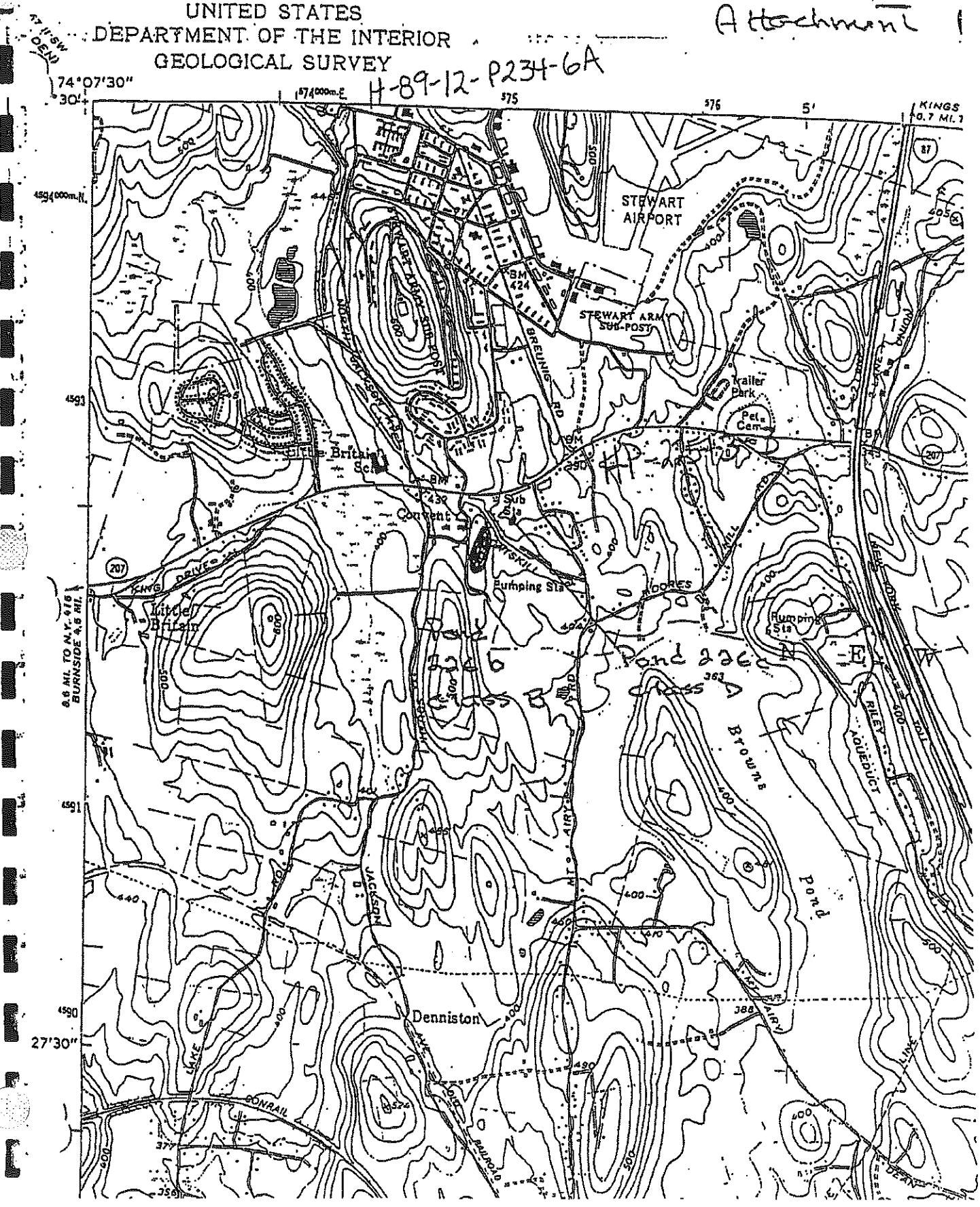
Timothy R. Cooke
Environmental Analyst 2

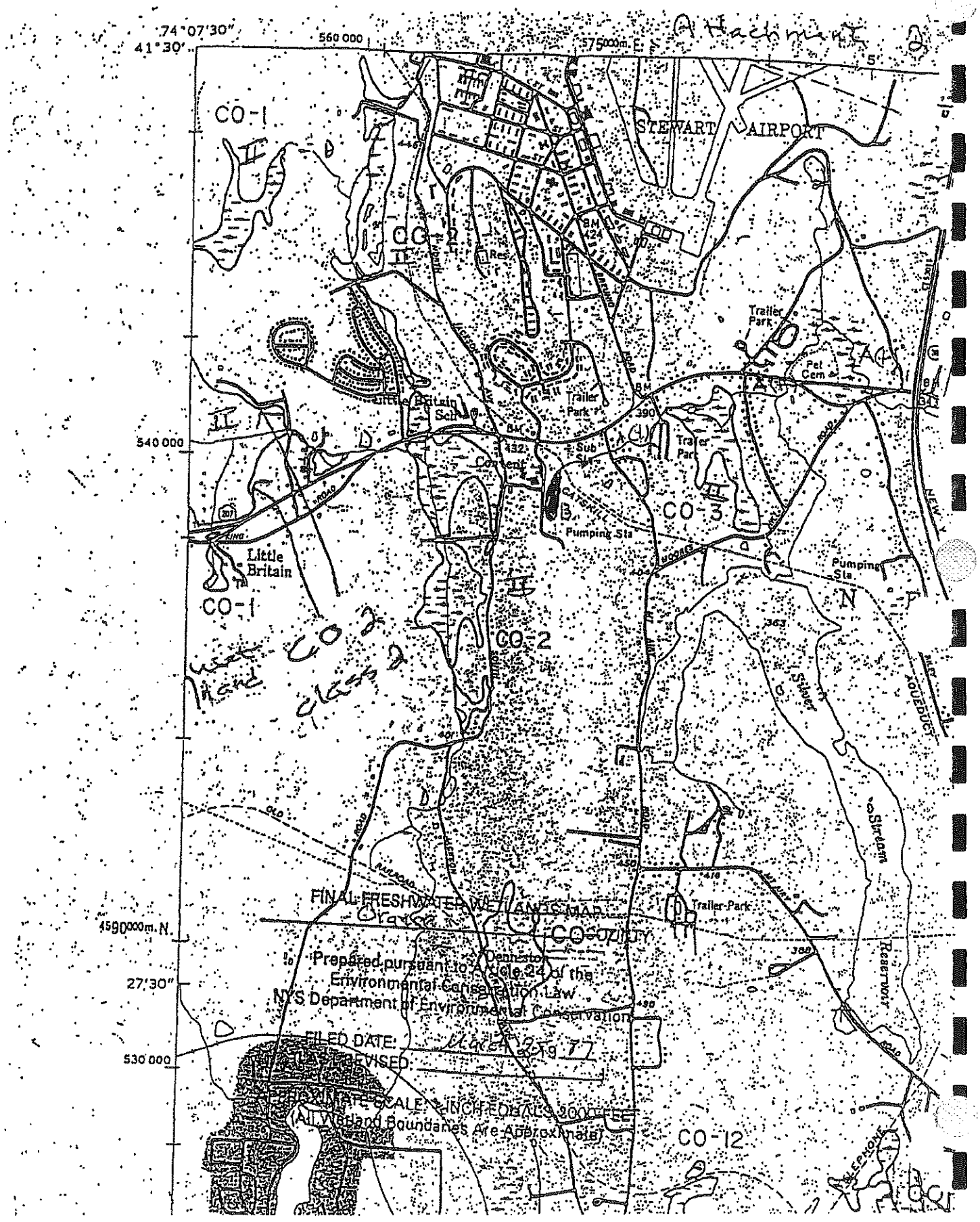
TC/gk
Attachments
cc: W. Adriance
S. Ballard, Region 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Attachment 1

H-89-12-P234-6A





74°07'30"
41°30'
560 000
575000m. E.
Attachment 2
CO-1
STEWART AIRPORT
CO-2
Trailer Park
Pet Cem
Little Britain Sch
Trailer Park
Trailer Park
540 000
Sub Sta
Convent
CATSKILL
Pumping Sta
CO-3
Little Britain
CO-1
Pumping Sta
CO-2
Silver
Stream
Reservoir
AQUEDUCT
NEW Y
FINAL FRESHWATER WETLANDS MAP
Orange
CO-
Trailer Park
4590000m. N.
Denneston
Prepared pursuant to Article 24 of the
Environmental Conservation Law
NYS Department of Environmental Conservation
27'30"
FILED DATE: March 2 1977
LAST REVISED:
530 000
APPROXIMATE SCALE: 1 INCH EQUALS 2000 FEET
(All Wetland Boundaries Are Approximate)
CO-12

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 12, 1997

Mr. George Nieves
Chief, Western Permit Section
Regulatory Branch
U.S. Army Corps of Engineers
26 Federal Plaza, Room 1937
New York, New York 10278

RE: The Stewart Army Subpost Divestiture and Land Transfer Environmental Assessments

Dear Mr. Nieves,

As you may be aware, Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the Land Transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed are copies of topographic maps showing the areas of interest highlighted in yellow.

Since the projects involve the divestiture or transfer of military real property, and no construction or excavation activities are required, neither project will generate dredged or fill material. Accordingly, we assume that no Section 404 permit is required for these actions. Additionally, it is assumed that no Navigable Waterways are located in the project area, and that no Section 10 permit under the Rivers and Harbors Act of 1899 is required. We request a written response confirming these assumptions.

In addition, we would like to request a comprehensive, statewide list of USACE-designated Navigable Waterways under the jurisdiction of the USACE, New York District. At a minimum, we request the name and location of the Navigable Waterway closest to STAS.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: A. Roos, USACE
A. Bjornsen, STAS
NEA Files CE-100/P-9 and P-10

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

REPLY TO ATTENTION OF

OCT 09 1997

Regulatory Branch

SUBJECT: Army Corps of Engineers Jurisdiction

Stephen A. Compton
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, New York 13617

RECEIVED OCT 14 1997

Dear Mr. Compton:

This is in reference to your letter dated September 12, 1997, in which you requested confirmation that the transfer of property ownership on portions of the Stewart Army Subpost, without any associated placement of fill material, would not require a permit under Section 404 of the Clean Water Act. You also requested the location of the nearest waterway subject to Corps jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 to the Stewart Army Subpost located in the Town of New Windsor, Orange County, New York.

The Army Corps of Engineers regulates activities that include dredging or construction activities in or over any navigable waters of the United States, the placement of any dredged or fill material in any waters of the United States (including coastal or inland wetlands) or the accomplishment of any work affecting the course, location, condition or capacity of such areas. Such activities may require a Department of the Army permit, in accordance with 33 CFR 320-330.

As such, if the proposed activities do not involve the placement of fill material into waters of the United States, or any work within navigable waters of the United States as described above, then no permit would be necessary under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899.

Most waterbodies, including wetlands, intermittent streams and natural drainage courses, are considered to be waters of the United States. Currently, the State of New York Department of Environmental Conservation (NYSDEC) recognizes and maps state fresh water wetlands as those wetland areas that are 12.4 acres or more and/or are ecologically unique. A NYSDEC determination classifying an area as a non-state regulated wetland does not free a property owner from his or her obligations under the Clean Water Act; the Corps regulates the discharge of dredged or fill material into all freshwater wetlands, regardless of size.

It should be noted that waters of the United States may exist on portions of the site and any discharge of fill material in those waters may require a permit from this office. To remain out of Department of the Army jurisdiction completely, we recommend that the owners limit any future work to those areas upland of any waters or wetlands of the United States. Not only is this environmentally sound, but it could potentially save them considerable time and expense while attempting to obtain necessary federal, state or local permits.

The nearest waterway subject to Department of the Army jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 is the Hudson River and an adjacent portion of Quassaic Creek, located approximately 4 miles east of Stewart Airport.

If you have any further questions, please contact Brian Orzel, of my staff, at (212) 264-0183.

Sincerely,

George Nieves
Chief, Western Permits Section

Enclosures

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 15, 1997

Mr. Allen Bjornsen
Department of the Army
U.S. Military Academy
Attn: MAEN-EV-M
West Point, NY 10997-1592

RE: The Stewart Army Subpost Divestiture and Land Transfer Environmental Assessments

Dear Mr. Bjornsen,

Pursuant to our preparation of both the STAS Divestiture and STAS Parcel 19 Land Transfer Environmental Assessments (EAs), we have identified four areas in need of specific data. These are wetland, permitting, emergency plan, and socioeconomic data related to STAS.

Mr. Jack Shaw and myself visually confirmed the existence of at least one wetland on the northern side of the west end of A street during our site visit on August 7, 1997. Based on our previous requests for relevant environmental data, and review of the Final Report on Biological Resources of Undeveloped Tracts at Stewart Army Subpost, we assume that a comprehensive wetland delineation has not been performed on STAS. We are writing to confirm this assumption. In addition, we wish to request recent aerial photographs, in the highest magnification possible (*e.g.*, 1:200 or 1:400), for use in identifying land uses on STAS.

Secondly, we request a list of all environmental permits currently held by STAS, the expiration date of each permit, and a complete description of the facility/activity for which the permit is required.

Thirdly, we wish to obtain relevant information demonstrating STAS coordination with joint federal, state, and local Emergency Plans [State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LERC)] pursuant to the Emergency Planning and Community Right-to-Know Act of 1986 and the Pollution Prevention Act of 1990.

Finally, we are requesting support material to quantify the socioeconomic impact of STAS on the surrounding civilian community and services. This material would ideally include the employed and housed population of STAS, any current tax revenues currently generated by STAS (including potential land use/taxation agreements between the United States Military Academy (USMA) and the Town of New Windsor or Orange County), and any other relevant socioeconomic data.

To facilitate preparation of the above-referenced Preliminary Draft EAs, your expedited assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

cc: A. Roos, USACE
NEA Files CE-100/P-9 and P-10

DEPARTMENT OF THE ARMY
UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK 10996

September 19, 1997

REPLY TO
ATTENTION OF

Directorate of Housing and Public Works

Mr. Stephen A. Compton
Northern Ecological Associates, Incorporated
PO Box 287
Canton, NY 13617

Dear Mr. Compton:

In response to your letter dated September 15, 1997, here is the information that you requested.

Regarding wetlands, a wetland delineation has not been done to date for STAS. Recent aerial photographs of STAS can be obtained through two agencies:

New York State
Department of Transportation
Albany , NY
(518) 457-3555

CLEARS
Cornell University
Ithaca, NY
(607) 255-6328

Secondly, here is a table listing all environmental permits, licenses and generator numbers that pertain to STAS:

TYPE	NUMBER	EXPIRATION DATE	COMMENTS
RCRA Generator	NY2210025357	NONE	90 Day Storage
Air Permit	A334800098100030	NONE*	Spray booth at Auto Craft Shop (2220)
SPDES	NY0023221	09/01/2002	Sewage Treatment Plant (2210)
PBS	3-166804	06/05/2002	ASTs/USTs Extensive removal projects are planned

* Indefinitely extended until Title V, Synthetic Minor, or Cap by Rule occurs

Thirdly, regarding emergency plans, Federal facilities (e.g. West Point) were exempt from compliance with the EPCRA until 3 Aug 1993, when Executive Order 12856 mandated Federal agency compliance. USMA conducted an installation wide inventory of chemicals in May 1994 to comply with the Executive Order. This inventory included all DA and tenant groups at STAS (e.g. the FBI, USAF). We have complied with the applicable reporting requirements under sections 302, 311 and 312. The only reportable chemical at STAS was chlorine. Chlorine, in quantities exceeding the Threshold Planning

Quantity, are present at both the Water and Wastewater Treatment Plants. We report the presence of chlorine during our annual reports per section 312. We do not meet the reporting thresholds, an thus do not report, under section 313 (Toxic Release Inventory (TRI)).

EPCRA does not require a facility to prepare emergency plans. Section 301-303 covers emergency planning and created the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC). Section 303 specified that the LEPCs (e.g. Orange County) shall prepare emergency response plans.

Lastly, the housing population of STAS is 396 and the employed population is 279 (this includes military and civilian part and full-time). A table is enclosed which further breaks down the employed population. STAS is a federally run facility; therefore, there is not tax revenue generated.

If you have any questions please contact the Environmental Management Office at (914) 938-3224.

J E Sheehan
for

EUGENE E. ROOD
Chief, Environmental Management Division

Enclosure

Post Population Profile Report
Military, Civilians, Commercial Activities

As of 30 June 1997

Military

	West Point								STAS						Total			
	USA	USN	USAF	USMC	Foreign	Total	USA	USN	USA	USN	Foreign	Total	USA	USN	USA	USN	Foreign	Total
Ofc	650	5	5	1	5	666	1						1	651	5	5	1	5	667
WO	2					2	6						6	8					8
EN	341					341	11						11	352					352
Summer																			
Cadets	4133				37	4170								4133				37	4170
Total	5126	5	5	1	42	5179	18						18	5144	5	5	1	42	5197

Civilians

	West Point								STAS						Total			
	FT P	FT T	PT P	PT T	WAE	Total	FT P	FT T	PT P	PT T	WAE	Total	FT P	FT T	PT P	PT T	WAE	Total
AF	1875	160	29	6		2070	56		6				82	1931	160	35	6		2132
NAF	230		119		622	971	16		17		74	107	246		136		696		1078
Total	2105	160	148	6	622	3041	72		23		74	169	2177	160	171	6	696		3210

Commercial Activities

	West Point			STAS			Total		
	MI	CI	Total	MI	CI	Total	MI	CI	Total
MA		63	63		63	68		63	63
Cust		15	15		15	15		15	15
Refuse		14	14		8	8		22	22
Laundry		61	61		3	3		64	64
VOCM		104	104		3	3		107	107
Cadet Mess		160	160					160	160
Dining		37	37					37	37
Total		376	376		92	92		468	468
							Total this page		8675

NOTE: Officer strength includes 2 USAR officers assigned to West Point.

NEA CONTACT REPORT

TO: STEVE

FROM: JACK

DATE: 9/10/97

PERSON CONTACTED: Scott Ballard

AFFILIATION: DEC - Div of Env. Permitting

LOCATION:

PHONE: 914-256-3162 (or x3000)

SUBJECT: 3054 General Zoning
↳ Div. of Env. Permits

CC:

Project #:	Topic:
NEA Staff:	Date:
Contact:	Affiliation:
Address:	
Phone (P) / Fax (F):	
CC:	

"Tidal wetland don't extend above the Tappinger Bridge (don't go N. of this point)."

Will send map showing tidal wetlands 9/10/97

SPEED MESS

TO Jack Wagner

FROM Scott Ballard

SUBJECT [redacted]

DATE 9/10/97

Jack -

As per your request, pls. find enclosed materials for tidal wetlands, freshwater wetlands, coastal regs., etc.

Note: items marked in red on (2) photocopied wetlands maps show the Wetlands Class (Type II in this case), a classification of streams (A through D)

SIGNED [signature]

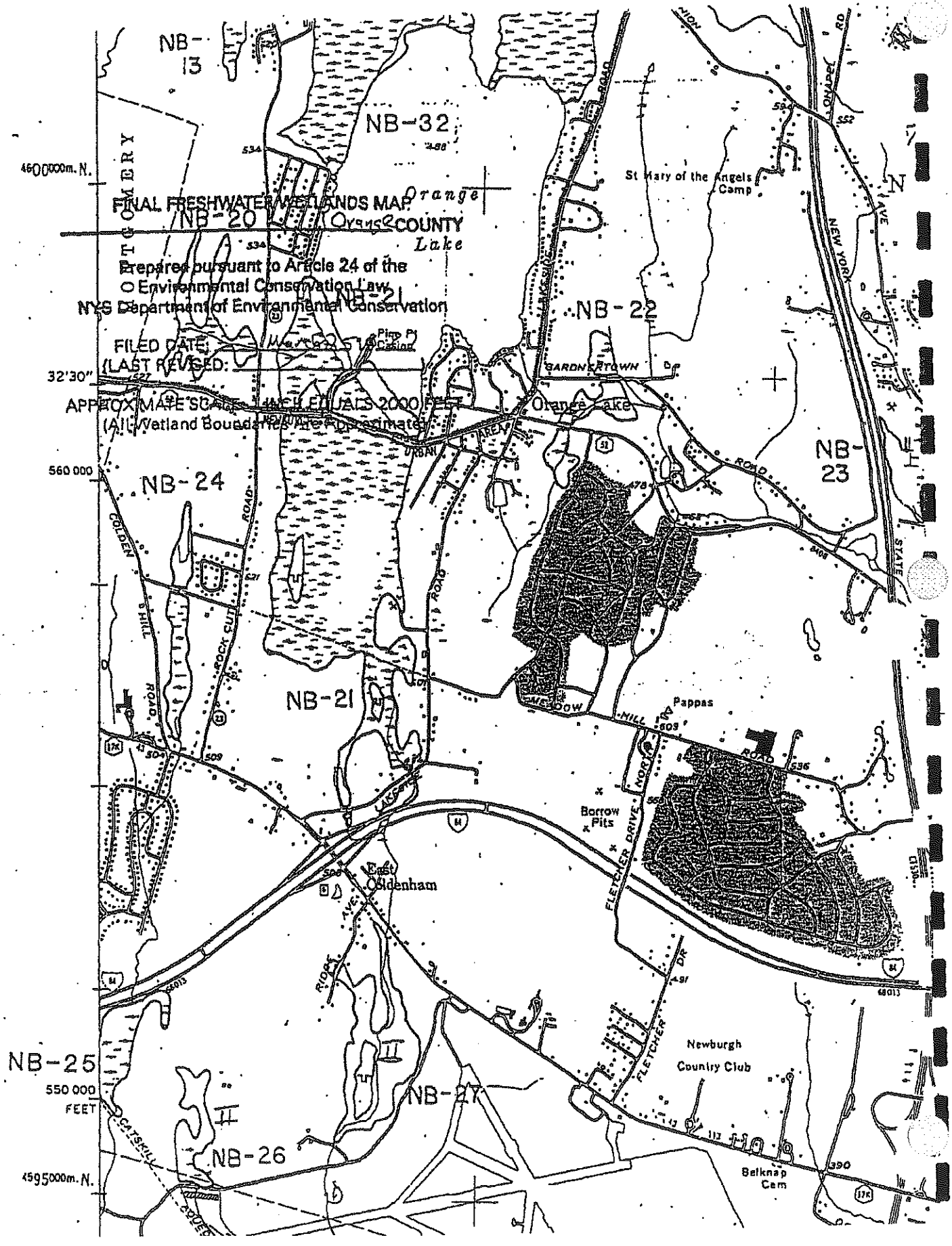
ORIGINAL

Wilson Jones • Carbonless • M
44-911 Triplicate

00-00-30

FW + TIDAL WETLANDS

New York State
Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233 -1750


FINAL FRESHWATER WETLANDS MAP
Orange COUNTY
Prepared pursuant to Article 24 of the
Environmental Conservation Law
NYS Department of Environmental Conservation
FILED DATE:
(LAST REVISED:
APPROXIMATE SCALE: 1 INCH EQUALS 2000 FEET
(All Wetland Boundaries Are Approximate)
NB-13
NB-32
NB-20
NB-21
NB-22
NB-23
NB-24
NB-25
NB-26
NB-27
Orange Lake
St Mary of the Angels Camp
Pine Pt Casino
GARDNERTOWN
URBAN AREA
Pappas
Borrow Pits
East Coldenham
Newburgh Country Club
Belknap Cem
COLDEN HILL ROAD
ROCK CUT ROAD
MEADOW HILL ROAD
FLETCHER DRIVE NORTH
FLETCHER DR
RIDGE AVE
CATSKILL AQUED
NEW YORK STATE
OHAPEL RD
4600000m. N.
32'30"
560 000
550 000 FEET
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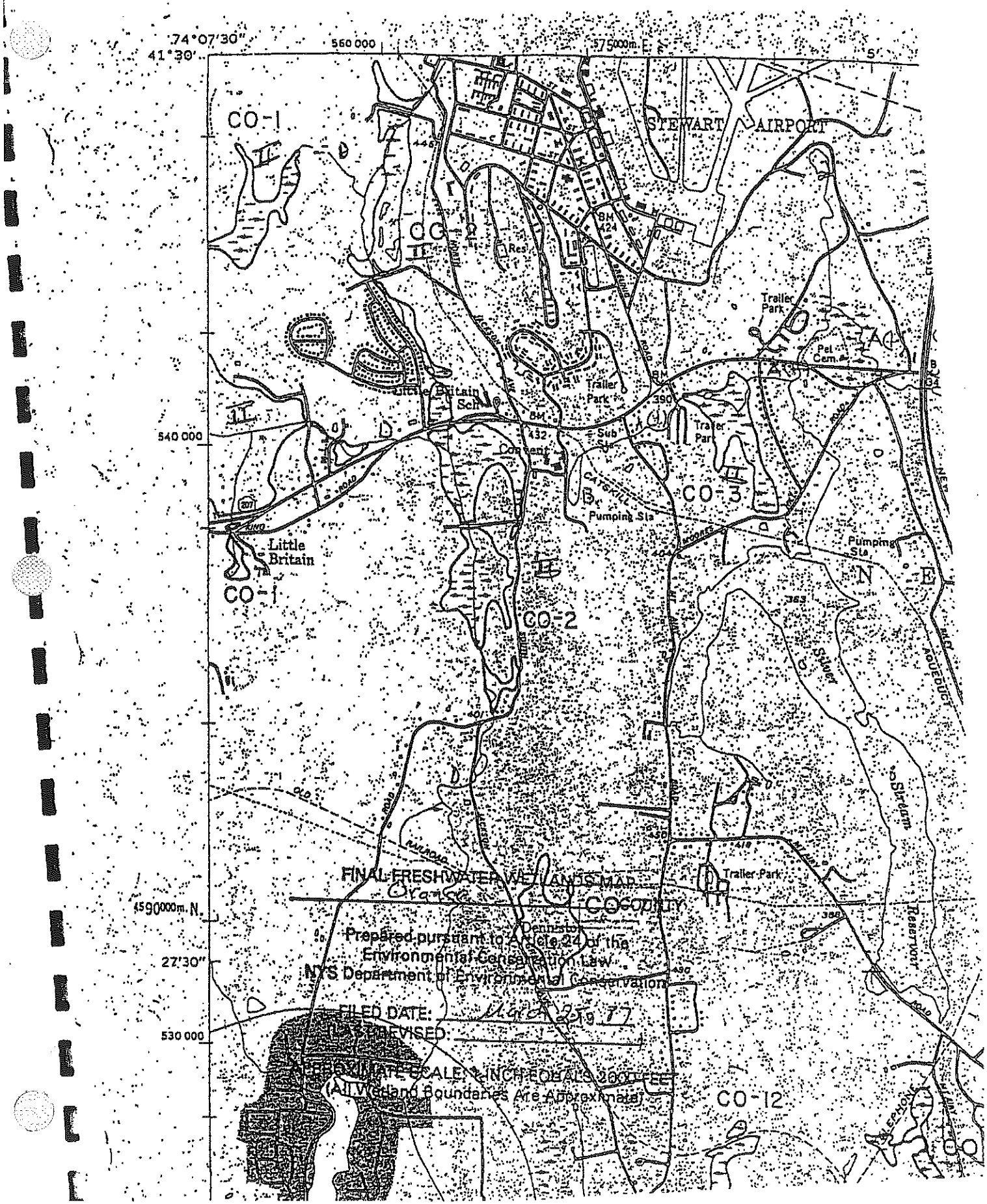

74°07'30"
41°30'
560 000
575000m. E.
5'
CO-1
STEWART AIRPORT
CO-2
Res
BM 424
Trailer Park
Pet Cem.
Little Britain Sch
Trailer Park
BM 390
Trailer Park
540 000
BM 432
Convent
Sub Sta
CATSKILL
CO-3
Pumping Sta
Pumping Sta
Little Britain
CO-1
CO-2
Silver
Stream
Reservoir
AQUEDUCT
Trailer Park
FINAL FRESHWATER WETLANDS MAP
Orange
COUNTY
Denniston
Prepared pursuant to Article 24 of the
Environmental Conservation Law
NYS Department of Environmental Conservation
FILED DATE: March 25 1977
LAST REVISED:
APPROXIMATE SCALE: 1 INCH EQUALS 2000 FEET
(All Wetland Boundaries Are Approximate)
4590000m. N.
27'30"
530 000
CO-12

SEP-12-1997 09:52 FROM DEPT OF ENV. CONS. ALBANY TO 913153790355 P.01

New York State Department of Environmental Conservation
Division of Environmental Permits - Room 538
50 Wolf Road, Albany, New York 12233-1750
Telephone: (518) 457-2224
Fax: (518) 457-5965
(518) 457-7759

John P. Cahill
Commissioner

FACSIMILE TRANSMITTAL

TO: Jack Shaw

COMPANY: —

FAX NUMBER: 315-379-0355

FROM: Tim Conte DEC Albany

Number of Pages (including cover): 4

Date Sent: 9/11/97

[✓] Fax only [ ] Hard copy will follow

Message: HWRP listing you requested

New York State

Coastal Management Program

LWRP STATUS SHEET

May 1, 1995

Round 1	1	2	3	4	5	6	7	8	9	10	11
GRANTS (2)											
NEW YORK CITY											
Long Island											
12,22, BABYLON (T)											
28,03, BAYVILLE (V)											
44,03, BRIDGEHAVEN (T) X											
52,03, EAST HAMPTON (T) X											
28,03, FREEPORT (V)											
1,03, GLEN COVE (C)											
14,03, HEMPSTEAD (V)											
2,03, HEAD OF HARBOR (V) & NISSEQUOGUE (V)											
28,03, HUNTINGTON (T) X											
28,03, HUNTINGTON (T) X											
APAUGUEK (V)											
HUNTINGTON BAY (V)											
NORTHPORT (V)											
28,03, ISLIP (T) X											
LLOYD HARBOR (V)											
28,03, LONG BEACH (C)											
Manhasset (V)											
28,03, NORTH HEMPSTEAD (T)											
28,03, OLD FIELD (V)											
28,03, OYSTER BAY (T) X											
28,03, PATCHOGUE (V) X											
28,03, PORT JEFFERSON (V)											
7,03, RIVERHEAD (T)											
27,03, SAG HARBOR (V)											
28,03, SMITHTOWN (T)											
43,03, SOUTHAMPTON (T) X											
28,03, SOUTHOLD (T) X											
Westchester County & Local Initi											
28,03, MAMARONECK (T) & LARCHMONT (V) Amendment											
28,03, MAMARONECK (V)											
28,03, NEW ROCHELLE (C)											
28,03, PORT CHESTER (V)											
28,03, RYE (C)											

X = LWRP not a priority because be accomplished by funding all or part of the LWRP, lower ranked or specified above in program's ranking.
(total dollar balance and years accomplished only. ____ balance for the step has not met, ____ balance but unsatisfactory (N/A = Not applicable)

New York State

Coastal Management Program

LWRP STATUS SHEET

May 1, 1995

Page 2	Tasks List Submitted	DOS Comments Sent	Tasks List Submitted	DOS Comments Sent	Prelim. Draft Submitted	DOS Ok's Draft LWRP	Draft LWRP Submitted	Sidat Review Started	Sidat Review Ended	Final LWRP Submitted	Proves LWRP	Tip On Co
GRANTS (I)												
Hdwy Tonawanda												
AMSTERDAM (C)	—	—	—	—	—	—	—	—	—	—	—	N.A.
25,000. GENEVA (C)												
15,000. PLATTSBURGH (C)												
SCHENECTADY (C)												
SILVER LAKE												
CASTILE (T)												
PERRY (T)												
PERRY (V)												
25,000. SYRACUSE (C)												
WATKINS GLEN (V)												
GRANTS (II)												
Hudson River												
25,000. ALBANY (C)	—	—	—	—	—	—	—	—	—	—	—	—
25,000. ATHENS (T&V)	—	—	—	—	—	—	—	—	—			
15,000. BEACON (C)	—	—	—	—	—	—	—	—	—	—	—	
10,000. CATHOLL (T&V)	—	—	—	—	—	—	—	—	—			
25,000. COSTMAN (T) & NEW BALTIMORE (T) X	—	—	—	—	—	—	—	—	—			
17,000. COLD SPRING (V)	—	—	—	—								
COLUMBIA (T&V)												
25,000. CROTON-ON-HUDSON (V)	—	—	—	—	—	—	—	—	—	—	—	—
15,000. EAST GREENBUSH (T)	—	—	—									
25,000. EAGLE (T)	—	—	—	—	—	—	—	—	—	—	—	—
25,000. HUDSON (C)	—	—	—	—								
15,000. HYDE PARK (T) X	—	—	—	—	—	—	—	—	—			
24,000. KINGSTON (C)	—	—	—	—	—	—	—	—	—	—	—	
25,000. LLOYD (T)	—	—	—	—	—	—	—	—	—	—	—	
25,000. NEWBURGH (C) X	—	—	—	—	—	—	—	—	—	—		
10,000. NORTH BRIDGEWATER (T)	—	—	—	—	—	—	—	—	—	—	—	—
NORTH TARRYTOWN (V)												
11,000. NYACK (V)	—	—	—	—	—	—	—	—	—	—	—	—
7,000. OSSINING (V)	—	—	—	—	—	—	—	—	—	—	—	—
17,000. PHILIPSTOWN (C)	—	—	—	—	—		—					
17,000. PHILIPSTOWN (T)												
7,000. PIERMONT (V)	—	—	—	—	—	—	—	—	—	—	—	
4,000. POUGHKEEPSIE (C)	—	—	—	—	—	—	—	—	—			
15,000. POUGHKEEPSIE (T)	—	—	—	—	—	—	—	—	—			
7,000. RED HOOK (T)	—	—	—	—	—	—	—	—	—	—		
4,000. ROCKLAND (C)	—	—	—	—	—	—	—	—	—	—	—	—
15,000. RHINEBECK (T)	—	—	—	—	—	—	—	—	—	—		
11,000. SAUGERTIES (V)	—	—	—	—	—	—	—	—	—	—	—	—
25,000. SCHODACK-CASTLETON (T&V)	—	—	—	—	—	—	—	—	—	—	—	—
25,000. STONY POINT (T)	—	—	—	—	—	—	—	—	—	—	—	—
25,000. TARRYTOWN (V)	—	—	—	—	—	—	—	—	—			
7,000. TIVOLI (V) X	—	—	—	—	—	—	—	—	—	—	—	—
25,000. YONKERS (C)	—	—	—	—	—	—	—	—	—			

New York State

Coastal Management Program

LWRP STATUS SHEET

May 1, 1995

	TASKS LIST SUBMITTED	DOS COMMENTS SENT	TASKS LIST SUBMITTED	DOS COMMENTS SENT	PRELIM. DRAFT SUBMITTED	DOS DRAFT LWRP	DRAFT LWRP SUBMITTED	STUDY REVIEW STARTED	STUDY REVIEW ENDED	FINAL LWRP SUBMITTED	[illegible]
GRANTS (I)											
[illegible]											
[illegible] CAPE VINCENT (V)	—	—	—	—	—	—	—	—	—	—	—
CLAYTON (T)											
[illegible] CLAYTON (V)	—	—	—	—	—	—	—	—	—	—	—
[illegible] DEXTER (V)	—	—	—	—	—	—	—	—	—	—	—
HAMMOND (T)											
[illegible] MEXICO (V)	—	—	—	—	—	—	—	—	—		
[illegible] MORANTOWN (T&V)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] (C)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] (C)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] HARBOR (V)	—	—	—	—	—	—	—	—	—	—	—
[illegible] WASHINGTON (T&V)	—	—	—	—	—	—	—	—	—	—	—
[illegible]											
[illegible] GRANT (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] BUFFALO (C)	—	—	—	—	—						
[illegible] DUNKIRK (C)	—	—	—	—	—	—	—	—	—		
[illegible] EVANS (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] GRAND ISLAND (T)	—	—	—	—	—	—	—	—	—		
[illegible] [illegible] (T)	—	—	—	—	—	—	—				
[illegible] HAMBURG (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] HAMLIN (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] KENDALL/WATERCARLTON (T) X	—	—	—	—	—	—	—	—	—		
[illegible] LACKAWANNA (C)	—	—	—	—	—	—	—	—	—	—	—
[illegible] LEWISTON (V)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] (T)	—	—	—	—	—	—	—	—	—		
[illegible] NIAGARA FALLS (C)	—	—									
[illegible] NORTH TONAWANDA (C)	—	—	—	—	—	—	—	—	—	—	—
[illegible] [illegible] (T)	—	—	—	—	—	—	—	—	—	—	—
[illegible] ROCHESTER (C)	—	—	—	—	—	—	—	—	—	—	—
[illegible] SODUS POINT (V) X	—	—	—	—							
[illegible] TONAWANDA (C)	—	—	—	—	—	—	—	—	—	—	—
Amendment								—	—	—	—
[illegible] TONAWANDA (T)	—	—	—	—	—	—	—	—	—	—	
[illegible] WEBSTER (T)	—	—	—	—	—	—	—	—	—		
[illegible] YOUNGSTOWN (V)	—	—	—	—	—	—	—	—	—	—	—

United States Department of the Interior

FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, New York 13045

September 15, 1997

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, NY 13617

~~RECEIVED SEP 2 5 1997~~

RECEIVED SEP 1 5 1997

Dear Mr. Compton:

This responds to your letters of September 8, 1997, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy Stewart Army Subpost's Parcel 19 and another 402 acre parcel in the Town of New Windsor, Orange County, New York. The information will be used in the preparation of Environmental Assessments.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. No habitat within New York State is currently designated "critical habitat" in accordance with provisions of the Endangered Species Act.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1676
(914) 256-3000

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

ACTING FOR Clough

Sherry W. Morgan

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners

33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 8, 1997

Ms. Jean Petrusiak
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110

RE: The Stewart Army Subpost Divestiture Environmental Assessment

Dear Ms. Petrusiak:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of the divestiture of the Stewart Army Subpost (STAS) of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the assessment process, your input is requested in identifying vegetation, wildlife, and communities of concern in the vicinity of the proposed project area.

The proposed project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area. Enclosed is a copy of the topographic maps showing the area of interest highlighted in yellow.

An integral part of the EA involves the identification of threatened, endangered, or other species of concern, wildlife refuges/management areas, significant habitats, and other natural landscape features that may be directly or indirectly impacted by the proposed project. We are especially interested in any element occurrences within 1.5 miles of the project area. In addition, any recommendations your agency may have regarding the mitigation of potential impacts to these sensitive resources would be extremely helpful.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: A. Roos, USACE
A. Bjornsen, STAS
NEA File CE-100/P-9

New York State Department of Environmental Conservation
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, New York 12110-2400
(518) 783-3932

John P. Cahill
Commissioner

September 22, 1997

RECEIVED SEP 2 2 1997

Stephen A. Compton
Northern Ecological Associates Inc
33 Park Street, PO Box 287
Canton, NY 13617

Dear Mr. Compton:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for biological information concerning the Stewart Army Subpost Environmental Assessment and/or Parcel 19 Land Transfer, site as indicated on your enclosed map, located in the Town of New Windsor, Orange County.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals and/or significant wildlife habitats. Please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we may update this response.

Sincerely,

Carole Flood

Carole Flood
Information Services
NY Natural Heritage Program

Encs.
Reg. 3, Wildlife Mgr.
Reg. 3, Fisheries Mgr.

NATURAL HERITAGE ELEMENT OCCURRENCE REPORT

Prepared 19 SEP 1997 by NY Natural Heritage Program, NYS DEC, Latham New York

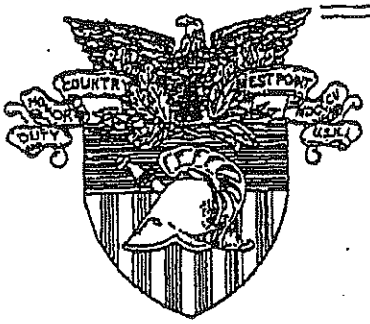
This report contains sensitive information which should be treated in a sensitive manner.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS

	LOCATION	PRECISION	LAST SEEN	EO RANK	SCIENTIFIC NAME & Common name	NY STATUS	US STATUS	HERITAGE RANKS	USGS TOPO QUAD LAT. & LONG.	OFFICE USE	OFFICE USE
SOR	MAPLE AVENUE SITE	S	1987	E	ARDEA HERODIAS Great blue heron BIRD	P		G5 S5	MAYBROOK 41 28 59 N 74 08 43 W		4107442 1

rocessed

West Point



UNITED STATES
MILITARY ACADEMY
West Point, New York 10996

FACSIMILE HEADER SHEET

Please deliver this FAX to:	Sender Information:
Name: Jack Shaw	Name: Alan B. Bjornsen
Organization: NEA	Organization: DHPW, EMB
FAX Phone: 315-379-0365	FAX Phone: 914-938-4588
Office Phone: 315-386-3704	Office Phone: 914-938-4129
TOTAL PAGES: Header + 11	

ADDITIONAL REMARKS:

It's not much, but it's all we've got. Spoke w/ Steve yesterday. The Cultural Resource Study will be sent next week, along w/ clean copies of these pages.

Alan B. Bjornsen
AUTHORIZED SIGNATURE

"To provide the nation with leaders of character who serve the common defense."

Final Report on

Biological Resources of Undeveloped Tracts

at Stewart Army Subpost

by

Spider Barbour

Ecological Consultant

for

Natural Resources Branch,

United States Military Academy,

West Point, New York

Introduction

On 9 June, 22 July and 20 September, 1996, under contract with the West Point Military Academy's Natural Resources Branch, I examined three tracts of undeveloped land on the Stewart Army Subpost near Stewart Airport in Orange County, New York. The purpose of these field surveys, assigned to me under contract to the Department of the Army, was to search each of the three designated tracts for rare plants, animals and ecological communities, as listed and described by the New York Natural Heritage Program (Reschke, 1990), and any portions of the land, which in my view had significant natural resource value (e.g. undisturbed forest, state- or federally-regulated wetlands, or potential habitat for rare species). For orientation I relied on maps, air photos and review of these resources with West Point Natural resources personnel. I was able to readily and accurately locate and ascertain the natural features of each parcel observable at the times of the survey. Organisms and features that could not be observed the first day (9 June) but which were observed on the two subsequent visits, are reported here.

Site Description

For convenience of location, I will refer to each tract by the name of a road or built feature with a clearly visible sign adjacent to the tract: the Stewart Terrace tract bounded on the west, south and east by Stewart Terrace Housing, the D-Street tract bordered on the north and northwest by D-Street and penetrated from the north by Reservoir Road, and the Rte. 207 tract bounded on the south by NY Rt. 207, on the southwest by Jackson Avenue (an abandoned road), on the east by an old trailer park and small power line cut, and on the north by an old housing project. Natural features of the three tracts are described below.

Stewart Terrace Tract

This forested tract covers the north end of a small hill and its north and east slopes. The north slope is contiguous with undeveloped land outside the Subpost; this continuity with a much larger undeveloped area increases its value as habitat. This tract was entirely forested. The north slope to the edge of the summit was a Norway spruce plantation (estimated age 30-40 years) with black cherry, pin oak, a few old apple trees and a few black haw (*Viburnum prunifolium*) shrubs in the understory. Sunny openings had dense beds of wood fern and marginal shield fern. The summit had a young successional hardwood forest of white ash and scarlet oak with dense shrubs, primarily northern arrowwood, gray dogwood and multiflora rose. The groundcover consisted of virginia creeper and poison ivy vines and garlic mustard, with common buttercup and grasses along a south-tending path. The base of the east slope had an early successional black walnut forest with a few sycamores, big-tooth aspens and shagbark hickories, as well as several dead white poplars (an uncommon escape from cultivation) and numerous saplings, apparently from the roots of the dead trees.

I found no rare species or communities on this tract, nor did it have much potential for the occurrence of any rare species. It does have wildlife and open-space value, particularly because of its continuity with a much larger undeveloped tract north and east of it that includes a large wetland.

D-Street Tract

This tract is mostly forested, the forests ranging from very disturbed successional growth to mature woods with at least 25% of the trees larger than 15" diameter at breast height (dbh), and as many

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D-Street Tract

This tract is mostly forested, the forests ranging from very disturbed successional growth to mature woods with at least 25% of the trees larger than 15" diameter at breast height (dbh), and as many

as 10% over 24" dbh. There are at least three vegetated open rights-of-way, including two small power line corridors and one large (25 ft wide) open corridor (a water pipeline) within the prevailing forest. Additionally, the tract includes several developed or very disturbed areas, including a small landfill and an abandoned building, and a small park with picnic tables and a roofed concrete shelter. Below I describe the types of natural communities on this tract and their approximate sizes and locations.

Successional hardwood forests covered probably 70% of the tract's undeveloped land. North of an old road just south of the picnic park, the forest contained a few large trees (15-24" dbh), but most were under 6" and the ground cover was 60-80% non-native herbs, in some places nearly all garlic mustard, indications of past disturbance. These trees were mostly common native and non-native species. Exceptions were a 25 cm dbh butternut (*Juglans cinerea*) just north of the northernmost power line cut, and a small colony of sweet gum (*Liquidambar styraciflua*) just south of the gas pipeline right-of-way. There were at least four mature (20-30 dbh) sweet gums and probably 10-15 saplings (1.2-3m tall). Sweetgum is rare in New York north of New York City; most occurrences, including this stand, are escapes from plantings.

Herbs in the tract's forests were common species, with one exception. North of the picnic park I found a few plants of Emmons' sedge (*Carex emmonsii*). This plant is currently listed by the Heritage Program as moderately rare in New York State (S3: 20-100 NYS locations), but it is fairly common in southeastern New York.

Except for the sweet gums and the mature forest described below, south of the picnic park I found only young successional forests of red oak, sugar maple, black cherry and white ash, with dense shrub layers of species indicative of disturbance: non-native bush honeysuckle and common buckthorn, and native oldfield-successional nannyberry, red cedar and gray dogwood. Large grape vines covered at least half of the tall trees, which formed a sparse (40-60%) canopy. As in the Stewart Terrace tract, ground cover consisted mostly of garlic mustard and the trailing woody vines, poison ivy and Virginia creeper.

Mature Forest

Just west of the end of 4th Street was an small tract (estimated 3-4 acres) of mature forest with about 60% of the trees in the 6-15" dbh range, and perhaps 25% over 18" dbh. Exceptionally large trees included a number of 24-30" dbh oaks, a 24" shagbark hickory and an 18" black walnut. Located on a gentle southeast-facing slope at the base of the hill, the canopy (90% cover) appeared to be 70-80 feet high. Shrubs consisted of large specimens of native shade-tolerant species such as spicebush and northern arrowwood. Garlic mustard was abundant in the ground layer, and Jack-in-the-pulpit was the only common native herbaceous species. Woody vines, however, were rare in this tract. An adjacent, similarly sized tract was similar except for having no trees over 20" dbh and a subcanopy of flowering dogwood. Together these tracts comprise the only mature forests I observed in the survey area. They displayed some attributes of old-growth (large trees, dense canopy, well-developed subcanopy tree and tall shrub layers with native species) and some indications of disturbance (poorly developed herbaceous layers, low diversity, the invasive alien herb garlic mustard). I found no rare species, nor any indicators of their potential occurrence.

Open Corridors

The three open corridors I encountered on the D-Street tract all had vegetation typical of low-maintenance rights-of-way with moist soils. Two had transmission lines on wooden poles, but the third had no structures above ground. The two with transmission lines (running approximately west, uphill from 4th Street) were brushy, with common native and non-native tall herbs — common reed, purple loosestrife, goldenrods (*Solidago spp.*), leafy spurge (*Euphorbia esula*), common flatsedge (*Cyperus strigosus*), fox sedge (*Carex vulpinoidea*) and stipate sedge (*C. stipata*); shrubs — bush honeysuckle

(*Lonicera tartarica, L. morrowi* and hybrids) and multiflora rose; and the invasive Asian tree-of-heaven (*Ailanthus altissima*).

The third open corridor runs approximately east to west across the southern portion of the tract and overlies a water pipeline. Patches of the grassy vegetation contain species indicative of marginal wetland conditions: sedges, rushes and purple loosestrife. This corridor was about twice as wide as the others (25-35 ft) and provides the wildlife value of an edge and a sunny, herbaceous habitat hospitable to animal species (especially insects) not provided by the forests or the other open corridors. Bush's sedge (*Carex bushii*), a plant I found in this corridor, was previously listed as rare by NHP but in the last five years has been found to be fairly common in southeastern New York; it is no longer listed.

Route 207 Tract

This is the second-largest tract and the most varied and significant in terms of natural resources, containing a small, intermittent (?) stream, areas of red maple swamp and successional hardwood forest. I did not find any rare species on this tract.

The eastern part of this tract lies just west of an abandoned trailer park west of Breunig Rd. with old asphalt roads and weedy, young successional brush. Just west of this area was an open, brushy poer line corridor, and west of that a more mature successional hardwood forest of red maple and slippery elm. This area was moist, but not wet enough to be called a swamp. The understory contained some native shrubs such as spicebush, but was composed mostly of non-native bush honeysuckle, locally dense and nearly impenetrable. Most of this forest was fenced off, and on 9 June I only observed it from outside the fence; next visit I was able to access the fenced portion of the tract.

The wettest areas of the fenced part of the Rt. 207 tract had saturated soils, and on 20 September small pools of standing water. Though trees, mostly pin oak and red maple, were large (oaks up to 24" dbh), shrubs and herbs were primarily weedy, non-native species (especially bush honeysuckle and garlic mustard) common in the successional forests of all three tracts, suggesting past disturbance of the upper soil layers and low vegetation. The most interesting floristic feature was a small stand of sweetflag (*Acorus calamus*) along the small open right-of-way near the tract's east boundary. Interspersed with wet patches were drier areas with different tree species (apple, black cherry, white ash), the tall shrub common buckthorn (*Rhamnus cathartica*), and the usual honeysuckle and garlic mustard in the underlayers. Some wet areas were higher than some dry areas, suggesting poor drainage, possibly due to clay soils.

Conservation and Land Use Issues

The occurrence of Emmons' sedge in the D-Street tract north of the picnic park is of little conservation significance, consisting of only two or three plants in a small, disturbed forest tract. It is doubtful that the loss of these plants would affect local populations of this species in larger, undisturbed parcels, and the plants will not be any less safe than they are at present, provided the forest around the picnic park is not clear-cut and the tract developed.

The sweet gums in the southern end of the D-Street tract represent an interesting, but fortuitous occurrence of this southern tree; the colony is no doubt the result of escape from cultivation.

The potential for other rare plants on the three tracts is low, due to the disturbed nature of the forests, indicated by the high percentage of non-native plants in the shrub and herb layers. I found habitats with better potential for rare plant occurrences (though no rare plants) within a few hundred feet of the Rt 207 and Terrace Housing tracts, but plant communities in these areas were unlike those on the Subpost tracts. Thus I doubt any rare plants in peripheral tracts could colonize the Army Subpost tracts.

All undeveloped lands, even if disturbed or surrounded by development; have some value to wildlife, especially small animals with limited mobility. The D-Street and Rt 207 parcels are both small and isolated, surrounded by buildings and roads, diminishing their value to animals with large home ranges. The Terrace Housing parcel is conjoined with larger undeveloped parcels, but its value to wildlife is limited by its being surrounded by residential buildings on all but the north end.

On 9 June I examined a small area of mature red maple swamp on a stream floodplain west of the maple-elm forest and northwest of the Little Britain School. This area is not part of the Army Subpost property, but it borders the Rt. 207 tract, the Catskill Aqueduct (a grassy, elevated berm northeast of the swamp) and (north of the Aqueduct) successional oldfields and forests between the D Street and Rt. 207 tracts. Together these tracts form a moderately large complex of diverse (mostly disturbed) habitats that provide visual interest and support a variety of common plants and animals. The proximity of the school makes this ecological mosaic an excellent venue for natural history education.

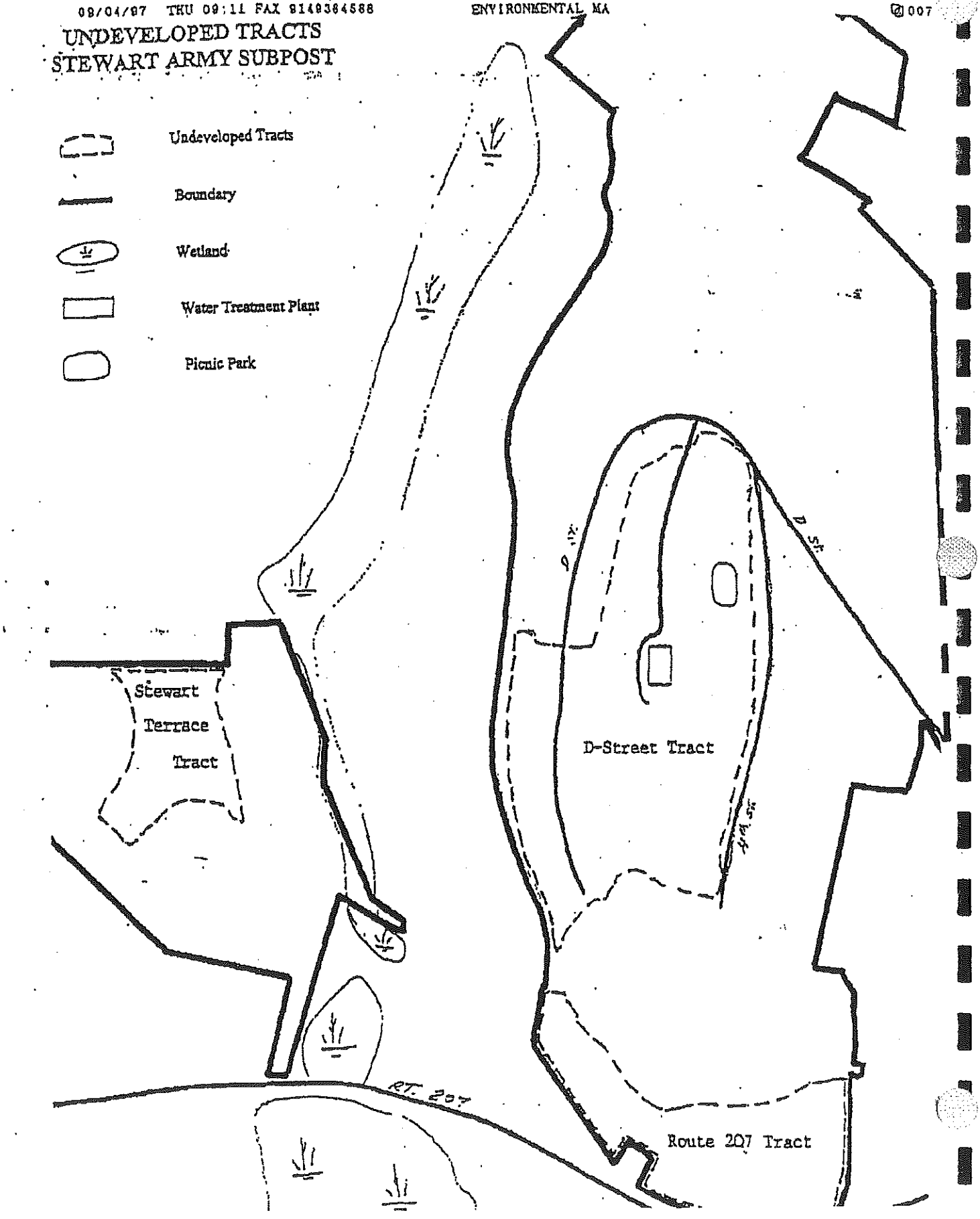
Based on my examination of the parcels in question, I find no major conservation issues to be addressed, nor any biological resources too valuable to be compromised by educational and recreational use or well-planned development. As a field ecologist, I am not qualified or prepared to address non-biological natural resource issues such as water resources and geological engineering.

Literature Cited

Reschke, Carol, Ecological Communities of New York State. New York Natural Heritage Program; Latham, New York, 1990.

Young, Stephen, New York Rare Plant Status List. New York Natural Heritage Program; Latham, New York, 1996.

UNDEVELOPED TRACTS STEWART ARMY SUBPOST



NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 29, 1997

Kevin Barrett
City of Newburgh Historian
City Hall
83 Broadway
Newburgh, New York 12550

Dear Mr. Barrett:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the review process, your input is requested in identifying any areas of local culture and/or historical significance that may be affected by the proposed project. Information provided will be considered privileged and will not be released to the general public.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed is a copy of the Newburgh and Cornwall USGS 7.5-minute topographic quadrangle maps showing the STAS property.

We appreciate your assistance in providing any available information for this proposed project. If you have any questions concerning our request or require additional information, please call me at (716) 565-2122.

Sincerely,

Natasha B. Snyder

Natasha B. Snyder
Cultural Resource Specialist

KAS

Enc.

cc: NEA Files CE-100/DO-9 and DO-10

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 29, 1997

Glenn Marshall
Town of New Windsor Historian
555 Union Avenue
New Windsor, New York 10910

Dear Mr. Marshall:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the review process, your input is requested in identifying any areas of local culture and/or historical significance that may be affected by the proposed project. Information provided will be considered privileged and will not be released to the general public.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed is a copy of the Newburgh and Cornwall USGS 7.5-minute topographic quadrangle maps showing the STAS property.

We appreciate your assistance in providing any available information for this proposed project. If you have any questions concerning our request or require additional information, please call me at (716) 565-2122.

Sincerely,

Natasha B. Snyder

Natasha B. Snyder
Cultural Resource Specialist

Enc.

cc: NEA Files CE-100/DO-9 and DO-10

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 29, 1997

Attention: Director
Orange County Historical Society
Arden Farms
Arden, New York 10910

Dear Madam/Sir:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the review process, your input is requested in identifying any areas of local culture and/or historical significance that may be affected by the proposed project. Information provided will be considered privileged and will not be released to the general public.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed is a copy of the Newburgh and Cornwall USGS 7.5-minute topographic quadrangle maps showing the STAS property.

We appreciate your assistance in providing any available information for this proposed project. If you have any questions concerning our request or require additional information, please call me at (716) 565-2122.

Sincerely,

Natasha B. Snyder

Natasha B. Snyder
Cultural Resource Specialist

Enc.

cc: NEA Files CE-100/DO-9 and DO-10

ORANGE COUNTY HISTORICAL SOCIETY
21 Clove Furnace Drive
Arden, New York 10910

October 1, 1997

Natasha B. Snyder, Cultural Resource Specialist
NORTHERN ECOLOGICAL ASSOCIATES, INC.
33 Park Street, P. O. Box 287
Canton, New York 13617

Dear Natasha:

I have received your letter requesting assistance in providing information for your proposed project. Unfortunately, there are no materials in our current holdings, which refer to the specific site you are investigating. However, I did want you to know that this request for data has been investigated.

Sincerely,

Michelle P. Figliomeni

Michelle P. Figliomeni, Ph.D.
President

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 29, 1997

Oneida Indian Nation of New York
Attn: Mr. Raymond Halbritter
223 Genessee Street
Oneida, New York 13421

Dear Mr. Halbritter:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the review process, your input is requested in identifying Native American religious sites or other areas of significance that may be affected by the proposed project. Information provided will be considered privileged and will not be released to the general public.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed is a copy of the Newburgh and Cornwall USGS 7.5-minute topographic quadrangle maps showing the STAS property.

We appreciate your assistance in providing any available information for this proposed project. If you have any questions concerning our request or require additional information, please call me at (716) 565-2122.

Sincerely,

Natasha B. Snyder

Natasha B. Snyder
Cultural Resource Specialist

NBS
for

Enc.

cc: NEA Files CE-100/DO-9 and DO-10

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners

33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 29, 1997

Onondaga Nation
Attn: Leon Shenandoah
RR1, Box 270-A
Nedrow, New York 13120

Dear Mr. Shenandoah:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the review process, your input is requested in identifying Native American religious sites or other areas of significance that may be affected by the proposed project. Information provided will be considered privileged and will not be released to the general public.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation. Enclosed is a copy of the Newburgh and Cornwall USGS 7.5-minute topographic quadrangle maps showing the STAS property.

We appreciate your assistance in providing any available information for this proposed project. If you have any questions concerning our request or require additional information, please call me at (716) 565-2122.

Sincerely,

Natasha B Snyder
KHS for

Natasha B. Snyder
Cultural Resource Specialist

Enc.

cc: NEA Files CE-100/DO-9 and DO-10

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

Bernadette Castro
Commissioner

518-237-86

February 27, 1998

John Sassi, P.E.
Department of the Army
New York District - Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Sassi:

Re: ARMY
Cultural Resources Input
Environmental Baseline Study
Stewart Army Subpost
New Windosr/Newburgh, Orange County
97PR0561

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations.

Based upon this review, the SHPO accepts and approves the final cultural resources report. We concur with the reports recommendations for archeological testing and look forward to receiving the results of that work when it is completed.

When responding, please be sure to refer to the OPRHP project review (PR) number noted above. If you have any questions, please feel free to call me at (518) 237-8643 ext. 255.

Sincerely,

Robert D. Kuhn, Ph.D.
Historic Preservation Coordinator
Field Services Bureau

RDK:cm

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE
Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

April 16, 1997

Stuart Piken, P.E.
Department of the Army
New York District - Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Piken:

RE: ARMY
Cultural Resources Input
Environmental Baseline Study
Stewart Army Subpost
New Windsor/Newburgh, Orange Co.
97PR0561

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) concerning your project's potential impact/effect upon historic and/or prehistoric cultural resources. The documentation which you provided on your project has been reviewed by our staff. Preliminary comments and/or requests for additional information are noted on separate attachments accompanying this letter. A determination of impact/effect will be provided only after ALL documentation requirements noted on any attachments have been met. Any questions concerning our preliminary comments and/or requests for additional information should be directed to the appropriate staff person identified on each attachment.

In cases where a state agency is involved in this undertaking, it is appropriate for that agency to determine whether consultation should take place with OPRHP under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. In addition, if there is any federal agency involvement, Advisory Council on Historic Preservation's regulations, "Protection of Historic and Cultural Properties" 36 CFR 800 require that agency to initiate consultation with the State Historic Preservation Officer (SHPO).

When responding, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director, Historic Preservation
Field Services Bureau

RLP:cm

attachments: [*] Archeology Comments
[*] Building/Structure/District Evaluation Comments

ARCHEOLOGY COMMENTS

97 PR 0561

Based upon a review of the Cultural Resources Report for the proposed land transfer of STAS, the Office of Parks, Recreation and Historic Preservation (OPRHP) concurs with the archeological recommendations of the report. A Phase I archeological survey should be conducted for the areas identified in the report. The need for Phase II work will be evaluated based upon the results of the Phase I survey. We look forward to receiving those results when the Phase I survey is completed.

If you have any questions concerning archeology, please call Robert Kuhn at (518) 237-8643 ext. 255.

Cyrus

REQUEST FOR ADDITIONAL INFORMATION
TO EVALUATE
BUILDINGS/STRUCTURES/DISTRICTS

97 PR 0561

****

In order for us to complete our evaluation of the historic significance of all buildings/structures/districts within or adjacent to your project area we will need the following additional information:

____ Full project description showing area of potential effect.

____ Clear, original photographs of buildings/structures 50 years or older within or immediately adjacent to the project area, keye to a site plan.

____ Clear, original photographs of the surroundings looking out from the project site in all directions, keyed to a site map.

____ Date of construction.

____ Brief history of property.

✓ Clear, original photographs of the following:

Building 2606 - Sayre - McGregor House Additions

exterior & interior views.

____ Other: _____

_____

Please provide only the additional information checked above. If you have any questions concerning this request for additional information, please call John A. Bonafide at (518) 237-8643 ext.263 .

PLEASE BE SURE TO REFER TO THE PROJECT NUMBER NOTED ABOVE WHEN RESPONDING TO THIS REQUEST

NEA CONTACT REPORT

TO: Steve Compton

FROM: Lauren Malone

DATE: April 27, 1998

PERSON CONTACTED: Tom Smith

AFFILIATION: NY State Department of Transportation

LOCATION: Region 8 NY

PHONE:914-431-5731

SUBJECT: Traffic Count of Breunig Road

CC: NEA file CE 110 DO 9

SUMMARY: In 1996 a traffic count of the Breunig Road going to and from the Stewart International Airport was conducted. Going to the airport, 4,400 vehicles per day were reported, coming from the airport 4, 350. The annual average daily traffic was 8,700 vehicles per day.

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sou conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's nat

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for y use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.
TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.
USGS 7 ½' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).
LAT: Centrum latitude coordinate of the location of the occurrence. Caution: latitude & longitude must be used with PRECISION (e.g. the lo occurrence with M (minute) precision is not precisely known & is thought to occur within a 1.5 mile radius of the latitude/longitude coon
LONG: Centrum longitude coordinate of the location of the occurrence. See also LAT above.
PRECISION: S - seconds: location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.
M - minutes: location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.
G - general: location known to within a 5 mile radius of the latitude and longitude given.
SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location.
SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community.
COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.
ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)
LAST SEEN: Year rare species or significant ecological community last observed extant at this location.
EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN and PR
A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.
F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
? = Unknown.
Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Con Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.
E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR
T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in NY.
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.
SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Enviro Conservation Law section 11-0535 (Endangered and Threatened Species).
P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of
U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a lic take may be required.
G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Enviror Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conse Law section 9-1503.
(blank) = no state status
E = Endangered Species: listed species are those with:
1) 5 or fewer extant sites, or
2) fewer than 1,000 individuals, or
3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
T = Threatened: listed species are those with:
1) 6 to fewer than 20 extant sites, or
2) 1,000 to fewer than 3,000 individuals, or
3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
R = Rare: listed species have:
1) 20 to 35 extant sites, or
2) 3,000 to 5,000 individuals statewide.
U = Unprotected
V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the if causal factors continue unchecked.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Wildlife Resources Center – New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400
Phone: (518) 783-3932 FAX: (518) 783-3916

John P. Cahill
Commissioner

April 6, 1999

Stephen A. Compton
Northern Ecological Associates Inc
33 Park Street, PO Box 287
Canton, NY 13617

Dear Mr. Compton:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for. biological information concerning the proposed Stewart Army Subpost Divestiture Environmental Assessment, site as indicated on your enclosed map, located in the Town of New Windsor, Orange County.

We have no records of known occurrences of endangered, threatened, or special concern wildlife species, of rare plants, animals, or significant natural communities, or of other significant habitats on your site, nor in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or endangered species, natural communities or other significant habitats do not exist on or adjacent to the proposed site, but rather that our files currently do not contain any information which indicates the presence of these. Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we cannot provide a definitive statement on the presence or absence of species, habitats or communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. Please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

Sincerely,

Carole Flood

Carole L. Flood, Information Services
NY Natural Heritage Program

Encs.
Cc: Reg. 3, Wildlife Mgr..

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE N
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-235 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101- (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomery, Otsego Rensselaer, Schenectady, Schoharie	William J. Clarke Permit Administrator	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren, Washington	Richard Wild Permit Administrator	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrence	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison, Onondaga Oswego, Tioga, Tompkins	Ralph Manna, Jr. Permit Administrator	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Orleans Schuyler, Seneca, Steuben Wayne, Yates	Albert Butkas Permit Administrator	6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua	Steven Doleski Permit Administrator	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL nea@northnet.org

March 22, 1999

Mr. Michael Stoll
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045

RE: The Stewart Army Subpost Divestiture Environmental Assessment

Dear Mr. Stoll:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of the divestiture of the Stewart Army Subpost (STAS) of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the assessment process, your input is requested in identifying vegetation, wildlife, communities of concern, and critical habitats in the vicinity of the proposed project area.

The proposed project would involve the divestiture of the 412-acre STAS facility, including the main subpost facilities, the Stewart Terrace Housing Area, the STAS Parcel 19, and the STAS Water System. Enclosed is a copy of the topographic maps showing the area of interest highlighted in yellow.

An integral part of the EA involves the identification of threatened, endangered, or other species of concern, wildlife refuges/management areas, critical habitats, and other natural landscape features that may be directly or indirectly impacted by the proposed project. We are especially interested in any element occurrences within 1.5 miles of the project area. In addition, any recommendations your agency may have regarding the mitigation of potential impacts to these sensitive resources would be extremely helpful.

We also are particularly interested in whether there are any existing joint-Federal/State Natural Resource Plans pursuant to the Conservation Programs on Military Reservations (Sikes Act), Regional Wetland Concept Plans under the 1986 Emergency Wetlands Resources Act, and State Conservation Plans that are pertinent to STAS. In the event any such plans exist, we request a copy of each plan to assist in the preparation of the subject EA.

This information was previously requested in letters to you dated September 8, 1997. Enclosed is a copy of the response to these letters from United States Fish and Wildlife Service. We are currently requesting an update to your response.

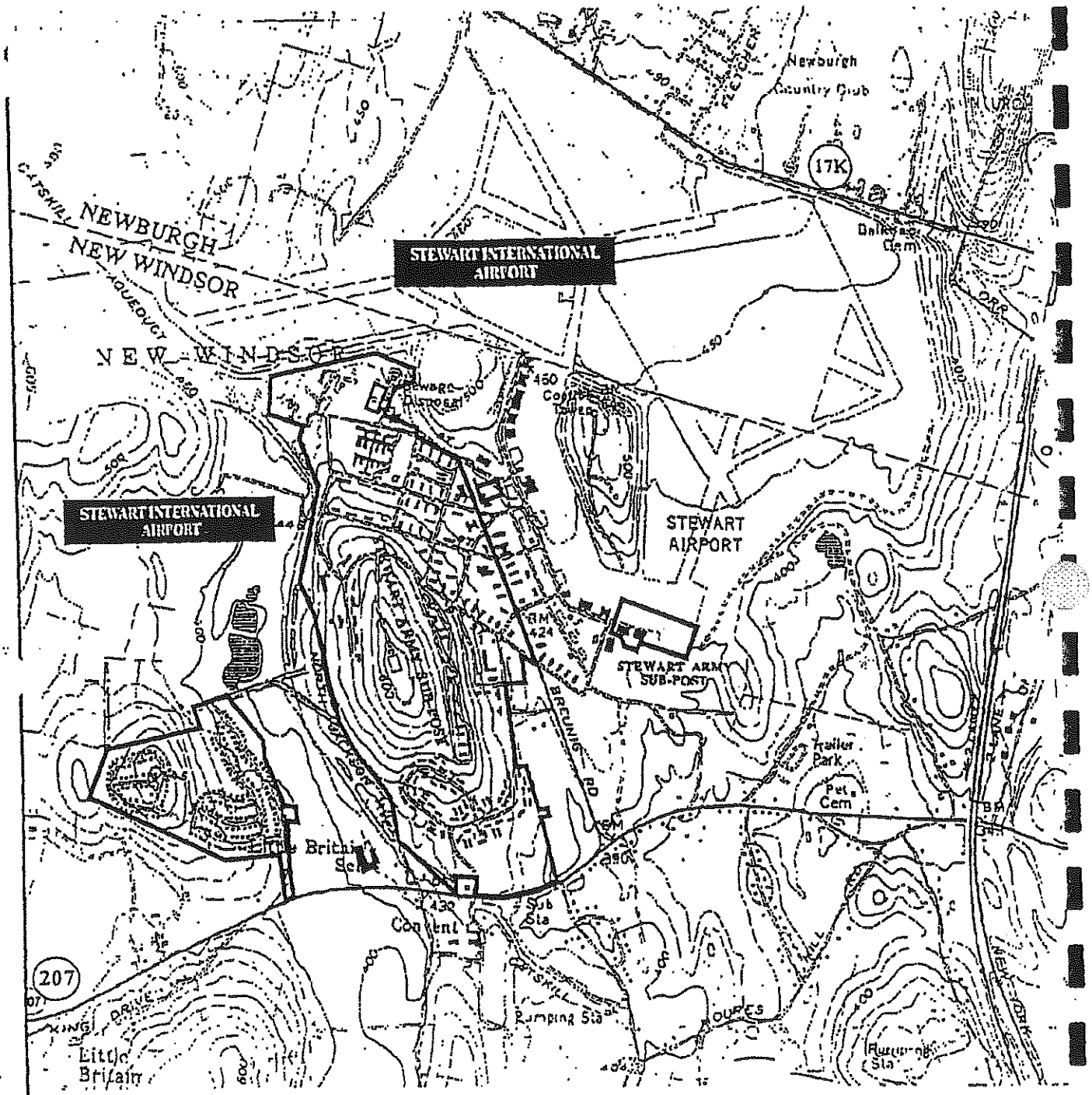
NEA respectfully requests that you submit your response within 30 days from the date of this letter. Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: G. Menegio, USACE
A. Bjornsen, STAS
NEA File CE-100/DO-9-MOD



Source: USGS 7.5 Minute Topographic Maps (Cornwall and Newburgh, New York)

N

0 900 1800 2700 3600

Figure 1

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045

September 15, 1997

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, NY 13617

~~RECEIVED SEP 2 5 1997~~

RECEIVED SEP 1 5 1997

Dear Mr. Compton:

This responds to your letters of September 8, 1997, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy Stewart Army Subpost's Parcel 19 and another 402 acre parcel in the Town of New Windsor, Orange County, New York. The information will be used in the preparation of Environmental Assessments.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. No habitat within New York State is currently designated "critical habitat" in accordance with provisions of the Endangered Species Act.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1676
(914) 256-3000

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

ACTING FOR

Sherry W. Morgan

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, NY 13045

April 6, 1999

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, NY 13617

Dear Mr. Compton:

This responds to your letter of March 22, 1999, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy, Stewart Army Subpost Facility, in the Town of New Windsor, Orange County, New York.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

Further, we are not aware of any existing joint-Federal/State natural resource plans pursuant to the Conservation Programs on Military Reservations (Sikes Act), or pursuant to the 1986 Emergency Wetlands Resources Act, or any New York State Department of Environmental Conservation plans.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1676
(914) 256-3000

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Services
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
Telephone: (607) 255-4864

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting Mr. Joseph Seebode, Chief, Regulatory Branch, U.S. Army Corps of Engineers, 26 Federal Plaza, New York, NY 10278 (telephone: [212] 264-3996).

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

David A. Stilwell
Acting Field Supervisor

Enclosure

cc: NYSDEC, New Paltz, NY (Environmental Permits)
NYSDEC, Latham, NY
COE, New York, NY

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIE IN NEW YORK

Common Name	Scientific Name	Status	Distribution
FISHES			
Sturgeon, shortnose*	*Acipenser brevirostrum*	E	Hudson River & other Atlantic coastal rivers
REPTILES			
Turtle, bog	*Clemmys muhlenbergii*	T	Albany, Columbia, Dutchess, Genesee, Orange, Oswego, Putnam, Seneca, Ulster, W and Westchester Counties
Turtle, green*	*Chelonia mydas*	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	*Eretmochelys imbricata*	E	Oceanic summer visitor coast waters
Turtle, leatherback*	*Dermochelys coriacea*	E	Oceanic summer resident coast waters
Turtle, loggerhead*	*Caretta caretta*	T	Oceanic summer resident coa waters
Turtle, Atlantic ridley*	*Lepidochelys kempii*	E	Oceanic summer resident coastal waters
BIRDS			
Eagle, bald	*Haliaeetus leucocephalus*	T	Entire state
Falcon, peregrine	*Falco peregrinus*	E	Entire state - re-establishm former breeding range in progress
Plover, piping	*Charadrius melodus*	E T	Great Lakes Watershed Remainder of coastal New Yo
Tern, roseate	*Sterna dougallii dougallii*	E	Southeastern coastal portions of state
MAMMALS			
Bat, Indiana	*Myotis sodalis*	E	Entire state
Cougar, eastern	*Felis concolor couguar*	E	Entire state - probably extinct
Whale, blue*	*Balaenoptera musculus*	E	Oceanic
Whale, finback*	*Balaenoptera physalus*	E	Oceanic
Whale, humpback*	*Megaptera novaeangliae*	E	Oceanic
Whale, right*	*Eubalaena glacialis*	E	Oceanic
Whale, sei*	*Balaenoptera borealis*	E	Oceanic
Whale, sperm*	*Physeter catodon*	E	Oceanic
MOLLUSKS			
Snail, Chittenango ovate amber	*Succinea chittenangoensis*	T	Madison County
Mussel, dwarf wedge	*Alasmidonta heterodon*	E	Orange County - lower Nevers River

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Servic

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK (Cont'd)

Common Name	Scientific Name	Status	Distribution
BUTTERFLIES			
Butterfly, Karner blue	*Lycaeides melissa samuelis*	E	Albany, Saratoga, Warren, and Schenectady Counties
PLANTS			
Monkshood, northern wild	*Aconitum noveboracense*	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	*Isotria medeoloides*	T	Entire state
Swamp pink	*Helonias bullata*	T	Staten Island - presumed extirpated
Gerardia, sandplain	*Agalinis acuta*	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	*Asplenium scolopendrium* var. *americana*	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	*Platanthera leucophea*	T	Not relocated in New York
Bulrush, northeastern	*Scirpus ancistrochaetus*	E	Not relocated in New York
Roseroot, Leedy's	*Sedum integrifolium* ssp. *Leedyi*	T	West shore of Seneca Lake
Amaranth, seabeach	*Amaranthus pumilus*	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	*Solidago houghtonii*	T	Genesee County

E=endangered T=threatened P=proposed

APPENDIX G

AFFIDAVIT OF PUBLICATION
OF DRAFT ENVIRONMENTAL ASSESSMENT

LEGAL NOTICE
DIVESTITURE OF THE STEWART ARMY SUB-POST
NEW WINDSOR, NEW YORK

A Draft Environmental Assessment (EA) was prepared for the Land Transfer of the Stewart Army Subpost in New Windsor, New York. The following is the Finding of No Significant Impact resulting from the EA

I. NAME OF ACTION:

Divestiture of Stewart Army Subpost (STAS) by the United States Military Academy (USMA), Town of New Windsor, Orange County, New York.

II. DESCRIPTION OF ACTION:

a. Proposed Action: The proposed action would include the disposal of the 402.5-acre STAS. Disposal would be accomplished by: Department of Defense (DOD) Secretarial transfer of the 1500 Block, the 1900 Block, and Stewart Terrace Housing Area from the Secretary of the Army (SA) to the Secretary of the Navy (property requested by the Department of the Navy, US. Marine Corps (USMC); SA approval of the transfer of building 2008 and its grounds, the 2100 Block, and the majority of the 2200 Block to the U.S. Army Reserve Command (ARC); the transfer of the 100 Block (Parcel 19) to NYSDOT; and the transfer of remaining STAS property, including the STAS water treatment system, from the DA to the Town of New Windsor (TNW) in accordance with special legislation passed by Congress and signed by President William J. Clinton on October 17, 1998.

b. Alternatives: Disposal considerations include three (3) alternatives: (1) no action; (2) encumbered disposal; (3) and unencumbered disposal.

III. ANTICIPATED ENVIRONMENTAL IMPACTS:

There is no significant adverse environmental impacts or consequences anticipated in the proposed divestiture; there will be no change(s) in existing land use(s), and the land transfer will not involve any direct development. This action will, however, result in a change of property ownership, between the USMA and the USMC, ARC and the TNW. Reuse of the property will be at the discretion of the new property owners. The new owners would require compliance with federal, state and local regulatory requirements pertaining to future land use, including obtaining.

IV. CONCLUSION

Given there are no anticipated significant impacts (primary or secondary) associated with the proposed land transfer, this action has been determined to have no adverse environmental impact on the quality of the human environment. An Environmental Impact Statement is, therefore, not required.

The document will be available for review at the following locations: 1) The Newburgh Free Library; 2) The Newburgh Town Hall; 3) The Town of New Windsor Town Hall; and 4) The Community Library at the West Point.

Comments by interested parties may be submitted in writing to Alan B. Bjorneen, CEP, US Military Academy, Environmental Management Division, Directorate of Housing and Public Works, Building 667a, West Point, New York [illegible]

State of New York
County of Orange, ss:

Everett Smith, being duly sworn disposes and says that he is President of the E.W. Smith Publishing Company, Inc. publisher of The Sentinel, a weekly newspaper published and of general circulation in the Town of New Windsor, and that the notice of which the annexed is a true copy was published once in said newspaper, commencing on the 24 day of June A.D., 1999 and ending on the 24 day of June A.D. 1999.

Subscribed and shown to before me. this 9 day of July, 1999.

Mary E Fordenbacher

Notary Public of the Sate of New York
County of Orange.

My commission expires 2.27.00

MARY E. FORDENBACHER
Notary Public, State of NY
Residing in Orange County
No. 4718013

09/16/97 11:32 FAX 19143432630 USDA RD MIDTOWN

USDA-RECD
Form FmHA 2030-8
(Rev. 8-95)

FACSIMILE TRANSMISSION

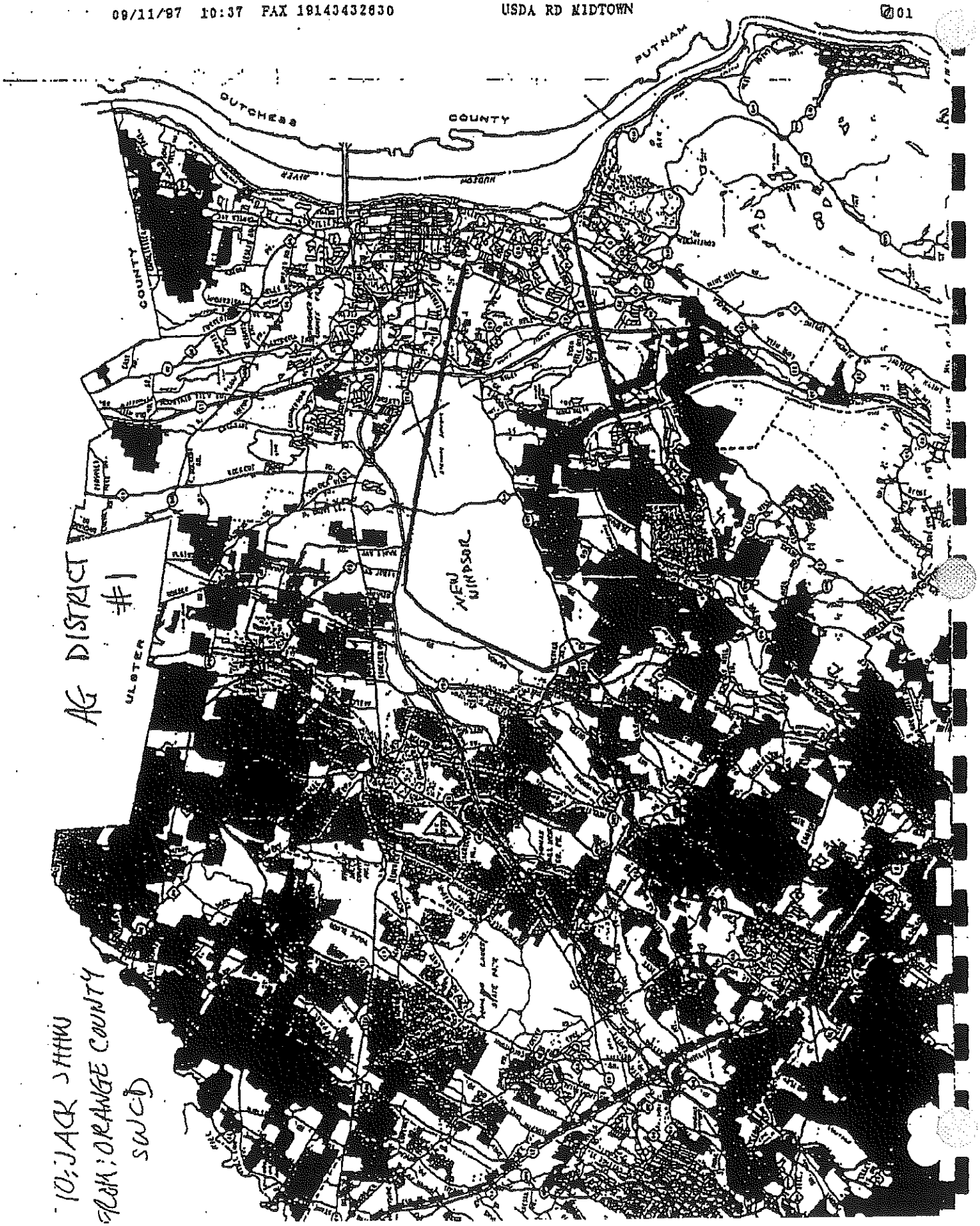
DATE:	
TO: JACK SHAW	FROM: S. CABRERA
LOCATION:	LOCATION: ORANGE COUN
FAX NUMBER:	FAX NUMBER:
TELEPHONE NUMBER:	TELEPHONE NUMBER:

COMMENTS:

AUTHORIZED SIGNATURE:	NO. OF PAGES TO FOLLOW:

*U.S.GPO:1996-858

Call back
for soil scientist
ask @
def. of farmland of statewide
importance.


PUTNAM
DUTCHESS
COUNTY
HUDSON
RIVER
COUNTY
ULSTER
NEW WINDSOR
AG DISTRICT #1
10; JACK SHAW
FROM; ORANGE COUNTY
SWCD

For NYS see OCT pck Guide Soils

HYDRIC SOILS AND SOILS WITH POTENTIAL HYDRIC INCLUSIONS FOR ORANGE COUNTY, NY REVISED OCTOBER 1988

muid	compname	s5id	drainage	hydrit	clastcode	anflood	anflodur	anflobeg	anflooed	pndbeg	pndend
071Ab	ALDEN	NY0100	V	Y	MESIC	NONE				NOV	JUN
071Ac	ALDEN	NY0101	V	Y	MESIC	NONE				NOV	JUN
071Be	BASHER	NY0231	N	Y	MESIC	FREQ	LONG	DEC	APR		
071Ca	CANANDAIGUA	NY0255	P-V	Y	MESIC	NONE				NOV	MAY
071Cd	CARLISLE (see new muck soils)	MI0020	V	Y	MESIC	NONE				SEP	JUN
071Ce	CARLISLE	MI0020	V	Y	MESIC	NONE				SEP	JUN
071Cf	CARLISLE	MI0020	V	Y	MESIC	NONE				SEP	JUN
071ErA	ERIE	NY0064	S	I	MESIC	NONE					
071ErB	ERIE	NY0064	S	I	MESIC	NONE					
071EsB	ERIE	NY0065	S	I	MESIC	NONE					
071Fd	FREDON	NJ0038	S-P	Y	MESIC	OCCAS	BRIEF-LONG	JAN	APR		
071Ha	HALSEY	NJ0039	V	Y	MESIC	NONE-COMM	BRIEF	SEP	JUN	SEP	JUN
071Hh	HISTIC HUMAQUEPTS	DE0403	V	Y	MESIC	NONE				JAN	DEC
071Ma	MADALIN	NY0042	P-V	Y	MESIC	NONE				JAN	DEC
071Pa	PALMS (see new muck soils)	MI0023	V	Y	MESIC	NONE				NOV	MAY
071Pb	PALMS	MI0023	V	Y	MESIC	NONE				NOV	MAY
[illegible]Pg	PITS		0	P	MESIC						
[illegible]Ra	RAYNHAM	VT0005	S-P	Y	MESIC	NONE					
071RhA	RHINEBECK	NY0048	S	I	MESIC	NONE					
071RhB	RHINEBECK	NY0048	S	I	MESIC	NONE					
071Sb	SCARBORO	MA0080	V	T	MESIC	NONE				JAN	DEC
071Uf	FLUVAQUENTS	DE0202	S-V	Y	MESIC	FREQ	BRIEF-LONG	SEP	JUL	OCT	JUN
071W	WATER		0	Y	MESIC					JAN	DEC
071Wa	WALLKILL	NY0053	V	Y	MESIC	FREQ	LONG	SEP	JUN	SEP	JUN
071Wd	WAYLAND	NY0078	P-V	Y	MESIC	FREQ	LONG	NOV	JUN	NOV	JUN

09/18/87 11:32 FAX 18143432830 USDA RD MIDTOWN

Black Dirt Region
Orange County, New York

Remapped Soils Legend
and
Agricultural Assessment Classification
1996

Mineral Soils		Soil Group
2	Ackerman Muck, drained	7
4	Canandaigua Muck, drained	7
6	Madalin Mucky Silt Loam, drained	7
8	Olentangy Muck, drained	7
10	Udorthents, smoothed	9
12	Wallkill Silt Loam	8
14	Wayland Silt Loam	8

Drained Limnic/Muck Soils		With Flood Protection	Without Flood Protection
22	Muskego Muck (16" - 51")	B	D
24	Wawayanda Muck (16" - 51")	B	D
32	Carlisle Muck (>51")	A	C
34	Palms Muck (16" - 51")	B	D
36	Pinnebog (>51")	A	C

Undrained Muck Soils		Soil Group
42	(Cf) Carlisle, Muskego + Pinnebog (>51")	10
44	(Pb) Palms + Wawayanda (16" - 51")	10

Finally, it is important to emphasize that prime farmland is one of the most important resources of the nation. This exceptional land can be farmed continuously or nearly continuously under proper management without degrading the environment. It will produce the most food and feed with the least amount of energy used. It responds exceptionally well to fertilizer and other chemical applications with limited loss of residues by leaching or erosion. This land has the highest percentage of soils that can be minimum tilled. It is the most responsive to management and requires the least investment for maintaining productivity.

The inventories of prime and unique farmlands and other important farmlands are dynamic. New unique farmland areas may be developed. Other important farmlands will be converted to irreversible uses. Thus, the inventories must be updated periodically to reflect any significant changes.

Definitions

Prime Farmland

Prime farmland is land best suited for producing food, feed, forage, fiber, and oilseed crops, and also available for these uses (the land could be presently cropland, pastureland, forest land, or other land but not urban land or water). It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods.

The detailed national criteria for identifying prime farmland is printed in the Federal Register of January 31, 1978.

The following criteria apply to New York:

1. The soils have an adequate moisture supply. Included are:

   a. Soils that have well distributed rainfall or have enough rain in summer that the amount of stored moisture plus rainfall is approximately equal to or exceeds the amount of potential evapotranspiration. Water moves through the soil at some time in most years.

   b. Soils having sufficient available water capacity within a depth of 40 inches (1 meter), or in the root zone if the root zone is less than 40 inches deep, to produce the commonly grown crops in 7 or more years out of 10.

2. The soils have a soil temperature regime that is suitable for plant growth. These are soils that, at a depth of 20 inches (50cm), have a mean annual temperature higher than 32° F (0° C). In addition, the mean summer temperature at this depth

in soils with an O (organic) horizon is higher than 47° F (8° C); in soils that have no O horizon the mean summer temperature is higher than 59° F (15° C).

3. The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches (1 meter) or in the root zone if the root zone is less than 40 inches deep. This range of pH is favorable for growing a wide variety of crops without adding large amounts of soil amendments.

4. The soils have no water table or a water table that is maintained at a sufficient depth during the cropping season to allow crops common to the area to be grown.

5. The soils are not flooded frequently during the growing season (less often than once in 2 years).

6. The soils have a product of K (erodibility factor) x percent slope of less than 2.0. That is, prime farmland does not include soils having a serious erosion hazard.

7. The soils have a permeability rate of at least 0.06 inches (0.15 cm) per hour in the upper 20 inches (50 cm) and the mean annual soil temperature at a depth of 20 inches (50 cm) is less than 59° F (15° C).

8. Less than 10 percent of the surface layer in these soils consist of rock fragments larger than 3 inches (7.6 cm). These soils present no particular difficulty in cultivating with equipment.

Unique Farmland

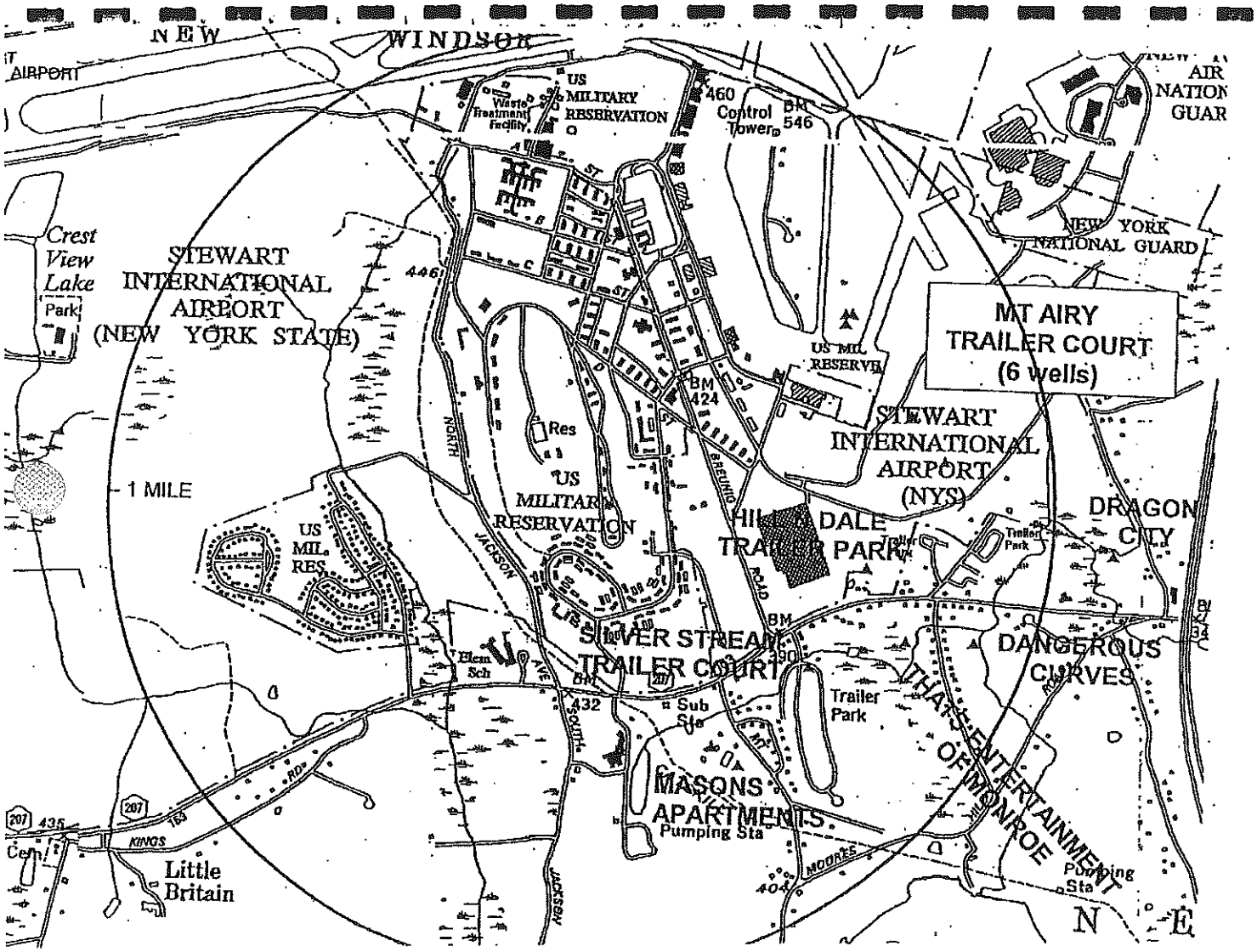
Unique farmland is land other than prime farmland that is used for the production of specific high-value food crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods. Examples of such crops are grapes, fruit, and vegetables.

Unique farmland has the following characteristics:

1. It is used for a specific high-value food crop.

2. It has a moisture supply that is adequate for the specific crop. The supply is from stored moisture, precipitation, or a developed irrigation system.

3. It has the combination of favorable factors of soil quality, growing season, temperature, humidity, air drainage, elevation, aspect, or other conditions, such as nearness to market that favor the growth of a specific food crop.


NEW WINDSOR
AIRPORT
US MILITARY RESERVATION
Waste Treatment Facility
460
Control Tower
BM 546
AIR NATION GUAR
NEW YORK NATIONAL GUARD
Crest View Lake
Park
STEWART INTERNATIONAL AIRPORT (NEW YORK STATE)
446
MT AIRY TRAILER COURT (6 wells)
US MIL RESERVE
BM 424
STEWART INTERNATIONAL AIRPORT (NYS)
Res
US MILITARY RESERVATION
1 MILE
US MIL RES
NORTH
JACKSON
BREUNIG
ROAD
HILLSDALE TRAILER PARK
Trailer Park
DRAGON CITY
SILVER STREAM TRAILER COURT
BM 390
DANGEROUS CURVES
Elem Sch
BM 432
Sub Sta
Trailer Park
THAT'S ENTERTAINMENT OF MONROE
MASONS APARTMENTS
Pumping Sta
207
435
KINGS
Little Britain
MOORES
404
Pumping Sta
N
E

SHAW2

NUM	PR	NAME	DISC	SID	LAT	LON	SLOC
3501325	127	HILL N DALE TRAILER PARK	WELL #1 AUXILARY SOURCE	001	412913	740536	DOH
3501325	127	HILL N DALE TRAILER PARK	WELL #2	002	412913	740536	DOH
3501325	127	HILL N DALE TRAILER PARK	WELL #3	003	412913	740536	DOH
3510541	127	SILVER STREAM TRAILER COURT	WELL #1 WEST	001	412902	740544	DOH
3511754	123	MASONS APARTMENTS	WELL #1	001	412853	740558	DOH
3511754	123	MASONS APARTMENTS	WELL #2	002	412851	740554	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #1 MAIN	001	412930	740530	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #2 NOT CONNECTED	002	412935	740535	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #3 STANDBY	003	412925	740525	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #4 SECONDARY	004	412940	740540	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #5 SECONDARY	005	412941	740540	DOH
3517308	127	MT AIRY TRAILER COURT	DRILLED WELL #6 SECONDARY	006	412941	740539	DOH
3520763	160	DANGEROUS CURVES	DRILLED WELL	001	412905	740520	DOH
3520848	160	THATS ENTERTAINMENT OF MONR	DRILLED WELL	001	412905	740530	DOH

14

LAKE WASHINGTON

P225 & P225A Lower Hudson

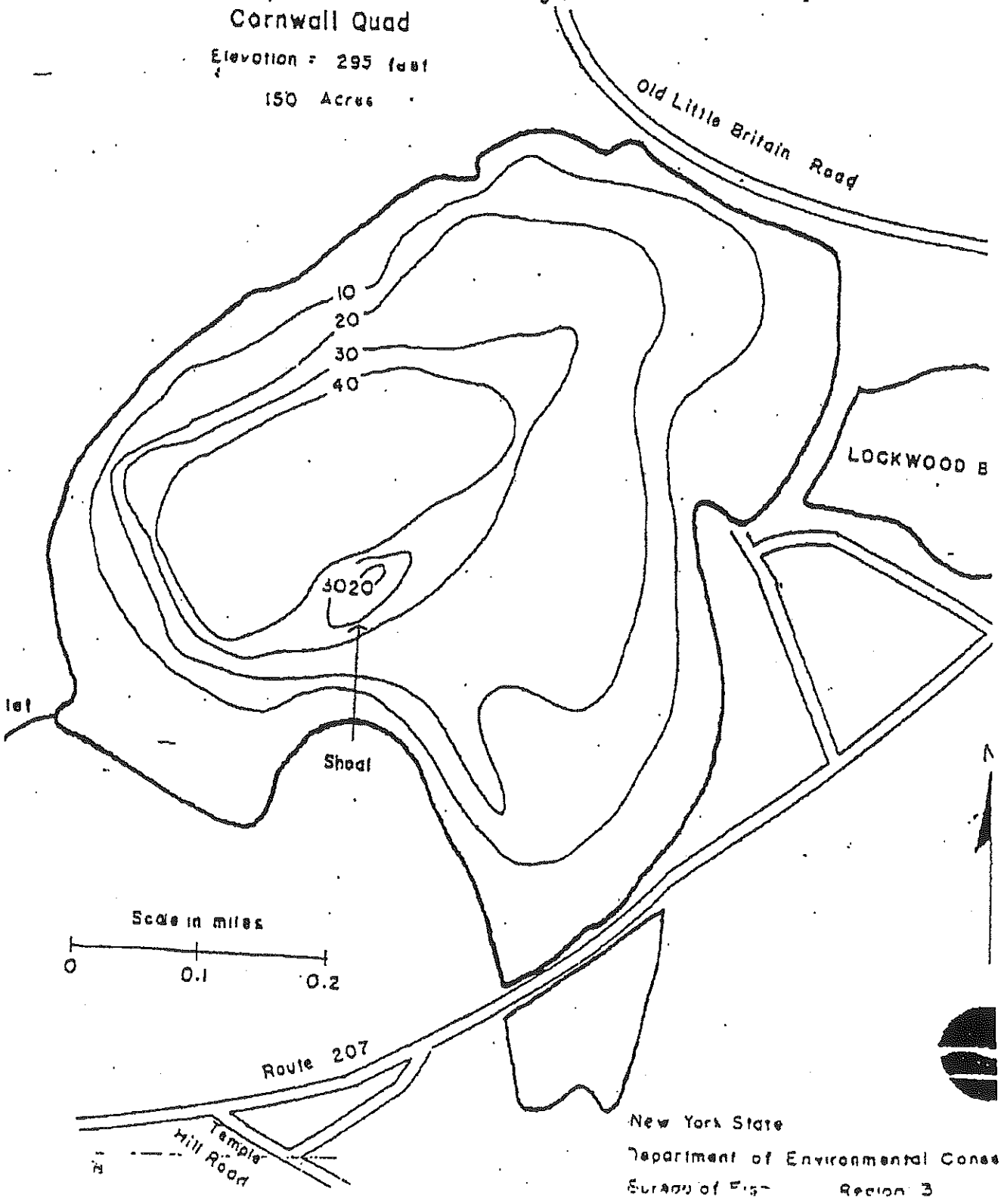
Ulster County

Town of New Windsor and Newburgh

Cornwall Quad

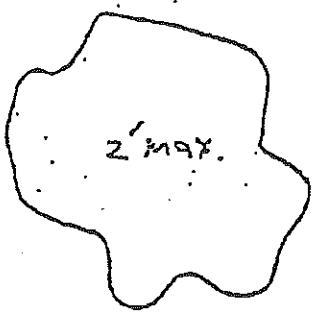
Elevation = 295 feet

150 Acres

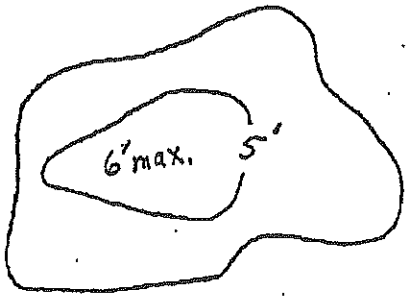


New York State
Department of Environmental Conse
Bureau of Fish Region 3

Miscellaneous Stewart Co-op Ponds
Not Drawn to Scale

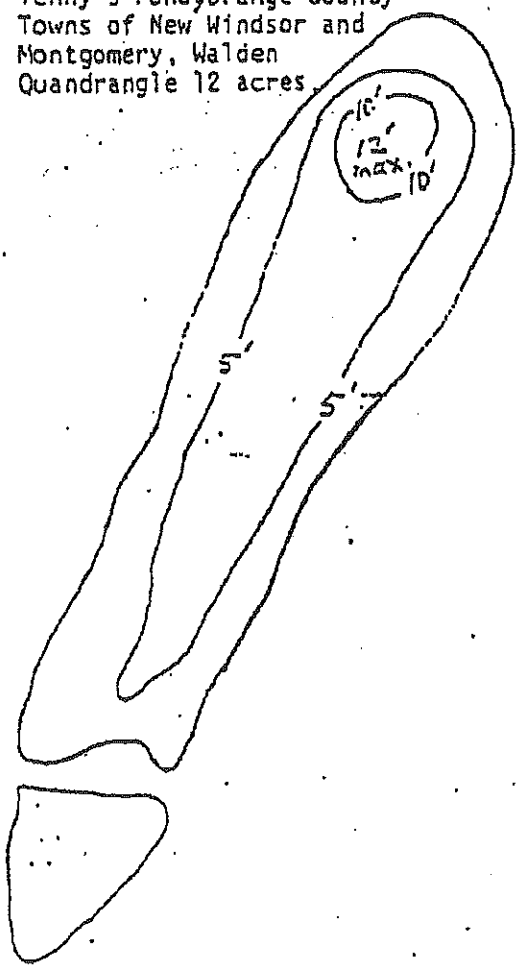


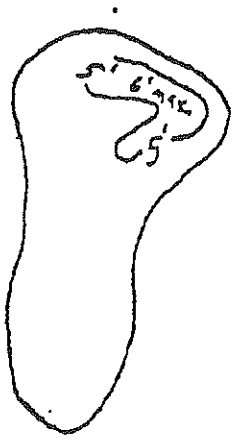
Wilkin's Pond P261A
Orange County Town of
Montgomery, Maybrook
Quadrangle 3 acres.



Maroney's Pond P234S
Orange County Town of
New Windsor, Walden
Quadrangle 7 acres.

Tenny's Pond, Orange County
Towns of New Windsor and
Montgomery, Walden
Quandrangle 12 acres.





Rowe's Pond P262A Orange Count
Town of Hamptonburg, Maybrook
Quadrangle 2 acres.

Land that qualifies as prime farmland but is used for specific hi value crops is shown on the map as prime farmland.

Additional Farmland of Statewide Importance

This is land, in addition to prime and unique farmland, that is statewide importance for the production of crops. It is important agriculture in New York, yet exhibits some soil properties that do n meet prime farmland criteria. Examples of such properties are seasor al wetness, erodibility, limited rooting zone, flooding, or droughti ness. These soils can be farmed satisfactorily by greater inputs fertilizer and soil amendments, drainage improvement, erosion contrc practices or flood protection. These soils are nearly level to slop ing and range in slope gradient from 0 to 15 percent. They can b cultivated with modern farm machinery. Normal tillage practices ar not hindered by excess stones. These soils produce fair to good cro yields when managed properly.

ORANGE COUNTY, NEW YORK FARMLAND OF STATEWIDE IMPORTANCE - MAPPING UNITS: 5/84

AdB Allard silt loam, 3 to 8 percent slopes

AnC Arnot-Lordstown complex, sloping

BnB Bath-Nassau shaly silt loams, 3 to 8 percent slopes
BnC Bath-Nassau shaly silt loams, 3 to 15 percent slopes

Ca Canandaigua silt loam

ChC Charlton fine sandy loam, 8 to 15 percent slopes

CnC Chenango gravelly silt loam, 8 to 15 percent slopes

CoB Collamer silt loam, 3 to 8 percent slopes
CoC Collamer silt loam, 8 to 15 percent slopes

ErA Erie gravelly silt loam, 0 to 3 percent slopes
ErB Erie gravelly silt loam, 3 to 8 percent slopes

FAC Farmington silt loam, sloping

HLC Hollis soils, sloping

HoA Hoosic gravelly sandy loam, 0 to 3 percent slopes
HoB Hoosic gravelly sandy loam, 3 to 8 percent slopes.
HoC Hoosic gravelly sandy loam, 8 to 15 percent slopes

LdC Lordstown channery silt loam, 8 to 15 percent slopes

MdB Mardin gravelly silt loam, 3 to 8 percent slopes
MdC Mardin gravelly silt loam, 8 to 15 percent slopes

OkA Oakville loamy fine sand, 0 to 3 percent slopes
OkB Oakville loamy fine sand, 3 to 8 percent slopes

PtC Pittsfield gravelly loam, 8 to 15 percent slopes

RbA Rhinebeck silt loam, 0 to 3 percent slopes
RbB Rhinebeck silt loam, 3 to 8 percent slopes

RdC Riverhead sandy loam, 8 to 15 percent slopes

Su Suncook sandy loam

SwC Swartswood gravelly loam, 8 to 15 percent slopes

UnC Unadilla silt loam, 8 to 15 percent slopes

WuC Wurtsboro gravelly loam, 8 to 15 percent slopes

ORANGE COUNTY, NEW YORK, PRIME FARMLAND MAPPING UNITS

AdA	Allard silt loam, 0 to 3 percent slopes
Ba	Barbour fine sandy loam
Be	Basher fine sandy loam
CgA	Castile gravelly silt loam, 0 to 3 percent slopes
CgB	Castile gravelly silt loam, 3 to 8 percent slopes
ChB	Charlton fine sandy loam, 3 to 8 percent slopes
CnA	Chenango gravelly silt loam, 0 to 3 percent slopes
CnB	Chenango gravelly silt loam, 3 to 8 percent slopes
Fd	Fredon loam - where drained
LdB	Lordstown channery silt loam, 3 to 8 percent slopes
My	Middlebury silt loam
PcB	Pittsfield gravelly loam, 3 to 8 percent slopes
Ra	Raynham silt loam - where drained
RhA	Riverhead sandy loam, 0 to 3 percent slopes
RhB	Riverhead sandy loam, 3 to 8 percent slopes
ScA	Scio silt loam, 0 to 3 percent slopes
SwB	Swartswood gravelly loam, 3 to 8 percent slopes
Tg	Tioga silt loam
UnB	Unadilla silt loam, 0 to 8 percent slopes
WuB	Wurtsboro gravelly loam, 3 to 8 percent slopes

New York State Department of Environmental Conservation
21 South Putt Corners Road, New Paltz, NY 12561-1696
(914) 256-3000 FAX (914) 255-4659

FAX COVER SHEET

TO: Jack Shaw

FROM: Leslie Surprenant

DATE: 10/7/97 # of pages including cover 3

MESSAGE: Maps for Lk Washington + Stewart Coop pond

New Paltz Fax Machines:

(914) 255-4659	Lands & Forests, Forest Rangers, Fish & Wildlife
(914) 255-3042	Legal, Compliance Services
(914) 255-0714	Regional Director, Public Affairs, F. Dunwell
(914) 255-0716	Air
(914) 255-9249	Law Enforcement
(914) 255-2987	Spills Management
(914) 255-3414	Solid Waste, Hazardous Substance Regulation
(914) 255-4238	Hazardous Waste Remediation
(914) 255-9219	Sportsman Education & Wildlife

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-3502

John P. Cahill
Commissioner

September 11, 1997

Mr. Jack Shaw
Northern Ecological Associates
33 Park Street
Canton, NY 13617

Dear Mr. Shaw:

Enclosed, per your request, is a copy of the most recent *Priority Waterbodies List (PWL) for New York State*. The PWL is a statewide inventory of waterbodies that characterizes known and suspected water quality problems and issues in New York State.

Also enclosed is a *PWL Drainage Basin Report* for the Lower Hudson River Basin. I included this report to give you an idea of the scope of these documents. (This report covers waterbodies in the Newburgh area.) Basin reports for other areas of the state are available at a cost of $5.00 each.

Should you have any questions or need any further information, please do not hesitate to contact me at (518) 457-7130.

Sincerely,

Jeffrey A. Myers
Watershed Assessment and Research

encl.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, NY 12233-3502

John P. Cahill
Commissioner

October 9, 1997

Jack Shaw
NEA
33 Park St
Canton, N.Y. 13617

Dear Mr. Shaw:

As per your request, I have enclosed a map showing locations of public water supplies in the area you specified. Also enclosed is a table listing information for these wells.

The locations shown for the Mt. Airy Trailer Court seem questionable. For confirmation try the Orange County Health Department. If you have any other questions please don't hesitate to call me at 518 457-3142.

914-291-2331

Sincerely,

James D. Garry
Senior Engineering Geologist
Water Quality Section
Bureau of Watershed Assessment
and Research

Enclosures

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 8, 1997

Mr. Michael Stoll
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045

RE: The Stewart Army Subpost Divestiture Environmental Assessment

Dear Mr. Stoll:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of the divestiture of the Stewart Army Subpost (STAS) of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the assessment process, your input is requested in identifying vegetation, wildlife, communities of concern, and critical habitats in the vicinity of the proposed project area.

The proposed project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area. Enclosed is a copy of the topographic maps showing the area of interest highlighted in yellow.

An integral part of the EA involves the identification of threatened, endangered, or other species of concern, wildlife refuges/management areas, critical habitats, and other natural landscape features that may be directly or indirectly impacted by the proposed project. We are especially interested in any element occurrences within 1.5 miles of the project area. In addition, any recommendations your agency may have regarding the mitigation of potential impacts to these sensitive resources would be extremely helpful.

We also are particularly interested in whether there are any existing joint-Federal/State Natural Resource Plans pursuant to the Conservation Programs on Military Reservations (Sikes Act), Regional Wetland Concept Plans under the 1986 Emergency Wetlands Resources Act, and State Conservation Plans that are pertinent to STAS. In the event any such plans exist, we request a copy of each plan to assist in the preparation of the subject EA.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: A. Roos, USACE
A. Bjornsen, STAS
NEA File CE-100/P-9

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL: nea@northnet.org

September 18, 1997

Mr. Bill Adrience
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Permitting
50 Wolf Road Room 538
Albany, NY 12233-1750

Dear Mr. Adrience,

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of both the divestiture of the Stewart Army Subpost (STAS), and the land transfer of STAS Parcel 19, of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York.

The first project would involve the divestiture of the 402-acre STAS facility, including the main subpost facilities and the Stewart Terrace Housing Area, whereas the second project would involve transfer of the approximately 10-acre Parcel 19, consisting of four buildings with abutting aircraft parking apron, from STAS to the New York State Department of Transportation.

Based on our consultation with Mr. Scott Ballard, NYSDEC-Division of Environmental Permitting, and Mr. Jim Beech, NYSDEC-Division of Water Resources, during the week of September 8, 1997, we have determined that two streams enter the STAS property. The first is a class D, proposed to be reclassified as C, tributary of Ramsdell Lake (i.e. Beaver Dam Lake) numbered H-89-12-P234-6A that enters STAS property on the northwest corner, whereas the second is a class A Subtributary of Lake Washington numbered H-P 225-3-3 that enters on the southeast edge. I have attached a copy of the resource maps produced by Mr. Ballard and Mr. Beech. No NYSDEC-designated freshwater wetlands occur on the property. The closest NYSDEC wetland is a class II wetland located west of Jackson Road and north of the Stewart Terrace Housing area. Since the projects involve the divestiture or transfer of military real property, and no construction or excavation activities are required, neither project would impact tributaries H-89-12-P234-6A or H-P 225-3-3. Accordingly, we assume that neither an Article 15 Protection of Waters or Article 24 Freshwater Wetlands permit is required for these actions. We request a written response confirming these assumptions.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: A. Roos, USACE
A. Bjornsen, STAS
NEA Files CE-100/P-9 and P-10

OFFICE OF PARKS · RECREATION · HISTORIC PRESERVATION
NEW YORK STATE
Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-86

February 27, 1998

John Sassi, P.E.
Department of the Army
New York District - Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Sassi:

Re: ARMY
Cultural Resources Input
Environmental Baseline Study
Stewart Army Subpost
New Windosr/Newburgh, Orange County
97PR0561

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations.

Based upon this review, the SHPO accepts and approves the final cultural resources report. We concur with the reports recommendations for archeological testing and look forward to receiving the results of that work when it is completed.

When responding, please be sure to refer to the OPRHP project review (PR) number noted above. If you have any questions, please feel free to call me at (518) 237-8643 ext. 255.

Sincerely,

Robert D. Kuhn, Ph.D.
Historic Preservation Coordinator
Field Services Bureau

RDK:cm

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

April 16, 1997

Stuart Piken, P.E.
Department of the Army
New York District - Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

Dear Mr. Piken:

RE: ARMY
Cultural Resources Input
Environmental Baseline Study
Stewart Army Subpost
New Windsor/Newburgh, Orange Co.
97PR0561

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP) concerning your project's potential impact/effect upon historic and/or prehistoric cultural resources. The documentation which you provided on your project has been reviewed by our staff. Preliminary comments and/or requests for additional information are noted on separate attachments accompanying this letter. A determination of impact/effect will be provided only after ALL documentation requirements noted on any attachments have been met. Any questions concerning our preliminary comments and/or requests for additional information should be directed to the appropriate staff person identified on each attachment.

In cases where a state agency is involved in this undertaking, it is appropriate for that agency to determine whether consultation should take place with OPRHP under Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. In addition, if there is any federal agency involvement, Advisory Council on Historic Preservation's regulations, "Protection of Historic and Cultural Properties" 36 CFR 800 require that agency to initiate consultation with the State Historic Preservation Officer (SHPO).

When responding, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director, Historic Preservation
Field Services Bureau

RLP:cm

attachments: [*] Archeology Comments
[*] Building/Structure/District Evaluation Comments

ARCHEOLOGY COMMENTS

97 PR 0561

Based upon a review of the Cultural Resources Report for the proposed land transfer of STAS, the Office of Parks, Recreation and Historic Preservation (OPRHP) concurs with the archeological recommendations of the report. A Phase I archeological survey should be conducted for the areas identified in the report. The need for Phase II work will be evaluated based upon the results of the Phase I survey. We look forward to receiving those results when the Phase I survey is completed.

If you have any questions concerning archeology, please call Robert Kuhn at (518) 237-8643 ext. 255.

REQUEST FOR ADDITIONAL INFORMATION
TO EVALUATE
BUILDINGS/STRUCTURES/DISTRICTS

97 PR 0861

****

In order for us to complete our evaluation of the historic significance of all buildings/structures/districts within or adjacent to your project area we will need the following additional information:

____ Full project description showing area of potential effect.

____ Clear, original photographs of buildings/structures 50 years or older within or immediately adjacent to the project area, keyed to a site plan.

____ Clear, original photographs of the surroundings looking out from the project site in all directions, keyed to a site map.

____ Date of construction.

____ Brief history of property.

✓ Clear, original photographs of the following:

Building 2606 - Sayre - McGregor House additions

exterior & interior views.

____ Other: _____

_____

Please provide only the additional information checked above. If you have any questions concerning this request for additional information, please call John A. Bonafide at (518) 237-8643 ext.263 .

PLEASE BE SURE TO REFER TO THE PROJECT NUMBER NOTED ABOVE WHEN RESPONDING TO THIS REQUEST

NEA CONTACT REPORT

TO: Steve Compton

FROM: Lauren Malone

DATE: April 27, 1998

PERSON CONTACTED: Tom Smith

AFFILIATION: NY State Department of Transportation

LOCATION: Region 8 NY

PHONE:914-431-5731

SUBJECT: Traffic Count of Breunig Road

CC: NEA file CE 110 DO 9

SUMMARY: In 1996 a traffic count of the Breunig Road going to and from the Stewart International Airport was conducted. Going to the airport, 4,400 vehicles per day were reported, coming from the airport 4, 350. The annual average daily traffic was 8,700 vehicles per day.

May-01-98 07:49A

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
4 BURNETT BOULEVARD
POUGHKEEPSIE, N.Y. 12603

ALBERT J. BAUMAN
REGIONAL DIRECTOR

JOSEPH H. BOARDMAN
COMMISSIONER

FAX FROM REGION 8

PLANNING AND PROGRAM MANAGEMENT

DATE: 1 MAY 1998

TO: Lauren Malone PHONE: (315) 386-3704

FAX: (315) 379-0355

FROM: Bob Mannix PHONE: (914) 431-5975

FAX: (914) 431-7923

NUMBER OF PAGES (including cover sheet) 5

COMMENTS: I-84 / Drury Lane Interchange
Stewart Airport Access Connection

If there is a problem with this transmission, please call (914) 431-5723

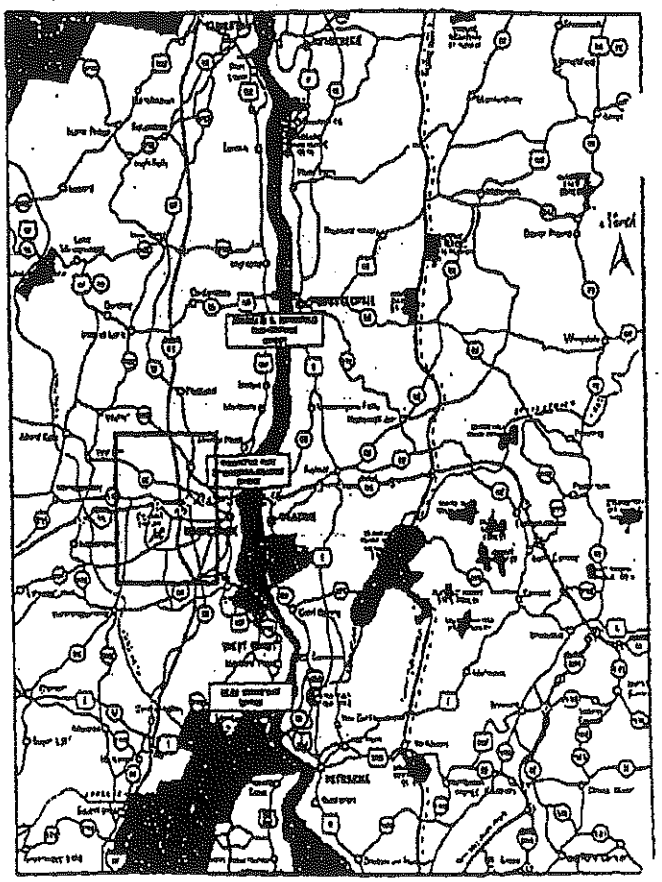
PLANNING AND PROGRAM MANAGEMENT FAX NUMBER: (914) 431-7923

SCOPING MEETING BROCHURE
FOR THE
I-84/DRURY LANE INTERCHANGE,
STEWART AIRPORT ACCESS CONNECTION
PIN 8062.05

JANUARY 14, 1998

INTRODUCTION

The Federal Highway Administration (FHWA) and the New York State Department of Transportation (NYSDOT) as lead agencies, in cooperation with the New York State Thruway Authority (NYSTA), the Federal Aviation Administration (FAA) and the U.S. Army Corps of Engineers, will prepare an Environmental Impact Statement (EIS) for a proposed intermodal project in the Towns of New Windsor, Montgomery and Newburgh, Orange County. The proposed project will involve the construction of an interchange on I-84 with Drury Lane, the construction of an east/west connector road between Drury Lane and the Stewart Airport terminal and the widening and reconstruction of a portion of Drury Lane. Today's Scoping Meeting consists of two sessions: an afternoon session at 2:00 pm at the New Windsor Town Hall for interested agencies, and an evening session at 7:00 pm at the Little Britain Elementary School in the Town of New Windsor for the general public.



REGIONAL LOCATION MAP

At this meeting, the public will be provided with an opportunity to express concerns for environmental issues that they feel need to be addressed in the EIS. Oral or written comments may be introduced for the record at the meeting, or the latter may be filed on or before February 14, 1998, with:

Christopher A. Waite
Director of Highway Design
NYS Thruway Authority
P.O. Box 189
Albany, NY 12201-0189

OBJECTIVES AND DESIGN CONSIDERATIONS

The project is being undertaken by the FHWA, NYSDOT and the Thruway Authority in order develop a more direct access between Stewart International Airport and the regional highway system Further, this effort is intended to stimulate the local and regional economies through the developme of the Stewart Airport Properties in the vicinity of Drury Lane and the development of the airport i accordance with the Stewart Airport Master Plan. In developing the project, full consideration : being given to balancing social, economic, and environmental effects with FHWA, NYSDOT an regional transportation goals. All attempts will be made to avoid, minimize and/or mitigate impact of the project upon environmental resources.

PROJECT LOCATION & DESCRIPTION

The proposed project is situated within the Towns of Newburgh, New Windsor and Montgomery i Orange County, New York. Features to be considered as part of the project are:

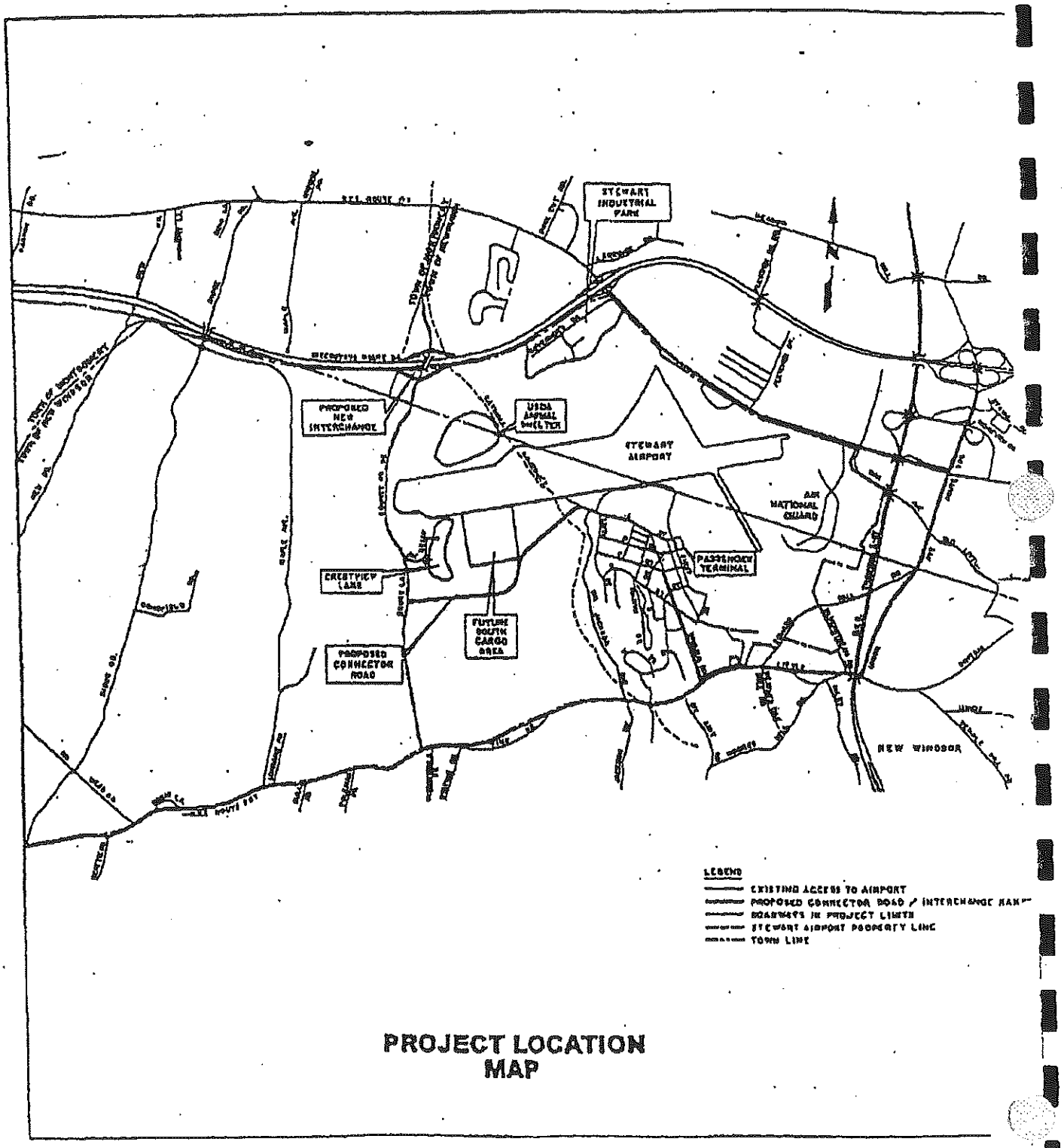
- The construction of an interchange on I-84 with Drury Lane, to provide easy access between the interstate highway system and the airport.
- The construction of an east/west connector road between Drury Lane and the Stewart Airport terminal.
- The widening and reconstruction of a portion of Drury Lane, improving safety and capacity.

CONTENT OF ENVIRONMENTAL IMPACT STATEMENT

An Environmental Impact Statement (EIS) is being prepared to assess the social, economic and environmental impacts associated with implementation of the project. Each alternative, as well as the no-build alternative, will be compared and evaluated against the project need. Under jurisdiction of the National Environmental Policy Act (NEPA), the EIS is being prepared in accordance with FHWA guidelines for preparation of environmental impact statements, and in accordance with substantive requirements of the New York State Environmental Quality Review Act (SEQRA). The major elements of the EIS will include the following: 1) Description of the proposed project; 2) Alternatives for the proposed project; 3) Probable impact of the project if implemented; 4) Description of the environment prior to implementation of the project and probable environmental impacts; and 5) Methods of mitigating adverse environmental impacts. The major social, economic and environmental considerations anticipated to be addressed in this EIS include:

Social Consequences

- Community Cohesion
- Community Facilities
- Public Services and Facilities
- Highway Safety
- Social Groups Benefited or Harmed
- Traffic and Transportation



PROJECT LOCATION MAP

Economic Consequences

- Regional and Local Economies
- Highway Related Businesses
- Established Business Districts
- Relocation Impacts

Environmental Consequences

- Air Quality
- Noise
- Groundwater/Surface Water
- Stormwater Management
- Wetlands
- General Ecology and Endangered Species
- Hazardous Waste and Contaminated Materials
- Asbestos
- Visual Resources
- Visual Impacts
- Historic and Cultural Resources
- Land Use Plans

Construction Impacts
Short-Term Uses versus Long-Term Productivity
Irreversible and Irretrievable Commitments of Resources
Unavoidable Adverse Impacts
Growth-Inducing Aspects

EVALUATION PROCESS

This project is being progressed in accordance with NYSDOT's Design Procedure Manual to assure that maximum exposure is given to a proposed highway project. This will be accomplished through this scoping meeting, other public meetings/hearings, distribution of the Design Report/Draft Environmental Impact Statement (DR/DEIS), Final Design Report/Final Environmental Impact Statement (FDR/FEIS), and coordination with regulatory agencies, local authorities and other involved and interested parties.

This scoping meeting formally presents the overall highway project, with emphasis placed on the environmental issues. Those attending will be invited to present their comments. A recording of the meeting will be made. All written comments received at the meeting and those received on or before February 14, 1998, will be included in the official record. The NYSTA will analyze and evaluate these comments. These comments will be considered during preparation of the DR/DEIS. The DR/DEIS will be circulated to involved and interested agencies, and will be available for public review at several public facilities yet to be determined. A formal public hearing will be conducted after distribution of the DR/DEIS at which time comments can be made on this document. These comments will be addressed in the FDR/FEIS prepared for this project. A decision will then be made based on the recommendation in the FDR/FEIS.

NORTHERN
ECOLOGICAL
ASSOCIATES, INC.

Environmental Scientists and Planners

33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL nea@northnet.org

March 22, 1999

Ms. Jean Petrusiak
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110

RE: The Stewart Army Subpost Divestiture Environmental Assessment

Dear Ms. Petrusiak:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of the divestiture of the Stewart Army Subpost (STAS) of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the assessment process, your input is requested in identifying vegetation, wildlife, and communities of concern in the vicinity of the proposed project area.

The proposed project would involve the divestiture of the 412-acre STAS facility, including the main subpost facilities, the Stewart Terrace Housing Area, the STAS Parcel 19 and the STAS Water System. Enclosed is a copy of the topographic maps showing the area of interest highlighted in yellow.

An integral part of the EA involves the identification of threatened, endangered, or other species of concern, wildlife refuges/management areas, significant habitats, and other natural landscape features that may be directly or indirectly impacted by the proposed project. We are especially interested in any element occurrences within 1.5 miles of the project area. In addition, any recommendations your agency may have regarding the mitigation of potential impacts to these sensitive resources would be extremely helpful.

This information was previously requested in letters to you dated September 8, 1997. Enclosed is a copy of the response to these letters from the New York Natural Heritage Program. We are currently requesting an update to your response.

NEA respectfully requests that you submit your response within 30 days from the date of this letter. Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: G. Menegio, USACE
A. Bjornsen, STAS
NEA File CE-100/DO-9-MOD

NATURAL HERITAGE ELEMENT OCCURRENCE REPORT

Prepared 19 SEP 1997 by NY Natural Heritage Program, NYS DEC, Latham New York

This report contains sensitive information which should be treated in a sensitive manner.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS

UNTY WN	LOCATION	PREC- ISION	LAST SEEN	EO RANK	SCIENTIFIC NAME & Common name	NY STATUS	US STATUS	HERITAGE RANKS	USGS TOPO QUAD LAT. & LONG.	OFFICE USE	OFFICE USE
INDSOR	MAPLE AVENUE SITE	S	1987	E	ARDEA HERODIAS Great blue heron BIRD	P		G5 S5	MAYBROOK 41 28 59 N 74 08 43 W		4107442 1

s Processed

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE NO.
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomery, Otsego Rensselaer, Schenectady, Schoharie	William J. Clarke Permit Administrator	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren, Washington	Richard Wild Permit Administrator	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrence	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison, Onondaga Oswego, Tioga, Tompkins	Ralph Manna, Jr. Permit Administrator	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Orleans Schuyler, Seneca, Steuben Wayne, Yates	Albert Butkas Permit Administrator	6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus	Steven Doleski Permit Administrator	270 Michigan Avenue Buffalo, NY 14203-2999

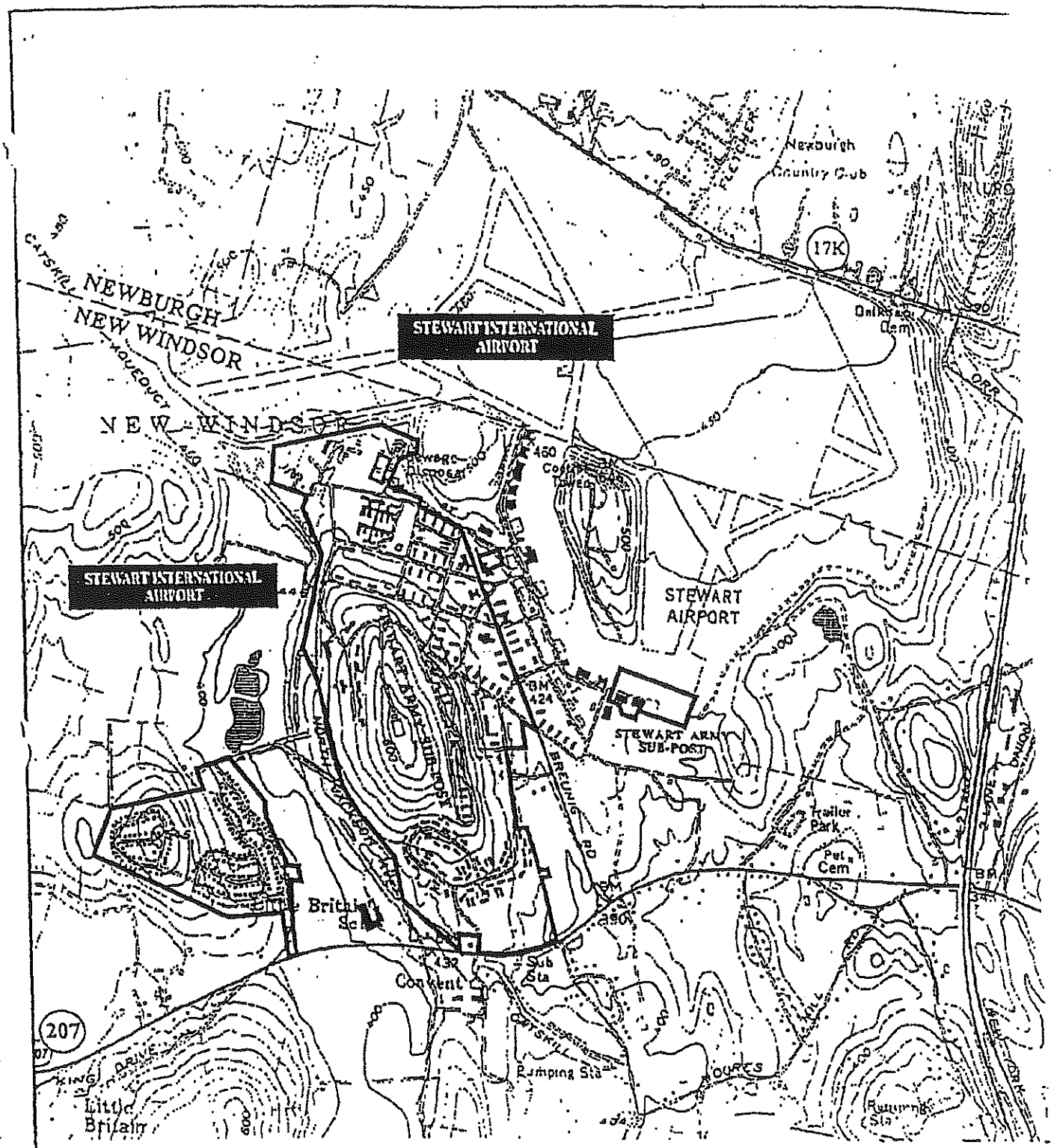


Figure 1
Locus Plan for the Stewart

New York State Department of Environmental Conservation
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, New York 12110-2400
(518) 783-3932

John P. Cahill
Commissioner

September 22, 1997

RECEIVED SEP 2 2 1997

Stephen A. Compton
Northern Ecological Associates Inc
33 Park Street, PO Box 287
Canton, NY 13617

Dear Mr. Compton:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for biological information concerning the Stewart Army Subpost Environmental Assessment and/or Parcel 19 Land Transfer, site as indicated on your enclosed map, located in the Town of New Windsor, Orange County.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals and/or significant wildlife habitats. Please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we may update this response.

Sincerely,

Carole Flood

Carole Flood
Information Services
NY Natural Heritage Program

Encs.
Reg. 3, Wildlife Mgr.
Reg. 3, Fisheries Mgr.

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and m on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sour conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's natu

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for yo use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.
TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.
USGS 7 ½' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).
LAT: Centrum latitude coordinate of the location of the occurrence. Caution: latitude & longitude must be used with PRECISION (e.g. the loc occurrence with M (minute) precision is not precisely known & is thought to occur within a 1.5 mile radius of the latitude/longitude coordi
LONG: Centrum longitude coordinate of the location of the occurrence. See also LAT above.
PRECISION: S - seconds: location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.
M - minutes: location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.
G - general: location known to within a 5 mile radius of the latitude and longitude given.
SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location.
SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community.
COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.
ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)
LAST SEEN: Year rare species or significant ecological community last observed extant at this location.
EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN and PRE
A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.
F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
? = Unknown.
Blank = Not assigned.

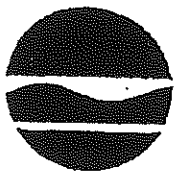
NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Cons Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.
E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR.
T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in NY.
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.
SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists f continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Enviror Conservation Law section 11-0535 (Endangered and Threatened Species).
P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of v
U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a lic take may be required.
G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environ Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conser Law section 9-1503.
(blank) = no state status
E = Endangered Species: listed species are those with:
1) 5 or fewer extant sites, or
2) fewer than 1,000 individuals, or
3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
T = Threatened: listed species are those with:
1) 6 to fewer than 20 extant sites, or
2) 1,000 to fewer than 3,000 individuals, or
3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
R = Rare: listed species have:
1) 20 to 35 extant sites, or
2) 3,000 to 5,000 individuals statewide.
U = Unprotected
V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the if causal factors continue unchecked.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

continued on next page

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Wildlife Resources Center – New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400
Phone: (518) 783-3932 FAX: (518) 783-3916



John P. Cahill
Commissioner

April 6, 1999

Stephen A. Compton
Northern Ecological Associates Inc
33 Park Street, PO Box 287
Canton, NY 13617

Dear Mr. Compton:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for. biological information concerning the proposed Stewart Army Subpost Divestiture Environmental Assessment, site as indicated on your enclosed map, located in the Town of New Windsor, Orange County.

We have no records of known occurrences of endangered, threatened, or special concern wildlife species, of rare plants, animals, or significant natural communities, or of other significant habitats on your site, nor in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or endangered species, natural communities or other significant habitats do not exist on or adjacent to the proposed site, but rather that our files currently do not contain any information which indicates the presence of these. Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we cannot provide a definitive statement on the presence or absence of species, habitats or communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. Please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

Sincerely,

Carole Flood

Carole L. Flood, Information Services
NY Natural Heritage Program

Encs.
Cc: Reg. 3, Wildlife Mgr..

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE NO
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomery, Otsego Rensselaer, Schenectady, Schoharie	William J. Clarke Permit Administrator	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren, Washington	Richard Wild Permit Administrator	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrence	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison, Onondaga Oswego, Tioga, Tompkins	Ralph Manna, Jr. Permit Administrator	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Orleans Schuyler, Seneca, Steuben Wayne, Yates	Albert Butkas Permit Administrator	6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua	Steven Doleski Permit Administrator	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

NORTHERN ECOLOGICAL ASSOCIATES, INC.
Environmental Scientists and Planners
33 Park Street, P.O. Box 287 • Canton, NY 13617 • (315) 386-3704 • FAX (315) 379-0355 • E-MAIL nea@northnet.org

March 22, 1999

Mr. Michael Stoll
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045

RE: The Stewart Army Subpost Divestiture Environmental Assessment

Dear Mr. Stoll:

Northern Ecological Associates, Inc. (NEA) has been contracted by the U.S. Army Corps of Engineers (USACE), New York District to conduct an Environmental Assessment (EA) of the divestiture of the Stewart Army Subpost (STAS) of the United States Military Academy (USMA) in the Town of New Windsor, Orange County, New York. As part of the assessment process, your input is requested in identifying vegetation, wildlife, communities of concern, and critical habitats in the vicinity of the proposed project area.

The proposed project would involve the divestiture of the 412-acre STAS facility, including the main subpost facilities, the Stewart Terrace Housing Area, the STAS Parcel 19, and the STAS Water System. Enclosed is a copy of the topographic maps showing the area of interest highlighted in yellow.

An integral part of the EA involves the identification of threatened, endangered, or other species of concern, wildlife refuges/management areas, critical habitats, and other natural landscape features that may be directly or indirectly impacted by the proposed project. We are especially interested in any element occurrences within 1.5 miles of the project area. In addition, any recommendations your agency may have regarding the mitigation of potential impacts to these sensitive resources would be extremely helpful.

We also are particularly interested in whether there are any existing joint-Federal/State Natural Resource Plans pursuant to the Conservation Programs on Military Reservations (Sikes Act), Regional Wetland Concept Plans under the 1986 Emergency Wetlands Resources Act, and State Conservation Plans that are pertinent to STAS. In the event any such plans exist, we request a copy of each plan to assist in the preparation of the subject EA.

This information was previously requested in letters to you dated September 8, 1997. Enclosed is a copy of the response to these letters from United States Fish and Wildlife Service. We are currently requesting an update to your response.

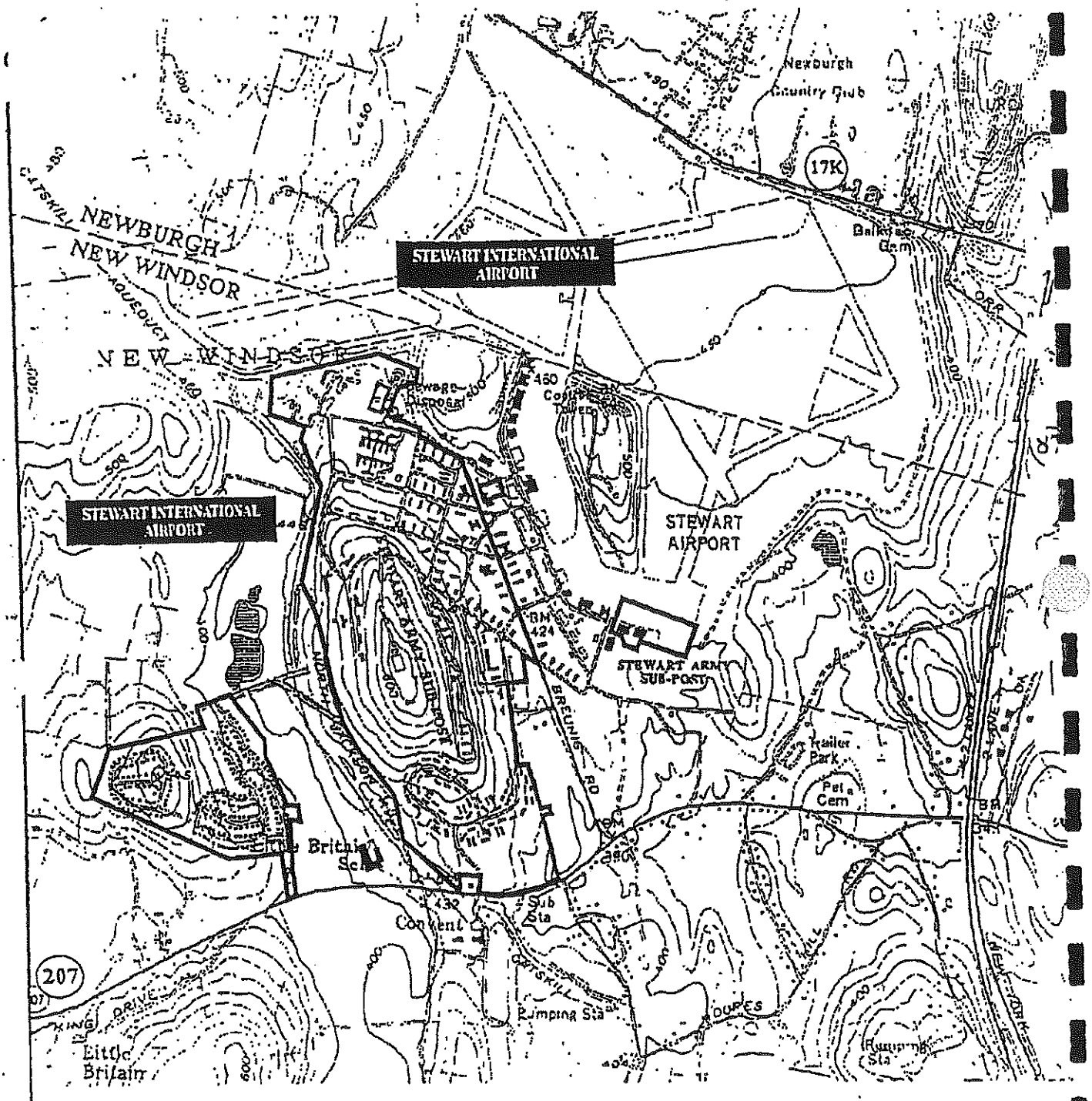
NEA respectfully requests that you submit your response within 30 days from the date of this letter. Your assistance in this matter is greatly appreciated. If you have any questions regarding this request, please do not hesitate to call me at (315) 386-3704.

Sincerely,
Northern Ecological Associates, Inc.

Stephen A. Compton
Project Manager

Enc.

cc: G. Menegio, USACE
A. Bjornsen, STAS
NEA File CE-100/DO-9-MOD



Source: USGS 7.5 Minute Topographic Maps (Cornwall and Newburgh, New York)

Figure 1
Locus Plan for the Stewart

United States Department of the Interior

FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, New York 13045

September 15, 1997

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, NY 13617

RECEIVED SEP 25 1997

RECEIVED SEP 15 1997

Dear Mr. Compton:

This responds to your letters of September 8, 1997, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy Stewart Army Subpost's Parcel 19 and another 402 acre parcel in the Town of New Windsor, Orange County, New York. The information will be used in the preparation of Environmental Assessments.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. No habitat within New York State is currently designated "critical habitat" in accordance with provisions of the Endangered Species Act.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1676
(914) 256-3000

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

ACTING FOR

Sherry W. Morgan
Field Supervisor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, NY 13045

April 6, 1999

Mr. Stephen A. Compton
Project Manager
Northern Ecological Associates, Inc.
33 Park Street, P.O. Box 287
Canton, NY 13617

Dear Mr. Compton:

This responds to your letter of March 22, 1999, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy, Stewart Army Subpost Facility, in the Town of New Windsor, Orange County, New York.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

Further, we are not aware of any existing joint-Federal/State natural resource plans pursuant to the Conservation Programs on Military Reservations (Sikes Act), or pursuant to the 1986 Emergency Wetlands Resources Act, or any New York State Department of Environmental Conservation plans.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1676
(914) 256-3000

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Services
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
Telephone: (607) 255-4864

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting Mr. Joseph Seebode, Chief, Regulatory Branch, U.S. Army Corps of Engineers, 26 Federal Plaza, New York, NY 10278 (telephone: [212] 264-3996).

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

David A. Stilwell
Acting Field Supervisor

Enclosure

cc: NYSDEC, New Paltz, NY (Environmental Permits)
NYSDEC, Latham, NY
COE, New York, NY

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIF IN NEW YORK

Common Name	Scientific Name	Status	Distribution
FISHES			
Sturgeon, shortnose*	*Acipenser brevirostrum*	E	Hudson River & other Atlantic coastal rivers
REPTILES			
Turtle, bog	*Clemmys muhlenbergii*	T	Albany, Columbia, Dutchess, Genesee, Orange, Oswego, Putnam, Seneca, Ulster, W and Westchester Counties
Turtle, green*	*Chelonia mydas*	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	*Eretmochelys imbricata*	E	Oceanic summer visitor coast waters
Turtle, leatherback*	*Dermochelys coriacea*	E	Oceanic summer resident coast waters
Turtle, loggerhead*	*Caretta caretta*	T	Oceanic summer resident coa waters
Turtle, Atlantic ridley*	*Lepidochelys kempii*	E	Oceanic summer resident coastal waters
BIRDS			
Eagle, bald	*Haliaeetus leucocephalus*	T	Entire state
Falcon, peregrine	*Falco peregrinus*	E	Entire state - re-establishm former breeding range in progress
Plover, piping	*Charadrius melodus*	E T	Great Lakes Watershed Remainder of coastal New Yo
Tern, roseate	*Sterna dougallii dougallii*	E	Southeastern coastal portions of state
MAMMALS			
Bat, Indiana	*Myotis sodalis*	E	Entire state
Cougar, eastern	*Felis concolor couguar*	E	Entire state - probably extinct
Whale, blue*	*Balaenoptera musculus*	E	Oceanic
Whale, finback*	*Balaenoptera physalus*	E	Oceanic
Whale, humpback*	*Megaptera novaeangliae*	E	Oceanic
Whale, right*	*Eubalaena glacialis*	E	Oceanic
Whale, sei*	*Balaenoptera borealis*	E	Oceanic
Whale, sperm*	*Physeter catodon*	E	Oceanic
MOLLUSKS			
Snail, Chittenango ovate amber	*Succinea chittenangoensis*	T	Madison County
Mussel, dwarf wedge	*Alasmidonta heterodon*	E	Orange County - lower Nevers River

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Ser

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK (Cont'd)

Common Name	Scientific Name	Status	Distribution
BUTTERFLIES			
Butterfly, Karner blue	*Lycaeides melissa samuelis*	E	Albany, Saratoga, Warren, and Schenectady Counties
PLANTS			
Monkshood, northern wild	*Aconitum noveboracense*	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	*Isotria medeoloides*	T	Entire state
Swamp pink	*Helonias bullata*	T	Staten Island - presumed extirpated
Gerardia, sandplain	*Agalinis acuta*	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	*Asplenium scolopendrium* var. *americana*	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	*Platanthera leucophea*	T	Not relocated in New York
Bulrush, northeastern	*Scirpus ancistrochaetus*	E	Not relocated in New York
Roseroot, Leedy's	*Sedum integrifolium* ssp. *Leedyi*	T	West shore of Seneca Lake
Amaranth, seabeach	*Amaranthus pumilus*	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	*Solidago houghtonii*	T	Genesee County

E=endangered T=threatened P=proposed

APPENDIX G

AFFIDAVIT OF PUBLICATION
OF DRAFT ENVIRONMENTAL ASSESSMENT

LEGAL NOTICE
DIVESTITURE OF THE STEWART ARMY SUB-POST
NEW WINDSOR, NEW YORK

A Draft Environmental Assessment (EA) was prepared for the Land Transfer of the Stewart Army Subpost in New Windsor, New York. The following is the Finding of No Significant Impact resulting from the EA

I. NAME OF ACTION:

Divestiture of Stewart Army Subpost (STAS) by the United States Military Academy (USMA), Town of New Windsor, Orange County, New York.

II. DESCRIPTION OF ACTION:

a. Proposed Action: The proposed action would include the disposal of the 402.5-acre STAS. Disposal would be accomplished by: Department of Defense (DOD) Secretarial transfer of the 1500 Block, the 1900 Block, and Stewart Terrace Housing Area from the Secretary of the Army (SA) to the Secretary of the Navy (property requested by the Department of the Navy, US. Marine Corps (USMC); SA approval of the transfer of building 2006 and its grounds, the 2100 Block, and the majority of the 2200 Block to the U.S. Army Reserve Command (ARC); the transfer of the 100 Block (Parcel 19) to NYSDOT; and the transfer of remaining STAS property, including the STAS water treatment system, from the DA to the Town of New Windsor (TNW) in accordance with special legislation passed by Congress and signed by President William J. Clinton on October 17, 1998.

b. Alternatives: Disposal considerations include three (3) alternatives: (1) no action; (2) encumbered disposal; (3) and unencumbered disposal.

III. ANTICIPATED ENVIRONMENTAL IMPACTS:

There is no significant adverse environmental impacts or consequences anticipated in the proposed divestiture; there will be no change(s) in existing land use(s), and the land transfer will not involve any direct development. This action will, however, result in a change of property ownership, between the USMA and the USMC, ARC and the TNW. Reuse of the property will be at the discretion of the new property owners. The new owners would require compliance with federal, state and local regulatory requirements pertaining to future land use, including obtaining.

IV. CONCLUSION

Given there are no anticipated significant impacts (primary or secondary) associated with the proposed land transfer, this action has been determined to have no adverse environmental impact on the quality of the human environment. An Environmental Impact Statement is, therefore, not required.

The document will be available for review at the following locations: 1) The Newburgh Free Library; 2) The Newburgh Town Hall; 3) The Town of New Windsor Town Hall; and 4) The Community Library at the West Point.

Comments by intersted parties may be submitted in writing to Alan B. Bjornsen, CEP, US Military Academy, Environmental Management Division, Directorate of Housing and

State of New York
County of Orange, ss:

Everett Smith, being duly sworn disposes and says that he is President of the E.W. Smith Publishing Company, Inc. publisher of The Sentinel, a weekly newspaper published and of general circulation in the Town of New Windsor, and tha the notice of which the annexed is a true copy was published once in said newspaper, commencing on the 24 day of June A.D., 1999 and ending on the 24 day of June A.D. 1999

Subscribed and shown to before me. this 9 day of July 1999.

Mary E Fordenbacher

Notary Public of the Sate of New York
County of Orange.

My commission expires 2.27.00

MARY E. FORDENBACHER
Notary Public, State of NY
Residing in Orange County
No. 4718013

IV.ECONOMIC IMPACT STUDY - APPENDIX A

Appendix A

Office Buildings

Project Specifications

LABOR

Initial Labor Force Size:		%
Telemarketers	30	20.00%
Loan & Credit Clerks	11	7.50%
Bookkeeping, Accounting, Audit Clerks	38	25.00%
Data Entry Keyers	38	25.00%
Credit Checkers	15	10.00%
Secretaries (Except Legal & Medical)	11	7.50%
Managers	8	5.00%
	0	
	150	100.00%

Wages/Salary:	
Telemarketers	$8.49 per hr.
Loan & Credit Clerks	$12.18
Bookkeeping, Accounting, Audit Clerks	$12.02
Data Entry Keyers	$10.73
Credit Checkers	$11.98
Secretaries (Except Legal & Medical)	$11.31
Managers	$30.40
	$0.00
Construction Wages	***$45,851,912***
Avg Annual Salary Increase	4.0%
Fringe Benefits (% of Salary)	
Manufacturing Employees	33.00%
Managers	33.00%
Other Employees	33.00%
No. of Transferees to New Facility	420 10.00%

Annual Growth in Labor Force:	
Telemarketers	1.00%
Loan & Credit Clerks	1.00%
Bookkeeping, Accounting, Audit Clerks	1.00%
Data Entry Keyers	1.00%
Credit Checkers	1.00%
Secretaries (Except Legal & Medical)	1.00%
Managers	1.00%
0	1.00%

INVESTMENT:	
Building & Land (over 15 years)	***$143,530,259***
Machinery & Equipment	***$28,631,452***

UTILITIES	
Annual Electric Consumption (kwh)	10,248,000
Annual Gas Consumption (mcf)	27,888
Annual Water Consumption (1,000 Gal)	49,045
Annual Sewer Consumption (1,000 Gal)	49,045

CORPORATE INCOME	
Revenues	n/a
Profit margin	n/a
EBIT	$18,739,870
Annual Growth Rate %	5.00%

Office Buildings
Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	*Sales Tax:*	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			9.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	7.25%
Milage Rate	96			Natural Gas	7.25%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
Personal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Office Buildings
Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Muliplliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State TaxRate
Construction	1.00	$33,030	5.65%
Manufacturing	2.13	$32,598	5.63%
Transportation/Utilities	5.17	$28,615	5.46%
Wholesale Trade	2.42	$32,274	5.62%
Retail Trade	11.63	$18,485	4.78%
FIRE	5.08	$29,262	5.49%
Services	157.34	$24,701	5.24%
[illegible]r	2.40	$26,479	5.35%

Project is expected to have some outsourcing activity. The follpwing out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes;

Retail Sales	%of Gross Payroll
	40.00%

Medical Office Building
Project Specifications

LABOR					
Initial Labor Force Size:		%		**Annual Growth in Labor Force:**	
Physicians	22	27.50%		Physicians	1.00%
Nurses	10	12.50%		Nurses	1.00%
Medical Records	8	10.00%		Medical Records	1.00%
Clerical	20	25.00%		Clerical	1.00%
Lab Tech	4	5.00%		Lab Tech	1.00%
Radiology Tec	6	7.50%		Radiology Tec	1.00%
Physical Therapists	6	7.50%		Physical Therapists	1.00%
Managers	4	5.00%			1.00%
	80	100.00%			
Wages/Salary:				INVESTMENT:	
Physicians	$45.02	per hr.			
Nurses	$25.07			Building & Land (over 15 years)	***$6,137,790***
Medical Records	$13.28			Machinery & Equipment	***$3,672,000***
Clerical	$11.31				
Lab Tech	$28.04				
Radiology Tec	$18.73			UTILITIES	
Physical Therapists	$23.23			Annual Electric Consumption (kwh)	628,000
	$30.55			Annual Gas Consumption (mcf)	2,652
Construction Wages	***$1,854,000***			Annual Water Consumption (1,000 Gal)	1,690
Avg Annual Salary Increase	4.0%			Annual Sewer Consumption (1,000 Gal)	1,690
Fringe Benefits (% of Salary)					
Manufacturing Employees	33.00%			CORPORATE INCOME	
Managers	33.00%			Revenues	n/a
Other Employees	33.00%			Profit margin	n/a
				EBIT	$235,053
No. of Transferees to New Facility	8	10.00%		Annual Growth Rate %	1.25%

Medical Office Building
Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	*Sales Tax:*	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			0.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	0.00%
Milage Rate	96			Natural Gas	0.00%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
sonal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Medical Office Building

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Multipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	1.12	$33,030	5.65%
Manufacturing	2.55	$32,598	5.63%
Transportation/Utilities	5.35	$28,615	5.46%
Wholesale Trade	2.74	$32,274	5.62%
Retail Trade	12.25	$18,485	4.78%
FIRE	5.23	$29,262	5.49%
Services	138.70	$24,701	5.24%
Other	2.54	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Production Facility

Project Specifications

LABOR

Initial Labor Force Size:		%
Plastic Molding & Casting Mach Operators	9	17.50%
Lathe & Turning Mach Tool Setters, Metal &	3	5.00%
Machine Builders & Other Precision Mach A	3	5.00%
Metal Fabricators/Machinery maintenance	11	22.50%
Electrician	5	10.00%
Typists	4	7.50%
Electrical & Electronic Assemblers	13	25.00%
Management	4	7.50%
	50	100.00%

Wages/Salary:		
Plastic Molding & Casting Mach Operators	$11.24	per hr.
Lathe & Turning Mach Tool Setters, Metal &	$13.12	
Machine Builders & Other Precision Mach A	$11.42	
Metal Fabricators/Machinery maintenance	$14.94	
Electrician	$18.34	
Typists	$11.34	
Electrical & Electronic Assemblers	$11.42	
Management	$30.40	
Construction Wages	***$11,250,000***	
Avg Annual Salary Increase	4.0%	
Fringe Benefits (% of Salary)		
Manufacturing Employees	33.00%	
Managers	33.00%	
Other Employees	33.00%	
No. of Transferees to New Facility	3	5.00%

Annual Growth in Labor Force:	
Plastic Molding & Casting Mach Operators	1.00%
Lathe & Turning Mach Tool Setters, Metal	1.00%
Machine Builders & Other Precision Mach	1.00%
Metal Fabricators/Machinery maintenance	1.00%
Electrician	1.00%
Typists	1.00%
Electrical & Electronic Assemblers	1.00%
Management	1.00%

		INVESTMENT:	
11.69			
14.94		Building & Land (over 15 years)	***$37,611,000***
13.18		Machinery & Equipment	***$30,000,000***
13.12			
18.34			
11.3		UTILITIES	
11.42		Annual Electric Consumption (kwh)	9,000,000
33		Annual Gas Consumption (mcf)	15,000
		Annual Water Consumption (1,000 Gal)	21,875
		Annual Sewer Consumption (1,000 Gal)	21,875
		CORPORATE INCOME	
		Revenues	n/a
		Profit margin	n/a
		EBIT	$4,949,829
		Annual Growth Rate %	5.00%

Production Facility
Community Data:

TAXES:

Corporate Income Tax:

Apportionment:	Factor	Weight	Factor* Wt
Sales	50.00%	0.00%	0.00%
Payroll	25.00%	50.00%	12.50%
Property	25.00%	50.00%	12.50%
Total	100.00%	100.00%	25.00%
Tax Rate			9.00%

Property Tax:

Milage Rate	98
Assessment Rate-Real	100.00%
Inventory	n/a

Personal Income Tax:

% Personal Income Subject to Tax		100.00%	
Tax Rates	First	$11,000	4.14%
	Next	$2,000	5.25%
	Next	$7,000	5.90%
	Over	$20,000	6.85%

Sales Tax:

Construction Materials (EDZ)	3.25%
Machinery & Equipment (EDZ)	3.25%
Employee Retail Sales	7.25%

Sales Tax on Utilities:

Electricity	7.25%
Natural Gas	7.25%
Water	0.00%
Wastewater	0.00%

UTILITIES:

Utility Providers

Electricity	Central Hudson
Natural Gas	Central Hudson
Water	Town NW
Wastewater	Town NW

Utility Rates:

Average Annual Increases	4.00%
Electricity (per kWh)	$0.09
Natural Gas (per MCF)	$2.40
Water (per 1,000 Gal)	$3.10
Wastewater (per 1,000 Gal)	$3.10

COST OF LIVING:

Average New Home Cost	$165,000

Production Facility
Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau pf Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	1.76	$33,030	5.65%
Manufacturing	116.92	$32,598	5.63%
Transportation/Utilities	7.58	$28,615	5.46%
Wholesale Trade	11.93	$32,274	5.62%
Retail Trade	12.76	$18,485	4.78%
FIRE	5.05	$29,262	5.49%
Services	33.89	$24,701	5.24%
er	2.59	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Educational Facility
Project Specifications

LABOR

Initial Labor Force Size:		%
Faculty	11	28.00%
Professional Staff	13	32.00%
Salaried Staff	10	26.00%
Hourly Staff	6	14.00%
	0	0.00%
	0	0.00%
	0	0.00%
	40	100.00%

Wages/Salary:		
Faculty	$32.36	per hr.
Professional Staff	$19.42	
Salaried Staff	$11.31	
Hourly Staff	$9.61	
0	$0.00	
0	$0.00	
0	$0.00	
	$0.00	
Construction Wages	***$7,112,503***	
Avg Annual Salary Increase	4.0%	
Fringe Benefits (% of Salary)		
Manufacturing Employees	33.00%	
Managers	33.00%	
Other Employees	33.00%	
No. of Transferees to New Facility	13	10.00%

Annual Growth in Labor Force:		
Faculty		1.00%
Professional Staff		1.00%
Salaried Staff		1.00%
Hourly Staff		1.00%
	0	1.00%
	0	1.00%
	0	1.00%
		1.00%

INVESTMENT:	
Building & Land (over 15 years)	***$22,274,884***
Machinery & Equipment	***$4,443,377***

UTILITIES	
Annual Electric Consumption (kwh)	793,000
Annual Gas Consumption (mcf)	3,718
Annual Water Consumption (1,000 Gal)	6,794
Annual Sewer Consumption (1,000 Gal)	6,794

CORPORATE INCOME		
Revenues	n/a	
Profit margin	n/a	
EBIT		$0
Annual Growth Rate %		1.25%

Educational Facility

Community Data:

TAXES:

Corporate Income Tax:

Apportionment:	Factor	Weight	Factor* Wt
Sales	50.00%	0.00%	0.00%
Payroll	25.00%	50.00%	12.50%
Property	25.00%	50.00%	12.50%
Total	100.00%	100.00%	25.00%
Tax Rate			0.00%

Property Tax:

Milage Rate	96
Assessment Rate-Real	100.00%
Inventory	n/a

sonal Income Tax:

% Personal Income Subject to Tax		100.00%	
Tax Rates	First	$11,000	4.14%
	Next	$2,000	5.25%
	Next	$7,000	5.90%
	Over	$20,000	6.85%

Sales Tax:

Construction Materials (EDZ)	3.25%
Machinery & Equipment (EDZ)	3.25%
Employee Retail Sales	7.25%

Sales Tax on Utilities:

Electricity	0.00%
Natural Gas	0.00%
Water	0.00%
Wastewater	0.00%

UTILITIES:

Utility Providers

Electricity	Central Hudson
Natural Gas	Central Hudson
Water	Town NW
Wastewater	Town NW

Utility Rates:

Average Annual Increases	4.00%
Electricity (per kWh)	$0.09
Natural Gas (per MCF)	$2.40
Water (per 1,000 Gal)	$3.10
Wastewater (per 1,000 Gal)	$3.10

COST OF LIVING:

Average New Home Cost	$165,000

Educational Facility
Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	3.92	$33,030	5.65%
Manufacturing	2.11	$32,598	5.63%
Transportation/Utilities	2.63	$28,615	5.46%
Wholesale Trade	2.09	$32,274	5.62%
Retail Trade	6.82	$18,485	4.78%
FIRE	4.75	$29,262	5.49%
Services	124.85	$24,701	5.24%
Other	1.79	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Research & Development
Project Specifications

LABOR

Initial Labor Force Size:		%
Management	10	20.00%
Biological Scientists	10	20.00%
Chemical Engineers	10	20.00%
Computer Engineers	10	20.00%
Maintenance	10	20.00%
	0	0.00%
	0	0.00%
	50	100.00%

Wages/Salary:	
Management	$35.00 per hr.
Biological Scientists	$27.04
Chemical Engineers	$29.00
Computer Engineers	$25.35
Maintenance	$13.85
0	$0.00
0	$0.00
	$0.00
Construction Wages	***$4,912,816***
Avg Annual Salary Increase	4.0%
Fringe Benefits (% of Salary)	
Manufacturing Employees	33.00%
Managers	33.00%
Other Employees	33.00%
No. of Transferees to New Facility	20 10.00%

Annual Growth in Labor Force:		
Management		1.00%
Biological Scientists		1.00%
Chemical Engineers		1.00%
Computer Engineers		1.00%
Maintenance		1.00%
	0	1.00%
	0	1.00%
		1.00%

INVESTMENT:	
Building & Land (over 15 years)	***$15,133,109***
Machinery & Equipment	***$4,433,133***

UTILITIES	
Annual Electric Consumption (kwh)	488,000
Annual Gas Consumption (mcf)	2,288
Annual Water Consumption (1,000 Gal)	4,671
Annual Sewer Consumption (1,000 Gal)	4,671

CORPORATE INCOME		
Revenues	n/a	
Profit margin	n/a	
EBIT		$417,815
Annual Growth Rate %		1.25%

Research & Development

Community Data:

TAXES:

Corporate Income Tax:

Apportionment:	Factor	Weight	Factor* Wt
Sales	50.00%	0.00%	0.00%
Payroll	25.00%	50.00%	12.50%
Property	25.00%	50.00%	12.50%
Total	100.00%	100.00%	25.00%
Tax Rate			9.00%

Property Tax:

Milage Rate	96
Assessment Rate-Real	100.00%
Inventory	n/a

Personal Income Tax:

% Personal Income Subject to Tax		100.00%	
Tax Rates	First	$11,000	4.14%
	Next	$2,000	5.25%
	Next	$7,000	5.90%
	Over	$20,000	6.85%

Sales Tax:

Construction Materials (EDZ)	3.25%
Machinery & Equipment (EDZ)	3.25%
Employee Retail Sales	7.25%

Sales Tax on Utilities:

Electricity	7.25%
Natural Gas	7.25%
Water	0.00%
Wastewater	0.00%

UTILITIES:

Utility Providers

Electricity	Central Hudson
Natural Gas	Central Hudson
Water	Town NW
Wastewater	Town NW

Utility Rates:

Average Annual Increases	4.00%
Electricity (per kWh)	$0.09
Natural Gas (per MCF)	$2.40
Water (per 1,000 Gal)	$3.10
Wastewater (per 1,000 Gal)	$3.10

COST OF LIVING:

Average New Home Cost	$165,000

Research & Development

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Multipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	1.11	$33,030	5.65%
Manufacturing	2.47	$32,598	5.63%
Transportation/Utilities	4.63	$28,615	5.46%
Wholesale Trade	2.75	$32,274	5.62%
Retail Trade	9.81	$18,485	4.78%
FIRE	4.15	$29,262	5.49%
Services	132.37	$24,701	5.24%
Other	2.40	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes;

Retail Sales	%of Gross Payroll
	40.00%

Hotels

Project Specifications

LABOR

Initial Labor Force Size:		%	**Annual Growth in Labor Force:**		
Manager	3	6.85%	Manager		1.00%
Clerks	21	54.79%	Clerks		1.00%
Clerical	6	15.07%	Clerical		1.00%
Attendants	9	23.29%	Attendants		1.00%
	0	0.00%		0	1.00%
	0	0.00%		0	1.00%
	0	0.00%		0	1.00%
					1.00%
	38	100.00%			
Wages/Salary:			INVESTMENT:		
Manager	$27.17	per hr.			
Clerks	$13.50		Building & Land (over 15 years)		***$83,896,022***
Clerical	$10.65		Machinery & Equipment		***$12,552,303***
Attendants	$7.95				
0	$0.00				
0	$0.00		UTILITIES		
0	$0.00		Annual Electric Consumption (kwh)		5,635,890
	$0.00		Annual Gas Consumption (mcf)		27,746
Construction Wages	***$27,028,988***		Annual Water Consumption (1,000 Gal)		59,746
Avg Annual Salary Increase	4.0%		Annual Sewer Consumption (1,000 Gal)		59,746
Fringe Benefits (% of Salary)					
Manufacturing Employees	33.00%		CORPORATE INCOME		
Managers	33.00%		Revenues	n/a	
Other Employees	33.00%		Profit margin	n/a	
			EBIT		$5,238,643
No. of Transferees to New Facility	13	5.00%	Annual Growth Rate %		1.25%

Hotels

Community Data:

TAXES:

Corporate Income Tax:

Apportionment:	Factor	Weight	Factor* Wt
Sales	50.00%	0.00%	0.00%
Payroll	25.00%	50.00%	12.50%
Property	25.00%	50.00%	12.50%
Total	100.00%	100.00%	25.00%
Tax Rate			9.00%

Property Tax:

Milage Rate	96
Assessment Rate-Real	100.00%
Inventory	n/a

Personal Income Tax:

% Personal Income Subject to Tax		100.00%	
Tax Rates	First	$11,000	4.14%
	Next	$2,000	5.25%
	Next	$7,000	5.90%
	Over	$20,000	6.85%

Sales Tax:

Construction Materials (EDZ)	3.25%
Machinery & Equipment (EDZ)	3.25%
Employee Retail Sales	7.25%
Sales Tax on Utilities:	
Electricity	7.25%
Natural Gas	7.25%
Water	0.00%
Wastewater	0.00%

UTILITIES:

Utility Providers

Electricity	Central Hudson
Natural Gas	Central Hudson
Water	Town NW
Wastewater	Town NW

Utility Rates:

Average Annual Increases	4.00%
Electricity (per kWh)	$0.09
Natural Gas (per MCF)	$2.40
Water (per 1,000 Gal)	$3.10
Wastewater (per 1,000 Gal)	$3.10

COST OF LIVING:

Average New Home Cost	$165,000

Hotels

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	1.68	$33,030	5.65%
Manufacturing	2.24	$32,598	5.63%
Transportation/Utilities	4.11	$28,615	5.46%
Wholesale Trade	2.14	$32,274	5.62%
Retail Trade	7.78	$18,485	4.78%
FIRE	3.74	$29,262	5.49%
Services	123.16	$24,701	5.24%
Other	2.72	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Convention Center
Project Specifications

LABOR

Initial Labor Force Size:		%
Manager	5	6.85%
Clerks	37	54.79%
Clerical	10	15.07%
Attendants	16	23.29%
	0	0.00%
	0	0.00%
	0	0.00%
	67	100.00%

Annual Growth in Labor Force:		
Manager		1.00%
Clerks		1.00%
Clerical		1.00%
Attendants		1.00%
	0	1.00%
	0	1.00%
	0	1.00%
		1.00%

Wages/Salary:		
Manager		$27.17 per hr.
Clerks		$13.50
Clerical		$10.65
Attendants		$7.95
	0	$0.00
	0	$0.00
	0	$0.00
		$0.00
Construction Wages		***$19,014,967***
Avg Annual Salary Increase		4.0%
Fringe Benefits (% of Salary)		
Manufacturing Employees		33.00%
Managers		33.00%
Other Employees		33.00%
No. of Transferees to New Facility	11	5.00%

INVESTMENT:	
Building & Land (over 15 years)	***$58,527,902***
Machinery & Equipment	***$8,757,285***

UTILITIES	
Annual Electric Consumption (kwh)	3,861,000
Annual Gas Consumption (mcf)	19,008
Annual Water Consumption (1,000 Gal)	12,189
Annual Sewer Consumption (1,000 Gal)	12,189

CORPORATE INCOME		
Revenues	n/a	
Profit margin	n/a	
EBIT		$3,545,037
Annual Growth Rate %		1.25%

Convention Center
Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	***Sales Tax:***	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			9.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	7.25%
Milage Rate	96			Natural Gas	7.25%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
Personal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Convention Center

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	1.68	$33,030	5.65%
Manufacturing	2.24	$32,598	5.63%
Transportation/Utilities	4.11	$28,615	5.46%
Wholesale Trade	2.14	$32,274	5.62%
Retail Trade	7.78	$18,485	4.78%
FIRE	3.74	$29,262	5.49%
Services	123.16	$24,701	5.24%
Other	2.72	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Retail

Project Specifications

LABOR

Initial Labor Force Size:		%	Annual Growth in Labor Force:		
Salesperson, Retail	5	36.36%	Salesperson, Retail		1.00%
Stock Clerks, Sales Floor	5	36.36%	Stock Clerks, Sales Floor		1.00%
Cashiers	3	23.64%	Cashiers		1.00%
Management	0	3.64%	Management		1.00%
	0	0.00%		0	1.00%
	0	0.00%		0	1.00%
	0	0.00%		0	1.00%
					1.00%
	13	100.00%			
Wages/Salary:			INVESTMENT:		
Salesperson, Retail	$8.71	per hr.			
Stock Clerks, Sales Floor	$9.79		Building & Land (over 15 years)		*$30,991,890*
Cashiers	$6.94		Machinery & Equipment		*$9,274,707*
Management	$20.00				
0	$0.00				
0	$0.00		UTILITIES		
0	$0.00		Annual Electric Consumption (kwh)		1,186,800
	$0.00		Annual Gas Consumption (mcf)		6,949
Construction Wages	***$10,160,528***		Annual Water Consumption (1,000 Gal)		3,163
Avg Annual Salary Increase	4.0%		Annual Sewer Consumption (1,000 Gal)		3,163
Fringe Benefits (% of Salary)					
Manufacturing Employees	33.00%		CORPORATE INCOME		
Managers	33.00%		Revenues	n/a	
Other Employees	33.00%		Profit margin	n/a	
			EBIT		$2,748,901
No. of Transferees to New Facility	4	3.50%	Annual Growth Rate %		1.25%

Retail

Community Data:

TAXES:

Corporate Income Tax:

Apportionment:	Factor	Weight	Factor* Wt
Sales	50.00%	0.00%	0.00%
Payroll	25.00%	50.00%	12.50%
Property	25.00%	50.00%	12.50%
Total	100.00%	100.00%	25.00%
Tax Rate			9.00%

Property Tax:

Milage Rate	96
Assessment Rate-Real	100.00%
Inventory	n/a

Personal Income Tax:

% Personal Income Subject to Tax		100.00%	
Tax Rates	First	$11,000	4.14%
	Next	$2,000	5.25%
	Next	$7,000	5.90%
	Over	$20,000	6.85%

Sales Tax:

Construction Materials (EDZ)	3.25%
Machinery & Equipment (EDZ)	3.25%
Employee Retail Sales	7.25%

Sales Tax on Utilities:

Electricity	7.25%
Natural Gas	7.25%
Water	0.00%
Wastewater	0.00%

UTILITIES:

Utility Providers

Electricity	Central Hudson
Natural Gas	Central Hudson
Water	Town NW
Wastewater	Town NW

Utility Rates:

Average Annual Increases	4.00%
Electricity (per kWh)	$0.09
Natural Gas (per MCF)	$2.40
Water (per 1,000 Gal)	$3.10
Wastewater (per 1,000 Gal)	$3.10

COST OF LIVING:

Average New Home Cost	$165,000

Retail

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Multipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	0.82	$33,030	5.65%
Manufacturing	1.68	$32,598	5.63%
Transportation/Utilities	2.47	$28,615	5.46%
Wholesale Trade	1.21	$32,274	5.62%
Retail Trade	105.14	$18,485	4.78%
FIRE	2.91	$29,262	5.49%
Services	14.68	$24,701	5.24%
Other	1.23	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Restaurants

Project Specifications

LABOR						
Initial Labor Force Size:			%	**Annual Growth in Labor Force:**		
Waiter/Waitress		15	51.72%	Waiter/Waitress		1.00%
Cooks		4	13.79%	Cooks		1.00%
Kitchen Staff		6	20.69%	Kitchen Staff		1.00%
Management		2	6.90%	Management		1.00%
Chef		2	6.90%	Chef		1.00%
		0	0.00%		0	1.00%
		0	0.00%		0	1.00%
						1.00%
		29	100.00%			
Wages/Salary:				INVESTMENT:		
Waiter/Waitress		$6.64	per hr.			
Cooks		$8.55		Building & Land (over 15 years)		*$3,944,024*
Kitchen Staff		$6.36		Machinery & Equipment		*$983,256*
Management		$20.00				
Chef		$14.92				
	0	$0.00		UTILITIES		
	0	$0.00		Annual Electric Consumption (kwh)		637,500
		$0.00		Annual Gas Consumption (mcf)		3,380
Construction Wages		***$1,208,049***		Annual Water Consumption (1,000 Gal)		7,835
Avg Annual Salary Increase		4.0%		Annual Sewer Consumption (1,000 Gal)		7,835
Fringe Benefits (% of Salary)						
Manufacturing Employees		33.00%		CORPORATE INCOME		
Managers		33.00%		Revenues	n/a	
Other Employees		33.00%		Profit margin	n/a	
				EBIT		$433,147
No. of Transferees to New Facility		1	3.50%	Annual Growth Rate %		1.25%

Restaurants

Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	***Sales Tax:***	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			9.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	7.25%
Milage Rate	96			Natural Gas	7.25%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
Personal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Restaurants

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Multipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	0.67	$33,030	5.65%
Manufacturing	1.79	$32,598	5.63%
Transportation/Utilities	2.15	$28,615	5.46%
Wholesale Trade	2.37	$32,274	5.62%
Retail Trade	4.93	$18,485	4.78%
FIRE	2.10	$29,262	5.49%
Services	111.96	$24,701	5.24%
Other	3.20	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

YMCA

Project Specifications

LABOR

Initial Labor Force Size:		%
Executive Director	1	6.67%
Directors	4	26.67%
Adm Asst/Clerk	2	13.33%
Custoidian	2	13.33%
Part Time Workers	6	40.00%
	0	0.00%
	0	0.00%
	15	100.00%

Wages/Salary:		
Executive Director	$36.06	per hr.
Directors	$16.53	
Adm Asst/Clerk	$12.02	
Custoidian	$10.00	
Part Time Workers	$10.00	
0	$0.00	
0	$0.00	
	$0.00	
Construction Wages	***$1,390,500***	
Avg Annual Salary Increase	4.0%	
Fringe Benefits (% of Salary)		
Manufacturing Employees	33.00%	
Managers	33.00%	
Other Employees	33.00%	
No. of Transferees to New Facility	1	3.50%

Annual Growth in Labor Force:		
Executive Director		1.00%
Directors		1.00%
Adm Asst/Clerk		1.00%
Custoidian		1.00%
Part Time Workers		1.00%
	0	1.00%
	0	1.00%
		1.00%

INVESTMENT:	
Building & Land (over 15 years)	***$4,603,500***
Machinery & Equipment	***$1,147,500***

UTILITIES		
Annual Electric Consumption (kwh)		174,000
Annual Gas Consumption (mcf)		1,368
Annual Water Consumption (1,000 Gal)		15,474
Annual Sewer Consumption (1,000 Gal)		15,474
CORPORATE INCOME		
Revenues	n/a	
Profit margin	n/a	
EBIT		$0
Annual Growth Rate %		1.25%

YMCA

Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	*Sales Tax:*	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			0.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	0.00%
Milage Rate	96			Natural Gas	0.00%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
sonal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

YMCA

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Multipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	0.72	$33,030	5.65%
Manufacturing	0.88	$32,598	5.63%
Transportation/Utilities	1.66	$28,615	5.46%
Wholesale Trade	1.00	$32,274	5.62%
Retail Trade	3.73	$18,485	4.78%
FIRE	2.11	$29,262	5.49%
Services	111.14	$24,701	5.24%
Other	1.51	$26,478	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Day Care Center
Project Specifications

LABOR

Initial Labor Force Size:		%
Manager	1	5.00%
Day Care Worker	19	95.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	20	100.00%

Annual Growth in Labor Force:		
Manager		1.00%
Day Care Worker		1.00%
	0	1.00%
	0	1.00%
	0	1.00%
	0	1.00%
	0	1.00%
		1.00%

Wages/Salary:		
Manager	$14.05	per hr.
Day Care Worker	$8.53	
0	$0.00	
0	$0.00	
0	$0.00	
0	$0.00	
0	$0.00	
	$0.00	
Construction Wages	***$521,673***	
Avg Annual Salary Increase	4.0%	
Fringe Benefits (% of Salary)		
Manufacturing Employees	33.00%	
Managers	33.00%	
Other Employees	33.00%	

No. of Transferees to New Facility	0	0.00%

INVESTMENT:	
Building & Land (over 15 years)	***$1,660,571***
Machinery & Equipment	***$248,418***

UTILITIES	
Annual Electric Consumption (kwh)	61,000
Annual Gas Consumption (mcf)	286
Annual Water Consumption (1,000 Gal)	523
Annual Sewer Consumption (1,000 Gal)	523

CORPORATE INCOME		
Revenues	n/a	
Profit margin	n/a	
EBIT		$55,915
Annual Growth Rate %		1.25%

Day Care Center

Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	***Sales Tax:***	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			9.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	7.25%
Milage Rate	96			Natural Gas	7.25%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
Personal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Day Care Center
Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax Rate
Construction	0.74	$33,030	5.65%
Manufacturing	1.29	$32,598	5.63%
Transportation/Utilities	1.97	$28,615	5.46%
Wholesale Trade	1.16	$32,274	5.62%
Retail Trade	3.91	$18,485	4.78%
FIRE	2.21	$29,262	5.49%
Services	110.74	$24,701	5.24%
[illegible]r	1.35	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate Income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

Corporate Apartments
Project Specifications

LABOR

Initial Labor Force Size:		%		**Annual Growth in Labor Force:**		
Apartment Manager	1	25.00%		Apartment Manager		1.00%
Maintenance	3	75.00%		Maintenance		1.00%
	0	0.00%			0	1.00%
	0	0.00%			0	1.00%
	0	0.00%			0	1.00%
	0	0.00%			0	1.00%
	0	0.00%			0	1.00%
						1.00%
	4	100.00%				
Wages/Salary:				INVESTMENT:		
Apartment Manager	$20.00	per hr.				
Maintenance	$10.17			Building & Land (over 15 years)		***$23,577,048***
0	$0.00			Machinery & Equipment		***$1,176,002***
0	$0.00					
0	$0.00					
0	$0.00			UTILITIES		
0	$0.00			Annual Electric Consumption (kwh)		1,497,600
	$0.00			Annual Gas Consumption (mcf)		7,373
Construction Wages	***$7,804,855***			Annual Water Consumption (1,000 Gal)		5,079
Avg Annual Salary Increase	4.0%			Annual Sewer Consumption (1,000 Gal)		5,079
Fringe Benefits (% of Salary)						
Manufacturing Employees	33.00%			CORPORATE INCOME		
Managers	33.00%			Revenues	n/a	
Other Employees	33.00%			Profit margin	n/a	
				EBIT		$268,544
No. of Transferees to New Facility	0	3.50%		Annual Growth Rate %		1.25%

Corporate Apartments
Community Data:

TAXES:					
Corporate Income Tax:					
Apportionment:	Factor	Weight	Factor* Wt	*Sales Tax:*	
Sales	50.00%	0.00%	0.00%	Construction Materials (EDZ)	3.25%
Payroll	25.00%	50.00%	12.50%	Machinery & Equipment (EDZ)	3.25%
Property	25.00%	50.00%	12.50%	Employee Retail Sales	7.25%
Total	100.00%	100.00%	25.00%		
Tax Rate			9.00%	Sales Tax on Utilities:	
Property Tax:				Electricity	7.25%
Milage Rate	96			Natural Gas	7.25%
				Water	0.00%
Assessment Rate-Real	100.00%			Wastewater	0.00%
Inventory	n/a			**UTILITIES:**	
				Utility Providers	
				Electricity	Central Hudson
				Natural Gas	Central Hudson
Personal Income Tax:				Water	Town NW
% Personal Income Subject to Tax		100.00%		Wastewater	Town NW
Tax Rates	First	$11,000	4.14%		
	Next	$2,000	5.25%	*Utility Rates:*	
	Next	$7,000	5.90%	Average Annual Increases	4.00%
	Over	$20,000	6.85%	Electricity (per kWh)	$0.09
				Natural Gas (per MCF)	$2.40
				Water (per 1,000 Gal)	$3.10
				Wastewater (per 1,000 Gal)	$3.10
				COST OF LIVING:	
				Average New Home Cost	$165,000

Corporate Apartments

Other Assumptions:

Facilities typically have a life of 25+ years operating life. Economic impacts are measured over a 15 year timeframe.

Inflation factor applied to wage rates over 15 year period.

Mulipliers for indirect job creation are published by the Bureau of Economic Analysis

The average wage applicable to each job sector was extrapolated and calculated from County Business Patterns, 1998

Job Creation	Multiplier/100	Annual Wage	State Tax
Construction	9.58	$33,030	5.65%
Manufacturing	2.87	$32,598	5.63%
Transportation/Utilities	6.23	$28,615	5.46%
Wholesale Trade	2.30	$32,274	5.62%
Retail Trade	8.72	$18,485	4.78%
FIRE	108.63	$29,262	5.49%
Services	31.85	$24,701	5.24%
Other	5.60	$26,479	5.35%

Project is expected to have some outsourcing activity. The following out sourced activities will add some FTEs which are not included in the model:

Building Maintenance	Grounds Service	Equipment Maintenance
Janitorial services	Security	Recruitment/training

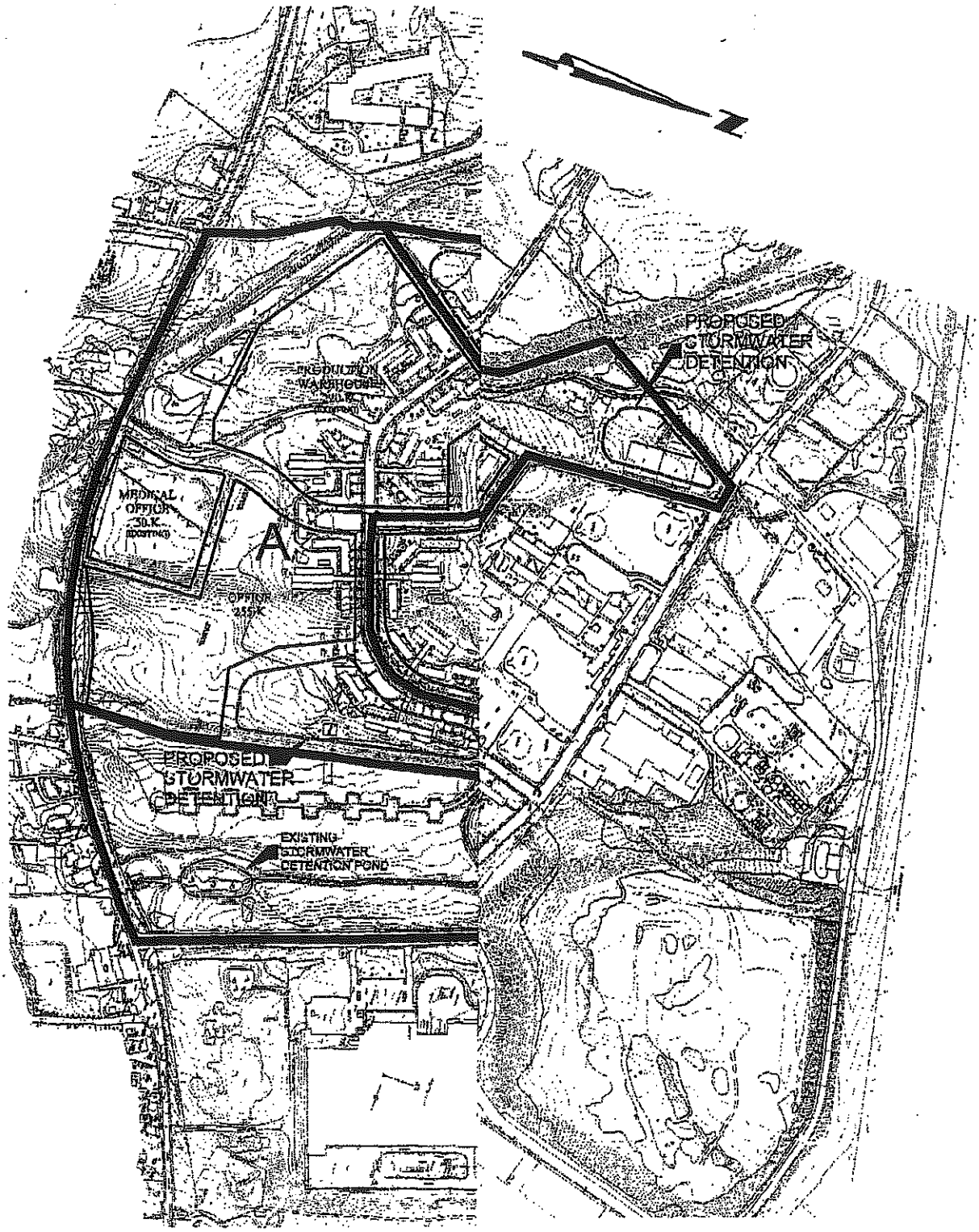
The project will require an ongoing supply of local purchases which are not easily quantifiable without company specific information and are therefore not included in the model.

Assumptions for Corporate income taxes are for estimation purposes only, they are not based on any specific organization or income plans.

Another indirect impact based on the gross payroll of the facility includes:

Retail Sales	%of Gross Payroll
	40.00%

V.MODIFIED REDEVELOPMENT PLAN SHOWING THE MODIFIED STORMWATER DETENTION FACILITIES - FIGURE 1.0-2A



DEVELOPED CONDITIONS
AINAGE BASIN CONTRIBUTING AREAS PLAN

IEW YORK INTERNATIONAL PLAZA

OWN OF NEW WINDSOR ORANGE COUNTY NEW YORK

Drawing Name: S:\...
Xref's Attached: ...
Date Printed: Jul 01, 2022 10:57am

VI. PRIOR AND ASSOCIATES REPORT

PRIOR & ASSOCIATES

Housing Market Research ■ Strategic Plans ■ Project Development ■ Evaluations

Paul Nichols
Paragon Prime Funding
12 Century Hill Drive
Latham, New York 12110

Paul,

We have performed an analysis on the number of households with school-aged children in the town of New Windsor.

According to the 2000 census and Applied Geographic Data, 77.2% of the renter households are living in multi-family apartments and 13.4% have school-aged children. School age children are defined as children from ages 6 through 17 years of age. Thus, ten percent (10.3%) are living in multifamily rental housing.

Total Renter Households	8,825
X % Living in Multifamily	77.2%
X % with School Aged Children	13.4%
Total Households with School Age Children	913
Percent of Renter Households	10.3%

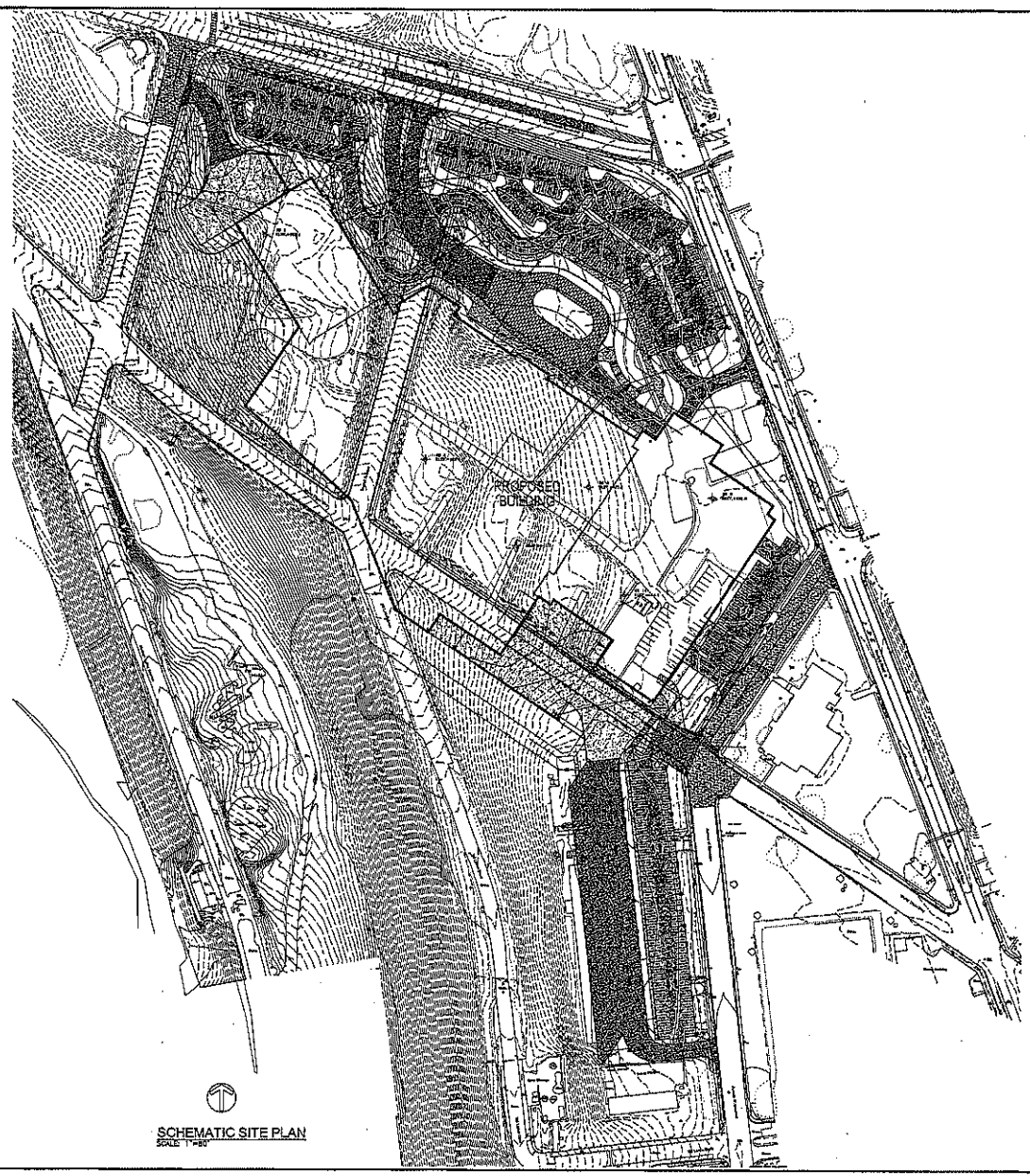
Therefore it can be assumed that approximately 10% of your units will be occupied by households with school-aged children. This estimate will overstate the amount of households with children because it does not take into account your unit mix, and households with larger sized families propensity to live in single-family rentals and units with two or more bedrooms.

Please let us know if we can be of further assistance.

Sincerely,

Brad Dreiling
Project Manager

1900 Grant Street ■ Suite 1 ■ Denver, CO 80203 ■ (303) 861-2728 ■ FAX (303) 861-2755 ■ MAIL [illegible] ■ WEB [illegible]



SCHEMATIC SITE PLAN
SCALE: 1"=80'

GREENETRACK, INC.
PO BOX 471
EUTAW, AL 35462

GREENETRACK AT NEW WINDSOR
TOWN OF NEW WINDSOR, NY

SCHEMATIC PLAN

wendel

PROGRESS PRINT
NOT FOR CONSTRUCTION

NO.	BY	REVISIONS	DATE

DWG. TITLE
SCHEMATIC SITE PLAN

DATE	5/20/14
SCALE	AS NOTED
DWN.	TAR/CCI
CHK.	OPC
PROJ. No.	469401
DWG. No.	C101

ORIGINAL

----------x

IN THE MATTER OF

PROPOSED GREENTRACK, INC.
CASINO AT STEWART
INTERNATIONAL AIRPORT

----------x

May 27, 2014
7:00 p.m.
New Windsor Town Hall
New Windsor, New York

PUBLIC INFORMATION PRESENTATION

ENVIRONMENTAL REVIEW

FRANCES ROTH
COURT STENOGRAPHER
168 North Drury Lane
Newburgh, New York 12550
(845) 566-1641

A P P E A R A N C E S:

TOWN OF NEW WINDSOR TOWN BOARD:

GEORGE GREEN, SUPERVISOR

ERIC LUNDSTROM, COUNCILMAN
ANDREW S. REGENBAUM, COUNCILMAN
ALICE BIASOTTI, COUNCILWOMAN
PATRICIA MULLARKEY, COUNCILWOMAN
DEBORAH GREEN, TOWN CLERK

MICHAEL BLYTHE, ESQ., TOWN ATTORNEY

JAMES PETRO
LAND DEVELOPMENT MANAGER

HODGSON RUSS, LLP
677 Broadway, Suite 301
Albany, New York 12207
BY: ROBERT J. MC LAUGHLIN, ESQ.

WENDEL COMPANIES
140 John James Audubon Parkway
Suite 201
Buffalo, New York 14228
BY: ANDREW C. REILLY, P.E., AICP

Frances Roth, RPR
Court Reporter

GREENTRACK

SUPERVISOR GREEN: Let's get started. Tonight's meeting is not a town board meeting, per se, it is a public information meeting. We're here to hear comments and answer questions regarding Greentrack's proposal to build a casino at Stewart Airport. To the press, I just want to make a couple comments here. The press hold your questions until after the meeting, this is for the general public. After the meeting, we will go back to my office and gladly answer anything any of the press wants. And I want to remind everybody that there will be another meeting on Thursday, the 29th, this coming Thursday for us to make a declaration on the EAF and that's going to be at 7:00 p.m. right here. Okay, I think Bob with that I'm going to turn the floor over to you for presentation.

MR. MC LAUGHLIN: Thank you, Mr. Supervisor, good to be back in New Windsor. Thank you for inviting us back in. My name is Robert J. McLaughlin. I'm an attorney out of a law firm called Hodgson Russ. And I spend my time from Albany and New York City and for the last several

months in New Windsor. So we're here to talk about the casino project and specifically tonight to expand on what we talked about at our public meeting two or three weeks ago, talk about the environmental review that we've done. With me here again is Andrew Reilly, he's an engineer at Wendel Engineering out of Buffalo, they are the project engineer. He's been responsible for conducting the environmental review that's been done on the site that was submitted to the town and it's, we're here to talk to you about what we've done and what they, and also more importantly to listen to what your questions are, what your concerns are regarding not only the environmental review but regarding the aspect, any aspect of the project, okay. So I did want to point out again this is our proposed casino. This is International Boulevard, Bruenig Road, there will be a parking garage, the casino, a hotel, restaurants, bars, entertainment facilities, pool on the back side of the casino and an events center. Parking will be around outside, there is property across the street that's potential retail, may initially be parking

as well and then the customary ugly parking garage that needs to be at every casino. Our property that we're proposing to lease from the town, let's put this up quickly, includes approximately 140 acres. So again, Bruenig Road, International Boulevard, at the corner straight back with a little bit of a jag and it actually includes most of the hill as well, loops around the hill. Our plan initially right now is to maintain this bottom 40 acres or so approximately as a buffer space so that there will be no development on this back part of the land. Everything will be toward the front where the airport is. Okay, and with that, I'll turn it over to Andrew Reilly.

MR. REILLY: Thank you, and thank you for having us here tonight and thank you for joining us tonight. As Bob said, my name is Drew Reilly, I work for a company called Wendel, been doing this for I think 30 years now environmental reviews for different communities all over New York State. One of the background tonight, I'm just going to do about a 15 minute presentation cause tonight's getting input from everybody

here, getting questions answered. Background, when we were looking at many different sites throughout the area, this site rose to the top because of its history and because of the fact that there's been environmental work done on this site. So that's an important thing to note. And I think all of you know the history of the site. A little history there was 5,600 army personnel at one point located in this area with 114 buildings on this site many years ago. And in 1999, the town acquired this property through an Act of Congress for economic development purposes and then in 2002, 2003 which really got our attention there was an Environmental Impact Statement done for the development of this site into 2.5 million square feet of retail, office, R & D, conference centers, hotels somebody said, so there was a big plan for two and a half million square feet of development throughout all this 200 plus acres of land. So that was one of the important points why we chose this property. So it gave us a little of background information and to build from that, we didn't sit on the 10 year old data, we also built upon that 10 year old

data. How do you do environmental reviews, sorry to bore you, under the State Environmental Quality Review Act, there's a section Part 2 that says you look at all these potential impacts, and there's impact to land, water, all these things, there's a whole list of them, you're supposed to identify those things that may have a potential impact and do a further review of those things. We took a very conservative approach there. I think there's only one thing we didn't look at, we didn't look at impact on agricultural resources, so we just figured there wasn't a lot of farming occurring on this piece of property, so we didn't look at that. But every other component of the SEQRA process we looked at that, we didn't ignore anything, we wanted to get all the information to the town. They had a lot but we wanted to update that information. So impact to land. As Bob mentioned leasing 140 acres of land including this piece and we're sorry it didn't show up on here, those people that live down here, we're also leasing this. But we're only developing about 60 acres of that site. As Bob mentioned, a lot of it's going to be green

space, so a lot less impact to the actual land. There are no unique geological features. I know people who live in this area here and developed here but there are no unique geological features as defined by the state. Also the important thing when you look at impact of land is the length of time. Under this state act, this has to be done in two years so it's not going to drag out for five, six, seven years of construction or longer. When you're constructing long term projects, it's got to be done in two years. Impact on surface water. The actual impervious surface parking area and the buildings are only 18 acres. It's nice when you build up but not out, that's what leaves all the green space. We're going to have a very modern drainage system. In 2002, they proposed a nice drainage system but we're going into even more modern drainage systems, we're going to have green roofs on the building, underground storage of the detention so there will be no surface ponds out here and we're using other sustainability practices in this. We're going to have a great erosion and sediment control plan, we're not

going to impact while we're constructing. And we looked at, the state pointed out there are some minor wetlands on this property, federal wetlands, we updated that study, they are off of our site and we're not impacting them at all. We're not going to ask for any permits, we're leaving those little wetland, those small little wetland areas untouched. There's also protected streams south of the site, we will have no impacts to that protected stream. Impact, I'm just going through what's in the Part 2 of the EAF, that's the order I'm going in, impact on the sewer system has to do with water. We are generating less waste water than what was proposed for this area in the past. There was hotels and other things proposed, we're generating less waste water. There's sewer lines in this area that we're going to have to replace and take out and when we replace those sewer lines they're being to take away the I & I problems, the inflow and infiltration. A lot of problems with sewers is not sewage in it, it's the water when it rains getting into the systems. So we're going to fix all those lines so you have

less I & I. The waste water treatment plant does have capacity, but we know and having done over 10 of these facilities, we know that the waste stream although the flow is 180,000 gallons a day, the waste stream is, how can I put this gently, at the last meeting, it's much more, it's stronger, we'll put it that way, okay, so we're going to help the town make improvements. And people ask why are we making improvements at the waste water treatment plant. Cause it will benefit the whole town. So we'll do those improvements at the waste water treatment plant to benefit the entire town. The flow is not a problem but a it's little stronger waste, that we're adding, we say stronger waste, it's just human waste, we're not generating any hazardous materials.

MR. MC LAUGHLIN: Highly concentrated.

MR. REILLY: Highly concentrated, I guess people don't, they play all day long and they use the bathroom, that's it. So impact on the water system. I know this is, at the first meeting a lot of people came up and talked to me afterwards. We're going to require less water

than what was proposed before in the past. The water lines are capable of supplying the flows and the pressures needed to the site under normal conditions plenty of flow, plenty of pressure for the 180,000 gallons a day we're going to utilize. The town has been working, that's the great thing, the town has been working on improving their water system with new well fields and other improvements to their system. And they can talk more about that. But you guys have been working on that for years so with those improvements there should be plenty of capacity here at all times of the year. We're also, we know that there's times when a lot of this water comes from the New York City aqueduct that runs by here and there's certain times over the years that they cut that supply off or they charge extra money for that, for purchasing that water. We will end up, we will end up buying the higher rates so we won't put that higher rate, if some reason there's an exceedence of the water that you can purchase there we're going to buy the higher rate water, not have the citizens buy it. There is an aquifer in the area, it's off this site over

here, we're going to have no impact, we're not developing on the other side of the hill. Impact to air. We're going to generate a lot less traffic. One of the big impacts to air is traffic, we're generating a lot less traffic than what was proposed under the original plan. We're also going to have very modern HVAC equipment meeting all modern standards. We're going to have a basis of design that we share with the town, it's a very modern HVAC system. Impact to plants and animals, great thing, previously disturbed site the DEC identified some potential, there's a sandpiper out there but not the habitat for that. In 2002, you acknowledged the fact also this wasn't a habitat for that but there's also the Indiana bats' been brought up, and we don't have the trees and stuff that they usually roost in at a certain time of the year. If we have any of those trees which we're not removing many of the trees on the site, there's a time period that you can remove them in and the DEC has pointed that out to us. There's also what's noted on some state websites as bog turtle and a wedge mussel, which we don't have bog turtles or

wedge mussels out there. We're preserving a large area of the site which I think is another big benefit to plants and animals, a lot of this green area is going to remain. Impact on aesthetics, high quality design, Bob showed you the design it's facing out to Bruenig and International but what we also did because of the new component here which is a hotel here we tried to tuck it against the hill so it would obscure the views of it. We did what we call line of sight analysis in all the directions and you really will be unable to see this hotel in this direction, this direction, towards there's a school down here, this direction you will be able to see it but it's about three or four miles away is when you'd be able to see it and it will look like a dot on the horizon. So we kind of shielded it against this hill and as you know, the vegetation area also helps with screening the views of this. Impact on historic and archaeological. There are no archaeologically sensitive sites in this area, that was previously determined on the old study, and the old study also identified the Sayre-McGregor House,

hopefully I'm saying that correctly but we're not impacting the Sayre-McGregor House at all. There was some discussion about how that would be saved, we're not impacting that at all, I don't believe it's on our 140 acre property. Impact on transportation, bit one and we can spend a long time talking about. Again, I have to make a statement, we're generating less traffic than what was proposed in 2002, 2003. Since 2002, 2003, a lot of improvements, actually the Boulevard being one and other improvements have been made to the area. Those improvements were made with the idea of this New York International Plaza project generating a lot of traffic. We're going to generate less traffic. But we didn't just sit on our laurels saying we're doing less traffic. We also analyzed some of the traffic over there, we did an updated traffic study and by the way, we took conservative view of everything. If there were 10 different studies that said this is what's going to generate traffic, we took the worst case, traffic always says you can, traffic studies always say you can take the average, we took the worst case

scenario, we did not, don't want anybody to say we cut any corners. We took the worst case scenario of traffic generation and we're still not going to have problems out there. Eighty-five percent of traffic will be International Boulevard. But again, to be as conservative as possible, there will be some impacts to 207 and 300, we've agreed with the town, we've identified four intersections that will be, improvements will be made to them. So we didn't ignore that either. And the last thing the town very, I think made a great point is that with any of these type facilities we'll do a follow-up traffic analysis when this is built and we will do a follow-up traffic analysis six months later and analyze that. In my 25 years of doing those because of the conservative nature of traffic, traffic is always less than what's predicted in those studies. But we will do a follow-up and agree if it is above and other improvements have to be made we will participate in those improvements. We knew traffic was a big issue, we were very conservative on our approach to traffic. Impacts on energy. There's adequate

capacity in the area and we've talked to the facilities in the area. We're also required by the State's Act to give 10 percent renewables. We're going to have renewables there and we have a very energy efficient building. Noise and light, this is what I want to get to because people are concerned about that. Noise and light, the HVAC equipment and generators are the two outdoor uses that will generate noise. There are going to be enclosures and they're going to have noise reducing equipment and we were so conservative on that even at the nearest receptors, when we talk about receptors are your houses or other things that are surrounding we'll be well below 40 decibels. People ask me what 40 decibels is, this is 40 decibels, can you hear me? It's a whisper, it's below, about 25 decibels is what would be in a living room or a dining room, a very low, it's a very low level. So we did that analysis. On the lighting we did dark sky compliant with any of the lights in the parking facilities and if you notice from the first drawing the lighting we're going to try to light out towards International and Bruenig and

keep all the lights from the back side of the building as much as possible. Again, it will be well lit, casinos are well lit, but the type of lighting systems are going to be what they call dark, they won't glow, so we won't have the big glow that people worry about in areas that are more rural. We're also by far meeting all the town's standards and we want to make sure we're meeting those standards. And I'm almost done. Impact on public health. This site was previously as we said disturbed, there was a lot of environmental work done in making sure that the town when they took ownership of the property didn't take environmentally contaminated site that we would disturb when we build here. We also, there will be some structures that still have to be torn down, the buildings most probably and I think you've done those studies, have asbestos in them, they may have some lead paint in them. We will follow all the procedures for removing asbestos and lead paint before taking any structures down. Growth and character of the community, always are a very difficult one to analyze. The biggest thing is we are in

accordance with the original plan, the original plan, New York International Plaza had retail conference centers, hotels, restaurants, all those things in it, we're in accordance with that plan. The town's comprehensive plan talks about this being for intensive development and for destinations which we believe we are here. Then if you even go to the county, the Orange County Planning calls this a priority growth area, matter of fact Stewart Airport is targeted for growth in this area. So we're in accordance with that. And there's a strategic plan which is your regional economic development plans that have been done all over New York State and they actually even talk about casinos and stuff in that regional economic development plan. So we believe that this project is in accordance with the local planning and regional plans that's been done. One thing that's happened since the New York International Plaza project, this was airport zoning allowed retail and all those things we talk about, the present AP district does not allow retail. So if we are going to put retail over here, the town is talking about

amending their zoning code back to what it was before to allow retail in this area. All our other users are in conformance with the zoning, obviously except for the casinos, casinos are covered by the state's law, there's no one in New York State that allows casinos by right in their zoning ordinances. So the town's going to be creating a new zoning ordinance. Impact on community services. We have been working with the emergency services, police, fire, who am I missing, ambulance, EMT, we're working with those and Greentrack is also going to provide improvements and help them make sure that they can service this facility. Our understanding is with those improvements, they will be able to service this facility. So I am done cause tonight is about you and turning it back to the Supervisor.

SUPERVISOR GREEN: Thank you. Okay, I'm going to open it up to the public comment and questions. We have a stenographer up here tonight so when you get up to speak would you please give us your name and address, if you don't mind, but definitely name so that we can

properly address questions. Anybody? Wait a minute. Rich?

MR. OSTNER: My name is Richard Ostner, I live at 66 Union Avenue, obviously a resident of New Windsor. Good evening. I want to thank the town board for this opportunity for the town residents to speak at the pending Greentrack casino development. I am in a favor of the casino for the value it will add to our tax rolls and potential jobs, Jimmy, you've done a good job presenting the advantages and plans for this casino to the town. You have said that the Greentrack casino if approved is going to take care of existing problems that have not been addressed and corrected in the past. One is the sewage which I believe it should be treated at the casino site by tertiary sewage treatment facility licensed to and maintained by Greentrack. The casino property should be zoned its own designated sewer district, discharge effluent must directed towards Moodna Creek Watershed. This plan will ensure all other properties and residents of New Windsor will not be negatively affected by the Greentrack project

as far as water's concerned, water should be supplied from the leased premises, as noted, there's an aquifer nearby and the must guarantee their water meets Department of Health standards. This must be at Greentrack's expense. Given the water available to New Windsor from New York City aqueduct more demand created by Greentrack usage will drive increases in water rates for New Windsor households based on the New York City pricing formula, I suggest we conduct a statistically accurate and projectable poll of New Windsor town people to calculate the acceptance or desire of a casino at Stewart. We can do this by contracting with a college such as Marist or Quinnipiac that do these kind of surveys. Their public hearing announcement does not communicate to all residents the sole decision by the board may indeed reflect bias and not the true sentiments of the people of New Windsor. I say let the people decide. But while I do expect the results to be overwhelmingly positive after the survey, a poll would ensure the will of the people and make it clear the outcome of the survey will favorably impress the

decision makers in Albany for this confirmation and will support the people for this project. Both these issues are recognized problems in the Town of New Windsor that have not been properly addressed by the board. Drive down Caesar's Lane from 94 to 9W and your nose will tell you something's wrong with the sewer plant. As a result of the town's approval of five high density housing projects, three of which are completed, one is underway and one has yet to break ground, all of this has been done without any upgrades or expansion to the aging Town of New Windsor sewage treatment facility. While recent development has fulfilled the needs for senior work force, assisted living housing, our town board has ignored recently approved comprehensive plan and neglected to make provisions for the increased demands on our water supply and sewage treatment facilities. Expecting Greentrack will cure the ills at the sewage treatment plant is naive, as Greentrack is not guaranteed to win a license. Based upon our existing sewage crisis we face I also recommend the following, we institute procedures needed for

our comptroller to appeal to lending institutions to underwrite the municipal bond, the bond will provide the financial resources to renovate and upgrade New Windsor's sewer plant to DEC specs. Should Greentrack secure New Windsor gaming license for the Town of New Windsor location, there will be newly generated tax revenue. Restrict these dollars to pay off the bond holders for the renovated Caesar's Lane sewage treatment facility until the bonds are paid. To further my point of view to make sure that the Town of New Windsor and its people don't rely on unsure outside organizations to fix our longstanding water and sewage problems, we must fix them ourselves. The wellbeing of our town, our schools, businesses and works need proper planning, not a maybe gaming facility. We should determine our on fate, the risks and windfalls of gaming must not be the sole determining factor of our success. You can bet on that. The town board plan ahead, make sure you're acting in behalf of the will of the people, conduct a survey. Thank you very much.

SUPERVISOR GREEN: Thank you. Yes, sir?

MR. ZAGON: Hi, my name is Dave Zagon, I live in Cornwall, New York. Can I ask two questions cause I had one prepared for before I heard the speech and then I have one upon hearing the speech? One, if the casino is approved and the project goes through, will it continue other than the jobs that are created in the construction, will it continue to benefit the county as a whole economically afterwards? For example, will there be any type of commitment to purchase goods and services from local businesses, businesses in the county?

MR. MC LAUGHLIN: Some great questions. The statute that was passed by the legislature last year requires certain funds to come back to New Windsor as a host community. So that's estimated to be at least $6 million. In addition here you will have real estate taxes and lease payments on top of that. But it's also required to have commitments in the region and specifically in Orange County. So we have already committed and will continue to commit that our priority will be to use local businesses, goods and services, merchandise here because that drives the economic

development benefit. It's, the whole goal of the legislature is to create an economic engine for the region, not just for the casino, casino will make money, okay, casino always makes money wherever it goes, okay, but it does us no good, it defeats the purpose of the legislation if it's just all at Stewart Airport. We need to go out and make sure that not only are we sending our patrons out to the communities through cross promotion, but also buying goods and services that are out there that can be produced and provided to us from the community.

MR. ZAGON: Is that in writing in terms of the commitment? Like is it just your assurance that it's going to happen as opposed to something in writing that you can be bound to?

MR. MC LAUGHLIN: My word is my bound. We're required to do a host agreement and part of that host agreement there's a provision, there will be a provision in that, that's the commitment.

SUPERVISOR GREEN: That's been addressed in the draft and it will be in the final.

MR. ZAGON: Thank you.

SUPERVISOR GREEN: There was another question?

MR. ZAGON: Yes, with regard to the environmental study that was done, you made a lot of promises in terms of how conservative an approach you're taking. Is there any way that if anyone wanted to, not that we don't trust you, but to actually follow up and check on past projects perhaps that you've done and Environmental Impacts Studies that have been done in the past whether or not your projections did in fact turn out to be conservative in nature are there people that we can contact?

MR. REILLY: Yeah, and I can give those to the town but town has also done a great job, they went out and hired independent people, independent traffic consultants, independent people to review everything we've done, so they haven't just counted on our word, they basically, we work hand in hand, they gave us input, we responded to that, we went back and forth, it wasn't like we were just handing them these and said this is what's going to happen, they had their professionals review it, come back to us

and say no, we'd like you to do this, so it was a back and forth, it wasn't just us handing them something and saying you've got to believe this. But by all means we'll get you where we've done other casino projects.

MR. ZAGON: Thank you.

SUPERVISOR GREEN: You have to understand that as Drew mentioned that the traffic study was done by our consultant, not by Greentrack's, but of course Greentrack paid for it.

MR. ZAGON: Thank you, I didn't understand that so alright, thank you.

SUPERVISOR GREEN: And that will be, matter of fact, it is in the draft host agreement.

MR. ZAGON: Okay.

MR. MC LAUGHLIN: One item I forgot to mention in my opening remarks is that it is called the Grand Hudson Hotel and Casino.

SUPERVISOR GREEN: In the back?

MR. COLEMAN: Hi, my name is Mike Coleman, I Walnut Street. The permanent jobs you've decided to create in the area here, are they going to be, to be above minimum wage? How many jobs are you looking to create here?

MR. MC LAUGHLIN: So as we said in the public meeting three weeks ago, Mr. Winn is committed to more than higher than minimum wage, so good paying jobs. I think he said the average person in Greentrack now in Alabama is over 40,000, 42,000 with full benefits so his vision is to bring that here. We estimate, you know, approximately 2,500 full time employees. The reality is because of attrition, part time, not everyone is full time, we'll probably train up to twice that much potentially just so that we have staff available but we figure at any given time there will be 2,500 employees at the site.

MR. COLEMAN: These are mostly minimum wage we're talking about?

MR. MC LAUGHLIN: No, no, no, there will be a fair number of management jobs and supervisor jobs, but there will also be, every job will be above minimum wage.

MR. COLEMAN: Okay, cool, thank you, appreciate it.

SUPERVISOR GREEN: Okay, I saw another hand, ma'am?

PRESS PERSON: I have several questions.

SUPERVISOR GREEN: Would you please stand?

PRESS PERSON: I'm with the press, can I?

SUPERVISOR GREEN: If you're with the press, no, we'll be in my office afterwards, we'll answer all your questions.

PRESS PERSON: I want to ask him questions.

SUPERVISOR GREEN: He'll be in my office.

MR. MC LAUGHLIN: I'll be there.

SUPERVISOR GREEN: We'll all be there and available.

MR. MC LAUGHLIN: I'll be available afterwards.

PRESS PERSON: Okay.

SUPERVISOR GREEN: Anyone else? I can't believe nobody else.

MS. IVES: I have a question.

SUPERVISOR GREEN: Here we go.

MS. IVES: Hi, my name is Kathy Ives and I live in The Grove, which this question I guess is rather personnel if you'd mind putting up that other diagram for me please? I've been a resident for, of New Windsor for over 40 years and one of the reasons why I've always lived here is because of New Windsor's commitment to family,

the values that New Windsor has always had. My concern is I think it's great that new jobs are going to be brought to this area. I think it's great that possibly more people will be employed but I'm just wondering whether any of you have considered the impact that it's going to have on our society, what message bringing a casino here to New Windsor is going to have on our youth. And I understand the value of the almighty dollar but I also think there are other factors that need to be considered. And I'm wondering if any of you on the board have considered that? That being said, I live in a community called The Grove, which is what says over there the existing condos. And I'm concerned about what impact this casino is going to have on my quality of life and about the children in that community. And I'm wondering if any of that was taken into consideration when Greentrack was asked to present this proposal?

SUPERVISOR GREEN: Okay, that's probably a question for me and the board to address. Yes, we did look at the impact, we looked at the fact that our youth coming up will have opportunities

for employment. You know, at the end I'm going to read a statement regarding employment in Orange County as compared to Sullivan County and it's going to shock a lot of you, I think. But we did look, we did look at The Grove. The Grove is rather isolated from the casino location itself, I don't think any actual development goes up to what is that, what's the road on the other side, on the other side, none of that development goes up that far, I don't believe. You're on the other side of the hill and The Grove, wait a minute, wait a minute, I listened to you, now you'll listen to me.

MS. IVES: Okay, please finish.

SUPERVISOR GREEN: We did consider that and, you know, Stewart is an obvious location because of the isolation of it from the general, from most of the general community. Yes, are you close to the casino? Yes. But when we looked at it, we didn't see that that was such an impact that it would be detrimental to your community. Bob?

MR. MC LAUGHLIN: Sure. Did you have another question or comment before I--

MS. IVES: No, when Mr. Green pointed out that the area wasn't close to where this residential complex is based, I see a lot of yellow areas, dotted areas on that map and that looks pretty close to the existing condo unit.

MR. MC LAUGHLIN: Well, what this map doesn't show is the hill or knoll, I think it's called technically a knoll, right?

MR. REILLY: Yeah, it's not a knoll.

MR. MC LAUGHLIN: It's not really a hill, it's a knoll, you'll have to tell me what the distinction is, but in our development, we were very concerned with the proximity in developing the site with the proximity of the residential homes, okay. So we made sure that our tower for the hotel was below the highest point of that hill. So there are other facilities, gaming facilities that are being proposed with 500, 600, 700 rooms, okay, both in Orange and in Sullivan County. We were at 350 specifically because we didn't want to go above that knoll because we didn't want you to not only not see but we don't want you to hear and as you said 40 decibels is very low, we didn't want you to see or hear any

part of the casino and the lighting will take care of that as well. So we do have your concerns. If during the development we need to chat with the homeowners there we'll be happy to do that. Your other aspect was social. The legislature has proposed a very aggressive social program in the statute that we have to comply with regarding not only problem gaming but also substance abuse. So we've developed those rules and that will be part of our application, we're actually going more or further than what the statute requires, we're doing outreach with the Orange County, Dutchess County, Ulster County and Putnam County Commissioners of Mental Health to be able to partner with them and with their not-for-profits in the area to develop strong programs to address the needs of substance abuse which will be part of this facility and problem gaming. We'll also have a very strong self-exclusion policy that's permitted under the statute and we'll have those not-for-profits train our employees to recognize problem gaming and substance abuse. Finally, at the doors of every entrance, okay, for children in the

community, they will not be allowed in the casino facility at all cause we'll have security placed at every entrance, not only at the entrance but also on the gaming floor to make sure that those that are underage cannot get in. So I hope I've have addressed your questions.

MR. REILLY: Just to add a little bit more because it is a misconception on this drawing, when we say we kept it away, we slid all the development as far to this corner as possible, all this is green space area, this was going to be developed in the past plan work that was done, we're not developing this area, we're not developing this area, we're not developing this area or this area the town even added in, this was future also development here. So we've pushed the casino and its operations as far away from this residential as possible.

SUPERVISOR GREEN: You know, let me add, Cathy, when we looked at this whole plan and considered the original plan of two and a half million square feet of space which included trucking terminals, manufacturing, retail, I can't think of all the things that were included

in it, this is going to be a whole lot less innocuous than what was originally proposed. You're going to have a, you know, you're not going to have as much traffic, truck traffic, you know, if that was developed out of two and a half million square feet, that's a lot of development.

MR. PETRO: Not proposed, in place, come to the planning board and build it.

SUPERVISOR GREEN: Oh, yeah, it was done, that was done. Anyone else? Yes, the hand came up in back first. Oh, Sue, I couldn't see you.

MS. SCHEIBLE: Susan Scheible from New Windsor. Isn't this project consistent with the master plan for the town with regards to the development, commercial development for the Stewart Airport?

SUPERVISOR GREEN: Yes, yes, it is. I saw another hand. Sir?

MR. ARCHER: My name is Gary Archer, I represent the Operating Engineers Local 30 stationary engineering side. And I was wondering what Greentrack's feeling was on using union labor, not only during the construction, but after the construction is done with their

employees, the stationary engineers, skilled maintenance as well as the other hotel and casino employees?

MR. MC LAUGHLIN: We are, if you can leave your card, we are reaching out to local unions and our communications team is reaching out to local unions to address that. We're entering into project labor agreements now, neutrality agreements and post-construction we're going to do the same thing.

MR. ARCHER: Thank you, I'll leave you my card, thank you.

SUPERVISOR GREEN: Just so you know, one of my first comments when the development was first proposed was there will be nothing without a PLA.

MR. ARCHER: Thank you.

SUPERVISOR GREEN: When Jim first came to me, I told him there's nothing without a PLA.

MR. ARCHER: Nice to hear, thank you.

SUPERVISOR GREEN: Anyone else?

MS. PAGANO: Nancy Pagano. I just want to clarify something, maybe you've already gone over this but how are they going to pay taxes?

SUPERVISOR GREEN: I'm sorry, did you get a

name?

MS. PAGANO: Nancy Pagano, I live near Park Hill. Alright, is Greentree or whatever the company is, are they going to contribute to New Windsor taxes or are the taxpayers going to bear some of the brunt of it?

SUPERVISOR GREEN: Enormously, enormously.

MS. PAGANO: They are going to? That's a given now, right?

SUPERVISOR GREEN: Well, first of all, they're going to pay, they're going to pay a lease just on our property above everything else the lease comes to $1,000,160 a year.

MR. MC LAUGHLIN: To start.

SUPERVISOR GREEN: That's to start. And there's destination clauses in that so that alone is a huge benefit to the town.

MS. PAGANO: So in other words, our taxes, as a property owner our taxes should go down not up?

SUPERVISOR GREEN: Hopefully, yeah, I would think. Bob explain that.

MR. MC LAUGHLIN: The goal of the legislation was really twofold, threefold. One

was to provide dollars, real dollars for education. Now some people believe the lottery, revenue from the lottery doesn't actually go to education, it does, it does. But what the legislature does is they take that and use that as a, you know, for example, if we give 100 million to education, the lottery raises 4 million okay that leaves 96 million to education and we're going to use 4 million for something else. What this legislation says is that will not, the revenue from casino gaming will be in addition to and not in lieu of revenue for education. So it will be in addition to. The second use of the money is supposed to be for economic development, specifically for the reduction of property taxes. So the state will take 80 percent of the revenue and use that for education and for the reduction of property taxes. New Windsor as a host facility will get 10 percent of the total gaming revenue, half of 10 percent rather, five percent of the total gaming revenue and Orange County will get the other five percent. And that's estimated to be 6 million to New Windsor and 6 million to Orange

County, a year, okay, a year, we believe it will be higher than that ultimately but that's what the governor's office is estimating at. In addition as part of the host agreement we will provide additional financial benefits to Greentrack. And then finally we'll be a property owner and property owners have to pay real estate taxes. And as we said at the public meeting it was estimated right now about 37,000 per million of assessed value. And we need to sit down with the assessor as the project is being built to determine what the fair and market value of those, of the improvements will be. So, excuse me, to answer your question, I think we'll be paying our fair share and I would add as the supervisor did an enormous share to the benefit of the Town of New Windsor.

MS. PAGANO: Thank you.

SUPERVISOR GREEN: In addition, Bob, did you mention within the host community agreement there's a community development fund?

MR. MC LAUGHLIN: That's for you to mention.

SUPERVISOR GREEN: Okay, there's a commercial development fund which is considerable

in and of itself that will go for special projects in the town and a portion of it I might as well say, a portion of it will be shared with the school districts basically for scholarships for the students. And we can take, we can take every dime that we make off this project and put it into school budgets and we'd have a, and it would have a negligeable affect on the school budget. So what we decided in negotiation the host agreement that we would do something that would be positive for all the students coming in the school and assure that that's where the money was spent and wasn't spent on administration or on whims of administration of the school district. So when you see the whole thing, you will understand. Who's next? Veronica, you were next and you'll be after that.

MS. MC MILLAN: Veronica McMillan from New Windsor. I apologize if my questions are repetitive, I came in a couple minutes late. I'm just wondering if you could elaborate a little bit further for us what you're going to be doing with the storm water runoff? And secondly I thought when I came in I heard you say there's

going to be some upgrades to the waste water treatment facility in the town? And I was just wondering if those upgrades were going to just benefit the casino or will they be available to assist the entire town's waste water treatment?

MR. REILLY: Sure. The storm water is going to be held, typically, you know, in New York State you put in above-ground pond and feed everything into the pond and it treats for quality and quantity and then discharges in its normal direction. For this site we're not going to have an outdoor, we're going to have under the parking lot, we're going to have vortex units which take care of the quality, for those of you who are into the engineering project, and a green roof also to reduce the amount of runoff, plus other things that are going to be done to reduce the amounts of storm water and make sure the quality of storm water that's leaving the site is of a condition that meets or exceeds the requirements of New York State. This was, we could have took, this is a redevelopment site, again, for those who are into the engineering, there are different standards for redevelopment

site, we are going above and beyond those redevelopment standards for this piece of property. From the waste water treatment standpoint, and the town can comment on this, the money is being done that one gentleman brought up that we are going to do improvements at the waste water treatment plant for the entire town, a large quantity of money to do the waste water treatment plant improvements instead of doing something only for the casino at the site, we basically agreed to do large improvements at the waste water treatment plant, only those, even though we're a small quantity of waste, we do believe because of the quantity of the waste we should help the entire town.

MS. MC MILLAN: Okay, just an aside, I am a parent staring down the barrel at college education so I certainly appreciate the help of scholarship funds that might be made available to us. Thank you.

SUPERVISOR GREEN: Okay, I saw some other hands. This fella I think you were next. Okay, go ahead.

MRS. BROWN: Estelle Brown, Patriot Ridge.

I'd like to know how it's going to work with the rebate from the school taxes? We have three school districts, what's Newburgh School District going to get out of it?

MR. MC LAUGHLIN: So as the supervisor said, what we're proposing as part of the host agreement is to fund a scholarship fund for the benefit of Cornwall and the Newburgh School Districts and we would fund that for, of $1 million a year starting after we open up. And that would continue for at least 10 years and then the school districts and our, well, what we would propose is to create a foundation that would not only hold the money but then to be determined who would qualify for the scholarships and then the, who sits on that foundation needs to be worked out.

MRS. BROWN: What about the taxes? What about our taxes, our school taxes?

MR. MC LAUGHLIN: The taxes because of the way that it's apportioned right now, the tax revenue will all go to the Washingtonville School District. There's no mechanism in New York State for us to pay property taxes to other school

districts, so we thought the scholarship program would be the best way to address those needs.

SUPERVISOR GREEN: Joe, I think you were next?

MR. MINUTA: Hello, my name is Joseph Minuta, New Windsor. I have a host of questions. I'm for the project. You mentioned dark sky compliance, I was also wondering what you were doing as far as the site is concerned for reflectants, will we have dark sky compliant reflectors to obviously to create the night sky effect?

MR. REILLY: I will get you cause I'm not an expert, sounds like you're a better expert on lighting than I am, I will get you a copy through the supervisor's office of that section on lighting and what they're doing with all the lighting to make it not glow so I will, and I'll get it to you tomorrow, I will get that section of the basis of design about the lighting and if you can get, contact the supervisor's office.

MR. MINUTA: Perfect.

MR. REILLY: I'm an environmental engineer, if I talk electrical, I'll be in big trouble.

MR. MINUTA: Okay. Are we, will you be seeking green globes or will there be LEED accreditations for this project?

MR. REILLY: We will be doing LEED design and yes and again the basis of design talks about I think, I don't think they're doing platinum but I believe they're going for a certain level, silver I believe.

MR. MINUTA: Green globe is a lot cheaper, does the same thing.

MR. REILLY: Okay, I'll mention that to the architect. We're not the architects on the project.

MR. MINUTA: Okay, sort of self-serving in some ways but you mentioned local businesses and how that would help local businesses. One of two things, one, will you be assisting local businesses or giving them the opportunity to do franchise type operations within the facility? We had a very nice project out in Bethel Woods that I've been to, they had local merchants come in and after a few years, large conglomerates knocked them out of the box, I was wondering if you'd like to see something similar to that here,

just a concern.

MR. MC LAUGHLIN: Let me answer that. The goal would be to reach out to the community and see what franchises are available that fit within the restaurant, the bars, the retail footprints within the facility and so we welcome that opportunity for the community to come and propose those partnerships. In addition, what we would try to do with our players club, this has been done elsewhere in the country, it's the concept of cross promotion. So if you had a restaurant in New Windsor or a restaurant in Newburgh or a restaurant in Middletown, a restaurant in Port Jervis we would purchase gift certificates, you know, the gift cards, from those partners, co-sponsor partners that we have and as part of our players club points system if you get to a certain point level you get a gift card to push the patrons back out into the community to be able to use the restaurants, bars, shops, et cetera. So there's a way of doing it on-site but there's also a big way to get that economic dollars back to the community through our point system.

MR. MINUTA: Understood. And will you be using local professionals for the project as well?

MR. MC LAUGHLIN: Yes.

MR. MINUTA: I stood in on the one in Tuxedo and they were proposing consistently world class type aesthetic and casino, is that what you're proposing here as well?

MR. MC LAUGHLIN: Yes.

MR. MINUTA: And you mentioned ugly parking garage as a necessity, but in my opinion, it's not a necessity, it's a choice.

MR. MC LAUGHLIN: Well, yes and no, okay, because gamblers, now I kid around, the ugly parking garage but it is what it is. Casinos, gamblers that want to come to casinos want two things, they want to have a great entertaining experience, okay, and we're going to provide that to them. But they also want to be able to get in and get out, okay. And part of that problem is if you park too far away in the hinterland, not only does it affect, start to affect the green space which we're trying to address, but also the further they have to walk the less likely they

are to come back.

MR. MINUTA: Let me just comment I'm for the parking garage, just not the ugliness of it.

MR. MC LAUGHLIN: Well, we're trying to design around that.

MR. MINUTA: Very good.

MR. MC LAUGHLIN: We have very good architects.

MR. REILLY: Beauty is in the eye of the beholder.

MR. MINUTA: You mentioned that the building is going to be somewhat bermed into the side of the mountain, the hill sort of for that type of aesthetic, I'm wondering why? You're providing a brand new feature to this community, why not let it be a shining beacon and designing it as such just a, I don't, do you have an opinion on that?

MR. REILLY: Well, when said that that's to protect the residential and the other side if you get, you know, line of sight issues, the closer you get to that this way you have residential on the other side of that hill. It will be a shining beacon for when you come in, that's the International Boulevard, as you're coming in

International Boulevard this will be the prominent feature as you come in there, it will be, we talked about the architectural firm but they are a wonderful firm.

MR. MC LAUGHLIN: WATG designs world class facilities. This will be a world class breathtaking facility once it's built.

MR. PETRO: The height of the hotel is lower than the tower.

MR. MINUTA: What's the height on that?

MR. PETRO: Fourteen stories.

MR. MC LAUGHLIN: It's fourteen stories but the way, one of the other reasons they're building it into the hotel because we're trying to use the natural slope of the land. The gaming floor will actually be a little bit elevated so you will actually come in higher, alright, as you come in, so as you're looking at it, the hotel actually will look a little bit lower than 14 stories. Some of the facilities will be buried behind the gaming floor.

MR. MINUTA: Understood. And as far as entertainment, the community, with the things that have been going on especially the school

district, lot of the activity programs have been cut, things of that nature, the children really do need a place to go and I was wondering if part of your entertainment, maybe not on the site but perhaps within the town, something of this nature might be addressed as well?

SUPERVISOR GREEN: Bob? It doesn't matter, you can address that.

MR. MC LAUGHLIN: So in this triangle piece right here right now is gymnasium that as I understand it is used during the fall and winter for basketball and other indoor activities, what we are proposing is to fund the building of a new indoor basketball court plus soccer fields plus an aquatic center which would be located at the town park which is called Mt. Airy, Kristi Babcock Park. And we're calling it the Mid Hudson Valley Sports and Aquatic Center and that would be available to all residents of the Mid Hudson Valley, but would be two basketball courts, three indoor soccer fields with the unique roof system that actually the sides can open up in the spring and summer so that it's not an indoor facility, it's outdoors but covered

plus an aquatic center. And then a second floor that can overlook both the aquatic center and basketball courts. So state of the art facility that would be built and funded by Greentrack.

MR. MINUTA: I assume this is not the final design, this is just a concept?

MR. MC LAUGHLIN: I would think that that's probably a right answer. So this will be the design that's submitted on June 30. As things continue through the summer to be designed, it will be tweaked a little bit but this will be essentially the design.

MR. MINUTA: My question goes to incorporating the local aesthetic, local history of the area within the aesthetic design of the building.

MR. MC LAUGHLIN: Great question. So I'm glad you raised that. We have already reached out to the town historian who has some great pictures and artifacts that he's dying to put on display cause he's tired of having them in his basement and attic and places where no one gets to see. So part of the interior design and WATG will probably be the interior designer as well is

to try and work on what he has as a way of artifacts and to utilize what the area was, an airport, army airbase and try and build that into the internal design. So he even said that he knows where there's an original airplane, it's at some VFW in upstate New York, that we can probably get and put that in there somewhere so that's being discussed.

SUPERVISOR GREEN: One last question?

MR. MINUTA: The 300, the overpass to 87, the Thruway, will that be widened, would that need to be widened?

MR. PETRO: No, they're going to extend the passing lane, the turning lanes, there's four improvements on that road.

MR. MINUTA: Okay.

MR. MC LAUGHLIN: Extend the passings lanes on two sides of the Thruway.

MR. MINUTA: Thank you very much.

SUPERVISOR GREEN: I should of warned you about Glen before you went to the historian. Yes, Tirek?

MR. GAYLE: Hi, good evening everyone, my name is Tirek Gayle, I live in The Reserves in

New Windsor. I'm also a member of the Cornwall School Board. I'm definitely happy to hear about the million dollar potential scholarship plan but I will say it would be great if you include the school boards, I know that there's a concern about administrative costs, so on and so forth, but it would be great to include the school boards in deciding where whatever funds Greentrack decides to provide what it's used for. In part because as many of the folks in here know who have children and who might not have children due to the common core and standards that have now been set by the state, there are a number of unfunded mandates that school districts have to deal with and find ways to fund. So a project like this would be fantastic where if there's money that's set aside for schools, maybe some of that money could go towards new technology, Smart Boards, iPads in every class. Coming in 2016 there's going to be a mandate that every test that's taken is going to have to be done online. So with that being said, schools have to find ways to bring in new computers, so on and so forth. So if this project were to take place, as

much as I'm a fan and I have a 13 year old who soon will be going to college, I have a college age daughter right now, these things are going to affect our children currently within the district. So it's something that I hope that you guys consider as opposed to saying okay, we're going to slot these moneys for the million dollars for scholarships and especially because I know in Cornwall we're fortunate enough to have a 97 percent graduation rate and 85 percent of our kids all get scholarships to school, be it full rides or somewhere down the line.

MR. MC LAUGHLIN: So what we, great point, so what we did to make sure that we're utilizing the needs of the school district right now as it's described in the host agreement is that we're creating a foundation that would get to determine the use of those proceeds. And our goal would be to have school board members for both of those school districts on that foundation board, it would be a not-for-profit and they would then decide. If there's other items that we can help with, you know, we'd like to hear that and work with you continually to try and

address that. And if we have to open up the host agreement at some point, we can certainly try and do that.

MR. GAYLE: That would be great.

MR. MC LAUGHLIN: But we, certainly we thought, and the supervisor thought being very sensitive to the cost of college, I had three in college last year, so that's why I don't drive expensive cars anymore, but you know, we thought that we would address the immediate need which is potentially scholarships but we can expand that.

MR. GAYLE: I think we should consider that because everybody is going through common core and that's an immediate need for all those that are coming up.

MR. MC LAUGHLIN: With respect to the electronic needs and the requirements that is being addressed in Albany, the Dormitory Authority has been given the right to issue bonds on behalf of school districts to address that technology need so certainly you can reach out to the Dormitory Authority.

MR. GAYLE: That's something we're definitely doing as we all know with Albany, do I

need to say anymore? So with that being the case so I'm glad that you're open for working with the school boards to be able to do that. Secondly, according to some calculations they were, they were looking at $120 million in revenue, if we're looking at 10 percent, 12 million and you've got 6 million going to Orange County, 6 million coming in New Windsor, there are a number of stories out there that are saying casinos are kind of on the decline which, you know, throughout the east coast, in Atlantic City, stuff failing in Philly, how did you guys come to your number of about 120 million in revenue? What metrics are you guys using to kind of come up with that number considering the state of affairs with casinos today?

MR. MC LAUGHLIN: I don't agree that casinos are declining. I think it depends on the type of casino and how many casinos are in the area. What our consultant did was look at the population, the amount of traffic that those two interstates have on it every day during the week and then on the weekends and determined as a, based on their models how many people would

attend and go to the casino, stay and provide revenue to not only Greentrack but more importantly to the state.

SUPERVISOR GREEN: Tirek, just let me say this comment about and I've done a lot of reading recently about casinos in decline, it isn't, not necessarily casinos, it's the gambling industry itself that is declining, what is declining is the venue, you know, Atlantic City, you know, where there's a concentration of casinos. Everybody knows that Vegas is in trouble, Atlantic City is, you know, some of the casinos are failing, one of the major corporations is I just read $430 million into the red, something like that. So it's not necessarily industry itself that's declining, it is the venue where there's a large concentration.

MR. GAYLE: And, you know, I don't know if you guys have thought about this, I tell you I'm hopeful that the project goes through, I'm hopeful that it works, I know you are as well, but in hind--you know, if this God forbid were to fail has the board thought about what would they do with this facility if it's just sitting vacant

because it failed? And you might not have thought about it which is fine but, you know, I'd like to think about God forbid worst case scenario so that might be something to think about, if you thought about it great, if you haven't, then something to think about.

SUPERVISOR GREEN: The only way we would get it back is that they went into default and I think that's highly unlikely, you know, then the town would end up owning it. Maybe I could be a pit boss. You know, anything, you know, anything that's out at Stewart that does fail reverts back to the town, any of those buildings, medical center, law offices, all that would revert back to the town should they go into default. Another hand, yes sir?

MR. MOORE: Kevin Moore, 1705 Hawthorne Way. You spoke briefly about emergency services, can you expand on that, specifically the police department? I know it's kind of tight quarters here now, it was talk they're going to move over to the airport. With any casinos, something that large brings crime.

MR. MC LAUGHLIN: So as part of the host

agreement what we're proposing is to knock down the existing police academy, take an existing building that the town now owns which is the former--

MR. PETRO: Army Reserve building.

MR. MC LAUGHLIN: -- Army Reserve building that's on Stewart Airport, we'll provide funding to the town for the town to refurbish that building to create a brand new state of the art police academy and police department so that the police department gets out of the basement, moves over there as well. And in addition, we'll provide financial assistance to the police department for training and other purposes as part of the host agreement, as well as the fire department and the EMT.

SUPERVISOR GREEN: Remember this, when we move the police and the attention has always been to move the police department out to the facility at Stewart to the old Army Reserve, we're busting at the seams right here at the Town Hall right now and when that happens, we gain all that space down at the other end of the building. So it's going to be a real benefit to the town.

MR. MOORE: I'm assuming you're going to have to add more police and will that make the problem even worse?

SUPERVISOR GREEN: We'll have to add some but I got an interesting little article that our chief did, I had him do a little project and I'll get into that at the end of the meeting.

MR. PETRO: George?

SUPERVISOR GREEN: Jim.

MR. PETRO: Jim Petro, Town of New Windsor. It should be not noted when you hear numbers like $3.1 million for the renovation of the Army Reserve building, that number isn't just a number that we all thought sounded cute and we plugged it into the host agreement. We actually had that building, George had gotten bids on it in 2008, April of 2008 they came in at 2.6, 2.8 million for everything that they wanted to do at the time which included the jails, the police barracks, everything that was to be done. We just added two percent a year for the six years or seven years in the past and we came up with 3.1 million. So everything is calculated, figured out and it's exactly what it would cost

to renovate it to where the town can utilize that for the police department needs. So that goes true with everything that George is doing on the host agreement, they're not just numbers cause they sound cute, these are real numbers and it's all going to work.

SUPERVISOR GREEN: And remember now within that host community agreement there's additional funds for community benefit and, you know, which is substantial for us to do other work, you know, fairly shortly we're going to have to, Chief, we're going to have to change our radio system within what another five years or so?

CHIEF BIASOTTI: Three to five years, yeah, the county's looking to do that.

SUPERVISOR GREEN: Which is going to be a very expensive project so, you know, there's other funds there that are surely going to benefit the town. Sir?

MR. IVES: My name is Ben Ives, I live in New Windsor. Can you address the traffic, figuring everyone's coming off International Boulevard, what about the back way with 207? I know you've said you've done surveys but--

MR. REILLY: We didn't say everything was coming off, matter of fact, your consultant pushed back, we're putting 15 percent of the traffic onto 207 and 300, even though we don't believe it's going to be that much but we did put 15 percent. So we didn't consider everything was coming in International, we put 15 percent of the traffic from this casino going out to 207, 300 and again your own consultants were pushing that so we looked at that, hence the improvements that we're making on that road. And by the way, we even argued and that's why you had independent people, we argued that our peaks were different. Casino pecks are different than normal peaks that occur in traffic but again to be the worst case scenario we matched up the peaks, so we looked at it so worst case even though we know our peaks are Saturday but they're not at the normal peaks that happen when you have Saturday peak traffic and of course your weekday evening peaks, our peaks are different. Again, conservatively, we put them on top of there and looked at those numbers so again, took the conservative approach, didn't say everything was coming in here, we

believe a good portion or more of it will, we put 15 percent.

MR. IVES: Roads are not, there's not a lot of room to widen.

MR. REILLY: Improvements that they made right are the improvements that they can make at those intersections and adding turning lanes, et cetera, there's some pinch points as you know along there that exist, we can only do those improvements that were needed anyway, they were proposed years ago, we're doing those improvements.

MR. IVES: If this is completed you've got, everything is done, is it going to be washed under the carpet that you're not going to take care of it then because everything is completed?

MR. REILLY: No, we have to build those improvements that we talked about, it's not an if come, and then to be ultraconservative, the town has asked for a follow-up traffic study so whether it's a year after it's opened to look at the numbers and if our numbers are wrong which we don't believe because we've been so conservative that there could be other improvements that would

be necessary, you know, signal timing, things like that that would happen.

MR. IVES: That can be pushed back just like in Woodbury, they keep it very busy down there, everything, this whole intersection is being pushed back even further.

SUPERVISOR GREEN: Let me say this, there will be no push back on the improvements on 207, they're going to be done simultaneously with the construction of the casino, it's that simple. No improvements, no casino, it's pretty simple. You know, we sat down, our traffic consultant identified areas that needed improvement, Bob and I sat down the other day, I gave him some maps that I wanted to where I wanted to see improvement, matter of fact, I think I went a little further than Phil actually identified but those will be done. There is, I mean, there is no question about it, if they get the license, those improvements will be done.

MR. IVES: Alright.

COUNCILMAN REGENBAUM: And just remember one thing to point out, I mean, I live off 207 like you and the road they are talking about not just

adding turn lanes and widening spaces that will, that are the choke points that are problems now but it's ultimately one of the things that helps us know that they're going to do this besides George telling you that no improvements no casino but they need this. And if they have a casino that's nothing but a traffic boondoggle, no one will come, they'll go to the Catskills, they'll go to Foxwoods, they'll go somewhere where it's easy to get to. So it's in their best interest to make sure 207 and 300 are as easy to traverse as possible. I sat in on the meetings with these fellas on the traffic stuff and we went through basically took meter by meter and went through each intersection and where they needed to expand the queue-up lanes, some of which is already underway but other areas that they said okay, this traffic is going to be worst case scenario, what do we have to do, how far do we have to push it back so those turn lanes are improved so that you don't end up with cars lining up and slowing down 207. So that was a major consideration that these guys have looked into. And that's going to be taken care of at and before the casino goes

up.

MR. IVES: Those are the only two ways in Stewart.

COUNCILMAN REGENBAUM: Absolutely, well, you have the main way in obviously where you build four lane highway, you a $35 million project that the state put in a road to get everybody into the airport, so obviously, you want to divert as much traffic onto 84, onto 747 and then down International Drive. But to the extent that cars do come on 207 and 300, these improvements that they're talking about will ultimately help all of us. So that's, I mean, casino or no casino, you have problems with the turn lane when people are cueing up to turn from 207 left onto 300 when you're going to work in the morning at 8:00 in the morning and they're going to make that improvement for us, assuming they're here. No casino, that's still going to be done, that's already something that the town's working on.

SUPERVISOR GREEN: That's already been planned for.

COUNCILMAN REGENBAUM: Now we're going to back that up and take 207 all the way up to where

Stewart Airport enters at Bruenig Road and each one of those choke points that you have because of more traffic that you're anticipating they're looking at changing those queue lanes and adding turn lanes into the airport that backs all the way down so you don't have an issue there. And then as Drew has mentioned, the point that we insisted on as a board and as the supervisor talked about is if that's not going to work in six months and a year we insisted upon a further study, so if you and I continue to try and get out in the morning two years from now and there's nothing but casino traffic and I can't turn to go to work, we're going to know that from the study and we're going to make further improvements to that road as necessary and they're going to pay for it. And that's what you want and that's what's in the host community agreement and that's what's being anticipated by the board ahead of time.

MR. MC LAUGHLIN: And so to answer your question there's other things that we can do as a casino to address the traffic needs. First off the work shifts can be staggered so not

everyone's coming in at 8 or 9:00 in the morning, okay. Second thing is gamblers don't like the mornings, okay, they will be, I can guarantee you the best time for anyone to gamble will be in the morning cause the casino floor will be completely a ghost town, okay. So until patrons start coming in late morning when work traffic is already passed, again, as Drew mentioned, our peak times are different than the traditional traffic study peak times. But we overlaid it anyway just to make sure that we went to worst case scenario.

MR. IVES: Weekends too.

MR. MC LAUGHLIN: But the weekends, again, the peak times on the weekends our peak will be different than your peak, okay.

MR. IVES: Give it time.

MR. MC LAUGHLIN: We'll see.

COUNCILMAN LUNDSTROM: The one thing that makes me feel very confident and comfortable about the way New Windsor has approached this is yes, Greentrack has their own experts and let me tell you they have hired some excellent people to do their work for them. The Town of New Windsor

has also hired our own experts in traffic, in attorneys and planners and all this stuff and by the way, the cost of those experts that we've hired have been borne by Greentrack, so we're not in any way trying to buy a pig in a poke. We know that what we're doing is concrete, we know it's good and we know it's in the best interest of the residents. And I feel very comfortable about that.

SUPERVISOR GREEN: Anyone else? I did see another hand. Barney?

MR. BEDETTI: Frank Bedetti, Harth Drive, New Windsor. I thought your presentation relative to the essentially the sports complex and the off-site aquatic center you said Greentrack was going to fund that, are they going to fund the construction of it or are they going to also contribute to the operation and maintenance in the future of that same project?

MR. MC LAUGHLIN: Just the construction.

SUPERVISOR GREEN: Let me address your question, Barney. The sports complex and aquatic center that we are designing and proposing will be second to none probably in the state. It will

generate, we anticipate that it will generate enough revenue to carry our recreation program, you know, I'm, there's got to be soccer moms in the audience and soccer dads in the audience and they know how many people are attracted to these tournaments, these weekend tournaments. As a matter of fact, Andrew can attest to that cause every time I call him on a Saturday morning he's out to some soccer match or he's out to some swim meet somewhere. The revenue is just, anticipated revenue is incredible and it will more than carry the facility and our some of our recreation programs. There was somebody before you, I saw another hand before Barney. Yes?

MR. CONKLIN: Ira Conklin, 443 Jackson Avenue, New Windsor. Just a couple questions for you. You talked about the police presence a little bit but isn't the state police going to be on, don't you have your own security, don't you have your own cameras and things like that you're going to utilize?

MR. MC LAUGHLIN: Right, so the state police will be on site. In addition, we'll have a trained security force and every aspect of the

gaming floor will be, every aspect, every inch of the gaming floor will be under constant surveillance, as well as other areas of the facility, the parking garage, the hotel, the restaurants, the bars. Safety is the most important part of operating an entertainment facility. Not only safety for the people that are there but to make sure that other people don't impact negatively the fun that people can have coming in so absolutely. So not only we will have our own surveillance, the state police will be there and surveillance will be everywhere.

MR. CONKLIN: So the Town of New Windsor is not going to bore the cost of, solely the cost of the additional people that are going to come in.

MR. MC LAUGHLIN: Correct.

MR. CONKLIN: And the number of construction jobs to build this, has there been an estimate on that, on the number?

MR. MC LAUGHLIN: We estimate about 1,800 approximately, all union jobs under PLA neutrality agreements and we are looking for local, you know, employees first and then we'll

go out to the other parts of the county and then go to our surrounding counties, we're going to avoid as much as we can attracting labor from other parts of the state. This is a regional facility, we want it to be built by regional laborers and then staffed by regional residents.

MR. CONKLIN: And then how, what's the duration of the project?

MR. MC LAUGHLIN: We need to be open in 24 months. So our estimate and our goal is to be sooner than that. You know, so, for example, if we were to be awarded a license December 1st, we would want to be open sometime around Labor Day of 2016.

MR. CONKLIN: Okay, and the last question the number of employees that you, permanent employees that you will I guess be drawn from the City of Newburgh, Middletown and the surrounding area, how many employees will you have?

MR. MC LAUGHLIN: Our priority, well, full time employees afterward?

MR. CONKLIN: Yes.

MR. MC LAUGHLIN: Again, approximately 2,500 and what our commitment is to draw first from the

immediate region, so the Town of New Windsor, the City of Newburgh will have bus transportation available for our workers if they don't have cars, we'll have on-site daycare facilities for those workers and for the children of those workers, we'll have other training available. We'll partner with local colleges to have training for their students as well the Culinary Institute our goal is to try and get them here as well, so it will be a regional facility staffed by regional employees or residents.

MR. CONKLIN: Okay, thanks, thanks for the town board too for your work in bringing Greentrack to us.

SUPERVISOR GREEN: Thank you, Ira, thank you. Okay, there was another hand. Yes, sir?

MR. SCHOTZ: Paul Schotz from Windsor Highway. There was a couple questions that I just thought of real quickly, I ain't got too much experience, I'm just an old Air Force guy and a telephone guy in the city, but one thing was mentioned improvements to the park. The park is actually I think in the worst location. My family farmed that property for years, we had

problem going in and out with hay wagons. Now you got more cars going in because the park's getting bigger. Is that going to be addressed? Because that Mt. Airy Road sucks. And on top of that, what kind of impact is going to be with the airport? Are we going to have more air traffic with people flying in the casino? Cause that would be great but also at the same time how would that impact the military side of it? Like I said, I'm prior military, I say stupid stuff like this. And also, I heard there's a 30 inch main gravity fed that's going to be going to the treatment plant, I mean that's awesome, but I can't see that being done being I was in the engineering outfit with the Air Force that far of a distance without some type of a pumphouse. I mean, if you can do it, that's cool. And the last question I got for you is we addressed a while back New Windsor trying to have their own school district. Being that they're funding most of the money to Washingtonville, can we at least try to make a vote again to have New Windsor have their own school district, so we get, instead of the money going to Washingtonville, it will go

back to the kids of Town of New Windsor? Thanks, appreciate it.

SUPERVISOR GREEN: Let me answer the school question first and then we'll get into the rest of it. I will never support our own school district simply because it's too expensive, we cannot afford it. Most of us would have to move out of town simply because of the school taxes. Newburgh School is what now 280 million, is that the what the figure was, do you remember, 280 million, something like that, we simply couldn't afford it. All the school facilities within New Windsor are owned by the City of Newburgh or the Newburgh School District, we could not afford it, no matter what Greentrack, no matter what it was, we simply couldn't afford it. And anybody that knows me knows that, you know, my primary interest is about the future generations coming up, you know, I'm about the kids.

MR. PETRO: Thirty inch main.

SUPERVISOR GREEN: I'm sorry, what Jim?

MR. PETRO: Thirty inch main.

SUPERVISOR GREEN: Oh, 30 inch main, 30 inch main has been there for, since 2005.

MR. REILLY: It was installed just for the, they called it the diversion sewer, picks up all this and the development of this area and your town engineer, adequate capacity in the 30 inch sewer.

MR. SCHOTZ: That's awesome.

MR. REILLY: What's that?

MR. SCHOTZ: That's awesome, I just thought that distance I thought a pumphouse would have to be put in somewhere.

MR. MC LAUGHLIN: Two of the other points with veterans, one of the items I didn't mention is the fact we're going to develop an employment program for returning veterans, we're working with the base that's there to try and accomplish that. In addition, we'll have special program for handicapped and I deal with National Institute for the Blind for employment of handicapped or blind individuals as well. And then finally with airport traffic, part of the goal of the Mid Hudson Regional Plan from over 10 years ago was to have this type of economic development take place at Stewart Avenue, Stewart Airport, I grew up near Stewart Avenue, I always

say that, Stewart Airport, so specifically to address, to attract new carriers into the airport to make it a viable airport not only for as a fourth airport of the Port Authority but also as a real viable airport for the residents of the area. So I believe that we take that into account as part of our study and the roadways will be sufficient for that.

MR. SCHOTZ: Cool.

SUPERVISOR GREEN: You have to remember when you talk about military versus civil aircraft, the whole purpose of the airport was to increase, and the whole thrust of Port Authority is to increase air traffic at Stewart, you know, and that's always been, that's why Port Authority took it over.

MR. SCHOTZ: What about the traffic on Mt. Airy going into the park?

SUPERVISOR GREEN: Well, we, Matt's not here, what did he give us the figures 20,000, you know on Community Day.

COUNCILWOMAN MULLARKEY: Twenty thousand last year about.

SUPERVISOR GREEN: Community Day we had

20,000 people and we managed quite well. We fill up the parking lots, we use the fields, the new facility will have its own parking. Andrew, how many cars 240, is that what it was?

COUNCILMAN REGENBAUM: Yes.

SUPERVISOR GREEN: I think that's the number I remember.

MR. MC LAUGHLIN: That's correct.

SUPERVISOR GREEN: Two hundred and forty we'll have parking for so that's well taken care of. I would like to see the new entrance in off 94 to that facility so--Jim?

MR. PETRO: Jim Petro again. To answer more directly to one of Barney's questions about the running of the sports complex and the money there and to Paul's question too about the road, the improvements to the road if you need it later on. I think, you know, we have to keep reminding everybody that there's a community benefit fund that George mentioned earlier and I know he's been working on it all day, that's quite large. I don't know if you want the number if you want to throw it out there but for any of these contingencies, money would be there every year on

top of everything else that we've talked about, rateables, all that, that this fund could certainly take up any slack that any of us may have oversight or didn't think of which I doubt that's the case but that's the fund and you should expand on that, it's very good.

SUPERVISOR GREEN: Bob, do you have an objection if I mention that?

MR. MC LAUGHLIN: No.

SUPERVISOR GREEN: The community benefit fund is two and a half million dollars annual, which is considerable. I envision a lot of that going to capital improvements, you know, as the road and, you know, things like that. Now I have a million projects in the back of my mind, you know, that I'm always thinking about and then I look at that two and a half million dollars and say hey, a lot of these things can come to fruition if we had some extra money. So Ira?

MR. CONKLIN: Isn't the town's annual operating budget around what $7 million, $8 million, something like that?

SUPERVISOR GREEN: That would be, that would be close to the levy but no, the total operating

budget is I think, I don't have Jack here, I think this year was 27 and a half million dollars, something like that but that's capital and everything.

MR. CONKLIN: We're going to be getting from the lease to the property and the five percent is going to be close to 6 million, is that what we're talking about?

SUPERVISOR GREEN: Yeah, it's, yes, yeah, it's going to put a big dent.

MR. PETRO: You're going to double the operating budget.

SUPERVISOR GREEN: Remember this, you know, with that money, you know, there's a lot of capital expense that we are looking forward to incurring and one of the big capital expenses is water. Another capital expense is going to be the sewer improvements within the town. So to say that every dime of that is going to go to tax reduction would be erroneous. But a large percentage of it, yes. I hope I answered that question.

COUNCILMAN LUNDSTROM: George, one of the things that I've heard said a lot around Orange

County is that in Orange County there are five proposed casinos. One in Tuxedo Park, one in Woodbury, one in the Town of Newburgh, one in the Town of Blooming Grove and then one in the Town of New Windsor. The comments I've heard is that New Windsor's location is at Stewart Airport is probably the best location of any one in Orange County because it's off on an island by itself. As you've heard tonight, the design, the whole concept of it is to not intrude on the lives of our residents, to be as friendly, to be a partnership with the Town of New Windsor and the Town of New Windsor residents. If the casino were to go to any other location, like the Town of Newburgh or the Town of Blooming Grove, even the Town of Woodbury and Tuxedo Park we're going to see larger demands put on municipal services, more traffic on our local roads which means there's going to be more of a demand in our police department and we're not going to get any benefit from that. If the casino is approved at Stewart Airport, we're going to get part of those demands because it is off on an island but we're going to get a lot of benefit from that being

there. So I think it's in all of our residents' best interests if the state in their infinite wisdom decides that the casino at Stewart Airport in the Town of New Windsor is one of the selected sites.

SUPERVISOR GREEN: Anything else from the audience? Joe?

MR. MINUTA: Just a comment, I just want to truly as a resident, architect, thank the board, supervisor, the board and Mr. Petro, all of you for having the foresight to see this site as for what it could be and projecting it to the future to where it i now so that we have something to offer this opportunity for the town. And I just think it's a tremendous thing and foresight is 10 years beyond and now we're here today being able to offer pretty much a shovel ready site.

SUPERVISOR GREEN: I would be remiss if I didn't give credit where credit is due. We wouldn't have Stewart Airport if it wasn't for basically well four people, three people, if it wasn't for the vision of former Supervisor George Meyers, for the efforts of Jim Petro and our former Town Attorney, Phil Crotty, who engineered

the entire acquisition of Stewart Airport, we wouldn't be in this position today. And, you know, they most certainly deserve recognition for it and of course Sue Kelly who carried, you know, through Congress and got it approved for the Town of New Windsor. You know, it was obviously it's a tremendous benefit to the Town of New Windsor and those people should, you know, will certainly get credit for acquiring that property. So that being said, are we done? So there are a couple things I do want to address. I'm going to close the comments now and there's a couple, but I just want to go through a couple things. Now, there was some comments about crime associated with casinos. So I asked our chief to make some calls to similar casinos, what I call one site casinos and he did, he called Mt. Airy Casino and Resort down in Mt. Pocono, Pennsylvania, Valley Forge Casino and Resort in King of Prussia, Pennsylvania, Hollywood Casino and Resort in Grantville, Pennsylvania, Casino at Delaware Park in Delaware Park, Pennsylvania, Ameristar casino and Resort, I never heard of some of these in St. Charles, Missouri. And what he came, here's the

quote in his memo, he made very similar statements, all reported most substantial increase in crime or criminal activity with regards to the presence of casino with their municipality. Most noticed a slight increase in medical response for calls for service primarily due to elderly patients visiting the establishment. And, you know, I kind of resent the remark because of kind of resemble that remark. But now I hope, you know, Mike did a good job of calling around and people realize that this is not Atlantic City, this is not Vegas, this is a single location site that is isolated. You know, people talk, people talk well, it's going to bring prostitution. Well, if you'll think back to a few months ago that New Windsor cracked one of the largest sex trade, sex slave rings in the state and probably the largest, made the biggest arrest ever on that. There was no casino that generated that. Couple weeks ago, and they talk about narcotics, you know, it's going to draw narcotics. Well, a couple weeks ago in a residential development, we made an arrest that amounted to two keys of

cocaine. There was no casino there. Last week the district attorney and local police agencies arrested 64 people on felony crime, felony drug arrests. Didn't involve a casino. So, you know, it's kind of a, you know, to me it's a bogus comment, it's a comment from people that just plain want to be negative, you know, just for the sake of being negative and it doesn't hold water. So I hope that resolves something, some questions. And I do want to kind of add my thoughts and I'm actually going to read a statement. There's been a lot of talk about where a casino should be located. Some think that if the region should be awarded two licenses both should go to Sullivan County. I disagree that both should go to Sullivan County and would argue that Orange County is just as in need for an economic boost that a casino would bring. One of the biggest arguments for locating a casino in a given locality is unemployment that it would generate and I believe that that's a pretty good reason. So if you look at New York State Department of Labor's latest figures, Sullivan County had 2,200 of its work force unemployed,

Orange County had 8,900 of its work force unemployed. Using those figures, Sullivan County's unemployment labor pool couldn't even supply enough employees to fulfill the needs of one casino, let alone two. By the same source the Cities of Newburgh and Middletown have a combined unemployment force of 1,500 or 68 percent of the entire Sullivan County figure. While I would agree that Sullivan County most certainly needs economic boost, that casino would bring an equal economic boost to Orange County and it's well needed. Why then Stewart Airport? We've heard for years and it's, it really, really bugs me from every politician on every level taunting Stewart Airport as the great economic engine of the Hudson Valley. But what we have seen in economic benefit from it, not much if anything. From New Windsor government standpoint, it is more a burden than a benefit. The entire PILOT payment received from Port Authority for all their buildings at Stewart Airport is $24,014.87. Can you believe that? Now, for that, we provide police, ambulance, fire, sewer and water. And let's not forget that

New Windsor lost almost 8,000 acres of taxable land to the State of New York as part of the Stewart forest off our tax rolls, I mean, we get compensation from the state for open space but nowhere near the potential that those acreages would have provided to New Windsor. But there's other things that make Stewart an obvious choice for Orange County. It is accessible from Interstate 784 and Interstate 87 directly without impacting local roads. The State of New York has invested approximately $25 million in direct access to that airport. And studies show that about 85 percent of the traffic will access the casino from these highways. Both water and sewer infrastructure are in place at Stewart, they don't have to be built, they're there, they exist. Stewart's location away from Route 17 corridor will not act as a cutoff destination for any casino located in Sullivan County but by its very location Stewart will change the catchment area and will attract patrons from areas north and east more readily than Sullivan County location. Stewart has readily available public transportation via bus and rail, we have the

Salisbury station and we have the Short Line bus terminal on 17K and of course casino would be remiss if it didn't provide bus service from those locations. And in talking to the casino's operators, they most certainly intend to do that. Putting aside those community benefits, tax revenues and in our case rent receipt from the casino, the most important benefit it will create is jobs, especially when you consider seven percent unemployment rate in the City of Newburgh. I think it was put best in an article that appeared in a local newspaper last week regarding 64 felony drug arrests, a local police chief commented on those arrests saying all young people, no parents in the house and no jobs. And I think that says it all. And to me, our youth is, you know, that's why I'm here, that's always my focus. And I believe that, you know, this will bring the jobs that especially to the, that the City of Newburgh needs. So with that being said, I thank everybody for being here and I hope we've answered your questions. Thank you all.

(Proceedings concluded at 8:36 p.m.)

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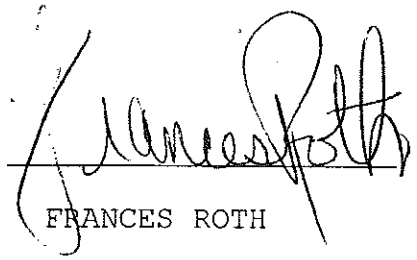
C-E-R-T-I-F-I-C-A-T-I-O-N

I, FRANCES ROTH, a Stenographic Reporter and Notary Public of the State of New York, do hereby certify:

That the foregoing is an accurate record of the testimony, as given, to the best of my knowledge and belief, the same having been stenographically recorded by me and transcribed under my supervision.

That I am not related to any of the parties involved in this matter, and that I have no personal interest whatsoever in the outcome thereof.



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