

A LANDSCAPE MANAGEMENT PLAN FOR "THE POINT"

MILLS-NORRIE STATE PARK AND
THE NEW YORK STATE OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
TACONIC REGION -- STAATSBURG, NY

CHAPTER 5: MANAGEMENT RECOMMENDATIONS & PRIORITIES

CHAPTER 5: MANAGEMENT RECOMMENDATIONS & PRIORITIES

INTRODUCTION

This section of the report provides the New York State Office of Parks, Recreation and Historic Preservation with detailed, site-specific treatment/management recommendations for the historic landscape at "The Point." They are based on a comprehensive study of the site's history, existing conditions and preservation needs, as well as an understanding of the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (1992) and the *Guidelines for the Treatment of Historic Landscapes*.

The recommendations also reflect innovative strategies for cultural landscape management advocated by the National Park Service in a publication titled *"Earthworks Landscape Management Manual."* To the degree possible, the treatments favor the development of well-managed vegetative covers and native habitats (i.e. grasslands, light forests, climax forests, and wetlands) that provide an aesthetically satisfying, environmentally sound and low-cost alternative to standard horticultural practices.¹

The recommendations are presented in the form of two succinct, integrated components: a Landscape Management Matrix and a Map of Landscape Management Zones (Figure 5-1). A comparable matrix for managing periodic preservation maintenance tasks (Preservation Maintenance Calendar) is also illustrated. Both matrices and the color-coded map sub-divide "The Point" into two major treatment types, five distinct management zones, and seventeen design/functional units that reflect historic land use patterns. Each of the design/functional units is also identified by an alpha-numeric abbreviation known as the "Management Code." The categories include:

MAJOR TREATMENT TYPES	Management Zones	Historic Design Units & Code
RESTORATION AREAS	Vaux-Hoyt Historic Core	<i>Estate Entrance</i> (HC-1)
		<i>The Approach</i> (HC-2)
		<i>The House Lawn</i> (HC-3)
		<i>The Vistas</i> (HC-4)
		<i>The Cottage Lawn</i> (HC-5)
MANAGED NATURAL AREAS	Grasslands ²	<i>The East Fields</i> (GL-1)
		<i>The Central Fields</i> (GL-2)
		<i>The South Fields</i> (GL-3)
		<i>Garden & Farmstead</i> (GL-4)
	Light Forests ³	<i>The Spring Grove</i> (LF-1)
		<i>The Approach Grove</i> (LF-2)
		<i>The Stable Grove</i> (LF-3)
		<i>The Dock Grove</i> (LF-4)
	Climax Forests ⁴	<i>The East Woods</i> (CF-1)
		<i>The Central Woods</i> (CF-2)
		<i>The River Woods</i> (CF-3)
	Wetlands	<i>The Upland Marsh</i> (WL-1)

The two matrices segregate treatment and maintenance recommendations for "The Point" into eight distinct categories that reflect historic landscape features identified in the Secretary of the Interior's *Guidelines for the Treatment of Historic Landscapes*, specifically:

- topography
- vegetation
- natural systems
- circulation
- buildings & structures
- site furnishings & objects
- water features
- views & spatial relationships

Within each of these categories on the Landscape Management Matrix, recommendations are generally listed in ascending order by their degree of intervention. For example, less drastic measures (i.e. protection, stabilization and preservation) are listed first, followed by rehabilitation, restoration, and reconstruction treatments.

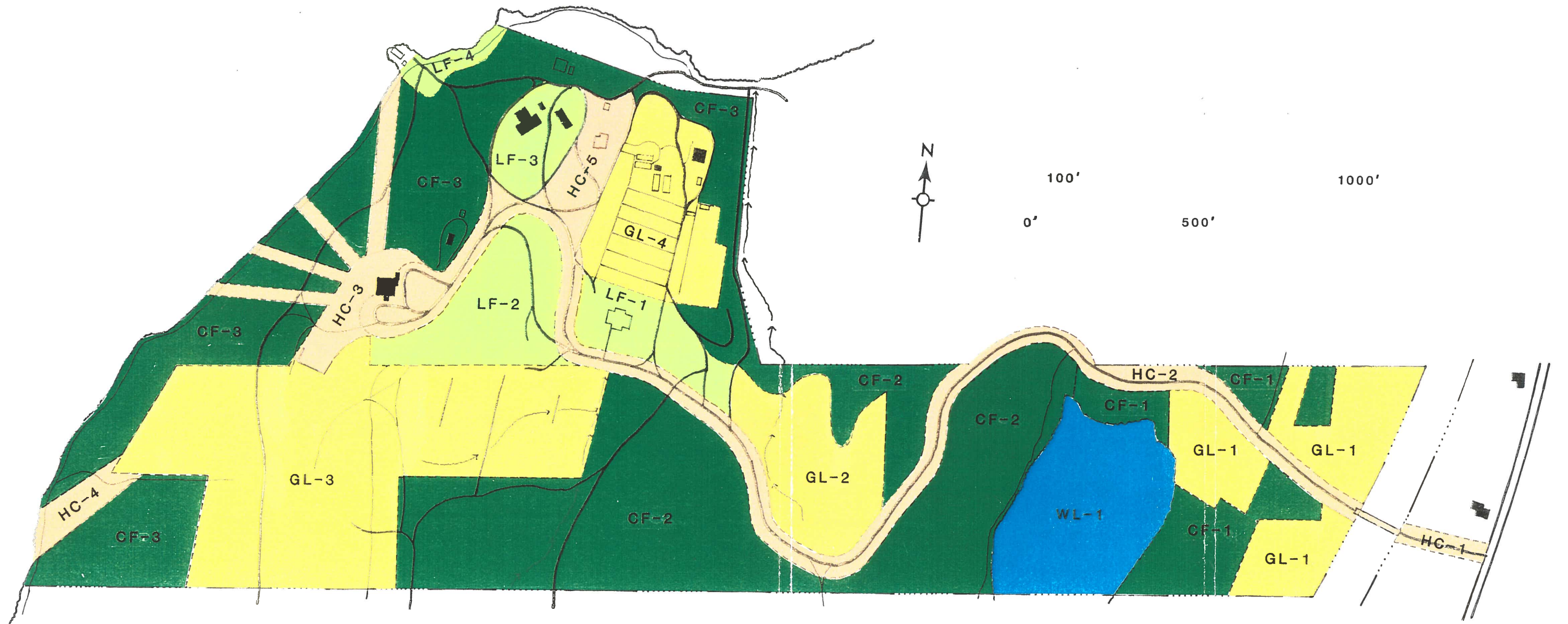
These feature-specific recommendations are also assigned to one or more of the site's seventeen historic design/functional units through the use of four distinctive graphic symbols that illustrate the relative priority of the proposed action. [Please refer to the table on right-hand side of this page]

Site-wide treatment priorities and criteria were established by DOELL & DOELL in consultation with representatives of the New York State Office of Parks, Recreation and Historic Preservation - Taconic Region.⁵ They generally reflect an ascending order of intervention, balanced against public health and safety concerns, code compliance requirements and budgetary limitations.

Taken together, the map and matrices provide a model format for identifying, prioritizing, and monitoring preservation and maintenance actions on any given historic site. This system is also concise, hierarchical and adaptable, yet consistent with professional stewardship standards, responsive to institutional needs and resources, and sensitive to environmental concerns.

SYMBOL	PRIORITY	PERIOD	RANGE OF GENERAL TREATMENTS
■	Urgent	IMMEDIATE (0-12 Months)	<ul style="list-style-type: none"> • Documentation & stabilization of endangered features • Repair/replacement of features that pose a threat to health & safety
★	High	SHORT-RANGE (1-5 Yrs)	<ul style="list-style-type: none"> • Code-required improvements to facilitate contemporary use of site • Continued documentation of features • Selective removal of post-1911 features (after documentation) • Selective repair/replacement of features (primarily Historic Core) • Selective reconstruction of missing features (primarily Historic Core) • Limited replanting of missing vegetation near house & entrance
*	Medium	MID-RANGE (6-10 Years)	<ul style="list-style-type: none"> • Supplemental improvements to facilitate contemporary use of site • Selective replanting of missing vegetation (primarily Historic Core) • Selective reconstruction of missing features within Core & Managed Areas • Continued repair/replacement of deteriorated features • Continued documentation of features, (primarily Managed Natural Areas) • Continued removal of Post-1911 features (after documentation)
*	Low	LONG-RANGE (11-20 Yrs)	<ul style="list-style-type: none"> • Reconstruction of missing features within Vaux-Hoyt Historic Core • Selective reconstruction of missing features within Natural Areas • Selective clearing of post-1911 vegetation in Managed Natural Areas to restore historic spatial relationships • Continued replanting of missing vegetation in Historic Core & Managed Natural Areas • Continued repair/replacement of deteriorated features within Vaux-Hoyt Historic Core

Figure 5-1: Map of Landscape Management Zones at "The Point"



RESTORATION AREAS

THE VAUX-HOYT HISTORIC CORE

- HC-1 The Estate Entrance
- HC-2 The Approach Drive
- HC-3 The House Lawn
- HC-4 The Vistas
- HC-5 The Cottage Lawn

MANAGED NATURAL AREAS

GRASSLANDS

- GL-1 The East Fields
- GL-2 The Central Fields
- GL-3 The South Fields
- GL-4 The Garden & Farmstead

LIGHT FORESTS

- LF-1 The Spring Grove
- LF-2 The Approach Grove
- LF-3 The Stable Grove
- LF-4 The Dock Grove

CLIMAX FORESTS

- CF-1 The East Woods
- CF-2 The Central Woods
- CF-3 The River Woods

WETLANDS

- WL-1 The Upland Marsh

"THE POINT"	Landscape Management Matrix																
	RESTORATION AREAS					MANAGED NATURAL AREAS											
	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
	Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods
Management Code:	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
TOPOGRAPHY																	
<input type="checkbox"/> Stabilize eroding slopes: • along Approach Drive • near Cow Barn																	
<input type="checkbox"/> Restore the site's natural land forms and designed grades after removing these road segments: • the service drive south of Hoyt House • the southern half of the Cottage Road																	
NATURAL SYSTEMS																	
<input type="checkbox"/> Manage open fields as an ecological system to favor the growth of tall, native meadow grasses. As necessary and appropriate, control invasive woody species through mowing, controlled burning, or a combination of both methods.																	
<input type="checkbox"/> Manage climax forest covers as an ecological system to favor the growth of stable, healthy, and self-sustaining native communities that require almost no maintenance. Manage to maintain the forest's multi-aged and multi-layered structure (canopy, understory, shrub and ground layers).																	
<input type="checkbox"/> Manage light forest covers as an ecological system to favor the growth of stable, healthy, and self-sustaining native communities. Selectively thin the shrub and understory layers to provide greater visibility, while retaining the forest's overall multi-layered structure.																	
<input type="checkbox"/> Manage the upland marsh as an ecological system to favor the growth of stable, healthy and self-sustaining native communities that require almost no maintenance.																	
<input type="checkbox"/> Preserve documented design/historic features within these woodland areas: • pine/hemlock groves (screen plantings) • old fence/line or avenue trees																	

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
VEGETATION	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Remove dead, diseased, damaged or dying trees that pose a threat to public health & safety, or that endanger other historic features: • along the Approach Drive or other primary routes • in the vicinity of Hoyt house & its outbuildings	■	■	■		■						■	■			■	■	
<input type="checkbox"/> Remove/eradicate arbor-forming vines that endanger specimen and avenue trees: • along Approach Drive or other routes • in vicinity of Hoyt house & outbuildings • within the estate's traditional farmlands	*	*	*		*			■	■	*	*	*	*	*	*	*	
<input type="checkbox"/> Preserve character-defining trees from the period of significance within the historic core: • avenue trees along the Approach & other routes • specimen trees on lawns near Hoyt House • specimen trees on lawns near the Cottage site		*	*		*												
<input type="checkbox"/> Remove specimen/avenue trees that were planted after the period of significance (1852-1911): • in the vicinity of Hoyt House & its outbuildings • along Approach & secondary drives/lanes • within & bordering the garden/farmstead complex		*	*		*				*		*	*					
<input type="checkbox"/> Remove successional growth that developed after the period of significance (1852-1911).	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<input type="checkbox"/> Remove vegetation that poses a threat to historic stone walls & ruins of structures • young saplings, shrubs & vines spouting in walls • historic & other mature trees whose continued growth will jeopardize the integrity of walls & ruins	■	■	■		■	*	*	*	■	*	*	*	*	*	*	■	*
<input type="checkbox"/> Restore missing vegetation features: • avenue trees along Approach & other drives • hedges and screen plantings • groves/specimen trees on lawns, old fencelines • ornamental shrubs & vines • container plants • perennials, annuals, small fruits & vegetables • orchards, groves of nut trees • woodlands	*	*	*		*	*	*	*	*	*	*	*	*		*	*	

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
CIRCULATION	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Perform archaeological investigations to document the historic design (alignment, grade, width, edges, etc.), materials and finishes of the site's extant historic circulation features:																	
• portions of the Approach Drive	*	*															
• the Bam Road									*							*	
• the Dock Road					*							*	*			*	
• the Garage Road												*					
• the Ridge Road															*		
<input type="checkbox"/> Perform archaeological investigations to document the historic design (alignment, grade, width, edges, etc.), materials and finishes of the site's vanished historic circulation features:																	
• vanished portions of the Approach drive		*															
• the vanished roads in the vicinity of the Farm Cottage site [C]					*				*			*					
• the vanished roads in the vicinity of the Garage-Stable Complex					*							*					
• the abandoned road from the Approach Drive to the Dock Road/Lewis Dock													*			*	
• the vanished roads & paths associated with the kitchen garden & greenhouse complex									*								
• the vanished paths & roads associated with the Unidentified Building [Q]										*							
• the abandoned road/path from the Lewis Dock to the southern boundary line				*												*	
• the vanished paths on the Hoyt House lawn and on the knoll south of the house			*					*									
<input type="checkbox"/> Retain historic circulation features from the restoration period (1852-1911), and repair/replace their deteriorated materials/finishes in a manner that respects their historic design and engineering (ie. width, grade, alignment, edges, surfaces, color texture, etc.) drainage systems, views & vistas, furnishings and other features:																	
• portions of the Approach Drive	*	*															
• the Bam Road									*							*	
• the Dock Road					*							*	*			*	
• the Garage Road												*				*	
• the Ridge Road															*		

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
CIRCULATION (Continued)	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Remove non-historic circulation features that were constructed after the restoration period (1852-1911):																	
• the S-shaped portion of the Approach drive that ascends the river ridge to Hoyt House (c. 1911)												*					
• the southern half of the Cottage Road		*			*						*						
• the northern end of the Meadow Road (post-1963)		*						*			*						
• the semi-circular drive/parking area at the northeast corner of the Hoyt House (post-1927)			*														
<input type="checkbox"/> Remove incongruous materials (i.e. paving, curbs, etc.) from the following historic circulation features, and replace them with materials that recreate the site's historic appearance (1852-1911):																	
• the dirt/gravel surface of the Approach drive and other roads throughout the site	*	*			*				*	*		*	*				*
• the concrete curbs that border the Approach drive in the vicinity of the Hoyt House; replace with turf-gravel edge		*															
<input type="checkbox"/> Rebuild missing drives and paths that existed during the restoration period (1852-1911) based on historical, pictorial or physical documentation of their historic alignment, materials, and associated features:																	
• the vanished segment of the Approach drive that ascended the river ridge to Hoyt House		*															
• the vanished roads in the vicinity of the Farm Cottage site [C]					*				*			*					
• the vanished roads in the vicinity of the Garage-Stable Complex					*							*					
• the abandoned road from the Approach Drive to the Dock Road/Lewis Dock													*			*	
• the vanished roads & paths associated with the kitchen garden & greenhouse complex									*								
• the vanished paths & roads associated with the Unidentified Building [Q]										*							
• the abandoned road/path from the Lewis Dock to the southern boundary line				*												*	
• the vanished paths on the Hoyt House lawn and on the knoll south of the house			*					*									
• the vanished/abandoned farm lanes that are documented throughout the property						*	*	*	*					*	*	*	

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh	
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh	
BUILDINGS & LANDSCAPE STRUCTURES	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
<input type="checkbox"/> Mothball/secure potential access points to all vacant structures that may pose a threat to public health & safety: <ul style="list-style-type: none"> • Hoyt House [1] • Cow Barn [3] • Potting Shed-Heating Plant [6] • Basement of Coach house [4] • Basement of Coach house [4] • Cistern/Spring Outlet [11] 			■															
<input type="checkbox"/> Fill the empty foundations of ruined structures with soil to protect public health & safety as well as the archeological value of these features: <ul style="list-style-type: none"> • Potting Shed-Heating Plant [6] • Ice House [D] • Fam Sheds #1, 2 & 3 [F, G & H] • Cottage Outbuilding [M] 									■								■	
<input type="checkbox"/> Arrest deterioration of threatened buildings & landscape structures from the restoration period through immediate stabilization measures: <ul style="list-style-type: none"> • Hoyt House [1] • Potting Shed-Heating Plant [6] • Cow Barn [3] 			■						■									
<input type="checkbox"/> Retain and preserve historic buildings that existed during the restoration period (1852-1911). Monitor & evaluate their condition, use non-destructive cleaning methods, repair deteriorated parts through limited replacement in kind (or with a compatible substitute), and maintain using proper conservation practices. <ul style="list-style-type: none"> • Hoyt House [1] • Reservoir [2] • Cow Barn [3] • Coach house [4], Garage [5] & 5-bay Garage [7] • Potting Shed-Heating Plant [6] 			*						*			*					*	

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
BUILDINGS & STRUCTURES (Continued)	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Retain & preserve historic landscape structures that existed during restoration period (1852-1911). Monitor & evaluate their condition, use non-destructive cleaning methods, repair deteriorated parts through limited replacement in kind (or with a compatible substitute), and maintain using proper conservation practices.																	
• Stone Gateway Piers & Walls [12]	*																
• Railroad Bridge [13]	*																
• Cistern/Spring Outlet [11]									*								
• Lewis Dock ruins													*				
• Stone tree wells & retaining walls	*	*	*														
• Stone boundary walls		*				*	*							*	*	*	*
<input type="checkbox"/> Remove non-historic buildings, structures and additions that were constructed after the restoration period (1852-1911):																	
• Garage-Kitchen wing on Hoyt House (post-1927)			*														
• Brick Garden Wall (#8; c. 1945)			*														
• Greenhouse (#9; post-1959)									*								
• Swimming Pool (#10; post-1959)									*								
• Bam Shed foundation (O)									*								
<input type="checkbox"/> Rebuild missing features on buildings & landscape structures that existed during the restoration period (1852-1911) based on historical, pictorial or physical documentation:																	
• front porch & paired verandas, window hoods and picturesque Gothic elements on Hoyt House [1]			*														
• terrace on west & north sides of house, and other picturesque Gothic elements on Hoyt House [1]			*														
• Potting Shed-Heating Plant [6]									*								
• Stone Gateway Piers & Walls [12]	*																
• Lewis Dock													*				
<input type="checkbox"/> Rebuild missing buildings that existed during the restoration period (1852-1911) based on historical, pictorial or physical documentation:																	
• Boat House [B]													*				
• Farm Cottage [C]					*								*				
• Pump House [E]													*				

Management Zones: Historic Design Units:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh	
	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh	
SPATIAL RELATIONSHIPS (continued)	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
<input type="checkbox"/> Restore the historic spatial organization of the Hoyt estate by removing non-historic buildings, structures & additions that were constructed after the period of significance (1852-1911): <ul style="list-style-type: none"> • Garage-Kitchen wing on Hoyt House (post-1927) • Brick Garden Wall (#8; c. 1945) • Greenhouse (#9; post-1959) • Swimming Pool (#10; post-1959) • Bam Shed foundation (O) 			*						*									
<input type="checkbox"/> Restore the historic spatial organization of the Hoyt estate by rebuilding missing buildings that existed during the period of significance based on historical, pictorial or physical documentation: <ul style="list-style-type: none"> • Boat House [B] • Farm Cottage [C] • Pump House [E] 					*							*						
<input type="checkbox"/> Restore the historic spatial organization of the Hoyt estate by rebuilding missing drives and paths that existed during the restoration period (1852-1911): <ul style="list-style-type: none"> • the vanished segment of the Approach drive that ascended the river ridge to Hoyt House 		*																
<input type="checkbox"/> Restore the historic spatial organization of the Hoyt estate by rebuilding missing features on buildings & landscape structures that existed during the restoration period (1852-1911) based on historical, pictorial or physical documentation: <ul style="list-style-type: none"> • front porch & paired verandas, window hoods and picturesque Gothic elements on Hoyt House [1] • terrace on west & north sides of house, and other picturesque Gothic elements on Hoyt House [1] 			*															
<input type="checkbox"/> Restore the historic spatial organization of the estate by rebuilding missing site furnishings that existed during the restoration period based on historical, pictorial or physical documentation: <ul style="list-style-type: none"> • Picket fence that enclosed the garden 									*									
<input type="checkbox"/> Restore the historic spatial organization of the estate by removing non-historic water/drainage features were installed or developed after the restoration period (1852-1911) and by restoring appropriate water features/systems based on historical, pictorial or physical documentation: <ul style="list-style-type: none"> • 		*				*	*	*		*					*	*		

Management Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh	
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh	
SPATIAL RELATIONSHIPS (continued)	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
<ul style="list-style-type: none"> ☐ Restore the historic spatial organization of the estate by rebuilding missing drives and paths that existed during the restoration period (1852-1911) based on historical, pictorial or physical documentation of their historic alignment, materials and associated features: <ul style="list-style-type: none"> • the vanished segment of the Approach drive that ascended the river ridge to Hoyt House • the vanished roads in the vicinity of the Farm Cottage site [C] • the vanished roads in the vicinity of the Garage-Stable Complex • the abandoned road from the Approach Drive to the Dock Road/Lewis Dock • the vanished roads & paths associated with the kitchen garden & greenhouse complex • the vanished paths & roads associated with the Unidentified Building [Q] • the abandoned road/path from the Lewis Dock to the southern boundary line • the vanished paths on the Hoyt House lawn and on the knoll south of the house • the vanished/abandoned farm lanes that are documented throughout the property 		*							*			*						
									*			*						
					*				*			*						
				*					*			*						
			*					*								*		
						*	*	*	*					*	*	*		

PRESERVATION MAINTENANCE RECOMMENDATIONS

The retention of existing landscape features is central to the preservation process, including the task of maintenance. As such, preservation maintenance practices attempt to perpetuate the historic character or use of a landscape in the face of incremental decline, wear, or damage to its features. By monitoring and regulating change in the landscape, these practices seek to ensure that a site's integrity is not altered and its features are not lost. This approach stands in marked contrast, however, to traditional maintenance practices which focus largely on landscape beautification and environmental hygiene.⁶

In general, preservation maintenance practices for a historic landscape include:⁷

- ❑ Continuous monitoring of the grounds to detect and correct potentially hazardous conditions affecting either public health and safety or the integrity of the historic landscape. Examples include: the proliferation of poison ivy; and the presence of deteriorated tree limbs which overhang walks, drives or historic structures, etc..
- ❑ Cleaning and repair include the removal and proper disposal of litter and debris, as well as routine and/or preventative maintenance of structures, fences and walls, circulation and drainage systems, site furniture and ornament.
- ❑ Groundskeeping includes routine horticultural operations such as mowing, mulching, fertilizing, pruning, etc.; control of weeds, pests and diseases with mechanical, organic or chemical methods; and seasonal activities like snow removal.

At "The Point," the New York State Office of Parks, Recreation & Historic Preservation should develop a preservation maintenance program that shares an underlying philosophy with the site's preservation treatment program: restoration. The goal of this allied effort should be:

To maintain "The Point" in a manner that accurately depicts its form, features and character during the restoration period (1852 and 1911), and is more expressive of Calvert Vaux's design intent for the site, the distinctive qualities and artistic values of Landscape Gardening in the picturesque mode, and the residency of the Hoyt family.

To be effective, this comprehensive maintenance program should also be guided and informed by the treatment plan's detailed specifications for the retention, repair, removal, or replacement of landscape features, specifically:

- ❑ *the retention and preservation of all extant materials, features, finishes, and spaces from the restoration period (1852-1911);*
- ❑ *the documentation of all post-1911 materials, features, finishes, and spaces prior to their removal or alteration;*
- ❑ *the repair rather than replacement of deteriorated materials, features, finishes, and spaces from the restoration period (1852-1911);*
- ❑ *the reconstruction of missing features from the restoration period (1852-1911) based on documentary and physical evidence;*
- ❑ *the limited utilization of only the gentlest chemical or physical treatments that do not cause damage to historic materials; and*
- ❑ *the protection and preservation in place of all archaeological resources.*

Until such time that a Landscape Management Plan for "The Point" is approved and implemented, however, the NYSOPRHP may find it reasonable and appropriate to limit ongoing maintenance operations to the stabilization and protection of all landscape features as a means of providing temporary, or perhaps, emergency measures that prevent deterioration, failure, or loss, without altering the site's existing character.⁸

Although preparation of a plan to guide routine maintenance at "The Point" is beyond the scope of this study, the following Preservation Maintenance Calendar is offered as a model for use on the site. It is designed to complement the Landscape Management Matrix and closely resembles the latter in overall format and organization (i.e. two treatment types, five management zones, seventeen historic design/functional units, and eight categories of landscape features). Specific maintenance actions are also assigned to one or more of the site's historic design/functional units through the use of a graphic symbol.

For illustrative purposes, the sample matrix is organized on a quarterly schedule that reflects the four seasons; however, the matrix could be modified with ease to address monitoring and routine maintenance procedures on a weekly, monthly, annual, or multi-year basis. Similarly, all of site's maintenance tasks could be presented on a single matrix that utilizes distinctive graphic symbols, numbers or letters to designate the frequency or schedule for performing the actions.

In addition to preparing a comprehensive preservation maintenance schedule for "The Point," the NYSOPRHP should consider developing complementary resources that support the maintenance program, including:⁹

- ❑ Procedures and specifications that identify, describe and illustrate appropriate ways to care for landscape features at "The Point." Clearly-defined methods, procedures and guidelines may be particularly helpful in maintaining dynamic vegetation features that require periodic pruning, removal or replacement in response to natural factors (disease, decay, pests, etc.) or design considerations (scale, form, etc.). These resources might also specify thresholds for growth and change in character, appropriate pruning methods, and procedures for plant propagation and replacement.
- ❑ Trained maintenance personnel familiar with the proper application of the site's established stewardship procedures. In addition to staff training, the assistance of preservation maintenance specialists may be critical in the application of specialized maintenance practices such as: the controlled burning of tall, native grasses to control the growth of invasive woody plants in meadows; the selective thinning of shrub and understory layers in light forests; and integrated pest management programs.
- ❑ An information management system that provides a comprehensive record of preservation maintenance work performed at "The Point." Initially, the system may consist of a notebook, manual or series of standardized forms with hand-written notes that document maintenance data and chronicle changes in the landscape over time. Ultimately, it may take the form of a sophisticated computer-aided drafting program with an integrated database management system.¹⁰ Regardless of their format, however, accurate and orderly maintenance records will become a valuable source of information that document the landscape's evolution.

SPRING	Preservation Maintenance Calendar-- The Point																
<i>Treatment Types:</i>	RESTORATION AREAS					MANAGED NATURAL AREAS											
<i>Maintenance Zones:</i>	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
<i>Historic Design Units:</i>	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
<i>Maintenance Code:</i>	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
VEGETATION [SAMPLE]																	
<input type="checkbox"/> Prune out winter damage on trees	■	■	■		■					■	■	■	■				
<input type="checkbox"/> Fertilize trees as growth resumes			■		■				■			■					
<input type="checkbox"/> Plant bare root trees		■	■		■				■		■	■					
<input type="checkbox"/> Plant balled & burlapped and container trees	■	■	■		■				■		■	■					
<input type="checkbox"/> Transplant trees		■	■		■						■	■					
<input type="checkbox"/> Apply horticultural oil	■		■						■								
<input type="checkbox"/> Remove winter mulch	■		■		■							■					
<input type="checkbox"/> Mow lawns			■		■				■			■					
CIRCULATION [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Repair winter damage to drives, lanes & paths	■	■			■				■			■	■		■	■	
<input type="checkbox"/> Remove debris & obstructions from culverts		■				■	■			■					■	■	
<input type="checkbox"/> Re-open seasonal routes for spring, summer & fall		■							■			■	■		■	■	
<input type="checkbox"/> Post/remove seasonal directional signs	■	■			■				■			■	■		■	■	
BUILDINGS & STRUCTURES [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Inspect & clean all roofs, gutters & downspouts			■						■			■				■	
<input type="checkbox"/> Clean debris from porches and entrances			■						■			■				■	
<input type="checkbox"/> Re-connect utilities to seasonal outbuildings									■			■				■	

SUMMER	Preservation Maintenance Calendar-- The Point																
Treatment Types:	RESTORATION AREAS					MANAGED NATURAL AREAS											
Maintenance Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
Maintenance Code:	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
VEGETATION [SAMPLE]																	
<input type="checkbox"/> Plant balled & burlapped and container trees	■	■	■		■				■		■	■					
<input type="checkbox"/> Shear fine-needled evergreens	■		■						■								
<input type="checkbox"/> Water newly planted trees as necessary	■		■		■				■								
<input type="checkbox"/> Mow lawns			■		■				■			■					
<input type="checkbox"/> Mow or burn tall, native meadow grasses				■		■	■	■	■								
<input type="checkbox"/> Remove/control invasive vines	■	■	■						■			■	■				
CIRCULATION [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Resurface drives and lanes	■	■			■				■			■	■		■	■	
<input type="checkbox"/> Remove debris & obstructions from culverts		■				■	■			■					■	■	
<input type="checkbox"/> Monitor drives, lanes & paths for washout damage	■	■			■				■			■	■		■	■	
BUILDINGS & STRUCTURES [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Repair all deteriorated roofs, gutters & downspouts			■						■			■				■	
<input type="checkbox"/> Repair damaged/deteriorated masonry walls	■		■						■			■					
<input type="checkbox"/> Paint and repair deteriorated wooden surfaces			■						■			■					
<input type="checkbox"/> Clean debris from entrances, porches, etc.			■						■			■					
<input type="checkbox"/> Monitor for pest infestations (bats, mice, bees, etc)			■						■			■					

AUTUMN	Preservation Maintenance Calendar-- The Point																
Treatment Types:	RESTORATION AREAS					MANAGED NATURAL AREAS											
Maintenance Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
Maintenance Code:	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
VEGETATION [SAMPLE]																	
<input type="checkbox"/> Transplant evergreen trees	■	■							■			■					
<input type="checkbox"/> Take cuttings for propagation	■								■			■					
<input type="checkbox"/> Water newly planted trees as necessary	■		■		■				■								
<input type="checkbox"/> Mow lawns			■		■				■			■					
<input type="checkbox"/> Rake leaves	■		■		■							■					
CIRCULATION [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Remove debris & obstructions from culverts		■				■	■			■					■	■	
<input type="checkbox"/> Close access to seasonal routes for winter		■							■			■	■		■	■	
<input type="checkbox"/> Post/remove seasonal directional signs	■	■			■				■			■	■		■	■	
BUILDINGS & STRUCTURES [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1
<input type="checkbox"/> Inspect & clean all roofs, gutters & downspouts			■						■			■				■	
<input type="checkbox"/> "Winterize" all unheated outbuildings									■			■				■	
<input type="checkbox"/> Turn off water to exterior lines & drain hoses/pipes			■		■				■			■					
<input type="checkbox"/> Remove detachable elements for repair over winter			■		■				■			■					

WINTER	Preservation Maintenance Calendar-- The Point																	
	Treatment Types:	RESTORATION AREAS					MANAGED NATURAL AREAS											
	Maintenance Zones:	The Vaux-Hoyt Historic Core					Grasslands				Light Forests				Climax Forests			Marsh
	Historic Design Units:	Estate Entrance	The Approach	House Lawn	The Vistas	Cottage Lawn	East Fields	Central Fields	South Fields	Garden & Farmstead	Spring Grove	Approach Grove	Stable Grove	Dock Grove	East Woods	Central Woods	River Woods	Upland Marsh
Maintenance Code:	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
VEGETATION [SAMPLE]																		
<input type="checkbox"/> Prune dormant trees	■	■	■	■	■					■	■	■	■					
<input type="checkbox"/> Remove dead trees or dead & damaged limbs	■	■	■		■				■	■	■	■						
<input type="checkbox"/> Remove saplings from stone walls & foundations	■	■	■		■	■	■			■	■	■	■	■				
<input type="checkbox"/> Transplant deciduous trees		■	■		■				■		■	■						
<input type="checkbox"/> Install wire mesh around trunks of young trees	■	■	■		■	■	■	■	■									
<input type="checkbox"/> Rejuvenate overgrown shrubs	■		■						■			■						
<input type="checkbox"/> Replace mulch as needed	■		■		■				■			■						
<input type="checkbox"/> Selectively thin shrub & understory layers of the light forest covers to favor the growth of native communities, provide greater visibility, and retain the forest's overall multi-layered structure.										■	■	■	■					
CIRCULATION [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
<input type="checkbox"/> Plow snow from primary routes as necessary	■	■			■				■			■	■		■	■		
<input type="checkbox"/> Monitor drives & lanes for frost/plow damage	■	■			■				■			■	■		■	■		
<input type="checkbox"/> Post/remove seasonal directional signs	■	■			■				■			■	■		■	■		
BUILDINGS & STRUCTURES [SAMPLE]	HC-1	HC-2	HC-3	HC-4	HC-5	GL-1	GL-2	GL-3	GL-4	LF-1	LF-2	LF-3	LF-4	CF-1	CF-2	CF-3	WL-1	
<input type="checkbox"/> Perform interior repairs to heated structures			■									■						
<input type="checkbox"/> Monitor all unheated outbuildings									■			■				■		
<input type="checkbox"/> Repair toppled or damaged fieldstone walls	■					■	■					■		■	■			
<input type="checkbox"/> Repair detachable exterior elements over winter			■		■				■			■						

ENDNOTES TO CHAPTER 5: MANAGEMENT RECOMMENDATIONS & PRIORITIES

- ¹ Park Historic Architecture Division, Cultural Resources, National Park Service, *Earthworks Landscape Management Manual* (Washington, D.C.: U.S. Government Printing Office, 1989)

This report was prepared specifically to develop effective management strategies and interpretive guidelines for earthwork sites, and in particular, to resolve conflicts between the requirements for preservation and the impacts of the visitor on the resource. Nevertheless, many of the recommendations are adaptable to a variety of natural and cultural landscapes. The following excerpts from the manual have relevance for land management practices at "The Point:"

- *Earthwork sites stabilized by healthy, native plant communities are in the best condition, while some current management practices have contributed directly to the degradation of the resource. (p. A-1)*
- *. . . the potential for well-managed native habitats to provide aesthetically satisfying, environmentally sound, low-cost alternatives to current maintenance practices has been underutilized. (p. A-1)*
- *These new practices will lead to an increased variation in environments, which can provide new opportunities for interpretation. (p. A-1)*
- *The manual emphasizes the need to rely increasingly on management that favors native vegetation versus the maintenance of suitable, although more familiar, horticultural standards, especially turf. (p. A-1)*
- *Management, whether intensive or minimal, is motivated by a complex set of underlying assumptions and values. Most conflicts occur when critical values are overlooked, or when management for a single purpose overrides other values. With regard to earthworks, there are varying interpretive goals and a clear mandate to preserve the natural and cultural resources, all of which must be resolved by management. (p. B-1)*
- **Guidelines for Interpretive Programs**
The interpretive program frames the visitor's experience, providing access and educational opportunities The management of an historic site is inseparable from its interpretive program. It determines the look of the landscape and should reveal the story of the place to the visitor. . . . The following guidelines focus on the development of appropriate settings and access which minimize the opportunities for disturbance . . . :
 1. *An authentic landscape setting should represent what might have existed during the historic era . . .*
 2. *A complete restoration of the historic setting at any one site should be undertaken only when funding is available to ensure adequate site stabilization and long-term management.*
 3. *Agricultural management should maintain the landscape character.*

5. *The development of disturbance communities, which are typical of degraded environments, should be minimized and controlled. (p. B-5)*

□ **Guidelines for Earthworks Preservation**

The maintenance of appropriate vegetative cover and the control of disturbance are the two most important aspects of earthworks preservation. . . The following guidelines are recommended to earthworks preservation:

1. *All earthworks should be managed for a recommended vegetative cover type which provides effective stabilization.*
2. *Management should be keyed to cover type and reflect a real understanding of the specificity of each vegetation type and the long-term consequences of management.*
4. *Any management practice which contributes to soil destabilization should be stopped and new strategies devised.*
5. *No increase in the level of management required should be initiated unless it can be completed properly, adequately followed through, and maintained over time.*
8. *The principle of 'economy of intervention' should be followed to minimize unnecessary effort and disturbance. (p. B-7)*

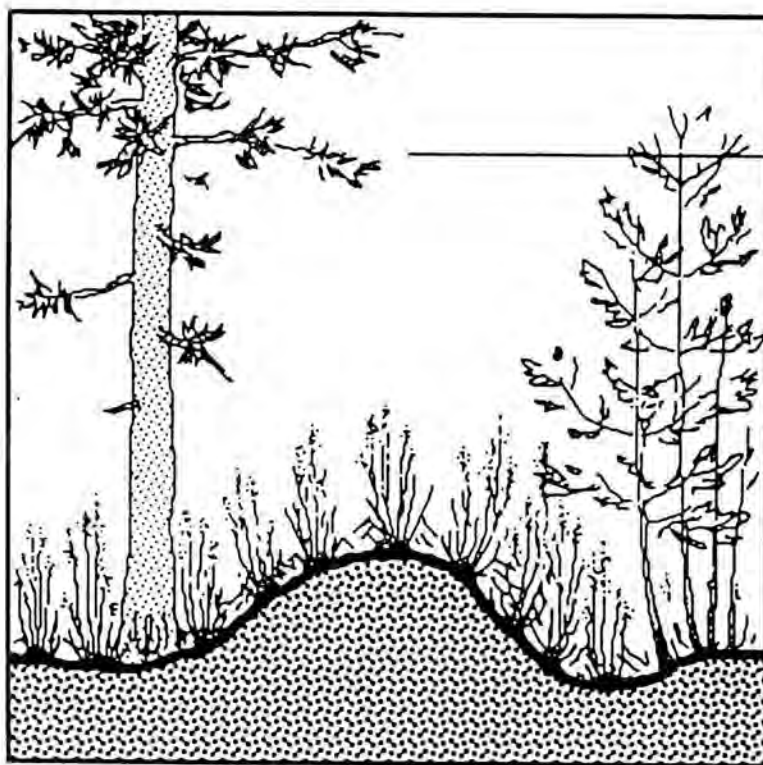
□ *In order to provide vegetative cover that will be lower in cost, easier to maintain and that will also protect the resource, four cover types are recommended. Forest and Light cover types are suited to closed forest landscapes, where canopy cover is virtually continuous and woody plants provide primary stabilization. Tall Grass and Turf cover types are suited to open field landscapes where herbaceous plants provide primary stabilization. For both forest and field landscapes, there is a high-maintenance and low-maintenance alternative, each with appropriate interpretive strategies to permit visitorship to the earthworks without degradation. (p. D-1)*

- 2 For the purposes of this report, the term "Grasslands" refers to the "Tall Grass Cover Type" recommended in the *Earthworks Landscape Management Manual*. The NPS manual, which also includes the following illustration (Figure 8), describes the type in this manner:

Tall grass cover is composed primarily of native grasses with occasional naturalized alien grasses and wildflowers [see Figure 8]. Tall grass cover that is not mowed or burned yearly or bi-annually will return to forest. The root systems of tall native grasses are relatively dense and this cover type provides excellent stabilization which is persistent and requires low maintenance. Pasture is a more intensely managed alternative to native grasses, which today is composed primarily of Kentucky tall fescue (K 31), chewings fescue, and clover.

The most significant opportunities for tall grass cover occurs at sites designated for scene restoration, where large expanses of herbaceous cover must be maintained economically. Like turf, tall grass can be used to create broad sweeping vistas and reveal the natural contours of the land . . . Where it is desirable to give the impression of an historically accurate setting, tall grass is preferable to turf because of its natural character which creates a pastoral rather than a park-like setting. The relatively uniform character of a tall grass meadow can create the image of 19th-century agricultural use.

Agricultural pasture grass should be considered a suitable alternative to native grasses only where the area can be adequately maintained with properly supervised agricultural lease programs, including mowings, fertilizing, and periodic reseeding. It is recommended only for open fields with no cultural resources. It is not suitable for earthworks, or where actual cropping or pasturage would result in environmental damage, or threaten critical cultural resources through the grading, tile drainage and access roads associated with modern agriculture. (pp. D-4, D-6 & D-7)



CANOPY SHOULD BE REPLACED AS TREES ARE LOST. NEW PLANTING SHOULD NOT BE ON BERM OR IN TRENCH

**Figure 8:
Recommended Field Cover Types:
Tall Grass**

Dense stands of native grasses, primarily little bluestem, under a light tree canopy.

- 3 For the purposes of this report, the term "Light Forests" refers to the "Light Forest Cover Type" recommended in the *Earthworks Landscape Management Manual*. The NPS manual, which also includes the following illustration (Figure 7), describes the type in this manner:

Light Forest cover [see Figure 7] is simply naturally established native forest communities which have been selectively thinned or prescribed burned to provide greater visibility, while retaining the natural stratification of canopy, understory, shrub, and ground layers.

Selective thinning and prescribed burning are intended to maintain the natural layered structure of the forest, removing only a portion of the shrub and understory plants, or reducing their height, rather than removing these layers completely. In this manner, greater species diversity can be maintained as well as reproductive continuity of the forest community. (pp. D-3 & D-4)

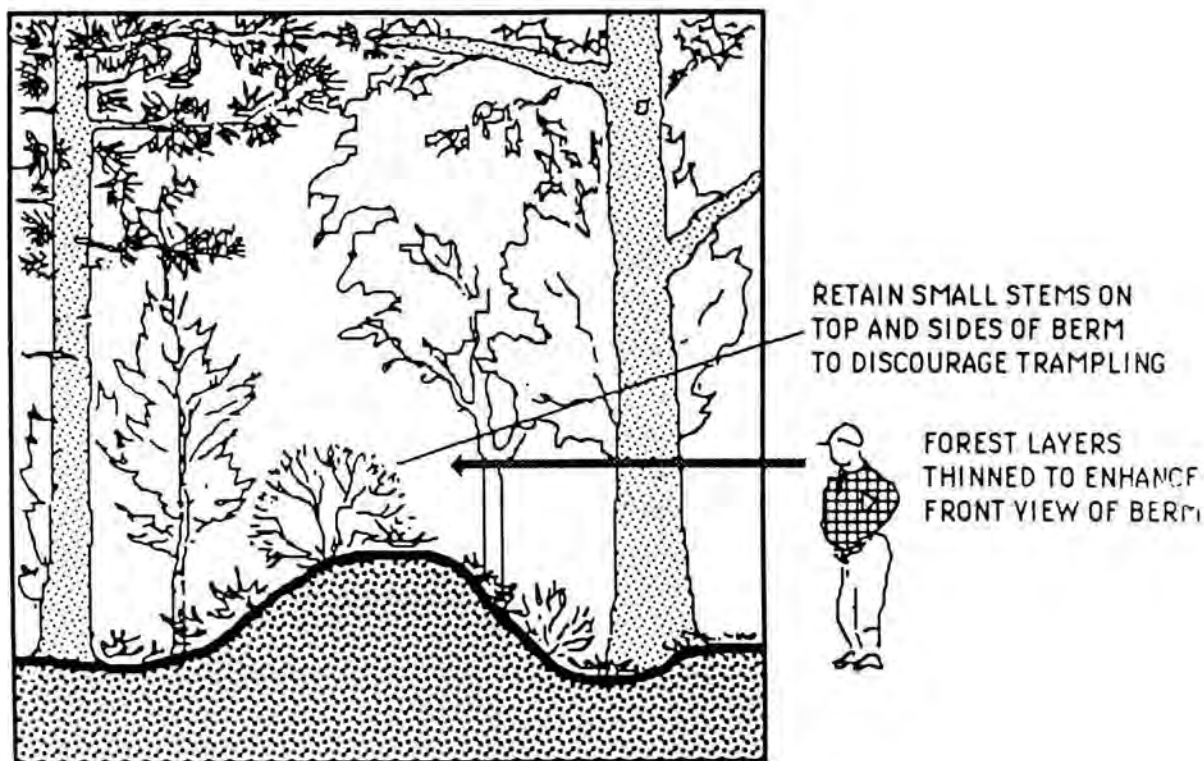


Figure 7:
Recommended Forest Cover Types:
Light Forest

Native forest selectively thinned in the shrub and understory layers to allow adequate visibility while retaining overall layered structure. Only a small amount of thinning should be done each year.

- 4 For the purposes of this report, the term "Climax Forests" refers to the "Forest Cover Type" recommended in the *Earthworks Landscape Management Manual*. The NPS manual, which also includes the following illustration (Figure 6), describes the type in this manner:

The forest cover type [see Figure 6] is comprised of naturally established native forest communities. The forest landscape is enclosed and intimate. Visitor attention is focused on specific site details.

The ultimate management objective of the forest cover type is to have a stable, healthy, and self-sustaining native community requiring almost no maintenance. (pp. D-1 through D-3)

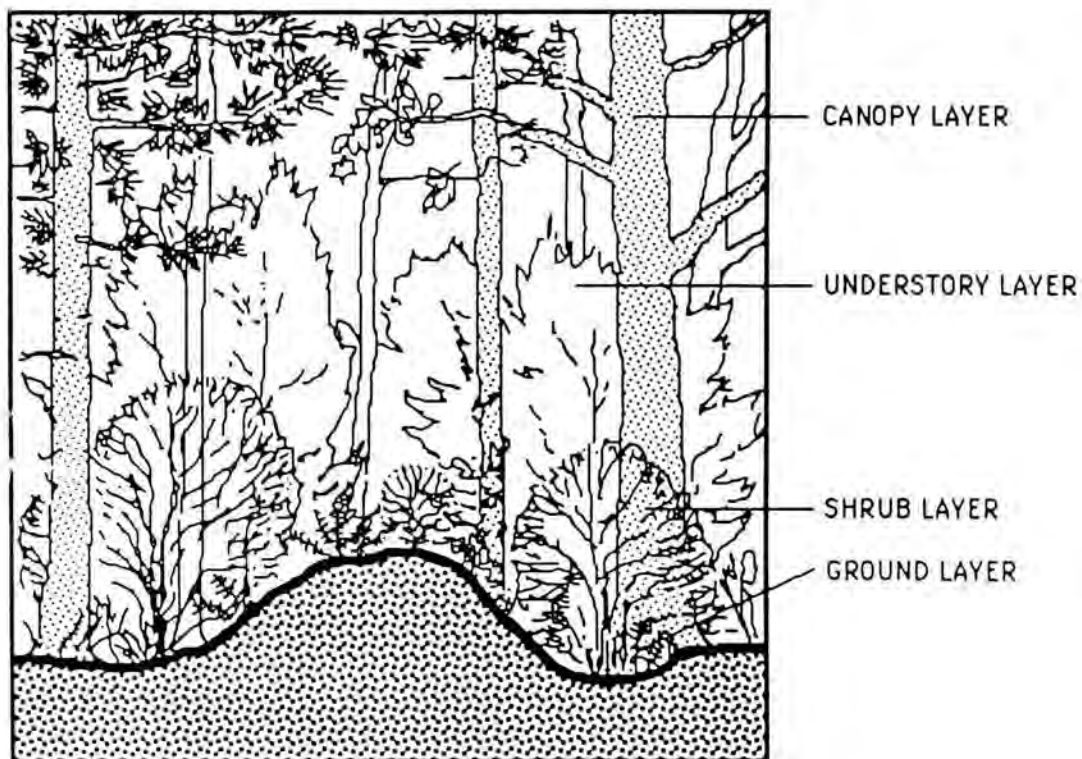


Figure 6:
Recommended Forest Cover Types: Forest

Dense native forest managed to maintain multi-aged, multi-layered structure. Monitor for hazards, such as windthrows, animal burrows, and relic hunter's holes.

-
- 5 The following representatives of the NYSOPRHP-Taconic Region advised DOELL & DOELL regarding preservation priorities for "The Point" at a meeting held on July 9, 1997 at Mills Mansion State Historic Site:
- Melodye K. Moore, Site Manager - Mills Mansion State Historic Site
 - Kenneth Lutters, Senior Landscape Architect
 - Thomas Ciampa, Senior Landscape Architect
- 6 Charles A. Birnbaum. *Preservation Brief #36, Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes*. Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources - Preservation Assistance Division, September 1994, p. 16.
- 7 Categories for maintenance operations have been adapted from *Rebuilding Central Park: A Management and Restoration Plan* by Elizabeth Barlow Rogers (Cambridge, MA and London, England: The MIT Press, 1987) p. 80.
- 8 Charles A. Birnbaum. *Preservation Brief #36*, p. 16.
- 9 Charles A. Birnbaum. *Preservation Brief #36*, p. 16-19.
- 10 Charles A. Birnbaum. *Preservation Brief #36*, p. 18-19.

"To help structure a comprehensive maintenance operation that is responsive to staff, budget, and maintenance priorities, the National Park Service has developed two computer-driven programs for its own landscape resources. A Maintenance Management Program (MM) is designed to assist maintenance managers in their efforts to plan, organize, and direct the park maintenance system. An Inventory and Condition Assessment Program (ICAP) is designed to complement MM by providing a system for inventorying, assessing conditions, and for providing corrective work recommendations for all site features.

Another approach to documenting maintenance and recording changes over time is to develop a manual or computerized graphic information system. Such a system would have the capability to include plans and photographs that would record a site's living collection of plant materials. (Also see discussion of the use of photography under Preparing Existing Condition Plans, page 5.) This may be achieved using a computer-aided drafting program along with an integrated database management system.

To guide immediate and ongoing maintenance, a systematic and flexible approach has been developed by the Olmsted Center for Landscape Preservation. Working with National Park Service landscape managers and maintenance specialists, staff assemble information and make recommendations for the care of individual landscape features.

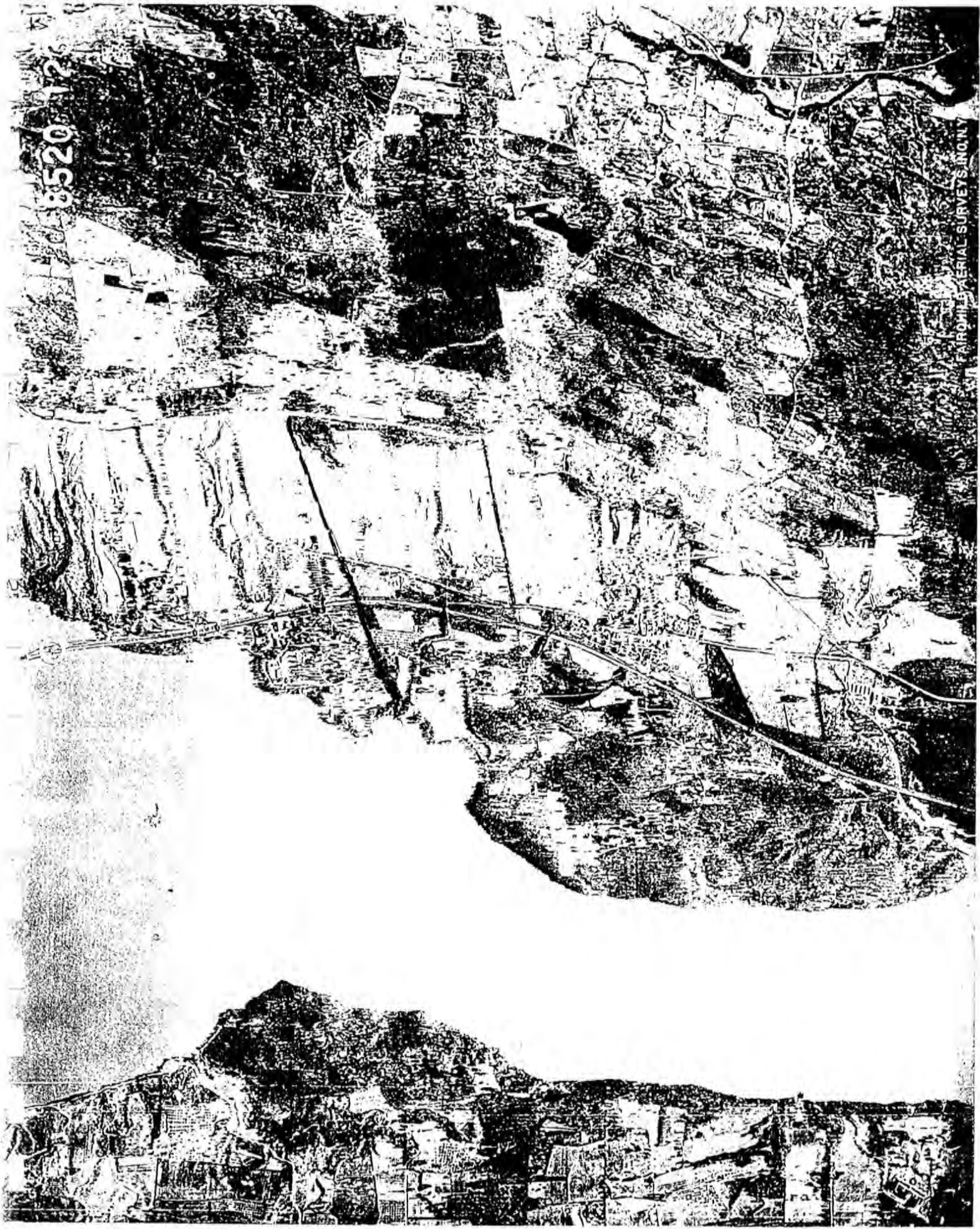
Each landscape feature is inspected in the field to document existing conditions and identify field work needed. Recommendations include maintenance procedures that are sensitive to the integrity of the landscape."

A LANDSCAPE MANAGEMENT PLAN FOR "THE POINT"

MILLS-NORRIE STATE PARK AND
THE NEW YORK STATE OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
TACONIC REGION – STAATSBURG, NY

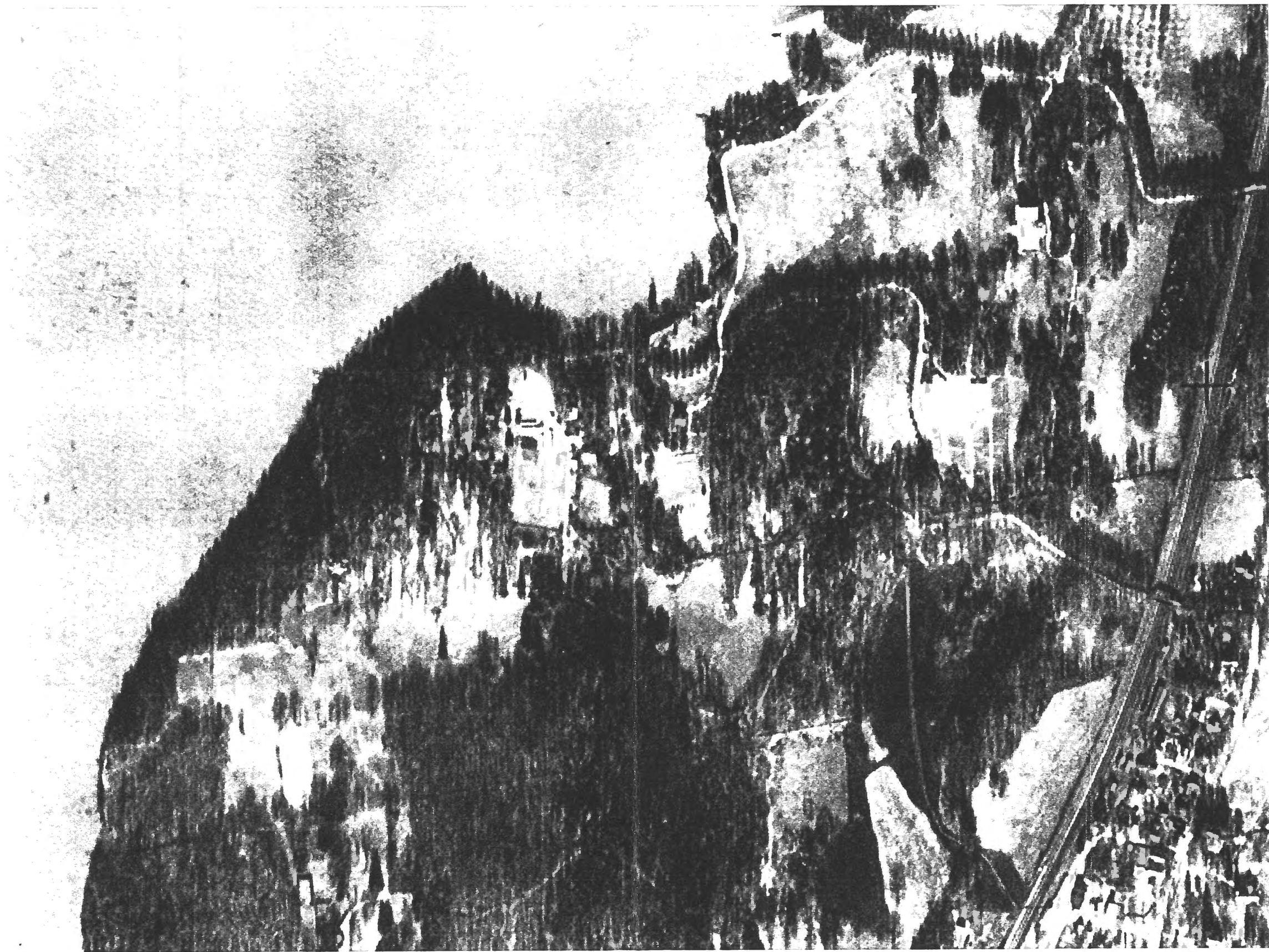
APPENDICES

- A. HISTORIC PHOTOGRAPHS (HP)**
- B. MASTER PLANT LIST**

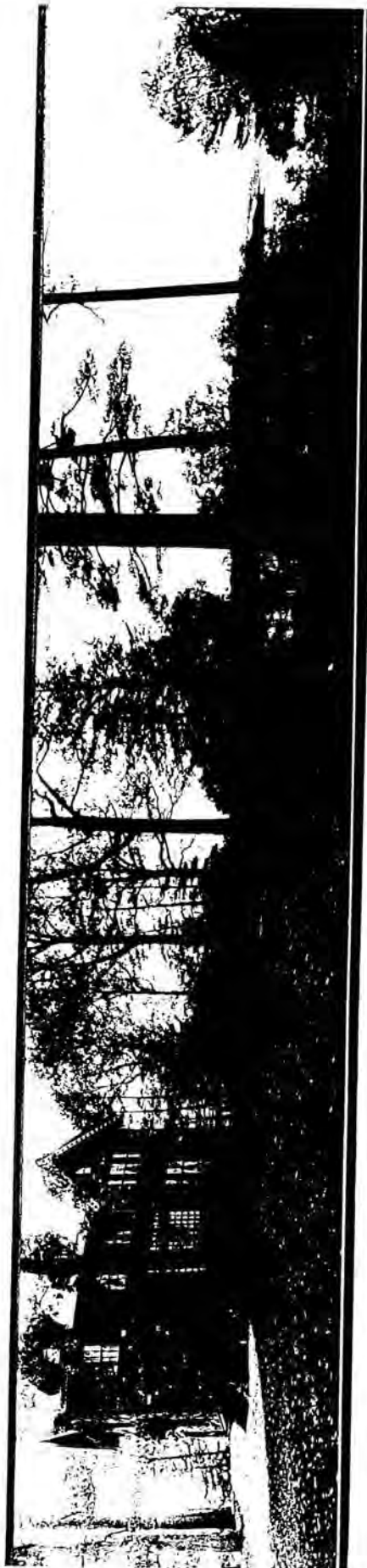


8520 12

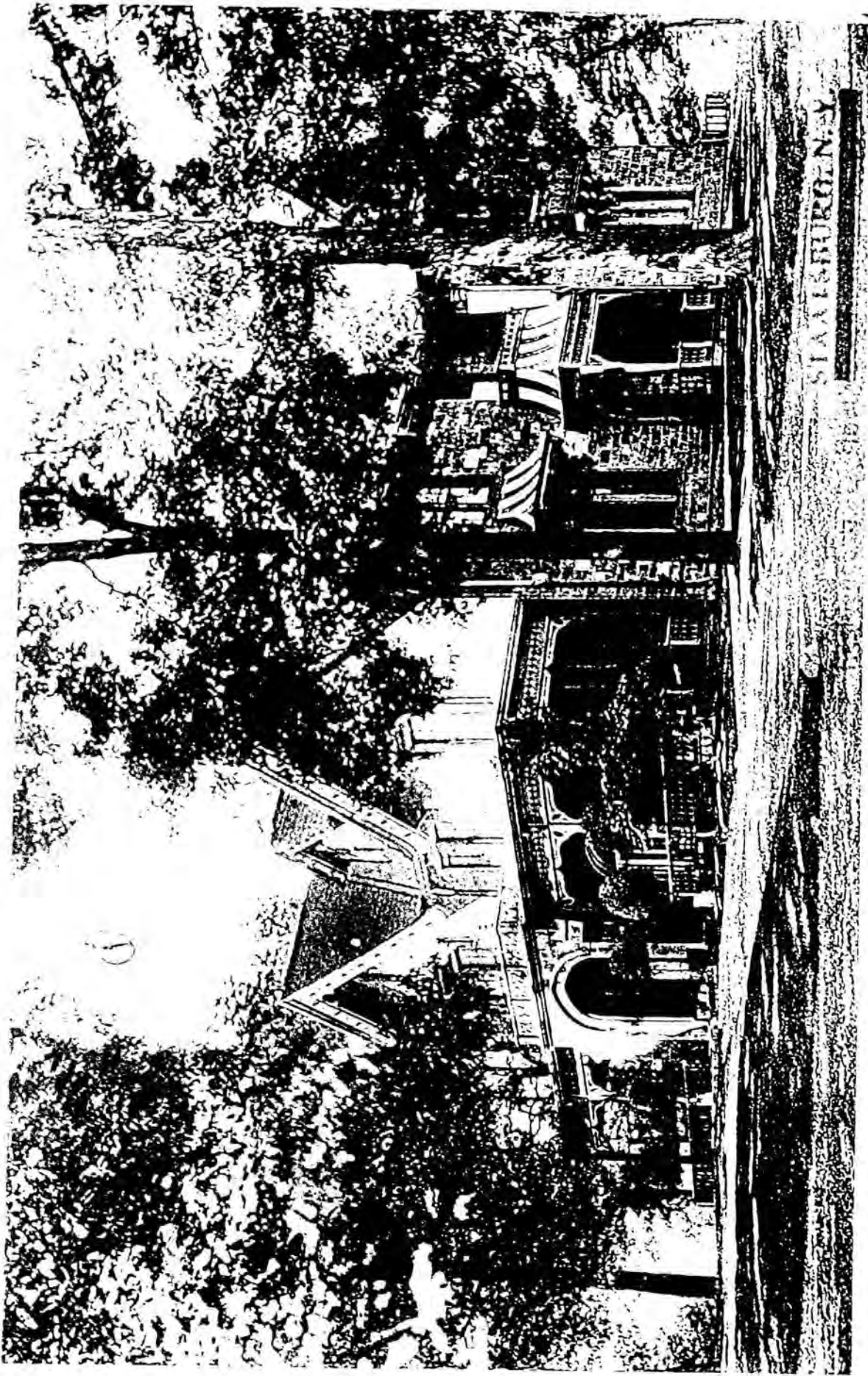
FAIRHILL AERIAL SURVEYS INC. NY



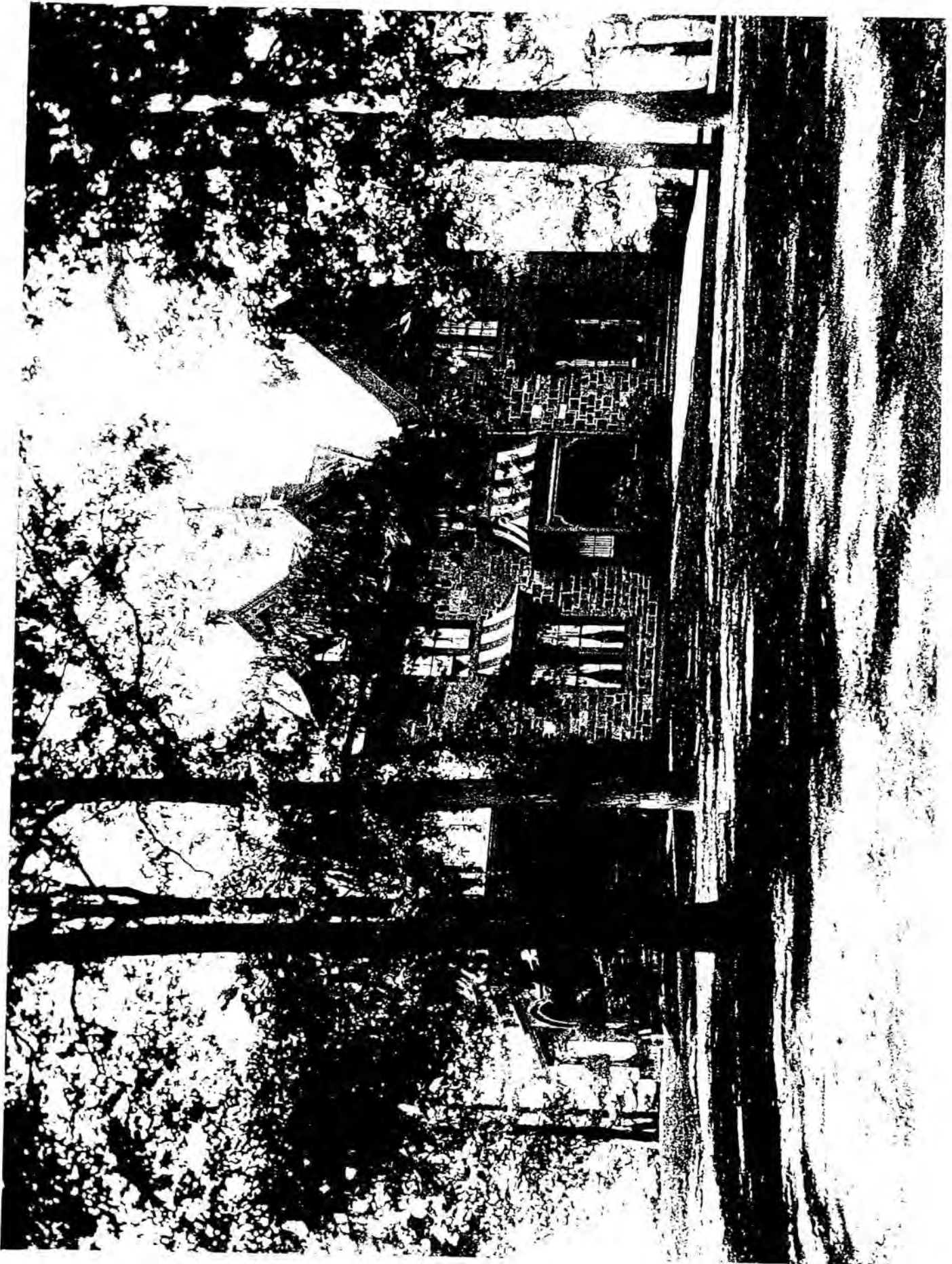
HP-1 Enlargement



HP-2

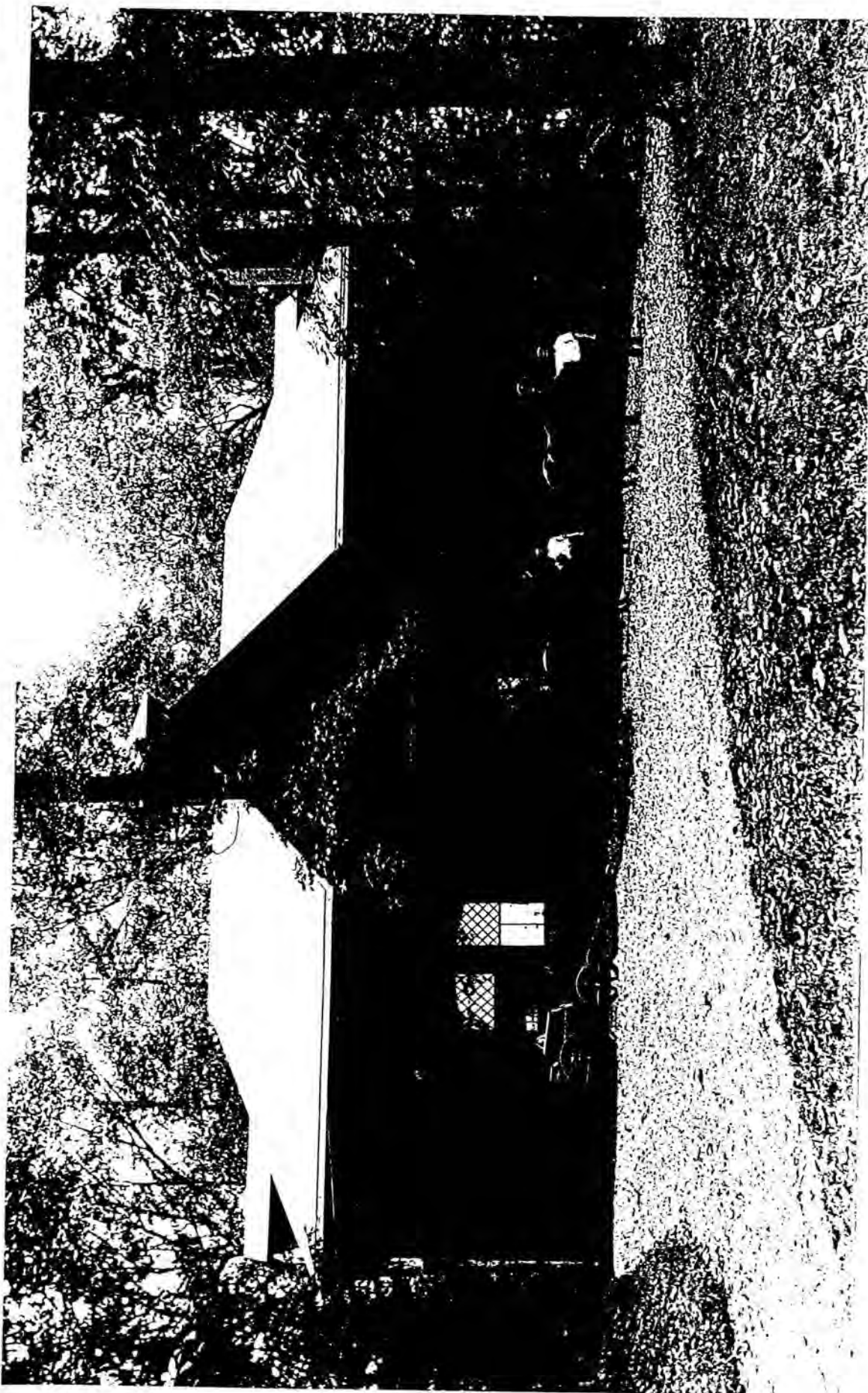


HP-3





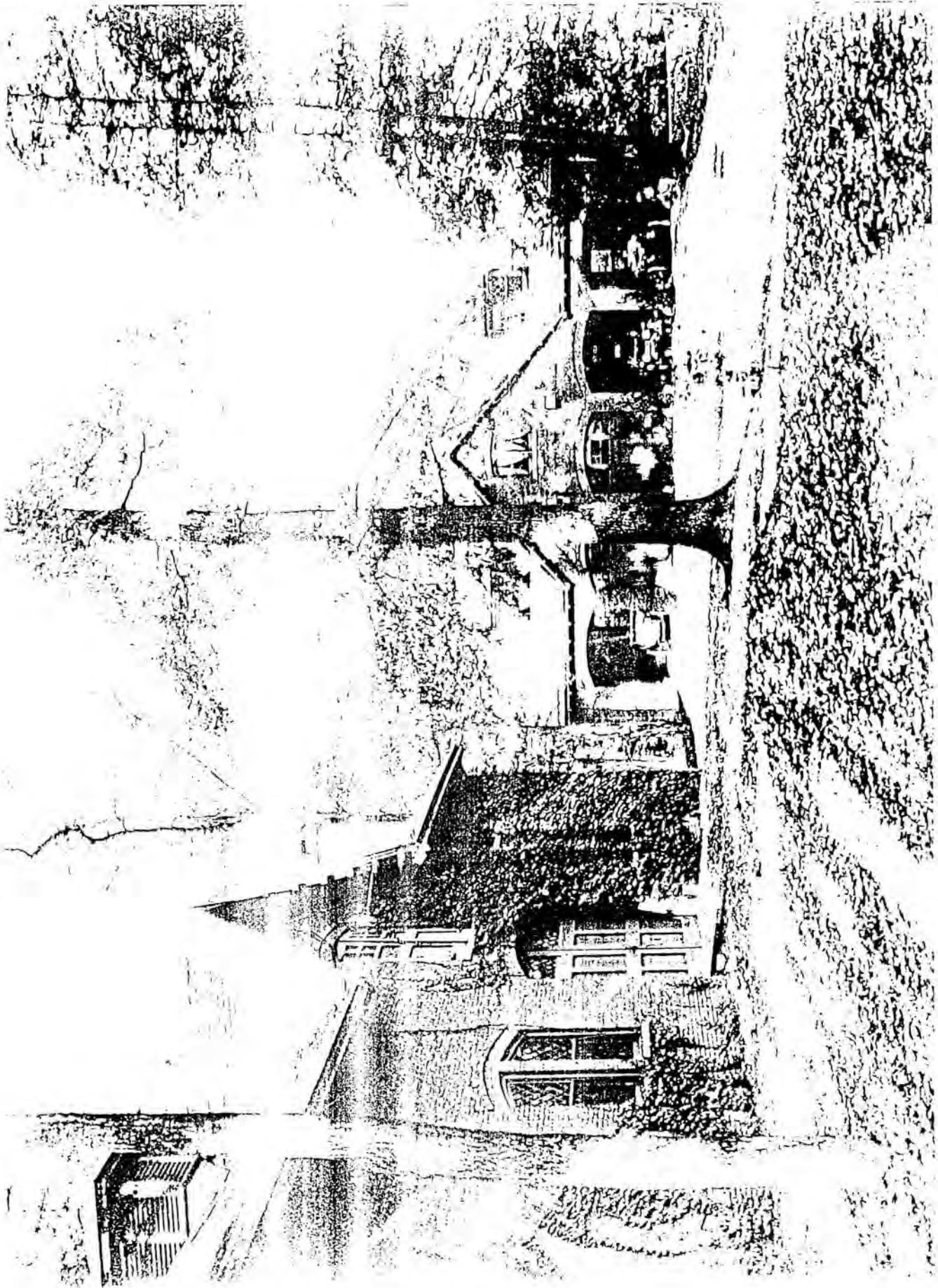
HP-5



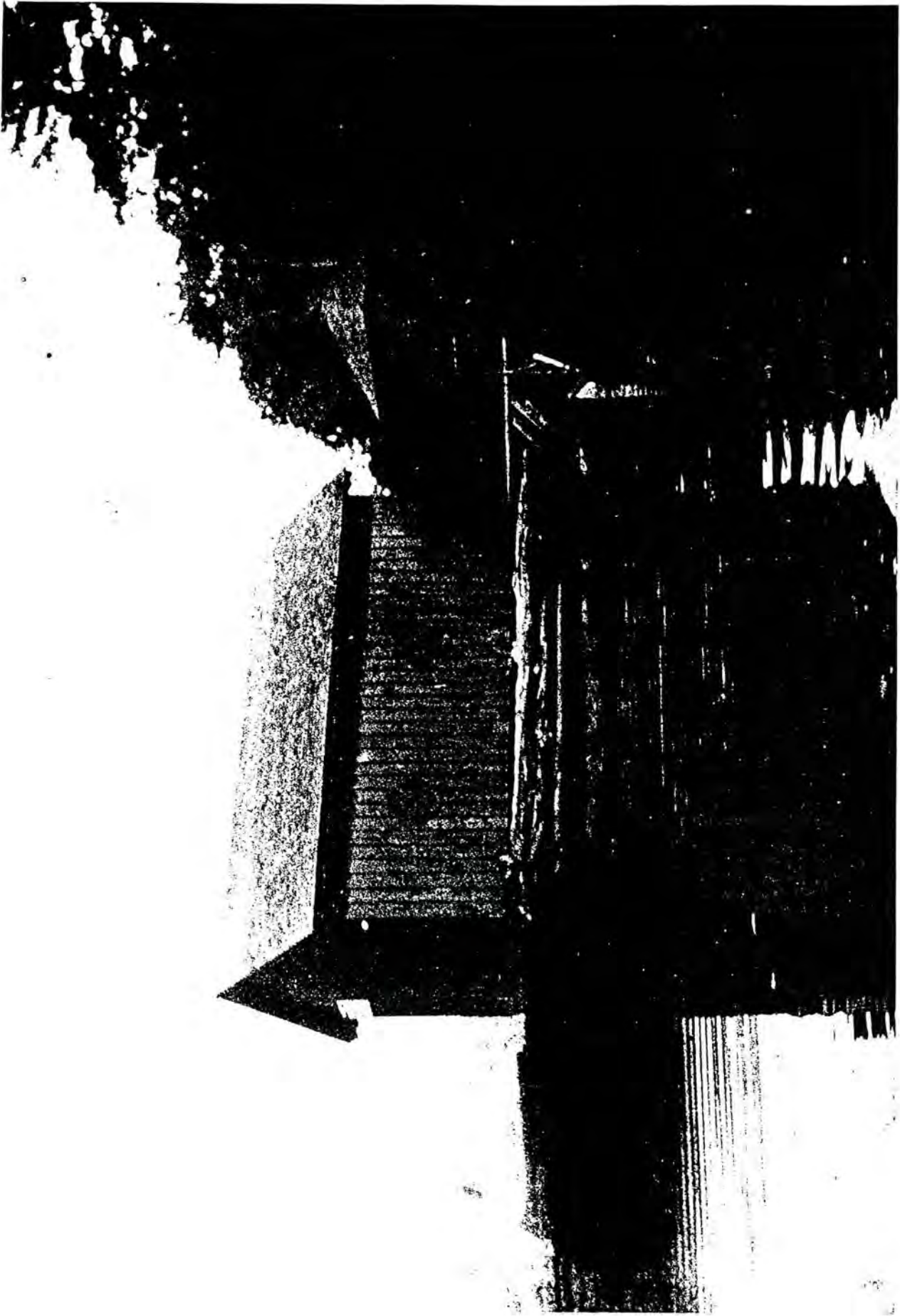
HP-6



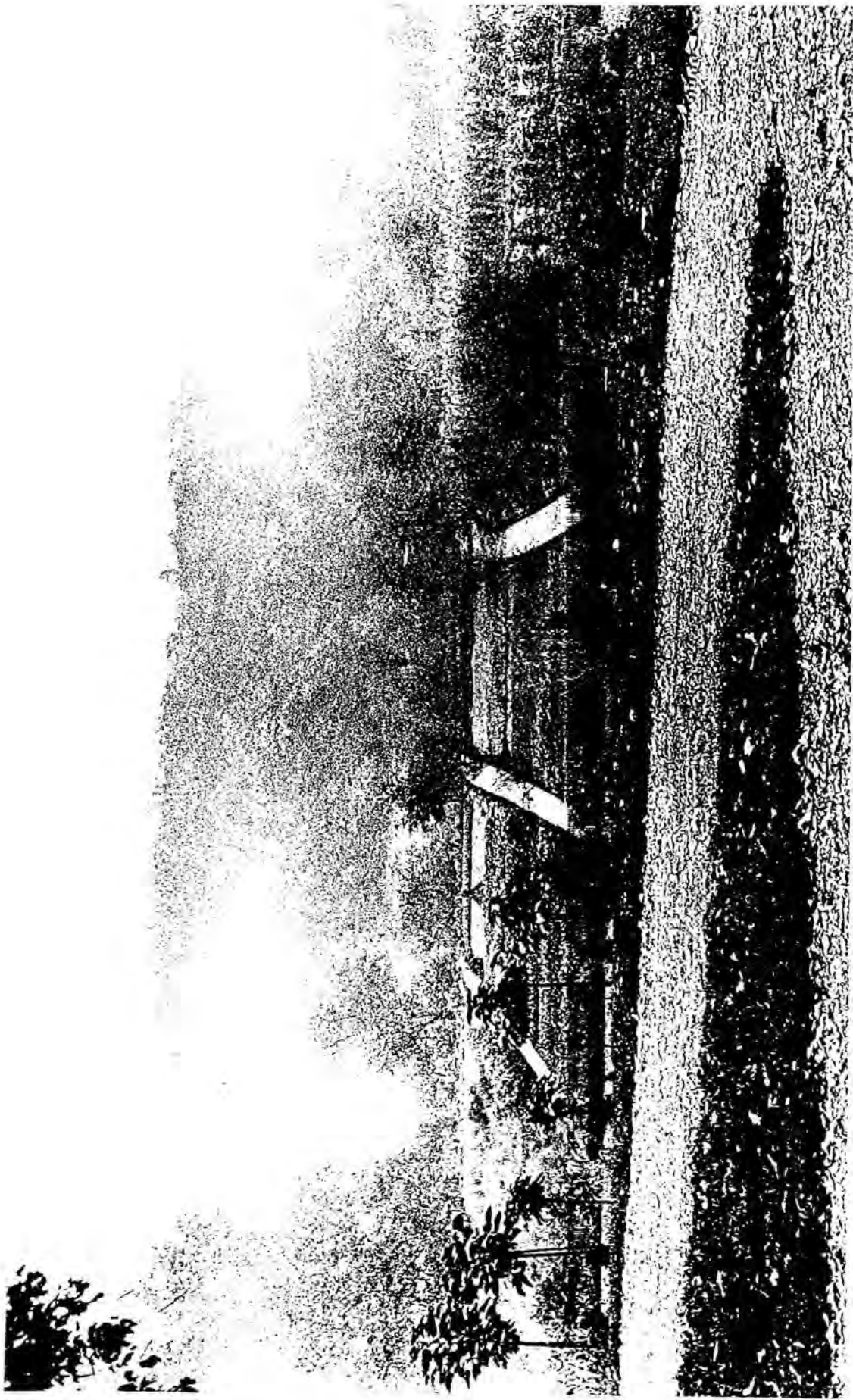
HP-7



HP-8



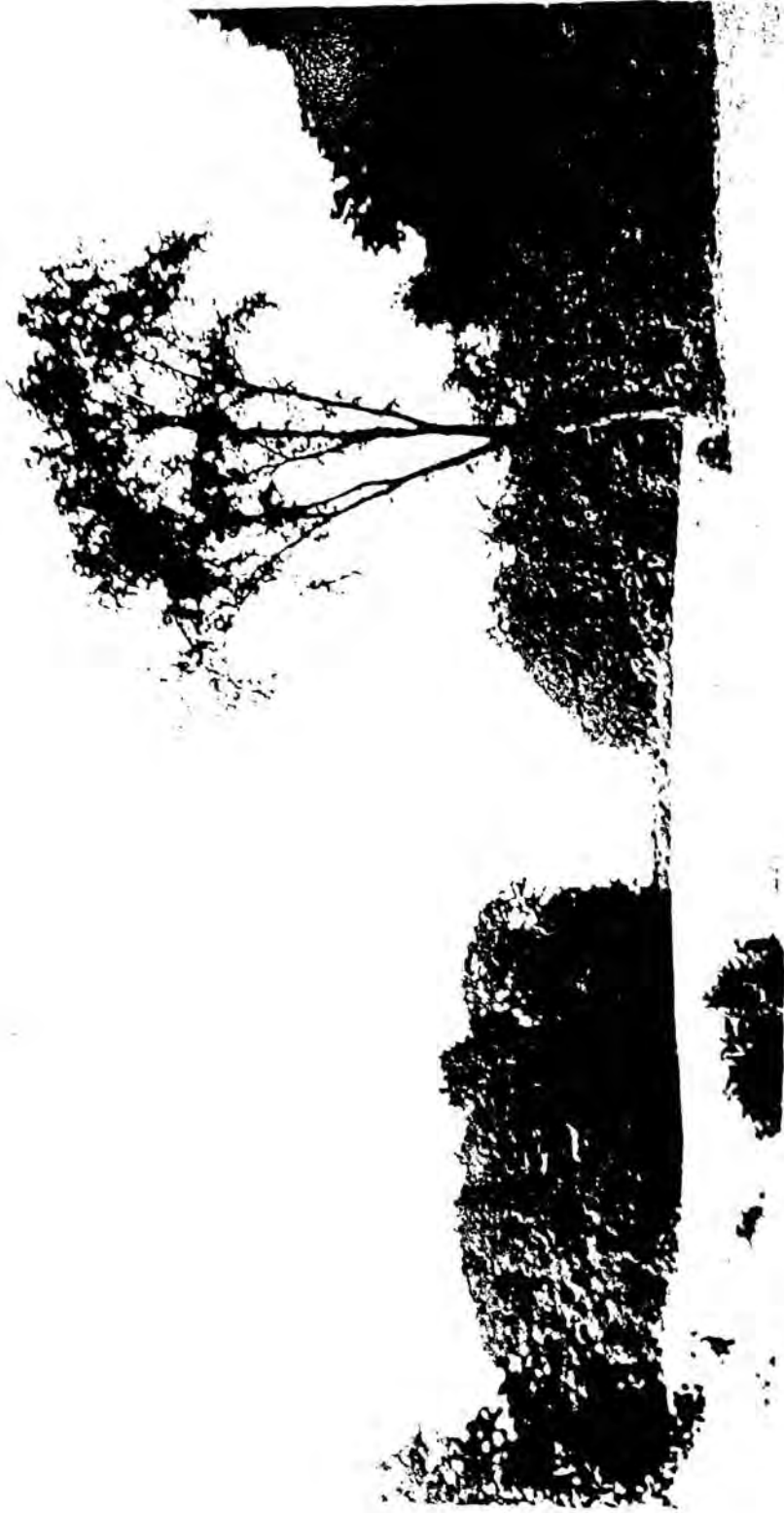
HP-9



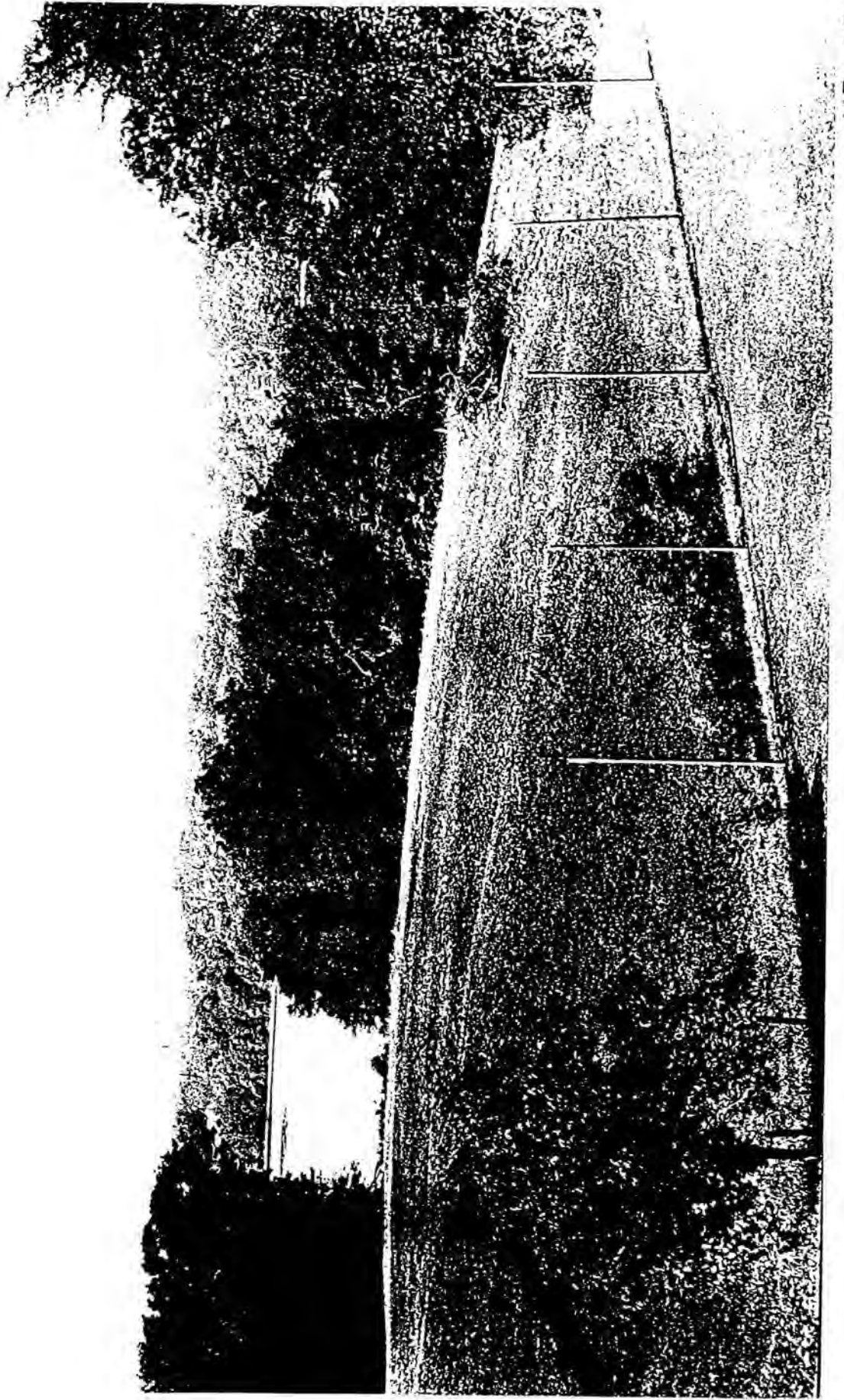
HP-10



HP-11



HP-12



HP-13



HP-14



HP-15





HP-17

MASTER PLANT LIST

DECIDUOUS TREES

<u>Botanical Name</u>	<u>Common Name</u>
Acer pensylvanica	Striped Maple
Acer rubrum	Red Maple
Acer saccharum	Sugar Maple
Acer saccharinum	Silver Maple
Ailanthus altissima	Tree of Heaven
Amelanchier canadensis	Shadblow Serviceberry
Betula lenta	Sweet Birch
Betula nigra	River Birch
Betula papyrifera	Paper Birch
Carya ovata	Shagbark Hickory
Cornus florida	Flowering Dogwood (2)
Crataegus phaenopyrum	Washington Hawthorn
Fagus grandiflora	American Beech
Fagus sylvatica	European Beech (2)
Fraxinus americana	White Ash
Ginkgo biloba	Ginkgo (2)
Juglans nigra	Eastern Black Walnut
Larix Laricina	American Larch
Liriodendron tulipifera	Tulip Tree
Magnolia soulangiana	Saucer Magnolia
Malus species	Apple and Flowering Crabapple (2)
Prunus pensylvanica	Pin Cherry
Pyrus sp.	Pear (2)
Quercus alba	White Oak
Quercus bicolor	White Swamp Oak
Quercus palustris	Pin Oak
Quercus robur	English Oak
Quercus rubra	Red Oak

Footnotes:

1. Naturalized Ornamental
2. Ornamental

Botanical Name

Common Name

Chamaecyparissus sp.

False Cypress (2)

Ilex opaca

American Holly

Juniperus virginiana

Easter Red Cedar

Pinus resinosa

Red Pine

Pinus strobus

White Pine

Picea abies

Norway Spruce (2)

Picea glauca

White Spruce (2)

Picea pungens

Colorado Spruce (2)

Populus Virginiana

Eastern Cottonwood

Thuja occidentalis

Eastern Arborvitae

Tsuga canadensis

Canadian Hemlock

Footnotes:

1. Naturalized Ornamental
2. Ornamental

<u>Botanical Name</u>	<u>Common Name</u>
Berberis thunbergii	Japanese Barberry (2)
Buxus sempervirens	Boxwood (2)
Celastrus scandens	American Bittersweet
Cephalanthus occidentalis	Buttonbush
Cornus amomum	Silky Dogwood
Euonymus alatus	Burning Bush (1)
Forsythia x intermedia 'Spectabilis'	Showy Border Forsythia (2)
Hamamelis virginiana	Common Witchhazel
Ilex glabra	Inkberry
Juniperus species	Junipers (2)
Ligustrum obtusifolium regalianum	Regal Privet (2)
Lonicera fragrantissima	Winter Honeysuckle (1)
Lonicera species	Honeysuckle (1)
Pieris japonica	Japanese Andromeda (2)
Rhododendron nudiflorum	Pinksterbloom Azalea
Rhododendron viscosum	Swamp Azalea
Rhododendron species	Hybrid Rhododendron's (2)
Rhus typhina	Staghorn Sumac
Rosa species	Roses (1)
Syringa vulgaris	Common Lilac (2)
Taxus cuspidata	Japanese Yew (2)
Vaccinium corymbosum	Highbush Blueberry
Viburnum acerifolium	Mapleleaf Viburnum
Viburnum lentago	Nannyberry
Viburnum dentatum	Arrowood Viburnum

Footnotes:

1. Naturalized Ornamental
2. Ornamental

GROUNDCOVER VINES

Botanical Name

Common Name

Hedera helix 'Baltica'

Hardy English Ivy (1,2)

Lonicera japonica halliana

Halls Honeysuckle (1,2)

Parthenocissus quinquefolia

Virginia Creeper

Vinca minor

Myrtle (1,2)

Wisteria species

Wisteria (1,2)