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July 17, 2019
Loretta Taylor, Chairman
Town of Cortlandt Planning Board
Town Hall, 1 Heady Street
Cortlandt Manor, NY 10567

Re: Croton Avenue Solar Project (fka Hanover Estates)
200 Croton Avenue
Site Development Plan

Dear Chairman Taylor and Members of the Planning Board:

The above referenced project was introduced and discussed at the May 07, 2019 Planning Board meeting. Since the meeting we met with Town Staff on June 25, 2019 to discuss the memorandum from the Director of Technical Services dated May 30, 2019 as well as the conversations with the Planning Board from the May 07 meeting.

The following is an annotated response to the May 30, 2019 memorandum:

1. Address in writing all permitting requirements for Tier 3 solar energy systems in accordance with Town Code Chapter 255-8. In particular tree removal and decommissioning.

Response: ***The permitting requirements for Tier 3 solar energy systems, including the decommissioning plan, are included in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

2. Insufficient details are provided for the installation of the solar arrays. Items such as footing details, height of array, spacing, conduit and equipment location are not provided.

    a. Provide a re-grading plan showing existing vs proposed topography in 2-ft intervals.
    b. Demonstrate cut and fill is balanced onsite.

Response: ***The installation and dimensional details and structure locations are provided on the plans. The existing topography is provided on the plans. There is no proposed grading or regrading and therefore no cut and fills***

3. A Comprehensive Storm Water Pollution Prevention Plan in accordance with Town Code Chapter 262 and the NYSDEC Storm Water Design Manual Shall be provided. Note, portions of the proposed land disturbance activities are in the East of Hudson Watershed. Chapter 10 of the NYSDEC Manual for enhanced phosphorus removal shall be required. Controls shall be provided for both water quality and quantity. Attached is guidance documentation provided by the NYSDEC.

Response: ***There is only 4,650 square feet of disturbance associated with this project located in the NYCDEP watershed and therefore no approval from the NYCDEP is required. The disturbance involves the tree and stump removal for 42 trees.***

a. A SPDES General Permit for Construction Activity shall be obtained.

Response: ***A SPDES General Permit for Construction Activity will be obtained from the NYSDEC and will only involve a basic SWPPP consisting of erosion and sediment controls.***

b. A construction sequencing plan shall be provided. If more than 5-acres is proposed for disturbance at any one time a waiver shall be required.

Response: ***A construction sequencing plan will be provided on the plans and in the SWPPP.***

i. Clarification is required for total land disturbance.

Response: ***Total land disturbance has been calculated at 4.81 acres. The disturbance areas include the removal of existing buildings and asphalt. Disturbance also includes the areas where trees are to be removed and grubbed. Areas where trees are to be felled and the stumps left in place are not considered disturbance.***

c. Provide an erosion and sedimentation control plan.

Response: ***A basic SWPPP consisting of erosion and sediment controls will be provided prior to the Public Hearing. The current plans have an erosion and sedimentation control plan shown.***

d. Provide a detail for a limited use pervious access road. Sample attached.

Response: ***Details pertaining to the limited use pervious road is provided on the plans.***

i. Provide an access road profile stationed with centerline elevations provided in intervals not to exceed 25-ft.

Response: ***A profile with 25-foot stations of the proposed limited use access road is provided on the plans.***

e. Revise page 6 of the EAF as it pertains to stormwater.

Response: ***Page 6 of the Full EAF has been revised.***

Guidance is provided to allow for disconnected treatment and conveyance of arrays which is directly related to slope, underlying soil characteristics and spacing. Plans shall be revised to incorporate storm water best management practices and conveyance.

Response: ***The NYSDEC Division of Water has developed a guidance memorandum dated June 03, 2019 with respect to solar panel projects. The NYSDEC***

considers solar panel projects designed and constructed according to the memorandum to be a "land clearing and grading for the purposes of creating vegetated open space (i.e. recreational parks, lawns, meadows, fields". As such and pursuant to Table 1, Appendix B of the Construction General Permit requires a SWPPP for this type of project will need to address erosion and sediment controls only.

The plans contain an erosion and sediment control plan as well as an analysis of the criteria both required provided in the above noted NYSDEC memorandum.

4. Revise page 8 of the EAF as it relates to noise. Ambient levels will be exceeded. Applicant shall clarify what is the maximum onsite noise level in dBA and at the property line. Applicant shall demonstrate compliance with Town Code Chapter 197.

Response: ***The EAF has not been revised as it relates to noise because ambient noise levels are not expected to be exceeded. A demonstration of compliance with Town Code Chapter 197 is provided in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

5. A dimensional bulk zoning table shall be provided on the plan set.

Response: ***A bulk dimensional bulk zoning table is provided on the plans.***

6. The Applicant shall incorporate the recommendations previously made by the Town's Environmental Consultant for the Hanover Estates 27 Lot Subdivision as it pertains to wetlands mitigation and enhancements.

Response: ***The prior approved wetland mitigation planting schedule is provided on these plans. At wetland mitigation statement demonstrating compliance with Town Code Chapter 179 is provided in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

7. A tree removal permit will be required. Operations onsite will necessitate the removal of trees. Applicant is referred to Chapter 283 – Trees. A tree removal and preservation plan shall be submitted. Since site was inventoried recently, the Town's Consultant Arborist will be retained to qualitatively assess the site and comment on proposed plan.

Response: ***A Tree Removal Plan and inventory assessment is currently underway, and the report will be submitted prior to the Public Hearing for review by Staff. The report will identify the trees to be removed and assess each tree in terms of health, condition, and meaningfulness. The report's findings will then be used in determining the proposed landscaping and reforestation plan. An inventory of existing trees has been provided in the Croton Avenue Solar Project Supplemental Report enclosed in this application. See #8 below.***

8. Applicant shall submit a landscape plan consistent with the requirements of Town Code Chapter 307, Article VII. Plans will be referred to the Town's Conservation Advisory Council for comment. Native plantings shall be incorporated into the plan. The re-planting plan shall be a component of the wetland mitigation plan.

Response: ***The current plans provide the mitigation plantings as approved for the Hanover Estates project. This includes the wetland mitigation plantings in the areas where impervious cover is being removed within the wetland buffer. Also, there will be the north property line mitigation plantings to supplement the existing trees along the northern section of the property adjoining Apple Hill Estates.***

In addition, the current plan provides a tree planting plan that consists of planting 40 indigenous trees. Upon completion of the above described tree removal plan and inventory assessment, the proposed plantings may be revised.

9. Demonstrate compliance to the IFC 2015 "Fire Code" and NYS Supplements for proposed buildings and service sub-stations. The revised site plan shall be circulated to the Director of Code Enforcement, Senior Fire Inspector and local Fire Chief for comment.

Response: ***A demonstration of compliance to the IFC 2015 "Fire Code" and NYS Supplements for proposed buildings and service sub-stations has been prepared by Croton Solar, LLC and provided in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

10. Applicant shall submit a Steep Slope Findings Statement (Chapter 259) and Wetlands Mitigation Plan (Chapter 179).

Response: ***A Steep Slopes Findings Statement has been prepared by this office and included in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

11. Provide all correspondence submitted to Con Edison related to the solar study as it pertains to utility upgrades and ability of distribution system to accommodate the development.

Response: ***Continuing correspondence between Croton Solar, LLC and Con Edison pertaining to the ongoing Coordinated Electric System Interconnection Review (CESIR) has been provided in the Croton Avenue Solar Project Supplemental Report enclosed in this application. Additional documentation will be provided before the public hearing after the completion of the CESIR.***

12. Submit a construction cost estimate.

Response: ***A construction cost estimate has been prepared by Croton Solar, LLC and included in the Croton Avenue Solar Project Supplemental Report enclosed in this application.***

In addition to the above and pursuant to the meeting with Staff on June 25, 2019, the application package also includes an executive summary, a tree removal statement, a wetland mitigation statement, solar inverter specifications, a preliminary assessment of existing trees to be removed, KnoxBox specifications, and a Biodiversity and Natural Resource Assessment. These documents can be found in the Croton Avenue Solar Project Supplemental Report enclosed in this application.

As we understand that there is no Planning Board meeting in August, we will submit the SWPPP and Tree Removal and Assessment Report in August. We would like to have this application placed on the July 27, 2019 Planning Board agenda for discussion and subsequently scheduled for a Public Hearing at the September 2019 Planning Board meeting. We will submit the Tree Removal and Assessment Report and the Stormwater Pollution Prevention Plan (SWPPP) for review by Staff prior to the September Public Hearing.

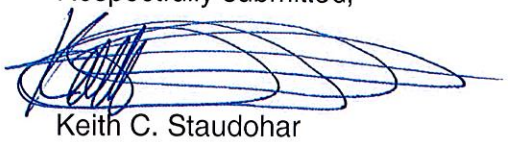
In support of this application, find enclosed the following information:

1. 2 copies of the SWPPP, to be provided by August 21, 2019.
2. 2 copies of the Tree Removal / Assessment Report, to be provided by August 21, 2019.
3. 14 copies of the revised Site Plan (2 full size and 12 11"x17").
4. 2 copies of the revised Full Environmental Assessment Form.
5. 10 copies of the Croton Avenue Solar Project Supplemental Report, containing:
    - Executive Summary
    - Permitting Requirements for Tier 3 Solar Energy Systems
    - Decommissioning Plan
    - Noise Ordinance Compliance
    - Tree Removal Statement
    - Wetland Mitigation Statement
    - International Fire Code Compliance Statement
    - Steep Slope Findings Statement
    - Correspondence with ConEdison
    - Construction Cost Estimate
    - Solar Inverter Specifications
    - Preliminary assessment of Existing Trees to be Removed
    - KnoxBox Specifications
    - Biodiversity and Natural Resource Assessment

Please refer to the previously Project Narrative for an in-depth discussion of the project proposal and community benefits that it will provide.

Should you have any questions or require additional information please contact me at the above number. Thank you for your time and consideration in this matter.

Respectfully submitted,



Keith C. Staudohar
Cronin Engineering P.E. P.C.

cc: Kieran Siao, Dimension Energy, LLC w/ encl.
Seth Jacobson via email

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Croton Avenue Solar Project		
Project Location (describe, and attach a general location map): 200 Croton Avenue, Town of Cortlandt, New York		
Brief Description of Proposed Action (include purpose or need): Removal of existing buildings, storage structures and unnecessary pavement for the installation of a 4 Megawatt solar power facility.		
Name of Applicant/Sponsor: Croton Solar, LLC	Telephone: E-Mail:	
Address: 3280 Peachtree Road NE,		
City/PO: Atlanta	State: Georgia	Zip Code: 30305
Project Contact (if not same as sponsor; give name and title/role): Kieran Slao	Telephone: 866.777.7969 E-Mail: Kslao@dimension-energy.com	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Croton Realty & Development, Inc.	Telephone: E-Mail:	
Address: 200 Croton Avenue		
City/PO: Cortlandt Manor	State: New York	Zip Code: 10567

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes☐No	Special Permit required from Town Board	
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Site Plan approval required from Planning Board	
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☐Yes☑No		
f. Regional agencies ☑Yes☐No	Stormwater Review from New York City DEP	
g. State agencies ☑Yes☐No	SPDES General Permit for Construction Activities required from New York State DEC	
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

NYC Watershed Boundary

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
R-40 Single Family Residential

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Lakeland Central School District

b. What police or other public protection forces serve the project site?
Westchester County Police and New York State Troopers

c. Which fire protection and emergency medical services serve the project site?
Lake Mohegan Fire District

d. What parks serve the project site?
Small park directly across from site entrance

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Commercial - Solar power facility

b. a. Total acreage of the site of the proposed action? 35.9 acres
b. Total acreage to be physically disturbed? 4.8 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 35.9 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 6 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☑No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No
If Yes,
i. Total number of structures 470 frames
ii. Dimensions (in feet) of largest proposed structure: 7.5 height; 13 width; and 39 length
iii. Approximate extent of building space to be heated or cooled: N/A square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No
If Yes,
i. Purpose of the impoundment:
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:
iii. If other than water, identify the type of impounded/contained liquids and their source.
iv. Approximate size of the proposed impoundment. Volume: million gallons; surface area: acres
v. Dimensions of the proposed dam or impounding structure: height; length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐Yes ☑No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
If Yes:
i. What is the purpose of the excavation or dredging?
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☑No
If yes, describe.
v. What is the total area to be dredged or excavated? acres
vi. What is the maximum area to be worked at any one time? acres
vii. What would be the maximum depth of excavation or dredging? feet
viii. Will the excavation require blasting? ☐Yes ☑No
ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes ☑No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☑No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project site? ☐Yes☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes☐No

Total disturbance = 4.8 Ac., reduction in impervious areas.

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.85 acres (impervious surface) Existing impervious area = 2.4 Ac., proposed imp. area = 0.85 Ac.

_____ Square feet or 35.9 acres (parcel size)

ii. Describe types of new point sources. During construction, ambient levels may be exceeded by construction vehicles, however this is a temporary impact as construction is estimated at less than 6 months. Operational noise will not exceed ambient levels.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

N/A

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☐Yes☐No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes☑No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8am to 5pm
- Saturday: 8am to 5pm
- Sunday: N/A
- Holidays: N/A

ii. During Operations:

- Monday - Friday: Continuous
- Saturday: Continuous
- Sunday: Continuous
- Holidays: Continuous

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

During construction, ambient levels may be exceeded by construction vehicles, however this is a temporary impact as construction is estimated at less than 6 months. Operational noise will not exceed ambient levels.

If yes:

i. Provide details including sources, time of day and duration:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☐ Yes ☑ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): open meadow

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	2.40	0.85	-1.55
• Forested	18.54	15.60	-2.94
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	8.54	14.93	+6.39
• Agricultural (includes active orchards, field, greenhouse etc.)	0.0	0.0	0.0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.0	0.0	0.0
• Wetlands (freshwater or tidal)	1.70	1.70	0.0
• Non-vegetated (bare rock, earth or fill)	1.02	1.02	0.0
• Other Describe: Lawn areas	3.70	1.80	-1.9

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☑No
If Yes,
i. Identify Facilities:

_____
_____

e. Does the project site contain an existing dam? ☐Yes ☑No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

_____
_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No
If Yes:
i. Has the facility been formally closed? ☐Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____
_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____
_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____
_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑Yes ☐No
If yes, provide DEC ID number(s): 360003

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____
_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☑No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☑No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? > 7 feet

b. Are there bedrock outcroppings on the project site? ☑Yes ☐No
If Yes, what proportion of the site is comprised of bedrock outcroppings? +/- 8 %

c. Predominant soil type(s) present on project site:

Paxton fine sandy loam	47 %
Woodbridge loam	42 %
Charlton loam	6 %

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils:
☑ Well Drained: 54 % of site
☑ Moderately Well Drained: 42 % of site
☑ Poorly Drained 4 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 53 % of site
☑ 10-15%: 22 % of site
☑ 15% or greater: 25 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Site contains a locally regulated wetland ☐Yes ☑No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name None Classification _____
- Lakes or Ponds: Name None Classification _____
- Wetlands: Name Unnamed - locally regulated Approximate Size 1.7 ac
- Wetland No. (if regulated by DEC) N/A

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100-year Floodplain? ☐Yes ☑No

k. Is the project site in the 500-year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

n. Does the project site contain a designated significant natural community? ☐Yes ☑No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):

ii. Source(s) of description or evaluation:

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐No

If Yes:

i. Species and listing (endangered or threatened):

Fence Lizard

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

If Yes:

i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No

If Yes:

i. CEA name:

ii. Basis for designation:

iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐Yes ☑No

If Yes:

i. Nature of historic/archaeological resource: ☐Archaeological Site ☐Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐Yes ☑No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐Yes ☑No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐Yes ☑No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐Yes ☑No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐Yes ☐No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

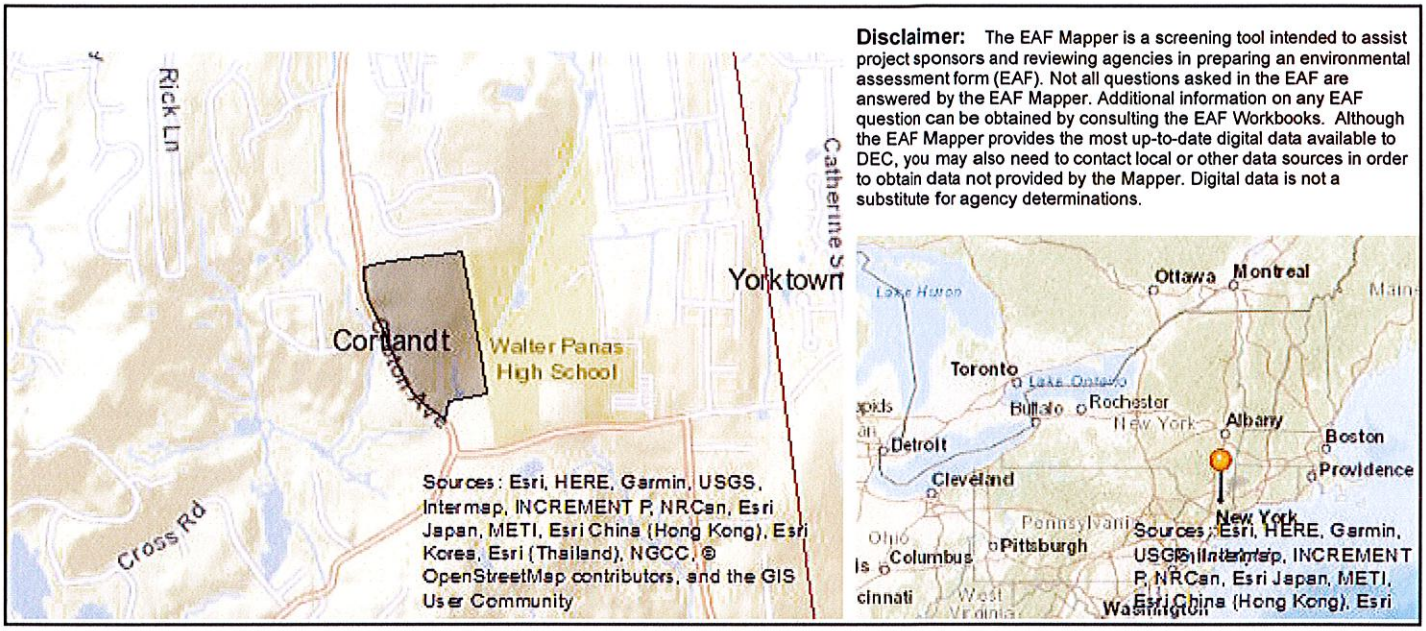
Applicant/Sponsor Name Sam Youneszadeh Date 4/24/2019, Revised July 17, 2019

Signature _____ Title Authorized Officer

PRINT FORM

EAF Mapper Summary Report

Thursday, April 18, 2019 4:21 PM



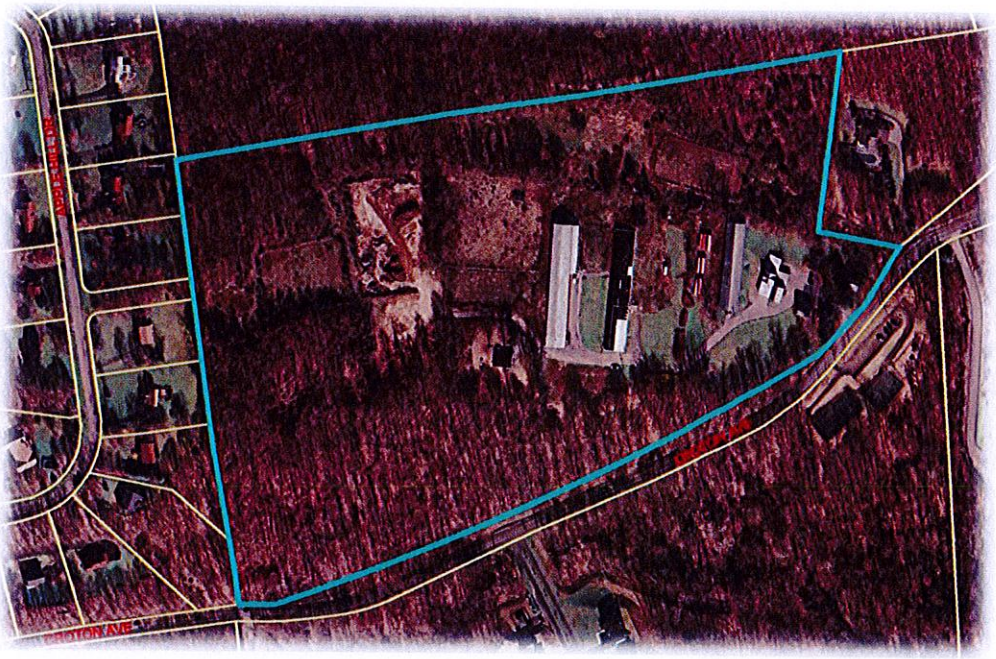
Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	360003
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Fence Lizard
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

CROTON AVENUE SOLAR PROJECT

SUPPLEMENTAL REPORT



JULY 17, 2019

CROTON SOLAR, LLC

200 CROTON AVENUE

CORTLANDT MANOR, NEW YORK 10567

WESTCHESTER COUNTY

STANDARDS FOR APPROVAL

CROTON SOLAR, LLC

CROTON AVENUE SOLAR PROJECT
TOWN OF CORTLANDT
WESTCHESTER COUNTY, NY

PROPOSED SOLAR FARM

LEAD AGENCY

TOWN OF CORTLANDT PLANNING BOARD
1 HEADY STREET, CORTLANDT MANOR, NY 10567
CONTACT: CHRIS KEHOE, AICP, DEPUTY DIRECTOR, PLANNING DIVISION
(914) 734-1080

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(914) 736-3664

PROJECT SPONSOR

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CONTACT: SAM YOUNESZADEH, CHIEF DEVELOPMENT OFFICER
(866) 777-7969

OWNER

CROTON REALTY & DEVELOPMENT, INC.
200 CROTON AVENUE, CORTLANDT MANOR, NY 10567
CONTACT: SETH JACOBSON, PRESIDENT
(914) 736-0600

DATE OF ACCEPTANCE BY LEAD AGENCY:
DATE(S) OF PUBLIC HEARING(S):
CLOSING OF PUBLIC COMMENT PERIOD:

PARTICIPATING CONSULTANTS

APPLICANT/CONTRACT VENDEE

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(866) 777-7969

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(914) 736-3664

LANDSCAPE ARCHITECT

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(845) 364-1360

ARBORIST

BARTLETT TREE EXPERTS
2240 SAW MILL RIVER ROAD, ELMSFORD, NY 10523
CONTACT: TREVOR HALL, I.S.A. CERTIFIED ARBORIST
(914) 532-4520

ENVIRONMENTAL CONSULTANT

STEPEHN W. COLEMAN ENVIRONMENTAL CONSULTING, LLC
3 ASPEN COURT, OSSINING, NEW YORK 10562
CONTACT: STEPHEN COLEMAN, PRESIDENT
(914) 494-5544

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LIST OF TABLES

SECTION 1 EXECUTIVE SUMMARY

This document is a report concerning the standards of approval for compliance with the Town of Cortlandt codes for the Croton Avenue, LLC Solar Project. This report has been prepared in accordance with the requirements of the Town of Cortlandt Code Chapter 179 – Wetland Mitigation, Chapter 197 – Noise, Chapter 259 – Steep Slope Findings Statements, and Chapter 283 – Trees. This document demonstrates the compliance of the Proposed Action with the aforementioned municipal codes and ordinances. The Town of Cortlandt Planning Board has been declared the Lead Agency for this Action.

A. Brief Description of Proposed Action

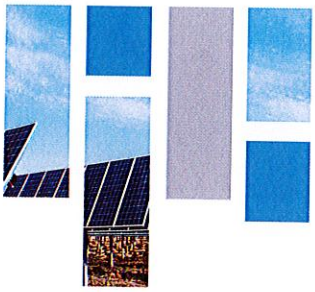
- The action proposed by Croton Solar, LLC (Applicant) and studied as the Base Plan in this report is a Tier 3 Solar Energy System on a 35.9-acre parcel of land located along the east side of Croton Avenue. This Proposed Action is referred to in this document as the Base Plan. Any references to undefined terms such as "project" or "proposed layout" shall mean the Base Plan.
- The Base Plan also involves the construction of a new limited use pervious access road. The proposed limited use pervious access road is proposed to begin at the edge of the existing driveway and continue north to the limits of the solar array, terminating in a hammerhead turn.
- The Base Plan conforms in all aspects to the zoning requirements of the R-40 Zoning District, Local Law #8, and the New York State Department of Environment Conservation Memorandum concerning Solar Panel Construction Stormwater Permitting.
- An application was made to the Town of Cortlandt Planning Board in May of 2019 and is known as file number PB 2019-11.
- The project site is located at 200 CROTON AVENUE, in the Town of Cortlandt, Westchester County (Site). The Site is bounded to the west by Croton Avenue, to the north by the Apple Hill Subdivision, to the east by lands of the Walter Panas High School, and to the south by a residential property. The Site is the location of the former Croton Egg Farm. A previous application to the Planning Board was made and approved that proposed the construction of a twenty-five-lot residential subdivision to be known as Hanover Estates on the property. The resolution of this proposal was adopted on September 1, 2015 and filed in the Office of the Town Clerk and Planning Board on September 4, 2015.
- Presently, the Site contains three (3) residential rental dwellings, several barns, a barn converted to an office and storage building, the remains of horse paddocks and corrals, impervious driveways and parking areas, several metal storage containers, trails, gravel roads, and meadows. All of the onsite building and structures would be removed as a result of the Proposed Action, except the existing access driveway from Croton Avenue located at the southern end of the Site.
- See **Table 1** for the Project and Site Data.

TABLE 1 – SITE & PROJECT DATA

The following data pertains to the site and project:	
Tax Map Identification	Section 34.14, block 02, lot 28
Project site area	35.9 acres
Zoning District	R-40 (Single Family Residential)
Watershed	Partially Hudson River (29.5 ac.) / Partially NYCEP Watershed (6.4 ac.)
Owner	Croton Realty & Development, Inc., 150 Croton Ave, Cortlandt Manor, NY 10567
Applicant/Contract Vendee	Croton Solar, LLC, 3280 Peachtree Road NE, 7th Floor, Atlanta, GA 30305
Project Engineer	Cronin Engineering PE, PC, 39 Arlo Lane, Cortlandt Manor NY 10567
Project Surveyor	Ward Carpenter Engineers, Inc., 76 Mamaroneck Avenue, White Plains, NY 10601

SECTION 2 PERMITTING REQUIREMENTS FOR TIER 3 SOLAR ENERGY SYSTEMS

The Proposed Project, as a Tier 3 Solar Energy System, is permitted in a R-40 single family residential zone under the Town of Cortlandt Code, Chapter 255 – Solar Energy Systems, known as Local Law #8, adopted by the Town Board of the Town of Cortlandt December 11, 2018. The following is a written analysis of the permitting requirements for Tier 3 Solar Energy Systems prepared by Croton Solar, LLC.



DIMENSION RENEWABLE ENERGY

Croton Avenue Solar Project: Compliance Analysis of Town of Cortlandt Town Code Chapter 255, Section 255-8: Permitting Requirements for Tier 3 Solar Energy Systems

H. Permitting Requirements for Tier 3 Solar Energy Systems

All Tier 3 Solar Energy Systems are permitted through the issuance of a Special Permit by the Town Board, and subject to the following conditions:

(1) Applications for the installation of Tier 3 Solar Energy Systems are subject to the requirements of Chapter 307, Article X: Standards and Conditions for Special Permits of the Town Code.

The proposed solar project will be installed in compliance with Chapter 307, Article X: Standards and Conditions for Special Permits Requirements.

(2) Underground Requirements: All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

As shown on the project site plan, the majority of conductors on site will be housed in conduit underground. The exception will be the main service connection to the ConEdison distribution line along Croton Avenue.

(3) Vehicular paths: Vehicular paths within the site shall be designed to minimize the extent of impervious materials and soil compaction.

The proposed solar project will utilize the existing access road on the property to the greatest extent practical, and any unnecessary impervious surfaces will be removed. Any additional sections of access roads that must be built will minimize new impervious surface to the extent practical.

(4) Signage:

a. **No signage or graphic content shall be displayed on the Solar Energy Systems except for the manufacturer's name, equipment specific information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area of no more than 8 square feet.**

b. **As required by National Electric Code ("NEC"), disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.**

The proposed solar project can comply with the Town of Cortlandt and NEC signage requirements. The required signage will be posted in a clearly displayed area and will be no larger than eight square feet.

(5) Glare: All Solar Panels shall have anti-reflective coating(s).

The solar panels proposed for the solar project will have anti-reflective coating.

(6) Lighting: Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

The proposed solar project does not currently include permanent site lighting. If site lighting is required, the Town will be notified, and dark sky compliant equipment will be utilized.

(7) Tree-cutting: Removal of existing trees is subject to the requirements of Chapter 283 of the Town Code.

The proposed solar project will be installed in compliance with the requirements of Chapter 283 of the Town code. The Town of Cortlandt will contract an arborist to perform a forest stand delineation survey to quantify the number of trees to be removed in conjunction with the project. Reforestation requirements will be followed in compliance with Chapter 283 of the Town Code.

(8) Decommissioning:

a. **Solar Energy Systems that have been abandoned and/or not producing electricity for a period of one (1) year shall be removed at the Owner and/or Operator's expense, which at the Owner's option may come from any security made with the Town as set forth herein.**

b. **A decommissioning plan signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant, addressing the following:**

i. **The cost of removing the Solar Energy System.**

ii. **The time required to decommission and remove the Solar Energy System and ancillary structures.**

iii. **The time required to repair any damage caused to the property by the installation and removal of the Solar Energy System.**

c. **Security**

i. **The deposit, execution, or filing with the Town Clerk of a cash, bond, or other form of security reasonably acceptable to the Town Attorney and/or the Director of the Department of Technical Services, shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restorations of the site subsequent to removal. The amount of the bond or security shall be 125% of the cost of removal of the Tier 3 Solar Energy System and restoration of the property with an escalator of 2% annually for the life of the Solar Energy System. The decommissioning amount shall be reduced by the amount of the estimated salvage value of the Solar Energy System.**

ii. **In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the cash deposit, bond, or security shall be forfeited to the Town, which shall be entitled to maintain an action thereon. The cash deposit, bond, or security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed.**

iii. **In the event of default or abandonment of the Solar Energy System, the system shall be decommissioned as set forth herein.**

A decommissioning plan will be provided to the Town of Cortlandt addressing how the solar system will be removed at end of life. The plan will also detail the time required to remove the solar array and associated appurtenances, currently estimated at 120 days.

A decommissioning bond will be provided to the Town of Cortlandt to cover removal of the installation and restoration of the site. The bond will be valued at 125% the cost of removal of the Tier 3 solar system, reduced by the system's salvage value, and based on costs provided by the Engineering, Procurement, and Construction Contractor that is installing the system. The bond will be placed in service in year 20 of the system life and will remain for the life of the system.

(9) **Site Plan Approval: For any Solar Energy System requiring a Special Permit, site plan approval shall be required. The approval criteria are the same as set forth in Section 307 of the Town Code.**

Prior to construction, the proposed solar project will obtain Site Plan Approval in compliance with Chapter 307 of the Town Code.

(10) **Special Permit Standards**

a. **Lot Size: The Property on which the Tier 3 Solar Energy System is placed shall be at least ten (10) acres.**

   The proposed property is approximately 39 acres in size.

b. **Setbacks: The Tier 3 Solar Energy Systems shall be setback:**

   i. **100 feet from an abutting lot when the property is in a Commercial or Industrial District;**

   ii. **200 feet when the property is located in a Residential District. The Town Board, at its discretion, may vary the required dimensional setback of 200-ft to minimize environmental impacts created when locating ground-mounted solar energy systems within the dimensional regulations. In such instances the approving authority may vary the setback to 100 feet or 200 feet from the nearest habitable building, whichever distance is more restrictive. The burden of proof for the grant of such waiver shall always be upon the applicant.**

The proposed project site is located in a Residential R-40 zoned district. The proposed solar project will maintain a minimum of a 200-foot setback from each parcel boundary.

c. **Height: No structure can exceed 25 feet or 2 stories.**
   The proposed project will not exceed 25 feet in height.

d. **Minimum Landscape Coverage:**

   i. **The Solar Energy System, as defined above, must comply with the minimum landscape coverage requirement of the underlying zoning district.**

   ii. **The following component of a Tier 3 Solar Energy System shall be considered included in the calculations for lot coverage requirements:**

      1. **Foundation systems, typically consisting of driven piles or monopoles or helical screws with or without small concrete collars.**

      2. **All mechanical equipment of the Solar Energy System, including any pad mounted structure for batteries, switchboard, transformer, or storage cells.**

      3. **Paved access roads servicing the Solar Energy System.**

The project will comply with the minimum landscape coverage requirements for the R-40 zoning district. A minimum of 60% of total lot area will be maintained as landscape coverage, based on the lot coverage components described.

e. **Fencing Requirements: All mechanical equipment, including any structure for storage batteries, shall be enclosed by an 8-foot high fence with a self-closing and self-locking gate to prevent unauthorized access.**

The proposed solar project, including mechanical equipment, will be enclosed within a chain link fence.

f. Screening and Visibility: Applicants for Tier 3 Solar Energy Systems shall be required to:

i. Conduct a visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of-site profile analysis shall be provided. Depending upon the scope and potential significance of the visual impacts, additional impact analyses, including for example a digital view-shed report, may be required to be submitted by the applicant.

ii. Submit a screening & landscaping plan to show adequate measures to screen through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment shall be minimized as reasonably practicable from public roadways and adjacent properties to the extent feasible.

iii. All ornamental, specimen or protected trees listed in 283 Attachment 1 that are removed must be replaced using a one to one ratio. All other trees shall be replaced in accordance with the requirements of Chapter 283 of the Town Code. Trees determined to be diseased, dead or an invasive species are not subject to this requirement.

A visual simulation analysis has been performed for the project from three vantage points and has determined that the project will not create a visual impact. A landscaping plan will be provided to the Town demonstrating that the project will comply with Chapter 283 of the Town Code.

g. Agricultural Resources. For projects located on lands designated as Agricultural Districts by the Westchester County Department of Planning:

i. Any Tier 3 Solar Energy System located on these Agricultural Districts shall not exceed fifty (50)% of the area of Prime Farmland or Farmland of Statewide Importance on the parcel.

ii. To the maximum extent practicable, Tier 3 Solar Energy Systems located in these Agricultural Districts shall be constructed in accordance with the construction requirements of the New York State Department of Agriculture and Markets.

iii. Tier 3 Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. To the extent practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

While the proposed solar project is not located within a Westchester County Department of Planning

established Agricultural District, the areas underneath the solar array will be replanted using a native low growth pollinator seed mix.

h. **Ownership Changes. If the owner or operator of the Solar Energy System changes or the owner of the property changes, the special permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special permit, site plan approval, and decommissioning plan. A new owner or operator of the Solar Energy System shall notify the zoning enforcement officer of such change in ownership or operator within 30 days of the ownership change.**

Should ownership of the proposed solar project change, the Town will be notified in writing, with confirmation that the new owner will adhere to all conditions and requirements of the special permit, site plan, and decommissioning plan.

SECTION 3 DECOMMISSIONING STRATEGY

The Proposed Project, as a Tier 3 Solar Energy System, is permitted in a R-40 single family residential zone under the Town of Cortlandt Code, Chapter 255 – Solar Energy Systems, known as Local Law #8, adopted by the Town Board of the Town of Cortlandt December 11, 2018. Part of the requirements set forth by this law is a detailed and documented strategy for the decommissioning of the Tier 3 Solar Energy System in the future. The remainder of this section encompasses a written description of the future decommissioning strategy for this project prepared by Croton Solar, LLC

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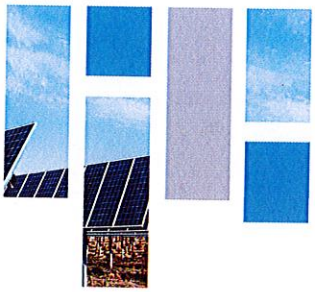

Croton Avenue Solar Project

Decommissioning Plan

July 2019

Croton Solar, LLC

Contents

Introduction

Croton Solar LLC proposes to construct and operate a ground mounted fixed tilt photovoltaic (PV) community solar system, approximately 3.0MWac in capacity. The Croton Avenue Solar Project (Project) is proposed to be located on a privately-owned parcel, located in the Town of Cortlandt, New York.

Ground-mounted solar facilities are designed, engineered and constructed to operate for at least 20 years and can operate up to 30 years or more. During construction, portions of the site may be compacted, excavated and graded for optimal installation and operation. This decommissioning plan outlines the steps that will be taken to remove the solar system and its associated appurtenances from the project site and return the parcel to conditions similar to pre-installation.

This Decommissioning Plan will be updated as necessary in the future to ensure that changes in technology and site restoration methods are taken into consideration.

System Decommissioning

Croton Solar LLC is responsible for decommissioning activities, as outlined in the conditions of permit approval by the local and state regulatory agencies. Decommissioning and restoration activities will align with current regulations at time of decommissioning, and conducted in accordance to applicable federal, state, and local regulation. At the end of its operational life, the entire system will be disconnected from the grid, disassembled and removed, and all materials will either be recycled or disposed of appropriately. Any necessary permits will be obtained from the Township prior to decommissioning activity.

Equipment and Material Removal

Croton Solar LLC will remove all above-ground equipment (solar module panels, brackets, support structures, inverters, transformers, concrete pads for equipment) and underground equipment (buried electrical wiring and conduits, concrete foundations), structures, fencing, and access roads. All equipment and materials will be evaluated to determine the appropriate facility for salvage, recycling, or disposal.

PV Modules

The PV modules will be disconnected from the inverters and removed from the steel racking system. The PV modules are made of silicon, glass, and aluminum and are not considered hazardous waste. PV modules will be recycled or resold on the market if determined to still be usable.

Associated Electrical Appurtenances

All associated electrical appurtenances (i.e. inverters, switchboards, transformers, meters) will be removed from their respective concrete pads or steel frames and disposed of at an approved facility.

Electric Wiring

All electric conductors made of copper and aluminum can be recycled. Above ground DC wires will be removed between the modules and inverters. Underground AC conductors will be pulled and removed. Above ground AC conductors back to the utility point of interconnection will be removed from the poles by the utility.

Racking Equipment and Fencing

Metal fencing and racking equipment will be removed and recycled at an appropriate facility. All driven posts will be removed.

Concrete Pad

Concrete pads will be excavated to a depth of two feet below grade, or the depth to require all rebar and foundation bolts. Clean concrete will be crushed and re-used either on or off site. The remaining excavation will be filled with clean material, of similar character to surrounding soils. The soils will be stabilized and reseeded.

Access Road

If allowable by the Town, the access road will remain in place of future use on the site. If required to be removed, gravel roads will be stripped of stone and any geotextile or underlying materials. Clean stone will be reused if possible, or otherwise disposed of at a proper facility, along with geotextile materials. Any asphalt roads will be broken up and similarly disposed of. If the underlying soils are compacted, these will be loosened, stabilized, and reseeded.

Disposal and Recycling of Materials

All hazardous wastes will be disposed of in accordance with laws in effect at the time decommissioning is performed. Any solid waste generated during system dismantling or demolition will be disposed of as necessary to comply with the solid waste regulations then in place.

Site Restoration

The site will be restored to a state consistent with its preconstruction condition. Any necessary construction stormwater permits will be obtained prior to decommissioning, and erosion and sediment control best management practices will be installed on site, as needed. After equipment is removed from site, soils will be de-compacted, and excavations will be filled with materials similar to soils on site. Any disturbed areas will be reseeded and erosion and sediment control BMPs will remain in place until the site is stabilized.

Stakeholder Notification and Construction

Decommissioning activities will require the use of equipment and vehicles similar to construction activity. As necessary, interested stakeholders, such as adjacent landowners, will be notified prior to the start of work on site. As noise may be temporarily elevated by construction equipment and vehicles during decommissioning, activities will only be conducted during accepted Town work hours. The site will be kept orderly and clean of refuse.

Decommissioning activity is anticipated to be completed within 120 days.

Decommissioning Bond and Abandonment

A decommissioning bond will be provided to the Town of Cortlandt to cover removal of the installation and restoration of the site. The bond will be valued at 125% the cost of removal of the Tier 3 solar system, reduced by the system's salvage value, and based on costs provided by the Engineering, Procurement, and Construction Contractor that is installing the system. The bond will be placed in service in year 20 of the system life and will remain for the life of the system.

In the event the system is abandoned and/or not producing electricity for a period of one year, the Town may use this decommissioning bond for removal of the system.

SECTION 4 NOISE ORDINANCE COMPLIANCE

*The Proposed Project is not expected to result in significant adverse noise impacts at nearby sensitive receptors and is not expected to exceed ambient noise levels according to the noise control law noise level limits as defined in the Town of Cortlandt Code, Chapter 197. A distance of 200 feet has been used in the following distance attenuation calculation (**Table 2**) according to the minimum required setback distances between solar panels and the property line or nearest habitable building, whichever distance is more restrictive. as defined in Section 8 of Chapter 255 – Solar Energy Systems (Local Law #8) of the Town of Cortlandt Code.*

TABLE 2 – NOISE LEVELS

	Point 1 (Adjacent to Inverters)	Point 2 (Per Chapter 255 – Solar Energy Systems)	Comments
Distance from the Source	1 meter (3.28 feet)	60.96 meters (200 feet)	Assumed distance of 1 meter is intended to simulate noise levels immediately adjacent to the inverters. A distance of 200 feet has been used according to the minimum required setback distances between solar panels and the property line or nearest habitable building.
Sound Pressure Level (dB)	65 max.	29.3	See Appendix A for solar inverter specifications.

- The proposed noise level at 200 meters from the inverters is anticipated to be 29.3 dB. According to the Town of Cortland Code, Chapter 197 – Noise, Section 14 – Residential Districts, the following requirements apply:
  - During the hours of 8:00 a.m. to 6:00 p.m., noise levels within any residentially-zoned district shall not exceed sixty-five (65) dBs.
  - During the hours of 6:00 p.m. to 8:00 a.m., noise levels within any residentially-zoned district shall not exceed fifty-five (55) dBs.
- Therefore, the proposed noise level will be well within the requirements and constraints set forth by the Town of Cortlandt.

SECTION 5 TREE REMOVAL STATEMENT

The Proposed Project naturally necessitates the clearing of trees from the site for proper installation and functioning of the Tier 3 Solar Energy System. Despite necessitating the removal of several hundred trees, the Proposed Project is beneficial to the surrounding community as a whole. A tree removal permit will be required as a part of the Proposed Project. See ***Table 3*** *for information regarding tree preservation, removal, and replantation. The proposed tree removal practices comply with the Town of Cortlandt tree ordinance as defined in Chapter 283, Section 7 – Standards of Approval of the Town of Cortlandt Code. See* ***Table 4*** *for a demonstration of compliance.*

TABLE 3 – TREE PRESERVATION AND REPLANTATION

Description	Quantity
Total Existing Trees Onsite	2,250
Trees Proposed to be Removed	594
Proposed Meaningful Trees to be Replanted *	91
Net Trees to be Removed	503

* See report prepared by Tracy Chalifoux, LLC (pending)

TABLE 4 – TREE STANDARDS FOR APPROVAL

283-7 Standards for Approval.	
283-7A1a: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree is located near existing or proposed improvements, especially if the tree is within three feet of an existing or proposed sidewalk or driveway.	Complies, trees within three feet of the proposed limited-use pervious access road and the proposed solar array are proposed to be removed. See Sheet TRP-3.1 in the Plan Set.
283-7A1b: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree is located near existing or proposed improvements, especially if the tree is within 10 feet of an existing cesspool, dry well, leaching pit, septic tank or field, or other subsurface improvement.	Complies, trees within 10 feet of existing and proposed subsurface improvements are proposed to be removed. See Sheet TRP-3.1 in the Plan Set.
283-7A1c: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree is located near existing or proposed improvements, especially if the tree is within 10 feet of any other existing or proposed permanent structure. A permanent structure is one that requires a building permit and certificate of occupancy or a certificate of compliance under the NYS Building Code and is not a shed.	Complies, trees within 10 feet of existing or proposed structures to be demolished are proposed to be removed. No permanent structures (buildings) are proposed as part of this project. See Sheet TRP-3.1 in the Plan Set.
283-7A1d: Notwithstanding any other factors, the removal of a regulated tree may be favored if the proposed	Complies, the existing access driveway is proposed to remain and the proposed limited-

283-7 Standards for Approval.	
subsurface improvement, structure, sidewalk, driveway, or roadway cannot be reasonably relocated.	use pervious access road cannot be reasonably relocated.
283-7A2: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree removal is necessary to achieve compliance with state, county, or local standards for sight lines, driveways, or intersections.	Complies, no sight lines, driveways, or intersections are proposed as part of this project.
283-7A3: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree removal is consistent with good horticultural or vegetation management and will not have an adverse effect on an ecological system.	Complies, proposed tree removal will not have an adverse effect on the existing ecological system.
283-7A4: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree to be removed, due to disease, blight, infestation, storm damage, accident, or other condition, causes undue hardship for the property owner to maintain.	Complies, trees proposed to be removed due to disease, blight, infestation, storm damage, accident, or other condition would cause undue hardship for the property owner to remain. See Appendix B for information pertaining to trees proposed to be removed.
283-7A5: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree removal is limited to non-native species of trees.	Complies, see Appendix B for information pertaining to non-native trees proposed to be removed.
283-7A6: Notwithstanding any other factors, the removal of a regulated tree may be favored if the tree removal will have a positive effect on wildlife habitat.	Complies, no trees proposed to be removed will have any measurable effect, positive or negative, on wildlife habitat. See Appendix B for information pertaining to trees proposed to be removed.
283-7A7: Notwithstanding any other factors, the removal of a regulated tree may be favored if the property owner will replant replacement trees of a similar species or add other vegetation to offset the negative effects of the tree removal to the satisfaction of the approving authority.	Complies, planting of replacement trees of similar species and the planting of other vegetation to offset the negative effects of tree removal are proposed as part of this project. See Sheet TRP-3.1 in the Plan Set.
283-7B1: With consideration of the above factors, the proposed tree removal may be denied or granted with conditions after consideration of whether the tree is a protected or specimen tree unless there is no feasible alternative to the proposed activity.	Complies, see Appendix B for information pertaining to trees proposed to be removed. There are no specimen trees to be impacted by the Proposed Project.
283-7B2: With consideration of the above factors, the proposed tree removal may be denied or granted with conditions after consideration of whether the tree removal will have a significant negative effect upon, among other things: erosion potential and drainage patterns in the vicinity, growth of existing vegetation, property values and aesthetics of nearby properties, and wildlife habitat.	Complies, proposed tree removal will not have any significant negative effect upon erosion potential and drainage patterns in the vicinity, growth of existing vegetation, property values and aesthetics of nearby properties, and wildlife habitat.
283-7B3: With consideration of the above factors, the proposed tree removal may be denied or granted with conditions after consideration has been given to preserving	Complies, consideration has been given to preserving specimen trees and protected trees where feasible and practical. There are no specimen or protected trees proposed to be

283-7 Standards for Approval.	
specimen trees and protected trees where feasible and practical.	removed. See Appendix B for information pertaining to trees proposed to be removed.
283-7B4: The approving authority may require the replanting of trees as a condition of permit approval and may establish standards for such replanting.	Complies, replanting of trees is proposed as part of this project. See Sheet TRP-3.1 in the Plan Set.
283-7C1: The planning, design and development of buildings shall provide the maximum in structural safety and human enjoyment while adapting the site to and taking advantage of the best use of the natural terrain.	Complies, the proposed project has been adapted to and takes advantage of the best use of the natural terrain. No regrading or earth movement is proposed as a part of this project.
283-7C2: Roads and driveways shall follow the natural topography to the greatest extent possible and shall be consistent with other applicable regulations of the Town of Cortlandt and current engineering practices.	Complies, the proposed limited-use pervious access road shall follow the existing terrain for its entire length. No regrading or earth movement is proposed as a part of this project.
283-7C3: Any regrading shall blend in with the natural contours and undulations of the land.	Complies, no regrading or earth movement is proposed as a part of this project.
283-7C4: Cuts and fills shall be rounded off to eliminate sharp angles at the top, bottom and sides of regraded slopes.	Complies, no regrading or earth movement is proposed as a part of this project.
283-7C5: The angle of cut and fill slopes shall not exceed a ratio of one vertical to two horizontal except where retaining walls, structural stabilization or other methods acceptable to the Director of Technical Services are used.	Complies, no regrading or earth movement is proposed as a part of this project.
283-7C6: Any lakes or ponds that are created shall have a sufficient depth and inflow of water to minimize the possibility of stagnation and excessive aquatic growth.	Complies, no lakes are ponds will be created as a part of this project.
283-7C7: Topsoil removed shall be replaced to a depth of at least four inches over all exposed ground surfaces except rock, and said restored surface shall be planted or seeded and mulched repeatedly as necessary until the area is stabilized.	Complies, topsoil is not proposed to be removed. Disturbed areas are proposed to be replaced to a depth of at least four inches and the restored surface is proposed to be planted, seeded, and mulched repeatedly as necessary.
283-7C8: There shall be no processing of excavated materials by a rock crusher or similar on the premises.	Complies, no processing of excavated materials is proposed on the premises.
283-7C9: No excavation shall be made so as to undermine, weaken or deprive support of adjacent land.	Complies, no excavation is proposed as a part of this project.
283-7C10: No removal of earth from the ground shall be made so as to prevent or interfere with the orderly development of residential, business, manufacturing or public purposes or other lands in the vicinity or as to unreasonably delay travel from one place to another or as to make unduly difficult or substantially increase the cost of the installation of public utilities or other public services or as	Complies, no regrading or earth movement is proposed as a part of this project.

283-7 Standards for Approval.	
to substantially depreciate the value of real property in the vicinity.	

SECTION 6 WETLAND MITIGATION STATEMENT

The Proposed Project is committed to reducing impacts attributed to the construction of the Tier 3 Solar Energy System to the site's plant and animal communities by protecting those areas of the site that were found to have the most valuable wildlife habitat and conservation value. The wetland system on site is an area worthy of protection. The Applicant recognizes this, and the project has been designed to avoid fully any new disturbance to the onsite wetlands and minimal disturbance to the wetland buffer areas.

There is limited disturbance within the buffer of wetland "C." This disturbance is for the removal of existing structures and impervious areas and the remediation of the area with plantings of indigenous plant species and an appropriate seed mix. The project would maintain the integrity of the habitat and actually improve upon the existing condition with the proposed wetland buffer enhancement. The potential impacts to the wetland system as a result of the Proposed Project are minimal and immeasurable and involve the restoration and enhancement of existing disturbed buffer land.

*The following is a discussion of the existing wetlands and wetland buffer area onsite and the mitigation practices that are proposed in the buffer disturbance areas. See **Table 5** for a breakdown of the areas of the existing wetlands onsite. See **Table 6** for a breakdown of the Wetland Standards for Approval according to the Town of Cortlandt Code, Chapter 179 – Wetland Mitigation.*

A. Existing Conditions – Wetlands

- The project site contains a wetland system that is located in the southeast portion of the site. The wetland is locally controlled and not subject to the requirements of the NYSDEC. The wetland system flows southeasterly to Croton Avenue and is under the control and regulatory authority of the Town of Cortlandt. This wetland drains into a culvert that crosses southerly under Croton Avenue to a watercourse system to the south. Off site to the east there appears to be a wetland system that flows northeasterly through the lands of the Walter Panas High School and is situated within the boundary of the NYCEP watershed. This section of wetland is not within 100 feet of any proposed development and falls under the jurisdiction of both the Town of Cortlandt and the NYCEP. The proposed project would not result in any impacts to this off-site wetland.
- The remainder of the project site is without any wetlands or watercourses. Off site to the north is Apple Hill. To the west and south, the project side is bounded by Croton Avenue. The northeasterly portion of the site also does not contain any wetlands or watercourses.
- The wetlands on site were delineated in conformance to the New York State, Federal, and Town of Cortlandt criteria, Chapter 179 – Wetland Mitigation of the Town Code. See **Table 13** for the onsite wetlands and their associated areas.

TABLE 2 – EXISTING WETLANDS

Wetland	Area
A	0.4 ac.
B	1.0 ac.

Wetland	Area
C	0.2 ac.
D	0.1 ac.
Total	**1.7 ac.**

- The wetland buffer area within the Project Site property is approximately 199,483 square feet or 4.56 acres.
- The wetlands are not subject to and are not identified as NYSDEC wetlands according to a review of their published maps and therefore do not have a NYSDEC water classification associated with them.

B. Potential Significant Adverse Impacts and Related Mitigation

- A wetland enhancement plan is proposed as part of the project. The enhancement plan includes the removal of impervious areas, buildings and structures that are currently located in the regulated wetland buffer. These areas will be replanted with native grasses in order to re-establish a vegetative ground cover and restore those areas to facilitate the creation of new wildlife habitat and enhance the biodiversity of the project site.
- Pursuant to Section 179-6(B) of the Town of Cortlandt Town Code, Standards for Approval for a Wetland Permit, ***Table 6*** offers the standards for approval and the Project compliance.

TABLE 6 – WETLAND MITIGATION STANDARDS FOR APPROVAL

179-6(B) Standards for Approval.	
Criteria for approval, disapproval or approving with modifications. In approving, disapproving or approving with modifications, the approval authority, based on evaluations/consultations from the Environmental Monitor and/or the CAC, and/or other Town Designated Consultants involved with the project, will issue findings which shall address the following:	
(1) The environmental impact of the proposed action	The environmental impact of the proposed action has been kept to a minimum. The proposed wetland buffer impacts are required to remove existing structures and impervious covers. These areas would be re-vegetated with indigenous plantings and an appropriate seed mix.
(2) The alternatives to the proposed action.	The alternatives to the proposed action have similar disturbances, potential impacts and mitigation measures.
(3) Irreversible and irretrievable commitments of resources that would be involved in the proposed activity.	There are no irreversible and irretrievable commitments of resources that would be involved in the proposed activity.
(4) The character and degree of injury to or interference with safety, health or the reasonable use of property that is caused or threatened.	The proposed action will not cause any injury to or interference with safety, health or the reasonable use of the property.

179-6(B) Standards for Approval.	
(5) The suitability or unsuitability of such activity to the area for which it is proposed.	The activity is suitable for the area where it is proposed. Adjoining uses are consistent with the proposed use of the property.
(6) The effect of the proposed activity with reference to the protection or enhancement of several functions of wetlands, water bodies and watercourses.	The proposed activity will have a minimal effect to the wetlands, water bodies or watercourses currently on the property, and will preserve these existing features to the greatest extent practicable.
(7) The availability of preferable alternative locations of the subject parcel or proposed action.	There are no preferable alternative locations of the proposed action on the subject parcel.
(8) The availability of mitigation measures that could feasibly be added to the plan or action	Appropriate enhancement measures are provided that include the proposed buffer enhancement, soil erosion and sediment control program, the stormwater management program all of which are designed to protect the wetland system as much as is practicable.

- Based on the above assessment of the standards for approval from Section 179 of the Town of Cortlandt Code, the proposed project is consistent with the standards of the Wetland Ordinance. There are no anticipated detrimental impacts to the wetland systems as a result of the Tier 3 Solar Energy System. There is however a proposal to provide a wetland buffer enhancement-planting program upon the removal of the impervious structures currently within the buffer area. Therefore, no mitigation is necessary for the wetland system and an improvement to the wetland buffer is proposed as part of this project.

SECTION 7 INTERNATIONAL FIRE CODE COMPLIANCE STATEMENT

The following International Fire Code Compliance Statement was prepared by Dimension Renewable Energy for the Proposed Project and was dated July 12, 2019. See ***Appendix C*** *for proposed KnoxBox specifications.*

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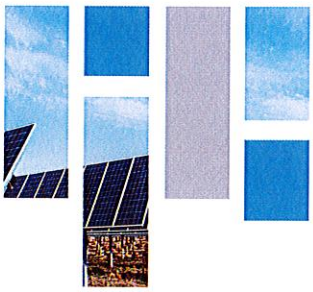


Croton Avenue Solar Project: International Fire Code Compliance Statement

The proposed photovoltaic system will be fully compliant with all applicable codes, including but not limited to local adoptions of the IBC, IFC and NFPA.

The proposed system includes a full perimeter fence which will be a minimum 8' high chain link equivalent and will only be accessed by authorized and trained personnel. Fire Access roads are not required for ground mounted solar arrays, per the exception to IFC 503.1.1. This is an unoccupied facility that does not require Fire Department entry or intervention in case of a fire internal to the facility. A minimum 16' wide gravel access road will be provided to each electrical equipment area, with turnarounds and bearing capacity sufficient for Fire Apparatus, per specifications of IFC 503.2. There will be a 20' wide double swing gate in the fence at the access road entrance. That gate will be equipped with a surface mounted KnoxBox as required by the Fire Authority for access in case of emergency.

There will be 20' clearance from the solar modules to the perimeter fence, which will be mowed and maintained clear of brush. This clearance exceeds the 10' minimum required per IFC 605.11.2.

Additionally, there will be 13' between each row of PV modules, to allow for adequate access by maintenance vehicles. The entire area inside the fence will be maintained with low grass and no brush.

Please refer to the preliminary site plan which shows the location of the road, fence, and associated size and clearances.

All applicable sections of the National Electric Code will be followed.

SECTION 8 STEEP SLOPE FINDINGS STATEMENT

While a certain amount of steep slope disturbance is unavoidable, the extent of such disturbance will be limited to the maximum extent practicable. See ***Table 5*** *for a breakdown of existing slope ranges and see* ***Table 6*** *for a breakdown of the proposed steep slope disturbances. An issue for consideration includes the potential development on or near the steeply sloped western flank of the Site. There would be approximately 18,469 square feet of disturbance to slopes greater than 15% on the entire Project Site. Any potential impacts from steep slope disturbance would be adequately mitigated through a Soil Erosion and Sediment Control Program. See* ***Table 7*** *for a comparison of the slope categories and disturbance areas. The Croton Solar, LLC project complies with and meets the intended goals of Chapter 259 of the Town Code, "Steep Slopes". However, a Steep Slopes permit is required from the Town Planning Board for the above described disturbances.*

TABLE 7 – EXISTING SLOPE RANGES

Slope Range	Area	% of property
0-15%	27.01 ac.	75.3%
15% - 20%	3.25 ac.	9.0%
20% - 25%	1.71 ac.	4.7%
>25%	3.94 ac.	11.0%

TABLE 8 – SLOPE DISTURBANCES

Slope Range	Area	% of slope range
0-15%	4.387 ac.	16.2%
15% - 20%	0.197 ac.	6.1%
20% -25%	0.105 ac.	6.2%
>25%	0.122 ac.	3.1%
Total	4.811 ac.	---

TABLE 9 – STEEP SLOPE STANDARDS FOR APPROVAL

259-6 Standards for Approval.	
259-6A: Disturbance or alterations of trees and forests and topographic disturbances shall be in accordance with this ordinance and other applicable ordinances of the Town.	Complies, only those trees absolutely necessary to be removed will be taken down. Additionally, disturbances to slopes in excess of 15% account for approximately 0.44 acres or approximately 8.6% of the total project disturbance of 5.05 acres. The areas of steep slope disturbance are predominantly limited to areas along the western edge of the property where solar panels are proposed. All disturbances are minimal in scope.
259-6B: Activities within wetlands shall be in accordance with Chapter 179 of the Town Code.	Complies, there is no wetland disturbance nor is there any wetland buffer disturbance associated with the proposed project. There is a small amount of wetland buffer disturbance required to remove existing impervious areas currently within the wetland buffer. This area will be re-planted with indigenous plantings and allowed to restore its buffer functions. The project will provide a benefit to downstream surface waters by replacing existing impervious surfaces with vegetation.
259-6C: The proposed activity will not result in any creep, sudden slope failure or additional erosion.	Complies, there is no regrading associated with the proposed project that would result in any creep, sudden slope failure, or additional erosion. The existing slope is stable.
259-6D: The proposed activity will not adversely affect existing or proposed wells or sewage disposal systems.	Complies, the area is served by a public water and there is no disturbance to any land within 100 feet of any off-site sewage disposal system. Such utilities are not proposed to be added or modified onsite as a part of this project.
259-6E: The proposed activity will not affect any endangered or threatened species of flora or fauna.	Complies, based on the site-specific Biodiversity and Natural Resource Assessment prepared for the project site as part of the previous subdivision approval, see Appendix D. The Assessment found that the Project Site does not contain any threatened or endangered species of flora or fauna. Additionally, pursuant to the NYSDEC Natural heritage Program report, there are no endangered or threatened species on site or in close proximity to the Project Site.
259-6F: The activity is consistent with principles and recommendations of the latest Town Master Plan.	Complies, the parcel is located in a single-family residential zoning district. Chapter 255 of the Town of Cortlandt Code (Local Law #8) permits the construction of ground-mounted solar energy systems in an R-40 Zoning District. The proposed project is consistent with the Zoning Ordinance and the Town's Comprehensive Master Plan.

259-6 Standards for Approval.	
259-6G: The proposed activity is the minimum disturbance necessary to allow the property owner a reasonable use of the property.	Complies, the proposed development as shown complies with the Zoning Ordinance and provides the owner with a reasonable use of the property.
259-6H: Conformance with the following specific items is required:	
259-6H1: The planning, design and development of buildings shall provide the maximum in structural safety, slope stability and human enjoyment while adapting the affected site to, and taking advantage of, the best use of the natural terrain and aesthetic character.	Complies, no buildings are proposed as part of this project. The topography is to remain unaltered and thus the proposed project provides maximum slope stability that already exists. The proposed project takes maximum advantage of the site's exposure to the sun via its natural terrain. Slopes will remain stable during construction via erosion and sediment control measures.
259-6H2: The terracing of building sites, including the mounding of septic tile fields, shall be kept to an absolute minimum.	Complies, there is no terracing proposed.
259-6H3: Roads and driveways shall follow the natural topography to the greatest extent possible in order to minimize the potential for erosion and shall be consistent with other applicable regulations of the Town of Cortlandt and current engineering practices.	Complies, the proposed limited use pervious access road is to follow the natural topography for the full length. It is proposed that the limited use pervious access road will join with part of the existing access driveway to remain, which will also follow the natural topography unaltered as it does presently.
259-6H4: Replanting shall consist of indigenous vegetation and shall replicate the original vegetation on the site as much as possible.	Complies, general landscape plantings will be provided and will consist of indigenous plant varieties per Section 259-6H4.
259-6H5: The natural elevations and vegetative cover of ridgelines shall be disturbed only if the crest of a ridge and the tree line at the ridge remains uninterrupted. This may be accomplished either by positioning buildings and areas of disturbance below a ridgeline or by positioning buildings and areas of disturbance at a ridgeline so that the elevation of the roofline of the building is no greater than the elevation of the natural tree line. However, under no circumstances shall more than one hundred (100) feet along the ridgeline, to a width of one hundred (100) feet generally centered on the ridgeline, be disturbed.	Complies, there are no ridgelines on site and there are no buildings proposed as part of this project. The site is to remain as vegetated as possible.
259-6H6: Any re-grading shall blend in with the natural contours and undulations of the land.	Complies, no re-grading is proposed as part of this project.
259-6H7: Cuts and fills shall be rounded off to eliminate sharp angles at the top, bottom and sides of re-graded slopes.	Complies, no cuts or fills are proposed as part of this project.
259-6H8: The angle of cut and fill slopes shall not exceed a slope of one (1) vertical on two (2) horizontal except	Complies, all disturbed slopes greater than 1 vertical on 2 horizontal will be provided with a

259-6 Standards for Approval.	
where retaining walls, structural stabilization or other methods acceptable to the Town Engineer are used.	geo-textile erosion control blanket. No cuts or fills are proposed as part of this project.
259-6H9: Tops and bottoms of cut and fill slopes shall be set back from structures a distance that will ensure the safety of the structure in the event of the collapse of the cut or fill slopes. Generally, such distance shall be considered to be six (6) feet plus one-half (1/2) the height of the cut or fill. Nevertheless, a structure built on a slope or at the toe of a slope is permitted if it is properly designed to retain the slope and withstand the forces exerted on it by the retained slope.	Complies, no re-grading is proposed as part of this project. The existing slope is stable onsite. There will not be any adverse impact on the proposed solar panels as a result of the nature of the existing topography.
259-6H10: Disturbance of rock outcrops shall be by means of explosive only if labor and machines are not effective and only if rock blasting is conducted in accordance with all applicable regulations of the Town of Cortlandt and the State of New York.	Complies, no rock outcrops will be disturbed as a result of this development.
259-6H11: Disturbance of steep slopes shall be undertaken in workable units in which the disturbance can be completed and stabilized in one (1) construction season so that areas are not left bare and exposed during the winter and spring thaw periods (December 15 through April 15).	Complies, the relatively minor amounts of steep slopes to be constructed on will be completed and stabilized in compliance with Section 259-6H11.
259-6H12: Disturbance of existing vegetative ground cover shall not take place more than fifteen (15) days prior to grading and construction.	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.
259-6H13: Temporary soil stabilization, including, if appropriate, temporary stabilization measures such as netting or mulching to secure soil during the grow-in period, must be applied to an area of disturbance within two (2) days of establishing the final grade, and permanent stabilization must be applied within fifteen (15) days of establishing the final grade.	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.
259-6H14: Soil stabilization must be applied within two (2) days of disturbance if the final grade is not expected to be established within sixty (60) days.	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.
259-6H15: Measures for the control of erosion and sedimentation shall be undertaken consistent with the Westchester County Soil and Water Conservation District's Best Management Practices Manual for Erosion and Sediment Control and New York State Guidelines for Urban Erosion and Sediment Control, as amended, or its equivalent satisfactory to the approval authority.	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.
259-6H16: All proposed disturbance of steep slopes shall be undertaken with consideration of the soils limitations characteristics contained in the Identification Legend, Westchester County Soils Survey, 1989, as prepared by the Westchester County Soil and Water Conservation District, in	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.

259-6 Standards for Approval.	
terms of recognition of limitation of soils on steep slopes for development and application of all mitigating measures and as deemed necessary by the approval authority.	
259-6H17: Topsoil shall be stripped from all areas of disturbance, stockpiled and stabilized in a manner to minimize erosion and sedimentation and replaced elsewhere on the site at the time of final grading. Stockpiling shall not be permitted on slopes of greater than ten percent (10%).	Complies, see Erosion & Sediment Control Notes and Slope Stabilization Details on Sheet ESC-4.1 of the Plan Set.
259-6H18: No organic material or rocks with a size that will not allow appropriate compaction or cover by topsoil shall be used as fill material. Fill material shall be no less granular than the soil upon which it is placed and shall drain readily.	Complies, no fill materials are proposed as part of this project.
259-6H19: Compaction of fill materials in fill areas shall be such to ensure support of proposed structures and stabilization for intended uses.	Complies, no fill materials are proposed as part of this project.
259-6I: Burden of Proof	
259-6I1: The applicant shall prove compliance with each of the above noted conditions and standards.	Complies, see the responses above and Plan Set for the project prepared by Cronin Engineering P.E., P.C.
259-6I2: On lots with grades in excess of 30% the applicant shall have the additional burden of demonstrating that the applicant's circumstances are compelling and exceptional and demonstrating that no reasonable use of the lot is possible without disturbance to the 30% slopes.	Complies, there is no disturbance to any slope 30% or greater.

SECTION 9 CORRESPONDENCE WITH CON EDISON

The following is a record of the correspondence that has been submitted to Con Edison related to the Proposed Project as it pertains to utility upgrades and the ability of the distribution system to accommodate the proposed development. As of June 18, 2019, Croton Solar, LLC was granted approval to proceed with a Coordinated Electric System Interconnection Review (CESIR) study as part of Case Number MC-420697.

From: TUCCIM@coned.com <TUCCIM@coned.com>

Sent: Tuesday, June 18, 2019 12:12 PM

To: Interconnection <interconnection@dimension-energy.com>

Cc: Interconnection <interconnection@dimension-energy.com>

Subject: Status Update for Customer To-Do List - 200 Croton Ave, Cortlandt, NY 10567 [MC-420697]

Jamal Batar

3280 Peachtree Rd NE
Atlanta, GA 30305

conEdison
a conEdison, Inc. company

Re : CESIR for Interconnection of Distributed Generation – Application Package Reviewed and Accepted

Date: June 18, 2019

Service At: 200 Croton Ave Cortlandt, NY 10567

Case Number: MC-420697

Dear Jamal Batar,

Thank you for submitting your request for a Coordinated Electric System Interconnection Review (CESIR) of your 3,100 kW distributed generation project at the above address. The Con Edison Energy Services team has completed the review of your application and accompanying documents listed below.

Your application package meets the minimum requirements to proceed with the CESIR Study.

In accordance with the New York State Standardized Interconnection Requirements, the Con Edison Energy Services team will complete your CESIR study and provide a CESIR report within 60 business days.

The following documentation was provided as part of your application package and has been **'Reviewed'** by the Con Edison Energy Services team.

3 Line Diagram	Accepted for Review	6/18/2019
Inverter Verification Testing Procedure	Resolved-Reviewed	6/17/2019
Fault Mitigation and Step Up Transformer Information	Resolved-Reviewed	6/17/2019
Appendix B	Resolved-Reviewed	6/17/2019
3 Line Diagram	Resolved-Rejected	6/17/2019
Appendix J	Resolved-Reviewed	6/12/2019
Appendix B	Resolved-Rejected	6/12/2019
Fault Mitigation and Step Up Transformer Information	Resolved-Rejected	6/12/2019

Site Plan	Resolved-Reviewed	6/12/2019
3 Line Diagram	Resolved-Rejected	6/12/2019
Inverter Certificate of Compliance	Resolved-Reviewed	6/12/2019
Inverter Verification Testing Procedure	Resolved-Rejected	6/12/2019
Inverter Manufacturer Spec Equipment Cut Sheet - UL 1741	Resolved-Reviewed	6/12/2019
Site Plan	Resolved-Rejected	5/20/2019
3 Line Diagram	Resolved-Rejected	5/20/2019
Customer Letter Of Authorization	Resolved-Reviewed	5/20/2019
Application for Community Distributed Generation (CDG) Service	Resolved-Reviewed	5/20/2019
Upload Pre-Application Report	Accepted for Review	5/20/2019
Original Work Request	Resolved-Reviewed	5/20/2019
Appendix A (Standard Contract)	Resolved-Approved	5/17/2019

You can track the progress of your CESIR request and provide any further required information or documents by logging into the Con Edison Power Clerk web portal.

If you have any further questions or concerns, or feel you are receiving this notice in error, please contact your Con Edison Energy Services representative via the Power Clerk web portal or by using the contact information below.

Sincerely,
Michael Tucci

Customer Project Manager A
Con Edison Company of NY
Westchester Energy Services

511 Theodore Fremd Avenue, 2nd Floor
Rye, NY 10580-1432

TUCCIM@coned.com
(W) 914-925-6578

SECTION 10 CONSTRUCTION COST ESTIMATE

*The following **Table 8** is a preliminary cost estimate for the Proposed Project prepared by Croton Solar, LLC. The figures displayed are currently indicative and are not demonstrative of a contracted or verified construction cost estimate. The figures are likely to change in the future as the Proposed Project is developed further.*

DIMENSION
RENEWABLE ENERGY

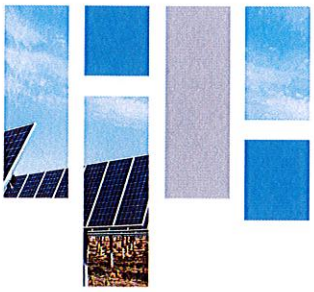


TABLE 10 – CONSTRUCTION COST ESTIMATE

Preliminary Approximation of Construction Costs for Croton Avenue Solar Project	
Electrical Construction	$2,656,800.00
Civil Construction	$587,175.00
Total	$3,243,975.00

APPENDIX A

- SOLAR INVERTER SPECIFICATIONS
  - CHINT POWER SYSTEMS AMERICA 100/125kW, 1500Vdc STRING INVERTERS FOR NORTH AMERICA

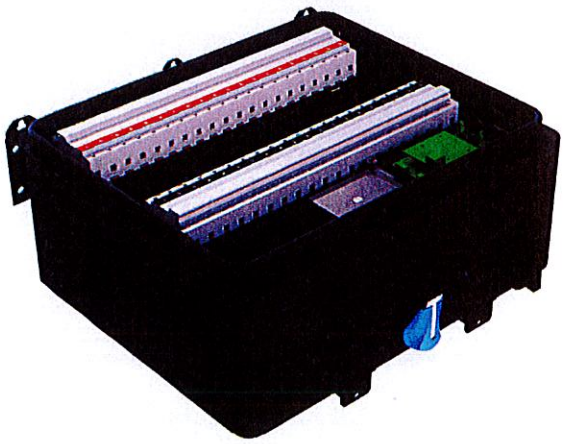
100/125kW, 1500Vdc String Inverters for North America

CPS SCH100/125KTL-DO/US-600

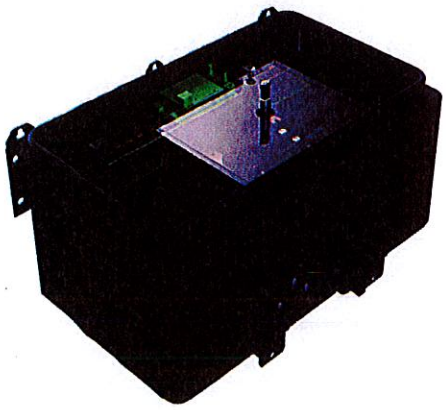
The 100 & 125kW medium power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 98.8% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the standard wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The CPS Flex Gateway enables communication, controls and remote product upgrades.

Key Features

- NEC 2014/17 compliant & UL listed Arc-Fault circuit protection
- Touch safe DC Fuse holders adds convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 16 and 20 inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 compatible)
- kVA Headroom to deliver full Active Power @ 0.95PF
- Generous 1.5 DC/AC Inverter Load Ratio
- Separable wire-box design for fast service
- Standard 10 year warranty with extensions to 20 years



100/125kW Standard Wire-box



100/125kW Centralized Wire-box

Intertek 4004522
Conforms to UL Std. 1741
Cert.to CSA Std.C22.2 No.107.1-01

This device compiles with part 15 of the FCC Rules

Model Name	CPS SCA100KTL-DO/US-600	CPS SCA125KTL-DO/US-600
DC Input		
Max. PV Power	150kW	187.5kW
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	860-1450Vdc	
Start-up DC Input Voltage / Power	900V / 250W	
Number of MPP Trackers	1	
MPPT Voltage Range	870-1300Vdc	
Max. PV Input Current (Isc x1.25)	220A	275A
Number of DC Inputs	16 inputs / per MPPT	20 inputs / per MPPT
DC Disconnection Type	Load rated DC switch	
DC Surge Protection	Type II MOV, Up=2.5kV , In=20kA(8/20us)	
AC Output		
Rated AC Output Power	100kW	125kW
Max. AC Output Power[1]	100kVA (111KVA @ PF>0.9)	125kVA (132KVA @ PF>0.95)
Rated Output Voltage	600Vac	
Output Voltage Range[2]	528-660Vac	
Grid Connection Type[3]	3Φ / PE / (N optional) Wye or Delta	
Nominal AC Output Current @600Vac	106.9A	127.2A
Rated Output Frequency	60Hz	
Output Frequency Range[2]	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
AC Disconnection Type	Load rated AC switch	
AC Surge Protection	Type II MOV, Up=2.5kV , In=20kA(8/20us)	
System		
Topology	Transformerless	
Max. Efficiency	98.8%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<2W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range	-22°F to +140°F / -30°C to +60°C (derating from +113°F / +45°C)	
Non-Operating Temperature Range[4]	-40°F to +158°F / -40°C to +70°C maximum[4]	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	8202ft / 2500mm (no derating)	
Audible Noise	<65dBA@1m and 25°C	
Display and Communication		
User Interface and Display	LED, WiFi + APP	
Inverter Monitoring	Modbus RS485, PLC Option	
Site Level Monitoring	CPS Flex Gateway (1 per 32 inverters)	
Modbus Data Mapping	SunSpec/CPS	
Remote Diagnostics/FW Upgrade Functions	Standard	
Mechanical		
Dimensions (WxHxD)	45.28x24.25x9.84in (1150x616x250mm) with Standard Wire-box 39.37x24.25x9.84in (1000x616x250mm) with Centralized Wire-box	
Weight	Inverter: 121lbs / 55kg; Wire-box: 55lbs / 25kg (standard); 33lbs / 15kg (centralized)	
Mounting/Installation Angle	15 - 90 degrees from horizontal (vertical, angled)	
AC Termination[5]	M8 Stud Type Terminal Block (Wire range: #6 - 3/0AWG CU/AL[5], Lugs not supplied)	
DC Termination	Screw Clamp Fuse Holder (Wire range: 14AWG - 10AWG CU) - Standard Wire-box Screw Clamp Fuse Holder (Wire range: 1AWG - 250kcmil CU/AL, Lugs not supplied) - Centralized Wire-box	
Fused String Inputs (5 per MPPT)	15A fuses provided (Fuse values up to 30A acceptable)	
Safety		
Safety and EMC Standard	UL1741SA-2016[6], UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15	
Grid Standard[6]	IEEE 1547a-2014, CA Rule 21[6]	
Smart-Grid Features	Voltage-RideThru, Frequency-RideThru, Soft-Start, Volt-Var, Frequency-Watt	
Warranty		
Standard	10 years	
Extended Terms	15 and 20 years	

1) "Max. AC Apparent Power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100KW PF ≥0.9 and 125KW PF ≥0.95
2) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.
3) Wye neutral-grounded, Delta may not be corner-grounded.
4) See user manual for further requirements regarding non-operating conditions.
5) AL requires bi-metallic compression lug or bi-metallic adapter.
6) Certifications Pending.

APPENDIX B

- PRELIMINARY ASSESSMENT OF EXISTING TREES TO BE REMOVED
  - TREE IDENTIFICATION INSPECTION LETTER, SITE INSPECTION LETTER, AND TREE INVENTORY PREPARED BY BARTLETT TREE EXPERTS AND DATED OCTOBER 14, 2012 AS PART OF THE HANOVER ESTATES PROPOSED SUBDIVISION APPLICATION PACKAGE
  - TREE IDENTIFICATION INSPECTION LETTER AND TREE INVENTORY PREPARED BY BARTLETT TREE EXPERTS AND DATED JULY 5, 2019

BARTLETT TREE EXPERTS
SCIENTIFIC TREE CARE SINCE 1907

2240 SAW MILL RIVER ROAD
ELMSFORD, NY 10523
(914) 592-4520
(914) 592-5068(FAX)

Copies 1 Planning Board
..... Town Board
..... Zoning Board
1 Legal Dept.
1 DOTS Director
1 C.A.C.
..... A.R.C.
1 Applicant
1 Tim Cronin, P.E. Wilentz,
1 David Steinmetz, Esq.
Sent 11/1/12

October 14th, 2012

Town of Cortlandt
ATTN: Chris Kehoe
1 Heady Street
Cortland NY 10567

Work Location: Hanover Estates Maple Avenue

Dear Mr. Kehoe
We inspected the approximately 2250 trees that were tagged throughout the site of the proposed development. The trees were all inspected to determine the species, size and overall conditions. The overall site was also assessed for groupings of trees that would be the best to protect during development, if possible. We based the findings on the drawings previously provided. The goal as we discussed would be the best potential for preserving the largest number of trees of the best quality. The inventory is included here with each specific tree listed and any pertinent observations. I am basing my points on the plan titled "Alternative 9" as this was the one that appeared to be the best from the standpoint of tree preservation and was the last one provided to me

- All the trees on the site of appropriate size were in fact tagged and there were no areas where any trees were skipped.
- There are large open areas with few trees and these are the main areas for proposed building lots. There are several small groups of trees within these areas and if possible could be protected and provide a few mature trees within the development site upon completion.
- The primary area for preserving the most trees would be the hillside directly abutting Croton Avenue. Approximately 1800 of the total 2250 trees on the site are found along this hillside and leaving this undisturbed would gain the best chance of preserving a large number of trees. Along the top side of the hill there may be some that need to be removed where they are within the building lots 8 through 14 but these tend to be smaller trees and many have already been overtaken by vines.
- The other area of a high tree population is in the North East corner which roughly includes Lots 1 through 7. It is comprised primarily of Tulip Poplars with other trees species in smaller quantities. There are roughly 300 trees in the area and although there are some decent Oaks, Maples and Ash included the majority of trees are Tulip Poplars which are less desirable than the Sugar Maple dominated west side of the site. There could possibly be individual groups of trees preserved within this area. In particular along the buffer, with the neighbors to the north, there are some nice trees. The removal of the trees in this area to preserve a larger number on the other side seems like a very logical compromise.

- The whole site has major problems with invasive vines choking out the crowns of the trees and any areas to be preserved should have a plan for controlling these by means of cutting and or treatments. The vines do not need to be removed from the trees but at least cut near the base every year to help control the spread. When the site is opened up these vines will be the first to thrive on a disturbed site.

- Trees to remain should have ample protection fencing which extends out the dripline and any grade changes within the root zone should be supervised and approved by a certified arborist to help prevent damage to the root systems. When possible fencing should be done around whole groups of trees as opposed to individual trees.

The overall plan shown in Alternative 9 seems like a very good plan from a tree preservation standpoint. There will be a large number of trees removed but the majority of trees on the site will be preserved. You can increase the number saved by selecting clusters in the open areas and along the borders of the property once the exact sites are laid out.

Thank You and please feel free to call with any questions.

Trevor Hall
Bartlett Tree Experts
ISA Certified Arborist PD 0269
Licensed Applicator C3809904

BARTLETT TREE EXPERTS
2240 SAW MILL RIVER ROAD, ELMSFORD, NY 10523-2501 • (914) 592-4520 • FAX (914) 592-5068

October 31, 2011

Town of Cortlandt Planning Board
ATTN: Chris Kehoe
1 Heady Street
Cortlandt NY 10567

Work Location: Hanover Estates Development Croton Avenue

Dear Mr. Kehoe

An inspection was done of the proposed site of the Hanover Estates subdivision being discussed on Croton Avenue in the Town of Cortlandt. As requested I looked to determine the extent of impact on the trees located at the property and assess the projected loss of forest cover if the development moves forward as laid out on the plans.

The plans given to me show 3 alternatives with anywhere from 25 to 10 building lots, new main road through the site, entrance from Apple Hill Road and a proposed conservation area. Each lot is not specifically marked in the field and so determining the exact impact of each building lot is not really feasible and so I have broken them into groups of lots based on similar tree groupings and existing conditions. Some of the things we look to determine are the species make up of the forest, size and condition of the trees and any significant groupings. Aside from trees, which would be removed because they are in the footprint of an individual site we also need to take into account the trees which would be damaged to an unacceptable level by root disturbance or other disturbances like erosion. There was a tree inventory completed but it does not include any trees less than 8" in diameter, which includes some significant trees such as Dogwoods, Ironwoods and Hickories. Some recommendations will be proposed, which may help reduce or minimize damage if the project moves forward. Each proposed area of the plan shown on the drawings will be addressed here.

SUBDIVISION ALTERNATIVES 1 AND 2 DRAWINGS

APPLE HILL DRIVE
There are two alternatives that appear to be only separated by the type of entrance used to gain access off of Apple Hill Drive. The option for a gravel road would generally cause the least impact for the trees in this area. The area is a swath between houses 16 and 18 Apple Hill Drive and is comprised primarily of Oaks and Maples and some smaller trees. It is a narrow area and in all likelihood any roadway put through here would require the removal of all or most of the trees. If a road is dug it would damage the roots of the adjacent trees and likely cause decline of those trees going forward. There are not a great number of trees in this area but they do provide a buffer between the two houses.

BARTLETT TREE EXPERTS
2240 SAW MILL RIVER ROAD, ELMSFORD, NY 10523-2501 • (914) 592-4520 • FAX (914) 592-5068

Alternative 1 and 2 drawing cont:

CONSERVATION AREA
This area appears to roughly overlap what is the existing wetland. The trees in this area are of the typical type to wetland areas. There are not a large number of trees in this zone which is typical for some wetlands. There is an extensive problem with invasive vines affecting the trees in the zone as well. Some trees are in very poor condition due to the suffocating vines. If this remains the area to be preserved some work should be done to curb the invasive plants.

BUILDING LOTS 1 THRU 4
These lots run along the border of the property with the school from the rear of 18 Apple Hill. This area primarily consists of large Tulip trees and smaller Maple trees. The trees are large and would not be able to remain along with the home construction as too many roots would be damaged and they would likely decline in subsequent years. The trees are in good health and if possible this would be a group of trees worth trying to preserve.

BUILDING LOTS 5 THRU 7
There are very few trees in this area that are in good condition or are highly desirable. The area has a lot of meadow and the few trees that exist are in poor health or are covered in vines. There is a group of invasive Ailanthus trees in the center of this area that would not be beneficial to the site. There are a few individual Oak and Tulip trees that could remain if provided good protection measures during construction leaving some mature trees that would benefit the site. There are really no significant tree related conflicts in these sites but they do appear to get close to the wetland at the one end.

BUILDING LOTS 8 THRU 9
These 2 lots are located directly adjacent the current entrance off Croton Ave. and are already developed with houses and drives. There are not a large number of trees that would be affected in development but there are some existing trees. There are several mature Maples and Spruces that are in good condition and should be preserved if possible in the development with proper tree protection zones. Depending on the size of houses this could be feasible for some of them to remain.

BUILDING LOTS 10 THRU 17
These lots currently consist of a young forest directly alongside Croton Avenue. This area was cleared at some point in the too distant past as almost all the trees are in the range of 6 to 14 inch in diameter. There are several places where larger individual trees exist and several very nice larger trees. The species makeup is primarily Sugar Maple which is a very desirable species and different from most locations where the invasive Norway Maple species takes over a cleared site. Other species include Sassafras, Hickory, White Oak and Black Locust. There are pockets where invasive Grape Vine is damaging trees but this can usually be controlled with some cutting. The area has a slope and if trees were removed it would likely increase runoff and erosion significantly. The top of the hill is where the quality of trees diminishes but there should be some buffer at the top to help prevent erosion. This is definitely the area most worth preserving of the whole site.

BARTLETT TREE EXPERTS
2240 SAW MILL RIVER ROAD, ELMSFORD, NY 10523-2501 • (914) 592-4520 • FAX (914) 592-5068

BUILDING LOTS 18 THRU 25
This area extends from the rear of 16 Apple Hill Drive down through the existing egg farm. This area is mainly meadow and buildings occupied by the egg farm. There are very few trees in this area and of the entire site this is the best area for construction from a tree preservation standpoint. There are a few nice individual trees which could be protected with tree preservation zones but really no groups of specimen plants.

SUBDIVISION ALTERNATIVE 3 DRAWING

BUILDING LOTS 1 THRU 4
These lots run along the border of the property with the school from the rear of 18 Apple Hill. This area primarily consists of large Tulip trees and smaller Maple trees. The trees are large and would not be able to remain along with the home construction as too many roots would be damaged and they would likely decline in subsequent years. The trees are in good health and if possible this would be a group of trees worth trying to preserve.

BUILDING LOTS 5 THRU 10
This area extends from the rear of 16 Apple Hill Drive down through the existing egg farm. This area is mainly meadow and buildings occupied by the egg farm. There are very few trees in this area and of the entire site this is the best area for construction from a tree preservation standpoint. There are a few nice individual trees which could be protected with tree preservation zones but really no groups of specimen plants.

Conclusions

1. The portions of the site with existing forest are a healthy mix of hardwood trees consistent with this area including Black Birch, Oaks, Sugar Maples and Hickories. There is also a mix of invasive species, like Bittersweet, Norway Maple & Barberry which are common in this area and are often the first plants to thrive once the forest canopy is opened up. The deer have eaten most of the low growing foliage leaving no evergreens to speak of.

2. The bulk of the site is mostly already disturbed or currently in use. Trying to develop within these areas will always help minimize the impacts on the forest and existing trees. The development of plots listed as 1 thru 4 and 10 thru 17 are the ones that would result in the worst impact on the trees and likely cause erosion issues.

BARTLETT TREE EXPERTS

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3. If construction moves forward there are individual tree's located within plots that will need protection of the root zones to prevent mechanical damage, soil compaction, root cutting and grade changes all of which will harm trees that are meant to remain. Most tree mortality will not be a result of clearing for the site but from tree decline due to stress caused from the construction. This can easily raise the loss of trees from 20 % to 40% within a few years of construction.

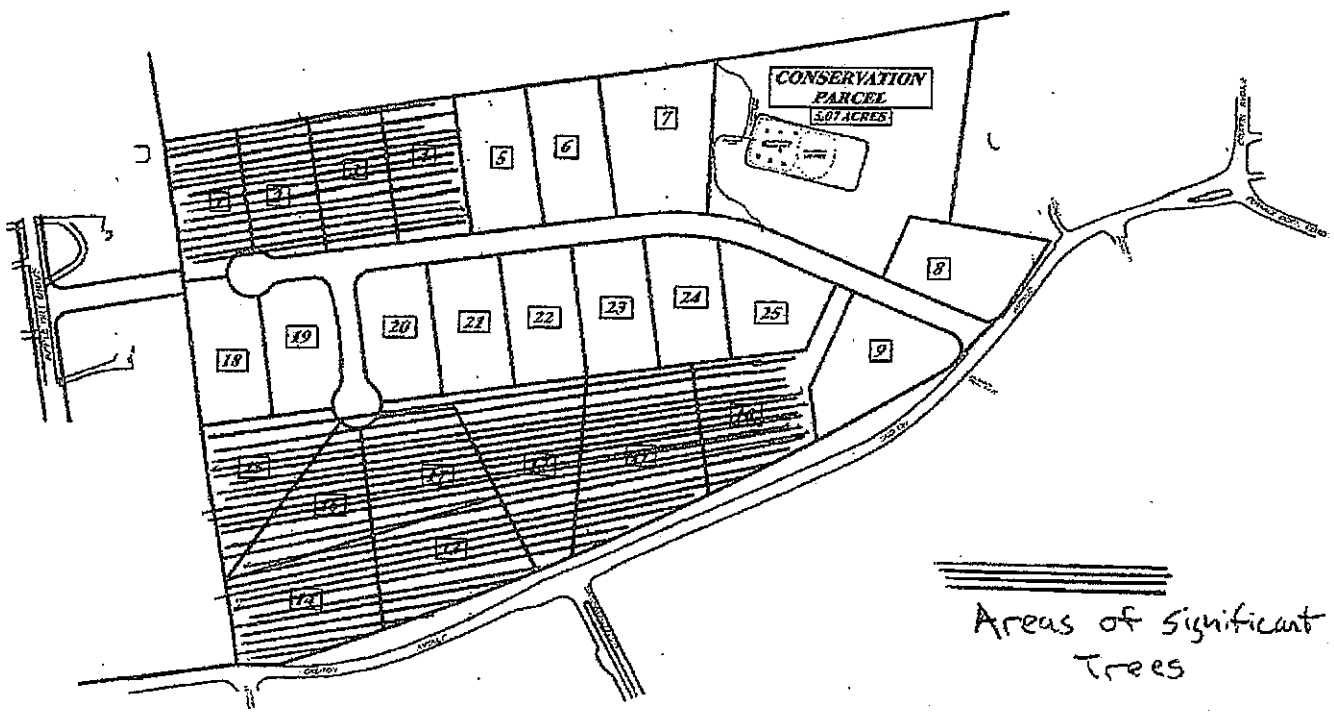
4. The better of the 2 plans from the tree loss point of view is the Alternative 3 drawing but it leaves out some areas where building could occur with little to no impact on the trees. I have marked up a drawing and attached it with the areas that I feel are most worthy of protection. In prioritizing the site I would say the area along Croton Ave. would be more important to preserve then the area at the rear of 18 Apple Hill Drive.

If you have any questions please feel free to give me a call.

Sincerely

T Hall

Trevor Hall
Bartlett Tree Experts
ISA PD0269



SUBDIVISION ALTERNATIVE 1

SCALE: 1 IN. = 240 FT.

DATE: FEBRUARY 14, 2011

240 0 120 240

SCALE: 1" = 240 FT.

OWNER/DEVELOPER

HANOVER ESTATES

PROPERTY OWNER
CROTON REALTY & DEVELOPMENT, INC.

150 CROTON AVENUE
CORTLANDT MANOR, NY 10567

CRONIN ENGINEERING
PROFESSIONAL ENGINEERING & CONSULTING
(914) 736-3664

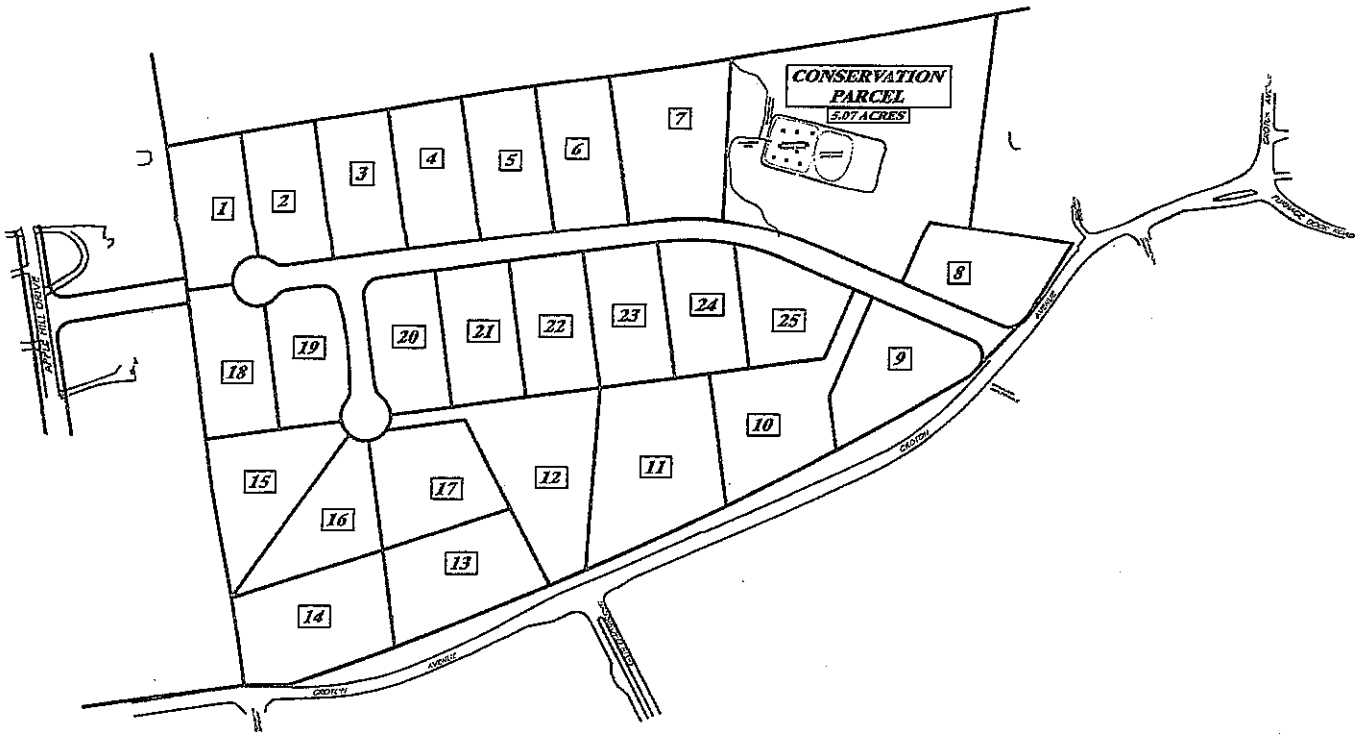
39 ARLO LANE
CORTLANDT, NEW YORK 10567

SUBDIVISION ALTERNATIVE 1

SUBDIVISION PLAN FOR HANOVER ESTATES

LOCATION:
150 CROTON AVENUE
TOWN OF CORTLANDT, NEW YORK 10567

SHEET 1 OF 1 | ALT 1



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DATE: FEBRUARY 14, 2011

240 0 120 240

SCALE: 1" = 240 FT.

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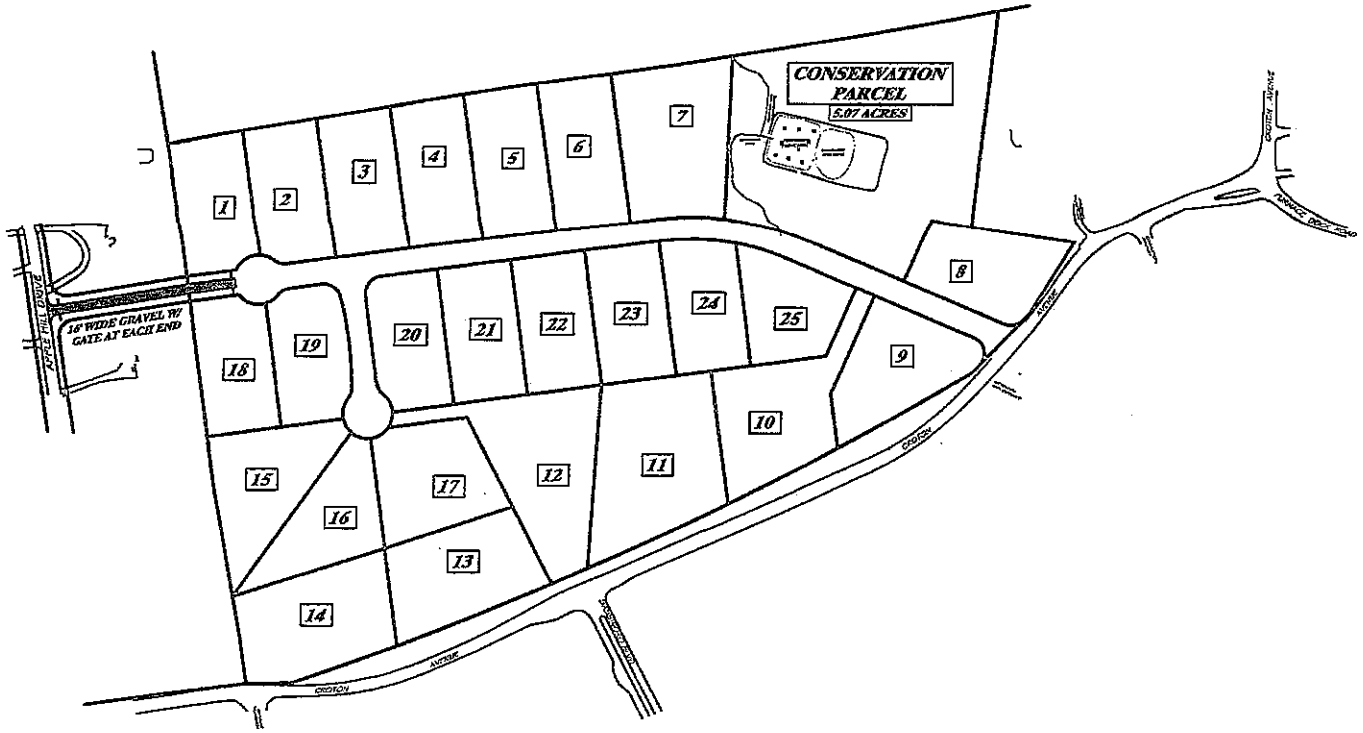
SUBDIVISION ALTERNATIVE 1

SUBDIVISION PLAN FOR HANOVER ESTATES

LOCATION:
150 CROTON AVENUE
TOWN OF CORTLANDT, NEW YORK 10567

SHEET 1 OF 1

ALT 1



SUBDIVISION ALTERNATIVE 2

SCALE: 1 IN. = 240 FT.

DATE: FEBRUARY 14, 2011

240 0 120 240

SCALE: 1" = 240 FT.

OWNER/DEVELOPER

HANOVER ESTATES

PROPERTY OWNER
CROTON REALTY & DEVELOPMENT, INC.
150 CROTON AVENUE
CORTLANDT MANOR, NY 10567

CRONIN ENGINEERING
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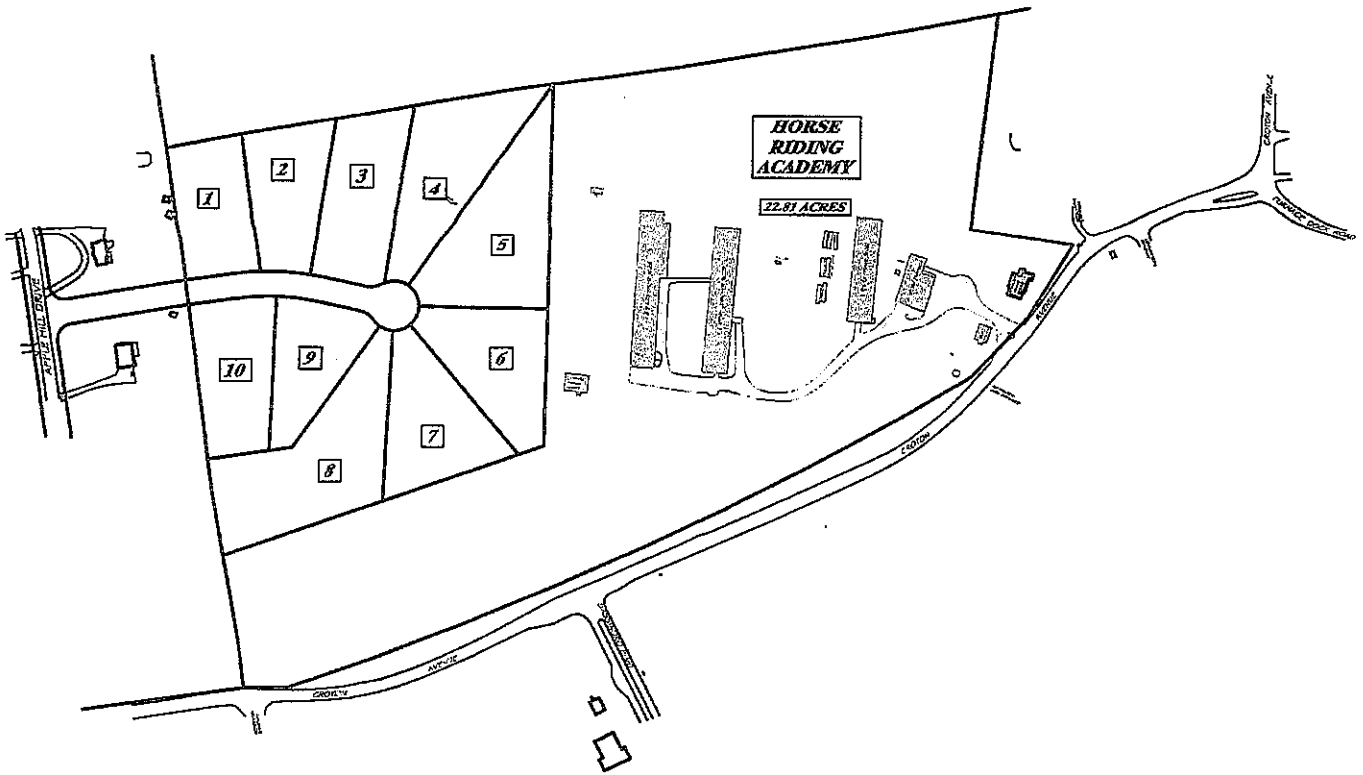
SUBDIVISION ALTERNATIVE 2

SUBDIVISION PLAN FOR HANOVER ESTATES

LOCATION:
150 CROTON AVENUE
TOWN OF CORTLANDT, NEW YORK 10567

SHEET 1 OF 1 | ALT 2



SUBDIVISION ALTERNATIVE 3

SCALE: 1 IN. = 240 FT.

DATE: FEBRUARY 14, 2011

240 0 120 240

SCALE: 1" = 240 FT.

OWNER/DEVELOPER

HANOVER ESTATES

PROPERTY OWNER
CROTON REALTY & DEVELOPMENT, INC.
150 CROTON AVENUE
CORTLANDT MANOR, NY 10567

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CORTLANDT, NEW YORK 10567

SUBDIVISION ALTERNATIVE 3

SUBDIVISION PLAN FOR HANOVER ESTATES

LOCATION:
150 CROTON AVENUE
TOWN OF CORTLANDT, NEW YORK 10567

SHEET 1 OF 1 | ALT 3

HANOVER ESTATES PB 1-11

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1	Sugar maple	18"	Good	
2	White ash	5.8"	Poor	Dead
3	Red oak	14"	Good	
4	Red oak	28"	Good	
5	Red oak (twin)	12"	Good	
6	Red oak	19"	Good	
7	Sugar maple	17"	Good	
8	Hickory	21"	Poor	Severe decay/vine
9	Sugar maple	10"	Good	
10	Tulip	17'	Good	
11	White ash	6"	Poor	
12	Sugar maple	8"	Good	
13	Cherry	11"	Poor	Dead
14	Tulip	18"	Poor	Vine/damaged
15	Hickory	8"	Poor	Vines
16	Cherry	12"	Fair	
17	Tulip	19"	Good	
18	Red oak	13"	Good	
19	Red oak	13"	Good	
20	Red oak	123"	Poor	Damaged
21	Ash	6"	Fair	
22	Sugar maple	6"	Good	
23	Hickory	18"	Good	Border tree
24	Tulip	6"	Fair	
25	Hickory	8"	Fair	
26	Red oak	39"	Fair	Decline
27	Sugar maple	25"	Fair	Some decline
28	Sugar maple	8"	Good	
29	Sugar maple	9"	Good	
30	Sugar maple	6"	Good	
31	Sugar maple	8"	Fair	Vines
32	Norway maple	8"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
33	Sugar maple	9"	Good	
34	Norway maple	13"	Fair	Damage/vines
35	Ash	7"	Poor	
36	Sugar maple	7"	Good	
37	Ash	11"	Poor	Vines
38	Tulip	7"	Good	
39	Ash	10"	Poor	Vines
40	Ash	8"	Poor	Dead & fallen
41	Ash	9"	Poor	Dead vines
42	Ash	12"	Poor	Dead vines
43	Sugar maple	6"	Good	Vines
44	Tulip	28"	Fair	Vines
45	Ash	8"	Poor	Vines
46	Red oak	19"	Fair	Storm damage
47	Ash	7"	Poor	Vines
48	Ash	7"	Poor	Vines
49	Sugar maple	9"	Good	
50	Ash	7"	Poor	
51	Ash	9"	Fair	
52	Cherry	5"	Poor	
53	Sugar maple	9"	Good	
54	Ash	7"	Fair	Vines
55	Red maple	7"	Good	
56	Sugar maple	8"	Good	Vines
57	Ash	10"	Poor	Damage
58	Ash	6"	Poor	Vines
59	Apple	14"	Poor	Dead
60	Red maple	10"	Good	Vines
61	Ailanthus	15"	Fair	Vines
62	Ailanthus	10"	Poor	Vines & crack
63	Ailanthus	9"	Poor	Vines
64	Sugar maple	6"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
65	Ash	9"	Fair	
66	Ash	13"	Fair	
67	Tulip	26"	Fair	Vines
68	Cherry	7"	Good	
69	Ash	10"	Good	
70	Sugar maple	9"	Good	
71	Sugar maple	9"	Good	
72	Ash	16"	Fair	Vines
73	Norway maple	12"	Good	
74	Sugar maple	6"	Poor	Damaged/dead
75	Sugar maple	6"	Poor	Vines
76	Ash	7"	Fair	
77	Ailanthus	12"	Fair	Vines
78	Tulip	6"	Good	
79	Tulip	20"		
80	Sugar maple	7"	Fair	Vines
81	Tulip	23"	Poor	Damaged & dead
82	Ash	9"	Poor	Fallen
83	Norway maple	13"	Fair	Vines
84	Tulip	16"	Poor	Damage
85	Tulip	13"	Good	
86	Tulip	12"	Good	
87	Sugar maple	5"	Fair	
88	Ash	6"	Poor	
89	Tulip	21"	Good	
90	Tulip	12"	Good	
91	Tulip	24"	Good	
92	Sugar maple	6"	Good	
93	Sugar maple	11"	Good	
94	Tulip	17"	Poor	Damaged/vines
95	Ailanthus	15"	Fair	Vines
96	Ailanthus	10"	Fair	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
97	Ailanthus	8"	Poor	Vines
98	Tulip	11"	Poor	Vines
99	Tulip	12"	Poor	Broken branches & vines
100	Sugar maple	5"	Fair	Vines
101	Sugar maple	11"	Good	
102	Sugar maple	8"	Good	
103	Tulip	14"	Fair	Crown
104	Ash	8"	Poor	Vines
105	Sugar maple	6"	Good	
106	Tulip	23"	Good	
107	Tulip	19"	Good	
108	Tulip	6"	Good	
109	Tulip	19"	Good	
110	Sugar maple	8"	Good	
111	Ash	15"	Good	
112	Tulip	20"	Good	
113	Tulip	25"	Poor	Decay at base & large crack
114	Tulip	23"	Good	
115	Tulip	11"	Fair	Small crown
116	Tulip	17"	Good	
117	Norway maple	11"	Good	
118	Tulip	19"	Good	
119	Tulip	20"	Poor	Broken top & vines
120	Tulip	9"	Fair	Poor crown
121	Tulip	9"	Fair	
122	Ash	8"	Poor	Dead/vines
123	Tulip (3 stemmed)	14/10/7"	Poor	Multi stemmed/Vines
124	Tulip	12"	Fair	Cavity at base
125	Norway maple	7"	Fair	
126	Tulip	14"	Good	
127	Tulip	18"	Good	
128	Tulip	12"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
129	Tulip	19"	Good	
130	Tulip	16"	Good	
131	Tulip	14"	Good	
132	Tulip	20"	Good	
133	Tulip	18"	Good	
134	Sugar maple	6"	Good	
135	Tulip	17"	Fair	Large seam
136	136	16"	Good	
137	Tulip	20"	Good	
138	Tulip (multi stemmed)	17"/14"	Fair	Slight decay at base
139	Tulip	11"	Fair	
140	Tulip	12"	Fair	Small crown
141	Tulip	6"	Poor	Broken/sprouts
142	Tulip	7"	Fair	Broken top
143	Tulip	20"	Fair	Vines
144	Tulip	15"	Fair	Broken branch/thin crown
145	Tulip	24"	Good	
146	Tulip	12"	Good	
147	Tulip	5"	Poor	Broken top/dead
148	Tulip	7"	Fair	Thin crown
149	Tulip	8"	Poor	Vines
150	Ash	9"	Fair	
151	Tulip	17"	Fair	Vines
152	Tulip	20"	Good	
153	Tulip	16"	Fair	Slight decay at base
154	Tulip	16"	Good	
155	Tulip	14"	Good	
156	Sugar maple	6"	Good	
157	Tulip	16"	Good	
158	Red oak	6"	Fair	Thin crown/broken branches
159	Tulip	19"	Good	
160	Tulip	23"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
161	Tulip	24"	Good	
162	Sugar maple	8"	Good	
163	Sugar maple	6"	Fair	Small crown
164	Norway maple	17"	Fair	Vines
165	Red maple	9"	Fair	Broken top
166	Tulip	15"	Fair	Fruiting bodies on upper branches
167	American beech	12"	Good	
168	Tulip	20"	Good	
169	Tulip	15"	Good	
170	Tulip	13"	Good	
171	Tulip	17"	Good	
172	Tulip	21"	Good	
173	Tulip	20"	Fair	Broken branches
174	Tlip	20"	Fair	Vines
175	Tulip	19"	Good	
176	Sugar maple	5"	Good	
177	Sugar maple	6"	Good	
178	Sugar maple	6"	Fair	
179	Sugar maple	6"	Fair	Broken branches
180	Sugar maple	6"	Good	
181	Ash	11"	Poor	Dying/sprouts/vines
182	Ash	6"	Good	
183	Tulip	24"	Good	
184	Tulip	19"	Good	
185	Tulip	19"	Good	
186	Sugar maple	8"	Good	
187	Tulip	16"	Good	
188	Tulip	23"	Good	
189	Tulip	18"	Good	
190	Tulip	15"	Poor	
191	Tulip	8"	fair	
192	Tulip	12"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
193	Tulip	17"	Fair	Small crown
194	Tulip	10"	Fair	Broken top
195	Tulip	12"	Good	
196	Tulip	11"	Good	
197	Tulip	18"	Poor	Broken top/vines-large yellow jacket nest
198	Tulip	15"	Good	
199	Tulip	14"	Good	Large yellow jacket nest
200	Tulip	12"	Good	
201	Tulip	8"	Poor	Cavity/vines
202	Tulip	6"	Poor	Vines & form
203	Tulip	21"	Fair	Vines
204	Tulip (multi stemmed)	11/16/9"	Poor	Vines & form
205	Tulip (multi stemmed)	11/8"	Poor	Vines & broken leader
206	Sugar maple	6"	Good	
207	Tulip	16"	Good	
208	Tulip	16"	Good	
209	Tulip	11"	Good	
210	Tulip	15"	Good	
211	Tulip	7"	Poor	Standing dead
212	Tulip	11"	Fair	Vines
213	Tulip	12"	Good	
214	Tulip	15"	Good	
215	Tulip	12"	Good	
216	Tulip	14"	Good	
217	Tulip	7"	Poor	Form/vines
218	Tulip (multi stemmed)	11/5"	Poor	Vines
219	Rd oak	9"	Poor	Standing dead
220	Tulip	14'	Poor	Vines & form
221	Tulip	15"	Good	
222	Tulip	12"	Good	
223	Tulip	15"	Good	
224	Tulip (multi stemmed)	7/10"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
225	Tulip	13"	Good	
226	Tulip	13"	Good	
227	Tulip	14"	Good	
228	Tulip	13"	Fair	Forked top likely to break
229	Tulip	17"	Good	
230	Tulip	10"	Good	
231	Ash	7"	Poor	No crown/sparse branching
232	Tulip	16"	Good	
233	Tulip	13"	Fair	Small crown
234	Norway maple	8"	Good	
235	Tulip	15"	Good	
236	Tulip	19"	Good	
237	Tulip	8"	Good	
238	Tulip	20"	Good	
239	Tulip	27"	Good	
240	Sugar maple	6"	Good	
241	Tulip	24"	Good	
242	Tulip	15"	Good	
243	Tulip	12"	Fair	Small crown
244	Tulip	18"	Good	
245	Tulip	14"	Good	
246	Ailanthus (multi stemmed)	15/12"	Poor	Vines & poor form
247	Ailanthus	12"	Poor	Vines
248	Ailanthus	11"	Fair	
249	Ailanthus	8"	Poor	Broken top & sprouts
250	Ailanthus	13"	Fair	Proximity to large vines
251	Ailanthus	11"	Poor	Vines
252	Ailanthus	9"	Poor	Vines
253	Ailanthus	16"	Poor	Vines & wild Rose
254	Ailanthus	10"	Poor	Broken top & vines
255	Ailanthus	13"	Poor	Vines
256	Ailanthus	11"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
257	Ailanthus	6"	Fair	
258	Ailanthus	7"	Fair	
259	Ailanthus	16"	Poor	Vines
260	Ailanthus	7"	Poor	Vines
261	Ailanthus	15"	fair	Proximity to vines
262	Ailanthus	8"	Poor	Standing dead & vines
263	Ailanthus	7"	Poor	Vines & small crown
264	Ailanthus	8"	Poor	Vines
265	Ailanthus	8"	Fair	Vines at base
266	Ailanthus	4"	Poor	Vines
267	Ailanthus	12"	Poor	Vines
268	Ailanthus	10"	Poor	Vines
269	Ailanthus (multi stemmed)	9/14"	poor	Vines
270	Ailanthus	14"	Poor	Vines
271	Ailanthus	13"	Poor	Vines
272	Ailanthus	12"	Poor	Vines
273	Ailanthus	8"	Poor	Vines
274	Ailanthus	11"	Poor	Vines
275	Ailanthus	10"	Fair	Proximity to vines & poor form
276	Ailanthus	11"	Poor	Vines
277	Ailanthus	11"	Poor	Vines
278	Ailanthus	10"	Poor	Poor farm & small vines
279	Tulip (multi stemmed)	5/9/7/8"	Fair	Each tree appears healthy
280	Tulip (multi stemmed)	9/10/13"	Poor	Decay at base/vines/broken top
281	Tulip (multi stemmed)	8/12"	Fair	Small decaying branch stub near base
282	Tulip (multi stemmed)	18/18/10/7"	Poor	Only one 18" tree is healthy, rest have vines
283	Sugar maple (multi stemmed)	6/4"	Good	
284	Tulip	12"	Good	
285	Tulip	6"	Good	
286	Sugar maple	6"	Good	
287	Sugar maple	11"	Good	
288	Sugar maple	8"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
289	Sugar maple	8"	Good	
290	Sugar maple	7"	Good	
291	Sugar maple	10"	Good	
292	Hickory	16"	Good	
293	Sugar maple	10"	Good	
294	Hickory	11"	Good	
295	Hickory	11"	Good	
296	Sugar maple	9"	Good	
297	Tulip	20"	Poor	Cavity at base/vines
298	Tulip (multi stemmed)	15/16"	Poor	Split at base/one stem open cavity
299	Tulip	11"	Good	
300	Tulip (multi stemmed)	18/9"	Fair	Slight decay at base/open seam
301	Tulip	15"	Good	
302	Sugar maple	7"	Good	
303	Tulip	21"	Good	
304	Tulip	17"	Fair	Vines
305	Tulip (multi stemmed)	15/5"	Poor	Vines
306	Elm	11"	Poor	Standing dead/vines
307	Black cherry	6"	Poor	Vines
308	Tulip (multi stemmed)	18/22"	Poor	Vines
309	Tulip	11"	Poor	Vines
310	Black cherry	11"	Poor	Vines
311	Sugar maple	12"	Fair	Some vines in crown
312	Ash	8"	Poor	Vines/epicormic sprouts
313	Sugar maple	10"	Poor	Vines
314	Tulip	176"	Poor	Broken top/vines/cavity at base
315	Tulip	18"	Poor	Vines
316	Ash	8"	Poor	Vines
317	Ash	9"	Poor	Vines
318	Tulip	7"	Poor	Vines
319	Tulip	11"	Poor	Standing dead/decay at base/vines
320	Tulip	11"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
321	Tulip (multi stemmed)	13/11"	Fair	
322	Tulip	10"	Good	
323	Tulip	9"	Poor	Vines
324	Tulip	8"	Fair	Small crown
325	Tulip	15"	Good	
326	Tulip	13"	Poor	Vines
327	Black cherry	7"	Poor	Vines/small crown
328	Tulip	15"	Poor	Vines
329	Tulip	20"	Good	
330	Tulip	17"	Good	
331	Black birch	7"	Poor	Vines/canker
332	Ash	10"	Poor	Vines
333	Ash	6"	Poor	Vines
334	Tulip	17"	Good	
335	Hickory	6"	Good	
336	Tulip (multi stemmed)	9/13"	Poor	Vines/broken top
337	Tulip (multi stemmed)	13/6"	Poor	Decay at base/small vines
338	Hickory	12"	Poor	Vines
339	Tulip	13"	Poor	Vines
340	Elm	9"	Poor	Standing dead/vines
341	Tulip (multi stemmed)	21/15"	Poor	Vines
342	Hickory	6"	Poor	Vines
343	Tulip (multi stemmed)	11/10"	Poor	Vines
344	Tulip	14"	Poor	Vines
345	Tulip	33"	Good	
346	Tulip	11"	Poor	Forked top/vines
347	Elm	6"	Fair	Some vines
348	Hickory	21"	Good	
349	Hickory	11"	Good	
350	Black cherry	10"	Poor	Broken branches/cavity
351	Elm	23"	Fair	Broken top/leaning tree
352	Tulip	21"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
353	Hickory	15"	Poor	Vines
354	Black cherry	10"	Fair	Vines at base/poor form
355	Red oak	26"	Good	
356	Tulip	14"	Poor	Vines
357	Sugar maple	7"	Poor	Vines
358	Elm (multi stemmed)	22/21"	Poor	Standing dead/decay fungus
359	Tulip (multi stemmed)	19/28"	Poor	Vines
360	Ailanthus	16"	Poor	Vines/broken branches
361	Ash	16"	Poor	Vines
362	Elm	18"	Poor	Vines/standing dead
363	Ailanthus	8"	Good	
364	Can't find			
365	Can't find			
366	Ailanthus	20"		
367	Ailanthus	19"	Poor	Vines
368	Ailanthus	7"	Poor	vines
369	Ailanthus (multi stemmed)	13/8"	Poor	Vines
370	Ailanthus	16"	Poor	vines
371	Ailanthus	11"	Poor	Cavity at base
372	Ailanthus	9"	Fair	Poor form
373	Ailanthus	20"	Good	
374	Ailanthus	12"	Poor	Vines
375	Red oak	26"	Good	
376	Ailanthus	6"	Poor	Vines
377	Ailanthus	8"	Poor	Vines
378	Ailanthus	7"	Poor	Vines
379	Ailanthus	11"		
380	Hickory	10"	Poor	Vines
381	Hickory	18"	Fair	Great tree but vines on bole
382	Sugar maple	8"	Good	
383	Hickory	11"	Good	
384	Ailanthus	14"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
385	Hickory	11"	Poor	Vines
386	Hickory	18"	Fair	Proximity to vines
387	Ailanthus	21"	Poor	Hollow base/vines/poor form
388	Mulberry	9"	Good	
389	Apple (multi stemmed)	6/6/6/8/10/12"	Poor	Decay at base/hollow
390	Ailanthus	7"	Poor	Broken in half/vines
391	Ailanthus (multi stemmed)	9/6"	Poor	vines
392	Ash	26"	Poor	Cavity at base/insects/vines
393	Hickory	10"	Poor	Vines/decay
394	Ash	15"	Poor	Vines – likely standing dead
395	Apple	6"	Poor	Vines
396	Ash	9"	Poor	Vines
397	Ailanthus	10"	Poor	Vines
398	Apple (multi stemmed)	7/8"	Poor	Vines/poor form/cavity
399	Red oak	44"	Good	
400	Sugar maple (multi stemmed)	15/11"	Good	
401	Black gum	6"	Fair	Proximity to vines
402	Black gum	25"	Poor	Vines/broken top
403	Black gum	6"	Poor	Vines
404	Mulberry	17"	Poor	Decay at base/vines/broken branches
405	Ailanthus	16"	Poor	Vines
406	Ailanthus	16"	Good	
407	Ailanthus	15"	Air	Large broken branch at base
408	Hickory (multi stemmed)	12/11"	Poor	Vines
409	Mulberry (multi stemmed)	17/13/8/6"	Poor	Vines
410	Black cherry	8"	Poor	Vines/decay fungus/broken branches
411	Ash	12"	Poor	Standing dead/vines
412	Black locust (multi stemmed)	10/10"	Good	
413	Ailanthus (multi stemmed)	9/13"	Poor	Decay at base/vines
414	Ailanthus	8"	Poor	Broken top/vines
415	Ailanthus (multi stemmed)	11/10/13/6"	poor	Decay at base/vines
416	Hickory	21"	Fair	vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
417	Red oak	26"	Fair	Vines
418	Sugar maple (multi stemmed)	22/20/9"	Poor	Insects/vines/decay
419	Black locust	17"	Good	
420	Black locust	22"	Good	
421	Black locust	18"	Good	
422	Crabapple	18"	Poor	Decay/cavity at base
423	Crabapple (multi stemmed)	10/7/10/6"	Good	
424	Crabapple	18"	Poor	Decay fungus/crown dieback
425	Dogwood (multi stemmed)	12/7"	Fair	Open crown/cavity at base
426	Sugar maple	33"	Poor	Crown dieback/vines
427	Norway maple	10"	Good	
428	Douglas fir	19"	Good	
429	Douglas fir	27"	Good	
430	Norway maple	27"	Good	
431	Ash	6"	Good	
432	Black walnut	17"	Good	
433	Norway maple (multi stemmed)	19/24/15"	Good	
434	Sugar maple	7"	Good	
435	Norway spruce	26"	Good	
436	Black cherry	8"	Fair	Poor form
437	Black locust	13"	Fair	Vines
438	Black locust	22"	Good	
439	Sugar maple	30"	Good	
440	Sugar maple	30"	Poor	Standing dead
441	Missing			
442	Black locust			Cut up – fell down
443	missing			
444	Black locust (multi stemmed)	20/10/9	Poor	Vines
445	Black locust	16'	Poor	Poor crown/excessive vines
446	Black locust	19"	Fair	Excessive vines on bole
447	Black locust	21"	Fair	Excessive vines on bole
448	Black locust	24"	Fair	Excessive vines on bole

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
449	Black locust	13"	Good	
450	Black locust	14"	Good	
451	Black locust	16"	Good	
452	Black locust	14"	Good	
453	Norway spruce	13"	Good	
454	Dogwood (multi stemmed)	8/7"	Good	
455	Douglas fir	9"	Poor	Vines
456	Ash	10"	Poor	Vines/disease/insect
457	Hickory	14"	Fair	Vines
458	Ash	10"	Poor	Snag
459	Ash	12"	Poor	Vines/poor crown
460	Ash	8"	Poor	Snag
461	Ash	9"	Poor	Snag
462	Ash	9"	Poor	Vines/poor crown/insect
463	Sugar maple	11"	Good	
464	Ash	12"	Fair	Poor crown/disease
465	Sugar maple	25	Good	
466	Black locust	21"	Fair	Excessive vines on bole
467	Black locust	10"	Fair	Excessive vines on bole
468	Black locust	17"	Poor	Excessive vines in bole & crown
469	Black locust	13"	Good	
470	Black locust	9"	Poor	Excessive vines in bole & crown
471	Sugar maple	11"	Good	
472	Black locust	11"	Good	
473	Sugar maple (multi stemmed)	8/7"	Good	
474	Sugar maple	10"	Good	
475	Black locust	12"	Good	
476	Black locust	6"	Fair	
477	Sugar maple	9"	Fair	Fused to #476
478	Black locust (multi stemmed)	11/11"	Good	
479	Black locust	14"	Good	
480	Sugar maple	5"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
481	Black locust	5"	Fair	
482	Black locust	15"	Poor	Vines
483	Sugar maple	6"	Good	
484	Black locust	15"	Good	
485	Black locust	7"	Good	
486	Sugar maple	5"	Good	
487	Red maple	10"	Good	
488	Black locust	6"	Good	
489	Sugar maple (multi stemmed)	5/2/2"	Good	
490	Black locust (multi stemmed)	11/13"	Fair	Vines
491	Black locust	9"	Good	
492	Black locust	15"	Poor	Vines
493	Black locust	11"	Poor	Vines
494	Sugar maple	8"	Poor	Broken tops/vines
495	Black locust	14"	Poor	vines
496	Black locust	12"	Poor	Vines
497	Black locust	7"	Good	
498	Black locust	7"	Good	
499	Black locust	9"	Poor	Vines
500	Black locust	12"	Good	
501	Tulip poplar	8"	Good	
502	Black locust (multi stemmed)	15/12"	Poor	Vines
503	Black locust	20"	Poor	Vines
504	Black locust	8"	Poor	Vines/dead branches
505	Sugar maple	9"	Poor	Vines/dead branches
506	Red maple (multi stemmed)	10/10/7"	Fair	Vines/broken branches
507	Black locust	6"	Fair	Small crown/poor form
508	Ash (multi stemmed)	20/22"	Fair	Vines/broken branches
509	Sugar maple	22"	Good	
510	Sugar maple	6"	Fair	Fused with other Sugar maple
511	Sugar maple	9"	Good	
512	Sugar maple	10"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
513	Black locust	6"	Good	
514	Black locust	7"	Fair	Old stump sprout
515	Sugar maple	8"	Good	
516	Tulip	25"	Good	
517	Sugar maple	15"	Good	
518	Sugar maple	11"	Poor	Snag
519	Sugar maple	11"	Poor	Snag
520	Sugar maple	7"	Good	
521	Sugar maple	8"	Poor	Snag
522	Sugar maple	10"	Fair	Vines/broken branches
523	Sugar maple	12"	Good	
524	Sugar maple	16"	Good	
525	Sugar maple	7"	Good	2 tags on 1 tree #525, 537
526	Sugar maple	7"	Good	
527	Norway maple	7"	Good	
528	Norway maple	16"	Good	
529	Sugar maple	6"	Good	
530	Sugar maple	15"	Good	
531	Sugar maple	6"	Good	
532	Sugar maple	7"	Fair	Poor form
533	Hickory	31"	Good	
534	Sugar maple	26"	Good	
535	Sugar maple	10"	Good	
536	Sugar maple	6"	Good	
537	Sugar maple	7"	Good	2 tags on 1 tree #525, 537
538	Sugar maple	11"	Good	
539	Sugar maple	8"	Good	
540	Ash	15"	Poor	Dead leader/small crown
541	Sugar maple	28"	Good	
542	Hickory	21"	Good	
543	Sugar maple	9"	Good	
544	Black locust	15"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
545	Hickory	10"	Good	
546	Black locust	16"	Poor	Vines
547	Black locust	12"	Poor	Vines
548	Black locust	13"	Poor	Fell over/cut/on ground
549	Black locust	12"	Poor	Vines
550	Black locust	12"	Poor	Vines
551	Black locust	12"	Poor	Vines
552	Black locust	11"	Poor	Vines
553	Black locust	14"	Poor	Vines
554	Black locust	11"	Poor	Vines
555	Black locust	11"	Good	
556	Black locust	9"	Poor	Vines
557	Black locust	12"	Poor	Vines
558	Black locust	21"	Poor	Vines/insect activity
559	Black locust	14"	Good	
560	Black locust	17"	Poor	Vines
561	Black locust	9"	Good	
562	Black locust	18"	Poor	Vines
563	Black locust	13"	Poor	Vines
564	Black locust	23"	Poor	Vines
565	Black locust	6"	Poor	Vines
566	Black locust	14"	Poor	Vines
567	Black walnut	11"	Good	
568	Sugar maple	17"	Good	
569	Black locust	24"	Poor	Damaged by excavator digging test holes. Conks
570	Sugar maple	7"	Good	
571	Sugar maple	9"	Good	
572	Sugar maple	12"	Good	
573	Sugar maple	10"	Good	
574	Sugar maple	24"	Good	
575	Sugar maple	15"	Good	
576	Sugar maple	13"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
577	Sugar maple	7"	Good	
578	Sugar maple	9"	Good	
579	Sugar maple	19"	Good	
580	Sugar maple	7"	Good	
581	Black maple	23"	Good	
582	Sugar maple	7"	Good	
583	Sugar maple	10"	Good	
584	Sugar maple	6"	Good	
585	Sugar maple	5"	Good	
586	Sugar maple	5"	Good	
587	Sugar maple	10"	Good	
588	Sugar maple	12"	Good	
589	Sugar maple (multi stemmed)	6/5"	Good	
590	Sugar maple	10"	Good	
591	Sugar maple	10"	Fair	Decay at base
592	Sugar maple	7"	Fair	Decay at base
593	Sugar maple	10"	Good	
594	Sugar maple	8"	Good	
595	Sugar maple	13	Good	
596	Sugar maple	5"	Good	
597	Sugar maple	16"	Good	
598	Sugar maple	6"	Good	
599	Sugar maple	17"	Good	
600	Sugar maple	7"	Good	
601	Sugar maple	11"	Fair	Cavity at base
602	Sugar maple	10"	Good	
603	Sugar maple	14"	Good	
604	Sugar maple	11"	Good	
605	Sugar maple	9"	Good	
606	Sugar maple	7"	Good	
607	Sugar maple	12"	Good	
608	Sugar maple	16"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
609	Sugar maple	26"	Good	Cavity at base
610	Sugar maple	11"	Good	
611	Hickory	15"	Good	
612	Sugar maple	9"	Good	
613	Sugar maple	12"	Good	
614	Black locust	20"	Poor	Large open seam
615	Sugar maple	5"	Good	
616	Sugar maple	12"	Fair	Some vines
617	Sugar maple	7"	Fair	Cavity at base
618	Sugar maple	5"	Poor	Vines
619	Sugar maple	10"	Fair	Vines
620	Black locust	18"	Poor	Vines
621	Ash	18"	Poor	Vines/broken top
622	Sugar maple	7"	Good	
623	Sugar maple	6"	Good	
624	Sugar maple	11"	Good	
625	Sugar maple	14"	Poor	Vines
626	Sugar maple	6"	Good	
627	Sugar maple	8"	Good	
628	Black locus	29"	Good	
629	Sugar maple	14"	Good	
630	Sugar maple	8"	Good	
631	Sugar maple	6"	Good	
632	Sugar maple	25"	Poor	Broken top/large decay column
633	Sugar maple	10"	Good	
634	Sugar maple	15"	Good	
635	Sugar maple	4"	Fair	Poor form/broken branch
636	Sugar maple	12"	Good	
637	Sugar maple	7"	Good	
638	Sugar maple	9"	Good	
639	Sugar maple	10"	Good	
640	Black birch	6"	Fair	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
641	Sugar maple	12"	Fair	Decay fungus at base
642	Sugar maple	14"	Good	
643	Sugar maple	6"	Fair	Vines
644	Sugar maple	18"	Poor	Vines
645	Ash	13"	Poor	Snag
646	Sugar maple	13"	Poor	Vines
647	Sugar maple	10"	Fair	Broken branches
648	Sugar maple	29"	Poor	Root ball lifted out, leaning on other tree
649	Sugar maple	5"	Fair	Partially bent by #648
650	Sugar maple	28"	Good	
651	Sugar maple	6"	Good	
652	Sugar maple	5"	Good	
653	Sugar maple	9"	Poor	Snag
654	Sugar maple	6"	Good	
655	Sugar maple	23"	Good	
656	Sugar maple	13"	Good	
657	Sugar maple	11"	Good	
658	Sugar maple	14"	Good	
659	Sugar maple	17"	Good	
660	Sugar maple	8"	Good	
661	Sugar maple	10"	Good	
662	Sugar maple	5"	Good	
663	Sugar maple	16"	Good	
664	Sugar maple	11"	Good	
665	Sugar maple	6"	Good	
666	Sugar maple	5"	Good	
667	Sugar maple	5"	Good	
668	Elm	7"	Poor	Snag
669	Sugar maple	9"	Good	
670	Sugar maple	6"	Good	
671	Sugar maple	6"	Good	
672	Sugar maple	7"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
673	Sugar maple (multi stemmed)	5/3"	Good	
674	Sugar maple	24"	Good	
675	Sugar maple	6"	Good	
676	Sugar maple	23"	Good	Few vines
677	Sugar maple	11"	Good	
678	Sugar maple (multi stemmed)	7/8"	Good	
679	Sugar maple	4"	Fair	Small crown
680	Sugar maple	8"	Good	
681	Sugar maple	4"	Fair	Poor form
682	Sugar maple	25"	Good	
683	Sugar maple	29"	Good	
684	Sugar maple (multi stemmed)	12/6"	Good	
685	Sugar maple	4"	Good	
686	Sugar maple	30"	Good	
687	Sugar maple	17"	Good	
688	Sugar maple	7"	Good	
689	Sugar maple	41"	Good	
690	Sugar maple	34"	Good	
691	Sugar maple	5"	Good	
692	Sugar maple	8"	Good	
693	Sugar maple (multi stemmed)	8/6"	Poor	Broken tops/poor form
694	Norway maple	9"	Good	
695	Sugar maple	6"	Good	
696	Sugar maple	8"	Fair	In folding seam at base
697	Sugar maple	5"	Good	
698	Sugar maple	30"	Good	
699	Sugar maple	9"	Good	
700	Sugar maple	25"	Good	
701	Sugar maple	21"	Good	
702	Sugar maple	29"	Good	
703	Sugar maple	13"	Good	Small cavity at base
704	Sugar maple	22"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
705	Sugar maple	5"	Good	
706	Sugar maple	5"	Good	
707	Sugar maple	8"	Good	
708	Sugar maple	8"	Good	
709	Sugar maple	15"	Good	
710	Sugar maple	9"	Good	
711	Sugar maple	9"	Good	
712	Sugar maple	19"	Good	
713	Sugar maple	24"	Good	Cavity at base
714	Sugar maple	9"	Good	
715	Sugar maple	29"	Good	
716	Sugar maple	7"	Good	
717	Sugar maple	8"	Poor	Poor form/vines in crown
718	Sugar maple	9"	Good	
719	Sugar maple	18"	Good	
720	Sugar maple	7"	Poor	Broken top
721	Sugar maple	13"	Good	
722	Sugar maple	5"	Poor	Broken top
723	Sugar maple (multi stemmed)	11/6"	Fair	Broken limbs/some vines
724	Sugar maple	30"	Fair	Broken top/hollow center
725	Sugar maple	8"	Good	
726	Sugar maple	19"	Poor	Large wound/insect activity
727	Sugar maple	21"	Good	
728	Sugar maple	7"	Fair	Poor form/vines in crown
729	Sugar maple	13"	Good	
730	Sugar maple	9"	Good	
731	Sugar maple	17"	Good	
732	American beech	8"	Poor	Poor form/cavity at base
733	Sugar maple	9"	Good	
734	Sugar maple	13"	Good	
735	Ash	15"	Poor	Large cavity/poor crown/insects
736	Sugar maple	6"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
737	Sugar maple	5"	Good	
738	Sugar maple	6"	Good	
739	Sugar maple	8"	Fair	Excessive vines in crown
740	Sugar maple	5"	Good	
741	Sugar maple	17"	Good	
742	Sugar maple	6"	Poor	Canker/insect activity
743	Sugar maple	19"	Fair	Dead branches/cavity at base
744	Sugar maple	11"	Good	
745	Sugar maple	18"	Good	
746	Sugar maple	7"	Fair	Large canker/some decay
747	Sugar maple	21"	Good	
748	Sugar maple	22"	Good	
749	Sugar maple	5"	Good	
750	Sugar maple	24"	Good	
751	Sugar maple	6"	Good	
752	Sugar maple	5"	Good	
753	Black locust	18"	Poor	Large decay column
754	Sugar maple	18"	Good	
755	Sugar maple	11"	Good	
756	Sugar maple	14"	Good	
757	Sugar maple	6"	Good	
758	Sugar maple	12"	Fair	Broken top/vines
759	Black locust	21"	Fair	In folding seam
760	Sugar maple	23"	Good	
761	Sugar maple	13"	Good	
762	Sugar maple	15"	Good	
763	Sugar maple	22"	Good	
764	Sugar maple	5"	Good	
765	Black cherry	13"	Fair	Poor form
766	Sugar maple	5"	Good	
767	Sugar maple	6"	Good	
768	Sugar maple	7"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
769	Hickory	14	Good	
770	Black locust	20	Fair	Seam/insect activity
771	Black cherry	23	Good	
772	Sugar maple	16	Poor	Small crown/dead limbs/cavity at base
773	Sugar maple	13	Good	
774	Black locust	24	Good	
775	Sugar maple	14	Good	
776	Black locust	28	Good	
777	Sugar maple	6	Fair	Poor form
778	Sugar maple	10	Good	
779	Sugar maple	11	Good	
780	Sugar maple	9	Good	
781	Sugar maple	12	Good	
782	Sugar maple	8	Good	
783	Black locust	19	Fair	Seam/decay column
784	Sugar maple	6	Fair	Poor form
785	Sugar maple	8	Good	
786	Sugar maple	17	Good	
787	Sugar maple	15	Good	
788	Ailanthus	6	Poor	Broken tree
789	Ailanthus	7	Fair	Poor form
790	Sugar maple	26	Good	
791	Sugar maple	10	Good	
792	Black cherry	22	Good	
793	Black cherry	13	Good	
794	Sugar maple	12	Good	
795	Sugar maple	4	Good	
796	Sugar maple	22	Good	
797	Sugar maple	6	Poor	Top broken by excavator digging test hole
798	Sugar maple (multi stemmed)	25/6	Good	
799	Black locust	16	Poor	Decay at base/conks on upper bole
800	Hickory	24	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
801	Sugar maple	11"	Good	
802	Black locust	17"	Fair	Large open seam
803	Sugar maple	9"	Fair	Onfolding seam
804	Sugar maple	11"	Poor	Canker/thin crown
805	Ailanthus	11"	Good	
806	Sugar maple	6"	Good	
807	Black locust	18"	Fair	
808	Sugar maple	5"	Good	
809	Sugar maple	21"	Fair	Vines in crown
810	Sugar maple (multi stemmed)	17/6"	Fair	
811	Sugar maple	5"	Good	
812	Ash	16"	Poor	Root ball pulled up/leaning on #807
813	Sugar maple	6"	Poor	Bent over by #819/large canker
814	Hickory	12"	Poor	Broken top/poor crown
815	Sugar maple (multi stemmed)	10/10/6"	Pooe	On 10" snag/two poor crowns & vines
816	Sugar maple	13"	Good	
817	Black locust	16"	Good	Tagged twig as #817 and #849
818	Sugar maple	9"	Good	
819	Hickory	8"	Poor	Snag broke fell on #813
820	Sugar maple (multi stemmed)	10/8"	Good	
821	Ailanthus	12"	Fair	
822	Sugar maple	20"	Good	
823	Sugar maple	6"	Good	Distinct bark pattern
824	Sugar maple	13"	Good	
825	Sugar maple	16"	Good	
826	Sugar maple	11"	Good	
827	Sugar maple	9"	Good	
828	Sugar maple	10"	Good	
829	Sugar maple	10"	Good	
830	Sugar maple	12"	Good	
831	Black cherry	9"	Fair	Broken top
832	Black walnut	23"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
833	Sugar maple	14"	Good	
834	Black locust	16"	Fair	Open seam
835	Sugar maple	9"	Good	
836	Sugar maple	5"	Good	
837	Sugar maple	6"	Good	
838	Sugar maple	12"	Good	
839	Sugar maple	22"	Good	
840	Sugar maple	7"	Good	
841	Black locust	9"	Poor	Open seam/bent/poor form
842	Sugar maple	8"	Good	
843	Sugar maple	5"	Good	
844	Sugar maple	8"	Good	
845	Black locust	11"	Poor	Open seam/bent/poor form
846	Sugar maple	17"	Good	
847	Sugar maple	13"	Good	
848	Red maple	17"	Good	
849	Black locust	16"	Good	Tagged twice also #817
850	Sugar maple	8"	Good	
851	Sugar maple	5"	Good	
852	Sugar maple	8"	Good	
853	Black locust	20"	Good	
854	Black locust	14"	Fair	Large open seam
855	Sugar maple	7"	Good	
856	Hickory	19"	Good	
857	Sassafras	26"	Good	
858	Norway maple (multi stemmed)	12/11"	Good	
859	Black cherry	17"	Good	
860	Hickory (multi stemmed)	13/13"	Good	
861	Red oak	16"	Fair	Vines
862	Ash (multi stemmed)	14/13"	Good	
863	Sugar maple	7"	Good	
864	Black locust	21"	Poor	Vines/decay fungus

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
865	Sugar maple	8"	Good	
866	Sugar maple	6"	Good	
867	Elm	9"	Poor	Standing dead
868	Black cherry	5"	Poor	Vines/broken top
869	Ash (multi stemmed)	15/10/8"	Poor	Broken top/vines/insects
870	Ash (multi stemmed)	13/11"	Poor	Vines/insect activity
871	Sugar maple	6"	Good	
872	Sugar maple	8"	Good	
873	Sugar maple	5"	Good	
874	Sugar maple	12"	Fair	Vines
875	Sugar maple	5"	Fair	Broken branches/poor form
876	Sugar maple	8"	Good	
877	Sugar maple	9"	Good	
878	Sugar maple	4"	Good	
879	Sugar maple	9"	Good	
880	Sugar maple	5"	Good	
881	Sugar maple	13"	Poor	Broken top/vines
882	Sugar maple	5"	Poor	Vines/broken top
883	Sugar maple	4"	Good	
884	Sugar maple	18"	Good	
885	Sugar maple	8"	Poor	Vines
886	Sugar maple	6"	Poor	Vines
887	Sugar maple	11"	Fair	Vines
888	Sugar maple	6"	Poor	Vines/poor form
889	Ash	25"	Poor	Standing dead
890	Hickory (multi stemmed)	14/21"	Good	
891	Hickory	17"	Good	
892	Black locust	18"	Poor	Large seam/decay
893	Norway maple	8"	Good	
894	Norway maple	12"	Good	
895	Sugar maple	11"	Fair	
896	Sugar maple	15"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
897	Sugar maple	10"	Poor	Vines
898	Sugar maple	5"	Poor	Vines
899	Sugar maple	5"	Poor	Vines
900	Sugar maple	4"	Poor	Vines
901	Ash	7"	Poor	Standing dead/vines
902	Sugar maple	7"	Poor	Vines
903	Sugar maple	8"	Poor	Vines/broken top
904	Sugar maple	4"	Poor	Vines
905	Norway maple	4"	Poor	Vines
906	Sugar maple	4"	Poor	Vines
907	Sugar maple	8"	Poor	Vines
908	Hickory	21"	Fair	Vines
909	Sugar maple	5"	Poor	Vines
910	Missing			
911	Sugar maple	5"	Fair	Poor crown
912	Missing			
913	Sugar maple	17"	Good	
914	Sugar maple	6"	Good	
915	Sugar maple	16"		
916	Sugar maple	9"	Good	
917	Sugar maple	9"	Fair	Vines
918	Sugar maple	14"	Poor	Vines/decay
919	Sugar maple (multi stemmed)	12/4"	Good	
920	Hickory	21"	Fair	Vines in canopy
921	Hickory (multi stemmed)	10/6"	Fair	
922	Sugar maple	6"	Good	
923	Sugar maple	12"	Good	
924	Black gum	12"	Poor	Standing dead
925	Sugar maple	9"	Good	
926	Sugar maple	4"	Good	
927	Sugar maple	9"	Good	
928	Sugar maple	11"	Fair	Broken branches

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
929	Sugar maple	8"	Poor	Decay/broken base
930	Sugar maple	13"		
931	Sugar maple	12"		
932	Sugar maple	17"		
933	Sugar maple	14"		
934	Sugar maple	8"	Fair	Large infolding seam/decay
935	Sugar maple (multi stemmed)	20/10"		
936	Sugar maple	12"		
937	Hickory	21"	Fair	Hollow at base
938	Ash	18"	Poor	Standing dead
939	Sugar maple	5"		
940	Sugar maple	13"		
941	Sugar maple	9"		
942	Sugar maple	8"		
943	Sugar maple	7"		
944	Sugar maple	5"		
945	Sugar maple	6"		
946	Sugar maple	10"	Fair	Poor form
947	Sugar maple	19"		
948	Sugar maple	6"		
949	Sugar maple	7"		
950	Black locust	11"	Poor	Large open seam
951	Sugar maple	11"		
952	Sugar maple	7"		
953	Sugar maple	23"		
954	Sugar maple	4"		
955	Sugar maple	6"		
956	Sugar maple	6"		
957	Sugar maple	6"		
958	Hickory	12"	Poor	Vines
959	Sugar maple	7"	Poor	Vines/poor form
960	Black locust	12"	Poor	Decay fungus/seam/poor form

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
961	Ash	13"	Good	
962	Hickory	6"	Fair	Small crown
963	Sugar maple	7"	Good	
964	Sugar maple	17"	Fair	Vines in canopy
965	Sugar maple	5"	Good	
966	Ash	19"	Good	
967	Sugar maple	17"	Good	
968	Black locust	12"	Poor	Poor form/large seam
969	Sugar maple	13"	Good	
970	Sugar maple	20"	Good	
971	Sugar maple	5"	Good	
972	Sugar maple	6"	Good	
973	Sugar maple	9"	Good	
974	Sugar maple	21"	Good	
975	Sugar maple	16"	Good	
976	Sugar maple	16"	Good	
977	Sugar maple	8"	Good	
978	Sugar maple	11"	Fair	Decay at base
979	Sugar maple	5"	Good	
980	Sugar maple	6"	Good	
981	Sugar maple	8"	Good	
982	Sugar maple	5"	Fair	
983	Sugar maple	10"	Good	
984	Ash	14"	Fair	
985	Sugar maple	7"	Good	
986	Sugar maple	14"	Good	
987	Sugar maple	15"	Good	
988	Ash	9"	Poor	Standing dead
989	Sugar maple	6"	Good	
990	Sugar maple	17"	Good	
991	Sugar maple	10"	Good	
992	Black locust	12"	Fair	Large seam

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
993	Sugar maple	8"	Good	
994	Sugar maple	14"	Good	
995	Sugar maple	13"	Good	
996	Sugar maple	7"	Good	
997	Ash	23"	Poor	Decay/broken top/vines
998	Sugar maple	6"	Good	
999	Sugar maple	13"	Good	
1000	Sugar maple	11"	Fair	Vines
1001	Black locust	12"	Poor	Standing dead
1002	Sugar maple	38"	Good	
1003	Hickory	12"	Good	
1004	Sugar maple	30"	Good	
1005	Sugar maple	24"	Good	
1006	Sugar maple	29"	Good	
1007	Sugar maple	16"	Good	
1008	Sugar maple	25"	Good	
1009	Sugar maple	5"	Good	
1010	Sugar maple	10"	Good	
1011	Sugar maple	5"	Good	
1012	Sugar maple	27"	Good	
1013	Sugar maple	5"	Good	
1014	Sugar maple	6"	Good	
1015	Sugar maple	20"	Good	
1016	Sugar maple	29"	Fair	Hollow base/broken branches
1017	Sugar maple	7"	Good	
1018	Sugar maple	11"	Poor	Hollow center
1019	Sugar maple	7"	Fair	Broken branches
1020	Sugar maple	7"	Fair	Poor form
1021	Sugar maple	21"	Poor	Broken top
1022	Sugar maple	21"	Good	
1023	Sugar maple	26"	Good	
1024	Sugar maple	21"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1025	Hickory	17"	Poor	Broken top/small crown
1026	Sugar maple	10"	Good	
1027	Sugar maple	9"	Good	
1028	Sugar maple	16"	Good	
1029	Hickory	17"	Fair	Small crown/decay at base
1030	Sugar maple	15"	Good	
1031	Sugar maple	5"	Good	
1032	Sugar maple	21"	Good	
1033	Sugar maple	12"	Good	
1034	Sugar maple	19"	Good	
1035	Sugar maple	9"	Good	
1036	Sugar maple	19"	Good	
1037	Sugar maple	13"	Good	
1038	Sugar maple	11"	Good	
1039	Sugar maple	18"	Good	
1040	Sugar maple	7"	Good	
1041	Sugar maple	9"	Good	
1042	Sugar maple	7"	Fair	
1043	Ailanthus	21"	Fair	
1044	Sugar maple	8"	Good	
1045	Sugar maple	18"	Good	
1046	Sugar maple	6"	Good	
1047	Sugar maple	10"	Good	
1048	Black locust	16"	Poor	Open seam/decay
1049	Hickory	23"	Fair	
1050	Sugar maple	8"	Good	
1051	Sugar maple	12"	Good	
1052	Black locust	15"	Poor	Open seam/decay
1053	Sugar maple	17"	Good	
1054	Sugar maple	16"	Good	
1055	Sugar maple	27"	Good	
1056	Hickory	17"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1057	Hickory	23"	Good	
1058	Sugar maple	7"	Good	
1059	Sugar maple	14"	Good	
1060	Sugar maple	6"	Good	
1061	Sugar maple	15"	Good	
1062	Sugar maple	10"	Good	
1063	Sugar maple	14"	Good	
1064	Sugar maple	5"	Good	
1065	Sugar maple	6"	Good	
1066	Red oak	20"	Good	
1067	Ailanthus	9"	Good	
1068	Sugar maple	10"	Good	
1069	Red oak	20"	Fair	Leaning tree
1070	Sugar maple	24"	Good	
1071	Sugar maple (multi stemmed)	9/11/3"	Fair	
1072	Elm	10"	Fair	
1073	Sugar maple (multi stemmed)	16/11/9"	Fair	9" stem has open seam
1074	Sugar maple	27"	Good	
1075	Sugar maple	18"	Good	
1076	Norway maple	6"	Good	
1077	Sugar maple	6"	Good	
1078	Sugar maple	25"	Good	
1079	Sugar maple	21"	Good	
1080	Sugar maple	14"	Good	
1081	Sugar maple	15"	Good	
1082	Sugar maple	18"	Good	
1083	Black locust	15"	Poor	Open seam/decay fungus/broken branch
1084	Sugar maple	8"	Good	
1085	Sugar maple	11"	Good	
1086	Black cherry	18"	Poor	Decay/broken branches
1087	Sugar maple	17"	Good	
1088	Sugar maple	10"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1089	Ash	10"	Poor	Dead/fallen on ground
1090	Sugar maple	19"	Good	
1091	Sugar maple	16"	Good	
1092	Sugar maple	13"	Good	
1093	Black locust	16"	Good	
1094	Sugar maple	8"	Good	
1095	Black locust	9"	Poor	Open seam/decay
1096	Sugar maple	6"	Good	
1097	Black locust	19"	Good	
1098	Sugar maple	7"	Good	
1099	Sugar maple	10"	Good	
1100	Sugar maple	7"	Good	
1101	Sugar maple	12"	Good	
1102	Hickory	16"	Good	
1103	Sugar maple (multi stemmed)	15/11"	Fair	11" stem has canker
1104	Beech	9"	Good	
1105	Red oak	32"	Good	
1106	Sugar maple	8"	Good	
1107	Tulip poplar	14"	Good	
1108	Sugar maple	13"	Good	
1109	Sugar maple	6"	Poor	Poor form
1110	Sugar maple	7"	Poor	Dead crown
1111	Sugar maple	16"	Good	
1112	Sugar maple	5"	Good	
1113	Sugar maple	20"	Good	
1114	Sugar maple	7"	Good	
1115	Sugar maple	9"	Good	
1116	Sugar maple	19"	Good	
1117	Ash	13"	Poor	Standing dead
1118	Sugar maple	11"	Good	
1119	Sugar maple	17"	Good	
1120	Sugar maple	18"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1121	Ailanthus	7	Fair	
1122	Sugar maple	19	Good	
1123	Black locust	10	poor	Decay fungus
1124	Ailanthus	12	Good	
1125	Sugar maple (multi stemmed)	12/17	Good	
1126	Sugar maple	13	Good	
1127	Black locust	18	Good	
1128	Sugar maple	22	Poor	Standing dead
1129	Sugar maple	17	Good	
1130	Sugar maple	9	Good	
1131	Black locust	17	Fair	Open seam
1132	Sugar maple	11	Good	
1133	Black locust	17	Good	
1134	Black locust	19	Poor	Dead/fallen over
1135	Hickory	20	Good	
1136	Sugar maple (multi stemmed)	6/12/11	Fair	
1137	Black locust	17	Good	
1138	Sugar maple	10	Good	
1139	Black locust	19	Good	
1140	Sugar maple	15	Poor	Dead/fallen over
1141	Sugar maple	14	Fair	Poor form/vines
1142	Sugar maple	9	Fair	Poor form/vines
1143	Sugar maple	5	Good	
1144	Red maple	15	Poor	Vines/broken branches
1145	Sugar maple	21	Good	
1146	Sugar maple	6	Fair	
1147	Sugar maple	13	Fair	Vines
1148	Hickory	18	Good	
1149	Sugar maple	10	Good	
1150	Sugar maple	6	Good	
1151	Sugar maple	10	Good	
1152	Sugar maple	12	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1153	Sugar maple	11"	Good	
1154	Sugar maple	9"	Good	
1155	Sugar maple	9"	Good	
1156	Sugar maple	16"	Good	
1157	Sugar maple	17"	Good	
1158	Sugar maple (multi stemmed)	7/3"	Fair	
1159	Sugar maple	15"	Good	
1160	Sugar maple	15"	Good	
1161	Sugar maple	10"	Good	
1162	Sugar maple	23"	Good	
1163	Sugar maple	28"	Good	
1164	Sugar maple	6"	Fair	Poor form
1165	Sugar maple	13"	Good	
1166	Sugar maple	10"	Fair	County at base
1167	Sugar maple	8"	Fair	Cavity with decay
1168	Sugar maple	22"	Good	
1169	Sugar maple	20"	Good	
1170	Sugar maple	6"	Good	
1171	Sugar maple	7"	Poor	Standing dead
1172	Sugar maple	12"	Fair	
1173	Sugar maple	8"	Good	
1174	Hickory	21"	Fair	Broken branch
1175	Sugar maple	6"	Good	
1176	Hickory	17"	Good	
1177	Sugar maple	18"	Good	
1178	Sugar maple	9"	Poor	Vines/broken top
1179	Sugar maple	7"	Poor	Vines/broken top
1180	Sugar maple	21"	Good	
1181	Black locust	13"	Poor	Open seam/decay
1182	Sugar maple	11"	Good	
1183	Sugar maple	6"	Good	
1184	Sugar maple	10"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1185	Sugar maple	15"	Good	
1186	Sugar maple	6"	Good	
1187	Sugar maple	13"	Good	
1188	Sugar maple	5"	Good	
1189	Sugar maple	22"	Good	
1190	Sugar maple (multi stemmed)	16/13"	Good	
1191	Sugar maple	10"	Fair	Cavity at base
1192	Sugar maple	15"	Good	
1193	Sugar maple	13"	Poor	Standing dead
1194	Sugar maple	16"	Good	
1195	Black locust	12"	Good	
1196	Ash	14"	Good	
1197	Sugar maple	18"	Good	
1198	Sugar maple	12"	Good	
1199	Sugar maple	10"	Good	
1200	Sugar maple	7"	Good	
1201	Sugar maple	12"	Good	
1202	Black walnut	28"	Good	
1203	Sugar maple	12"	Poor	Hollow center
1204	Sugar maple	12"	Fair	
1205	Black locust	14"	Poor	Open seam/decay fungus
1206	Black locust	8"	Poor	
1207	Sugar maple	5"	Good	
1208	Black locust	12"	Poor	Decay fungus/open seam
1209	Sugar maple	5"	Good	
1210	Black locust	18"	Fair	
1211	Sugar maple	9"	Good	
1212	Sugar maple	15"	Good	
1213	Sugar maple	9"	Good	
1214	Sugar maple	7"	Good	
1215	Black locust	16"	Poor	Open seam
1216	Sugar maple	16"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1217	Sugar maple	6"	Good	
1218	Sugar maple	6"	Good	
1219	Black locust	13"	Poor	Open seam/decay
1220	Sugar maple	15"	Good	
1221	Sugar maple	9"	Good	
1222	Sugar maple	10"	Good	
1223	Sugar maple	9"	Good	
1224	Black locust	16"	Poor	Decay fungus
1225	Sugar maple	21"	Good	
1226	Sugar maple	14"	Good	
1227	Sugar maple	6"	Good	
1228	Sugar maple	18"	Good	
1229	Sugar maple	11"	Poor	Hollow center/decay
1230	Sugar maple	17"	Fair	Vines
1231	Sugar maple	8"	Fair	Vines
1232	Sugar maple	6"	Poor	Vines
1233	Norway maple	13"	Fair	
1234	Sugar maple	11"	Fair	
1235	Sugar maple	8"	Good	
1236	Sassafras	6"	Good	
1237	Sugar maple	9"	Good	
1238	Sugar maple	8"	Good	
1239	Sugar maple	6"	Fair	
1240	Sugar maple	11"	Good	
1241	Sugar maple	6"	Good	
1242	Sugar maple	7"	Good	
1243	Sugar maple	9"	Good	
1244	Sugar maple	6"	Good	
1245	Sugar maple	6"	Good	
1246	Sugar maple	11"	Good	
1247	Sugar maple	9"	Good	
1248	Sugar maple (multi stemmed)	15/7"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1249	Black walnut	18"	Good	
1250	Sugar maple	18"	Good	
1251	Sugar maple (multi stemmed)	5/11"	Good	
1252	Sugar maple	5"	Good	
1253	Sugar maple	6"	Good	
1254	Sugar maple	14"	Good	
1255	Sugar maple	15"	Good	
1256	Sugar maple (multi stemmed)	6/3"	Good	
1257	Sugar maple	9"	Fair	Decay at base
1258	Sugar maple	9"	Good	
1259	Sugar maple	5"	Good	
1260	Black walnut	15"	Good	
1261	Sugar maple	10"	Good	
1262	Sugar maple	28"	Good	
1263	Sugar maple	8"	Good	
1264	Tulip (multi stemmed)	15/25"	Good	
1265	Sugar maple	8"	Good	
1266	Sugar maple	11"	Good	
1267	Sugar maple	7"	Good	
1268	Sugar maple	9"	Fair	
1269	Sugar maple	12/12/16"	Good	
1270	Sugar maple	12"	Good	
1271	Sugar maple	12"	Poor	Vines/broken top
1272	Sugar maple	8/8"	Poor	vines
1273	Sugar maple	7"	Poor	Vines
1274	Sugar maple	13"	Good	
1275	Sugar maple	9"	Poor	Vines
1276	Sugar maple	6"	Poor	Standing dead
1277	Sugar maple	5"	Poor	Vines
1278	Sugar maple	6"	Poor	Vines
1279	Sugar maple	5"	Poor	Vines
1280	Sugar maple	12"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1281	Sugar maple	14	Fair	vines
1282	Ash	12	Poor	Dead/fallen over
1283	Sugar maple	10	Good	
1284	Sugar maple	7	Good	
1285	Sugar maple	14	Good	
1286	Sugar maple	20	Poor	Broken leader/decay fungus
1287	Sugar maple	7	Good	
1288	Sugar maple	8	Good	
1289	Sugar maple	11	Good	
1290	Sugar maple	13	Good	
1291	Sugar maple	10	Good	
1292	Sugar maple	7	Good	
1293	Sugar maple	11	Good	
1294	Sugar maple	12	Good	
1295	Sugar maple	9	Fair	Vines
1296	Sugar maple (multi stemmed)	9/8	Good	
1297	Sugar maple	13	Good	
1298	Sugar maple	13	Good	
1299	Sugar maple	9	Fair	Vines
1300	Sugar maple	9	Good	
1301	Sugar maple	9	Good	
1302	Ash	17	Good	
1303	Sugar maple (multi stemmed)	7/9	Fair	Vines
1304	Sugar maple	6	Poor	Standing dead
1305	Sugar maple	10	Poor	
1306	Sugar maple	5	Fair	
1307	Sassafras	11	Fair	
1308	Sassafras	9	Fair	
1309	Sassafras(multi stemmed)	7/13	Poor	7" stem is dead
1310	Sassafras	14	Fair	
1311	Sassafras	12	Fair	
1312	Sugar maple	13	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1313	Sugar maple	8"	Good	
1314	Sugar maple	8"	Fair	
1315	Sugar maple	6"	Fair	
1316	Sugar maple (multi stemmed)	11/11"	Good	
1317	Sugar maple	9"	Good	
1318	Sugar maple	8"	Good	
1319	Sugar maple	7"	Good	
1320	Sugar maple	7"	Good	
1321	Sugar maple	10"	Good	
1322	Sugar maple	11"	Good	
1323	Sugar maple	10"	Fair	
1324	Sugar maple	9"	Good	
1325	Sugar maple	6"	Good	
1326	Sugar maple	15"	Good	
1327	Sugar maple	7"	Good	
1328	Sugar maple	14"	Good	
1329	Sugar maple	6"	Good	
1330	Sugar maple	7"	Good	
1331	Sugar maple	5"	Good	
1332	Sugar maple	6"	Good	
1333	Sugar maple	6"	Poor	Vines
1334	Sugar maple	6"	Good	
1335	Sugar maple	9"	Good	
1336	Sugar maple	5"	Good	
1337	Sugar maple	10"	Good	
1338	Sugar maple	8"	Good	
1339	Sugar maple	19"	Good	
1340	Sugar maple	8"	Good	
1341	Sugar maple	12"	Good	
1342	Sugar maple	11"	Good	
1343	Sugar maple	7"	Good	
1344	Sugar maple	10"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1345	Red maple	9"	Good	
1346	Sugar maple	8"	Good	
1347	Sugar maple	15"	Good	
1348	Sugar maple	9"	Poor	Decay at base
1349	Sugar maple	7"	Good	
1350	Sugar maple	11"	Good	
1351	Sugar maple	10"	Good	
1352	Sugar maple (multi stemmed)	14/6"	Good	
1353	Sugar maple	6"	Good	
1354	Sugar maple	10"	Fair	Cavity at base
1355	Red maple (multi stemmed)	16/11/5"	Fair	
1356	Sugar maple	6"	Good	
1357	Sugar maple	6"	Poor	Vines
1358	Sugar maple	7"	Good	
1359	Sugar maple	15"	Good	
1360	Sugar maple	9"	Good	
1361	Sugar maple	10"	Good	
1362	Ash	11"	Good	
1363	Sugar maple	12"	Good	
1364	Sugar maple	8"	Poor	Dead leaders
1365	Sugar maple	17"	Good	
1366	Sugar maple	10"	Good	
1367	Sugar maple	13"	Good	
1368	Sugar maple	7"	Good	
1369	Sugar maple	12"	Good	
1370	Sugar maple	8/8"	Fair	
1371	Sugar maple	17"	Good	
1372	Sugar maple	10"	Good	
1373	Sugar maple (multi stemmed)	14/11"	Good	
1374	Sugar maple	6"	Good	
1375	Sugar maple	7"	Good	
1376	Sugar maple	16"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1377	Sugar maple	8"	Good	
1378	Sugar maple	7"	Good	
1379	Ash	9"	Fair	
1380	Sugar maple	11"	Good	
1381	Sugar maple	9"	Fair	Cavity at base
1382	Sugar maple (multi stemmed)	14/7"	Good	
1383	Sugar maple	7"	Good	
1384	Sugar maple	10"	Good	
1385	Sugar maple	12"	Good	
1386	Sugar maple	12"	Good	
1387	Sugar maple	10"	Good	
1388	Sugar maple	6"	Fair	
1389	Sugar maple	11"	Good	
1390	Sugar maple	10"	Good	
1391	Sugar maple	13"	Good	
1392	Sugar maple	9"	Good	
1393	Sugar maple	7"	Good	
1394	Sugar maple	14"	Fair	Cavity at base
1395	Sugar maple	10"	Good	
1396	Sugar maple	12"	Good	
1397	Sugar maple	8"	Good	
1398	Sugar maple (multi stemmed)	15/15"	Fair	One stem has large cavity
1399	Sugar maple	13"	Good	
1400	Black birch	11"	Poor	Standing dead
1401	Sugar maple	9"	Good	
1402	Sugar maple (multi stemmed)	10/10"	Poor	Seam with some decay
1403	Sugar maple (multi stemmed)	8/7"	Fair	
1404	Sugar maple	14"	Good	
1405	Sugar maple	5"	Poor	Standing dead
1406	Sugar maple	10"	Good	
1407	Sugar maple	9"	Good	
1408	Sugar maple	8"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1409	Sugar maple	9"	Fair	Cavity at base
1410	Sugar maple	7"	Good	
1411	Sugar maple	5"	Good	
1412	Sugar maple	7"	Fair	Broken top/almost dead
1413	Sugar maple	10"	Good	
1414	Sugar maple	10"	Good	
1415	Sugar maple	13"	Good	
1416	Sugar maple	9"	Good	
1417	Sugar maple	7"	Good	
1418	Sugar maple	6"	Good	
1419	Sugar maple	6"	Good	
1420	Sugar maple	6"	Poor	Vines
1421	Hickory (multi stemmed)	9/20/9"	Poor	Broken leader/partial dead crown
1422	Sugar maple	17"	Good	
1423	Sugar maple	5"	Good	
1424	Sugar maple	5"	Good	
1425	Sugar maple (multi stemmed)	10/5"	Fair	
1426	Sugar maple (multi stemmed)	11/4"	Good	
1427	Sugar maple	6"	Good	
1428	Sugar maple	11"	Good	
1429	Sugar maple	12"	Good	
1430	Sugar maple	13"	Good	
1431	Sugar maple	8"	Good	
1432	Sugar maple	6"	Good	
1433	Sugar maple	8"	Good	
1434	Sugar maple	10"	Good	
1435	Sugar maple	12"	Good	
1436	Sugar maple (multi stemmed)	11/10"	Good	
1437	Sugar maple	7"	Fair	Broken branch
1438	Sugar maple	9"	Poor	Canker/insect activity
1439	Sugar maple	12"	Good	
1440	Sugar maple	6"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1441	Sugar maple	13"	Good	
1442	Sugar maple	6"	Good	
1443	Sugar maple	8"	Good	
1444	Sugar maple	17"	Good	
1445	Sugar maple	15"	Good	
1446	Missing		Good	
1447	Sugar maple	9"	Fair	Vines
1448	Sugar maple	5"	Good	
1449	Sugar maple	12"	Good	
1450	Sugar maple	10"	Good	
1451	Sugar maple	4"	Fair	
1452	Sugar maple	4"	Fair	Vines
1453	Sugar maple	8"	Poor	Vines
1454	Sugar maple	6"	Poor	Vines
1455	Sugar maple (multi stemmed)	5/4"	Poor	Vines
1456	Sugar maple	4"	Fair	Vines
1457	Sugar maple	5"	Poor	Vines/poor form
1458	Sugar maple	9"	Fair	Vines
1459	Sugar maple	5/5"	Poor	Vines/decay at base/standing dead
1460	Sugar maple	9"	Good	
1461	Sugar maple	5"	Good	
1462	Sugar maple	23"	Poor	Forked about 4.5' & starting to split
1463	Sugar maple	6"	Fair	Poor crown
1464	Sugar maple	8"	Good	
1465	Sugar maple (multi stemmed)	19/12/9"	Poor	
1466	Sugar maple	5"	Poor	Standing dead
1467	Elm	6"	Poor	Poor form/vines
1468	Sugar maple	7/8"	Poor	Vines
1469	Sugar maple	10"	Poor	Vines/cavity at base
1470	Sugar maple	10"	Poor	Vines
1471	Sugar maple	8"	Fair	Fused with Black cherry
1472	Sugar maple (multi stemmed)	11/7/5/5"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1473	Sugar maple	6/3/6/5"	Fair	
1474	White oak	13/19/26"	Poor	13" leader dead/other two large amount of decay
1475	Hickory	17"	Good	
1476	Sugar maple	5"	Good	
1477	Sugar maple	7"	Good	
1478	Sugar maple	7"	Poor	Broken in half
1479	Sugar maple	6/4"	Poor	Vines/poor form
1480	Sugar maple	14"	Good	
1481	Sugar maple	6"	Poor	Broken in half
1482	Sugar maple	6"	Good	
1483	White oak	17"	Fair	
1484	White oak	13"	Poor	Vines/dead branches
1485	Sugar maple	19"	Good	
1486	Sugar maple	5"	Good	
1487	Black locust	14"	Good	
1488	Sugar maple	16"	Poor	Vines
1489	Sugar maple	11"	Good	
1490	Black cherry	13"	Poor	Broken tops/vines
1491	Sugar maple	11"	Good	
1492	Sugar maple	10"	Good	
1493	Sugar maple	6"	Good	
1494	Sugar maple	7"	Good	
1495	Sugar maple	13"	Good	
1496	Sugar maple	10"	Good	
1497	Black locust	9"	Good	
1498	Black locust	10"	Good	
1499	Sugar maple	9"	Good	
1500	Black locust	6"	Fair	
1501	Black locust	10"	Poor	Vines
1502	Black locust	6"	Poor	Standing dead
1503	Sugar maple	5"	Good	
1504	Black locust	10"	Fair	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1505	Sugar maple	7"	Fair	Vines
1506	Black locust	14"	Fair	Vines
1507	Sugar maple	7"	Fair	Vines
1508	Black locust	7"	Poor	Open seam
1509	Sugar maple	7"	Good	
1510	Sugar maple	5"	Good	
1511	Black locust	13"	Good	
1512	Black locust	8"	Good	
1513	Black locust	12"	Good	
1514	Sugar maple	5"	Good	
1515	Sugar maple	11"	Good	
1516	Black locust	12"	Good	
1517	Black locust	9"	Good	
1518	Sugar maple	8"	Good	
1519	Sugar maple	11"	Good	
1520	Black cherry	10"	Poor	Broken branches/vines
1521	Sugar maple	18"	Good	
1522	Sugar maple	17"	Fair	Vines
1523	Sugar maple	12"	Fair	Vines
1524	Sugar maple	7"	Fair	Vines
1525	Sugar maple	6"	Poor	Poor form
1526	Sassafras	15"	Fair	Vines
1527	Ash (multi stemmed)	14/12"	Poor	Insect damage/12" stem dead
1528	Sugar maple	8"	Poor	Vines
1529	Sugar maple	10"	Good	
1530	Sugar maple	7"	Fair	Vines
1531	Sugar maple	8"	Fair	Vines
1532	Sugar maple	7"	Good	
1533	Sugar maple	12"	Good	
1534	Sugar maple	6"	Good	
1535	Sugar maple (multi stemmed)	10/9"	Poor	Standing dead/vines
1536	Sugar maple	7"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1537	Sugar maple	7"	Poor	Vines
1538	White oak	29"	Poor	Vines/broken top
1539	Sugar maple	9"	Good	
1540	Elm	10"	Poor	Standing dead
1541	Sugar maple	6"	Poor	Vines
1542	Sugar maple	8"	Poor	Vines
1543	Sugar maple	7"	Fair	
1544	Sugar maple	7"	Poor	Vines
1545	Sugar maple	4"	Poor	Standing dead
1546	Black birch	17"	Poor	Vines/decay
1547	Sugar maple	16"	Good	
1548	Black locust	12"	Good	
1549	Sugar maple	11"	Good	
1550	Black locust	13"	Good	
1551	Sugar maple	6"	Good	
1552	Sugar maple	6"	Good	
1553	Black locust	10"	Fair	Vines
1554	Sugar maple	6"	Good	
1555	Black locust	11"	Good	
1556	Sugar maple	11"	Good	
1557	Black locust	13"	Good	
1558	Black locust	13"	Good	
1559	Sugar maple	5"	Good	
1560	Black locust	13"	Good	
1561	Black locust	10"	Good	
1562	Sugar maple	8"	Good	
1563	Black locust	10"	Good	
1564	Sugar maple	7"	Good	
1565	Black locust	10"	Fair	
1566	Black locust	10"	Fair	Vines
1567	Black locust	10"	Good	
1568	Sugar maple	8"	Fair	Fused with Black locust

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1569	Black locust	12"	Good	
1570	Black locust	7"	Fair	
1571	Black locust	11"	Good	
1572	Sugar maple	7"	Good	
1573	Sugar maple	10"	Good	
1574	Black locust	8"	Good	
1575	Sugar maple	6"	Poor	Vines in crown
1576	Black locust	13"	Fair	Vines
1577	Black locust	9"	Poor	Vines
1578	Black locust	9"	Poor	Vines
1579	Sugar maple	8"	Good	
1580	Black locust	11"	Good	
1581	Sugar maple	7"	Good	
1582	Sugar maple	7"	Good	
1583	Elm	9"	Poor	Poor form/vines
1584	Sugar maple	5"	Good	
1585	Sugar maple	6"	Fair	
1586	Ash	23"	Fair	Vines
1587	Sugar maple	7"	Good	
1588	Sugar maple	13"	Poor	Decay/vines
1589	Sugar maple	6"	Good	
1590	Sugar maple (multi stemmed)	19/31"	Poor	Large seam/decay fungus at base
1591	Sugar maple	6"	Good	
1592	Black locust	7"	Fair	
1593	Sugar maple	16"	Fair	
1594	Sugar maple	10"	Good	
1595	Sugar maple	10"	Good	
1596	Sassafras	10"	Good	
1597	Sugar maple	6"	Good	
1598	Sugar maple	8"	Fair	Vines
1599	Sugar maple	9"	Fair	Vines
1600	Sugar maple	8"	Fair	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1601	Sugar maple	5"	Fair	Vines
1602	Sugar maple	5"	Good	
1603	Black locust	11"	Poor	Leaning tree
1604	Sugar maple	6"	Fair	Vines
1605	Black locust	13"	Poor	Decay
1606	Sugar maple	7"	Good	
1607	Sugar maple	6"	Good	
1608	Sugar maple	5"	Good	
1609	Black locust	11"	Good	
1610	Black locust	10"	Good	
1611	Sugar maple	7"	Good	
1612	Sugar maple	7"	Good	
1613	Black locust	11"	Fair	
1614	Sugar maple	7"	Good	
1615	Black locust	11"	Fair	Vines
1616	Black locust	11"	Fair	Vines
1617	Red maple	10"	Fair	Vines/broken limbs
1618	Black locust	11"	Good	
1619	Black locust	12"	Good	
1620	Red maple	16/4"	Good	
1621	Black locust	11"	Good	
1622	Red maple	5"	Good	
1623	Black locust	10"	Good	
1624	Black locust	10"	Good	
1625	Black locust	9"	Fair	Vines
1626	Black locust	9"	Good	
1627	Black locust	6"	Poor	Standing dead
1628	Red maple	8"	Good	
1629	Black locust	9"	Good	
1630	Sugar maple	8"	Good	
1631	Sugar maple	7"	Fair	
1632	Sugar maple	6"	Poor	Leaning tree

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1633	Sugar maple	7"	Good	
1634	Black locust	10"	Good	Tagged twice (also 1671)
1635	Red oak	10"	Good	
1636	Red oak	11"	Good	
1637	Red oak	25"	Fair	
1638	Sugar maple	9"	Good	
1639	Sugar maple	10"	Good	
1640	Sugar maple	5"	Good	
1641	Sugar maple	5"	Poor	Leaning tree
1642	Sugar maple	6"	Poor	Standing dead
1643	Sugar maple	7"	Good	
1644	Sugar maple	6"	Poor	Bent over/vines
1645	Sugar maple	6"	Good	
1646	Sugar maple	10"	Fair	Vines
1647	Sugar maple	5"	Fair	Vines
1648	Sugar maple	8"	Good	
1649	Sugar maple	7"	Good	
1650	Ash	11"	Poor	Standing dead
1651	Sugar maple	9"	Poor	Standing dead
1652	Sugar maple	7"	Good	
1653	Ash	9"	Good	
1654	Missing			
1655	Sugar maple	5"	Good	
1656	Sugar maple (multi stemmed)	10/2"	Good	
1657	Sugar maple	11"	Good	
1658	Ash	6"	Good	
1659	Sugar maple	6"	Good	
1660	Sugar maple	10"	Good	
1661	Black birch	12"	Good	
1662	Red oak	17"	Fair	Poison ivy
1663	Sugar maple	8"	Good	
1664	Sugar maple	9"	Fair	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1665	Sugar maple (multi stemmed)	13/3"	Good	
1666	Sugar maple	7"	Fair	Vines
1667	Sugar maple	7"	Fair	Vines
1668	Ash	11"	Fair	Vines
1669	Ash	10"	Fair	vines
1670	Sugar maple	6"	Good	
1671	Black locust	10"	Good	Tagged twice (1634)
1672	Black locust	12"	Good	
1673	Black locust	7"	Good	
1674	Black locust	6"	Good	
1675	Black locust	12"	Good	
1676	Black locust	9"	Good	
1677	Sugar maple	6"	Fair	Vines
1678	Sassafras	15"	Good	
1679	Black locust	5"	Poor	Standing dead
1680	Black locust	11"	Good	
1681	Black locust	11"	Good	
1682	Sugar maple	5"	Good	
1683	Sugar maple	9"	Fair	
1684	Sugar maple	6"	Poor	Broken in half
1685	Sugar maple	7"	Good	
1686	Tulip poplar	23"	Fair	
1687	Sugar maple	7"	Good	
1688	Sugar maple	8"	Good	
1689	Sugar maple	9"	Good	
1690	Black locust	12"	Good	
1691	Black locust	11"	Fair	Leaning tree
1692	Ash	10"	Good	
1693	Sugar maple	6"	Good	
1694	Sugar maple	7"	Good	
1695	Sugar maple	6"	Good	
1696	Tulip poplar	24"	Poor	Standing dead

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1697	Ash	8"	Fair	Vines
1698	Black locust	8"	Good	
1699	Sugar maple	13"	Good	
1700	Sugar maple	9"	Fair	Vines
1701	Black locust	9"	Poor	Leaning tree
1702	Sugar maple	6"	Good	
1703	Black locust	8"	Fair	Vines
1704	Black locust	9"	Fair	Vines
1705	Sugar maple	5"	Fair	Poor form
1706	Ash	16"	Good	
1707	Sugar maple	5"	Good	
1708	Sugar maple	6"	Good	
1709	Black locust	8"	Poor	Open wound
1710	Sugar maple	8"	Fair	
1711	Sugar maple	7"	Good	
1712	Sugar maple	5"	Fair	Vines
1713	Ash	15"	Fair	Vines
1714	Sugar maple	8"	Good	
1715	Sugar maple	7"	Good	
1716	Sugar maple	6"	Good	
1717	Sugar maple	6"	Poor	Small crown
1718	Ash	13"	Fair	Vines
1719	Sugar maple	6"	Good	
1720	Sugar maple	8"	Good	
1721	Black cherry	12"	Poor	Vines
1722	Sugar maple	7"	Poor	Vines/broken top
1723	Sugar maple	6"	Poor	Vines/broken top
1724	Sugar maple	10"	Fair	Vines
1725	Sugar maple	7"	Poor	Vines
1726	Sassafras	13"	Poor	Broken top
1727	Black cherry	9"	Poor	Vines/broken limbs
1728	Ash	9"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1729	Sugar maple	11"	Fair	Vines/cavity at base
1730	Ash	11"	Fair	Vines
1731	Sugar maple	16"	Fair	Damage to bole
1732	Ash	7"	Poor	Decay/standing dead
1733	Sugar maple	8"	Fair	Vines
1734	Ash	11"	Poor	Vines/insect activity
1735	Sugar maple	6"	Fair	Vines
1736	Sugar maple	11"	Fair	Vines
1737	Sugar maple	7"	Fair	Broken limbs
1738	Ash	10"	Poor	Standing dead
1739	Sugar maple	6"	Good	
1740	Ash	9"	Good	
1741	Sugar maple	5"	Poor	Standing dead
1742	Sugar maple	12"	Fair	Vines
1743	Sugar maple	10"	Good	
1744	Sugar maple	7"	Poor	Broken top
1745	Sugar maple	7"	Good	
1746	Sugar maple	11"	Good	
1747	Ash	11"	Fair	Vines
1748	Sugar maple	5"	Good	
1749	Sugar maple	13"	Good	
1750	Ash	11"	Fair	
1751	Sugar maple	12"	Good	
1752	Sugar maple	10"	Good	
1753	Ash	11"	Poor	Standing dead
1754	Sugar maple	7"	Good	
1755	Hickory	14"	Good	
1756	Sugar maple	7"	Good	
1757	Hickory	5"	Fair	
1758	Ash (multi stemmed)	15/17"	Fair	Some vines
1759	Hickory	8"	Good	
1760	Sugar maple	6"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1761	Sugar maple	9"	Fair	Vines
1762	Ash (multi stemmed)	8/12"	Poor	Vines
1763	Ash	16"	Poor	Vines
1764	Hickory	15"	Good	
1765	Ash	10"	Poor	vines
1766	Sugar maple	16"	Good	
1767	Ash	7"	Fair	
1768	Ash	14"	Good	
1769	Sugar maple	11"	Good	
1770	Ash	12"	Fair	
1771	Ash	6"	Fair	
1772	Sugar maple	13"	Good	
1773	Ash	10"	Good	
1774	Hickory	6"	Poor	Bent tree
1775	Sugar maple	7"	Good	
1776	Ash	12"	Good	
1777	Ash	9"	Good	
1778	Ash	11"	Good	
1779	Sugar maple	9"	Good	
1780	Ash	6"	Fair	Small crown
1781	Sugar maple	12"	Good	
1782	Sugar maple	12"	Good	
1783	Sugar maple	10"	Good	
1784	Sugar maple	8"	Good	
1785	Sugar maple	9"	Good	
1786	Sugar maple	5"	Good	
1787	Ash	7"	Poor	Standing dead
1788	Sugar maple	9"	Good	
1789	Sugar maple	14"	Good	
1790	Ash	9"	Fair	
1791	Ash	7"	Poor	Standing dead
1792	Ash	10"	fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1793	Sugar maple	8"		
1794	Red maple	9"	Poor	Broken in half
1795	Sugar maple	12"		
1796	Sugar maple	6"	Poor	Broken top/vines
1797	Sugar maple	6"		
1798	Ash (multi stemmed)	18/21"	Poor	Standing dead
1799	Sugar maple	10"		
1800	Red oak	33"		
1801	Ash	23"	Fair	
1802	Red maple	8"	Fair	
1803	Sugar maple	13"		
1804	Sugar maple	16"		
1805	Sugar maple	5"		
1806	Sugar maple	8"		
1807	Sugar maple	9"		
1808	Sugar maple	6"		
1809	Sugar maple	19"		
1810	Sugar maple	11"		
1811	Sugar maple	24"		
1812	Black locust	12"	Fair	Seam
1813	Sugar maple	10"		
1814	Black locust	8"	Poor	Large seam/decay
1815	Sugar maple	7"	Poor	Vines/poor form
1816	Sugar maple	7"		
1817	Sugar maple	7"	Poor	Vines
1818	Ash	13"	Poor	Standing dead
1819	Hickory	14"		
1820	Sugar maple	5"		
1821	Hickory (multi stemmed)	12/11"	Poor	Vines
1822	Sugar maple	9"	Poor	Vines
1823	Sugar maple	6"	Fail	Poor form
1824	Sugar maple (multi stemmed)	14/29"		

__HANOVER ESTATES__

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
1825	Norway maple	7"	Good	
1826	Sugar maple	36"	Poor	Forked/decay fungus/broken limb
1827	Hickory	21"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2501	Ash	10"	Poor	Fallen over
2502	Ash	11"	Good	
2503	Sugar maple	12"	Good	
2504	Ash	10"	Poor	Vines/broken top
2505	Sugar maple	8"	Fair	
2506	Ash	12"	Poor	Vines/broken top
2507	Ash	10"	Good	
2508	Sugar maple	12"	Good	
2509	Black cherry	7"	Poor	Vines
2510	Ash	11"	Poor	vines
2511	Sugar maple	8"	Good	
2512	Sugar maple	15"	Good	
2513	Ash	10"	Poor	Vines
2514	Sugar maple	11"	Fair	
2515	Sugar maple	14"	Poor	Standing dead
2516	Elm	11"	Poor	Insects/dead branches
2517	Ash	12"	Fair	Vines
2518	Sugar maple	8"	Good	
2519	Ash	8"	Good	
2520	Ash	6"	Poor	Vines
2521	Missing		Good	
2522	Sugar maple	14"	Good	
2523	Sugar maple	8"	Good	
2524	Sugar maple/Ash (fused)	12/13"	Good	
2525	Sugar maple	11"	Good	
2526	Sugar maple	7"	Poor	Broken in half
2527	Ash	11"	Poor	Vines
2528	Sugar maple	5"	Good	
2529	Ash	11"	Fair	
2530	Sugar maple	9"	Good	
2531	Sugar maple	7"	Good	
2532	Ash	11"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2533	Ash	9"	Fair	Vines
2534	Black cherry	10"	Poor	Vines
2535	Ash	5"	Poor	Vines
2536	Ash	12"	Fair	
2537	Ash	14"	Good	
2538	Sugar maple	10"	Fair	
2539	Sugar maple	8"	Good	
2540	Ash	8"	Poor	Standing dead
2541	Ash	6"	Poor	Vines
2542	Ash	11"	Poor	Vines
2543	Ash	8"	Poor	Vines
2544	Ash	7"	Poor	Vines
2545	Ash	15"	Fair	Vines
2546	Sugar maple	7"	Fair	Vines
2547	Sugar maple	10"	Poor	Vines
2548	Ash	9"	Poor	Vines
2549	Ash	6"	Poor	Standing dead
2550	Ash	13"	Fair	
2551	Sugar maple	6"	Fair	
2552	Sugar maple	15"	Fair	
2553	Sugar maple	18"	Poor	Broken in half
2554	Ash	10"	Poor	Broken top/vines
2555	Sugar maple	10"	Good	
2556	Black cherry	9"	Poor	Vines/poor form/decay
2557	Sugar maple	9"	Poor	Vines/poor form
2558	Black cherry	10"	Poor	Vines
2559	Sugar maple (multi stemmed)	7/10"	Poor	10" stem dead/vines in both
2560	Sugar maple	6"	Poor	Vines
2561	Sugar maple	15"	Fair	
2562	Ash	9"	Poor	Broken top/vines
2563	Ash	9"	Poor	Vines
2564	Sugar maple	12"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2565	Ash	8"	Good	
2566	Sugar maple	10"	Good	
2567	Sugar maple	13"	Fair	
2568	Ash	11"	Poor	Vines
2569	Sugar maple	9"	Good	
2570	Sugar maple	10"	Good	
2571	Black cherry	10"	Poor	Vines/poor form
2572	Black cherry	8"	Poor	Vines
2573	Black cherry	6"	Fair	
2574	Black cherry	8"	Fair	
2575	Sugar maple	7"	Good	
2576	Ash	7"	Fair	
2577	Ash	14"	Good	
2578	Ash	13"	Good	
2579	Ash	11"	Fair	
2580	Missing			
2581	Missing			
2582	Sugar maple	8"	Good	
2583	Ash	8"	Fair	
2584	Sugar maple	10"	Good	
2585	Sugar maple	8"	Poor	Poor form/vines
2586	Sugar maple	8"	Fair	
2587	Ash	9"	Poor	Vines
2588	Ash	9"	Poor	Vines
2589	Sugar maple	12"	Fair	
2590	Ash	12"	Fair	
2591	Sugar maple	6"	Good	
2592	Sugar maple	6"	Good	
2593	Ash	9"	Good	
2594	Ash	8"	Poor	
2595	Sugar maple (tagged as 1095)	6"	Good	
2596	Ash	8"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2597	Ash	6"	Fair	
2598	Ash	10"	Poor	Vines
2599	Sugar maple	8"	Good	
2600	Ash	12"	Good	
2601	Ash	9"	Poor	Broken top/epicormic sprouts
2602	Ash	9"	Good	
2603	Sugar maple	8"	Good	
2604	Sugar maple	10"	Good	
2605	Ash	14"	Good	
2606	Ash	11"	Fair	
2607	Ash	10"	Fair	
2608	Ash	7"	Fair	
2609	Ash (tagged as 1109)	7"	Fair	
2610	Sugar maple	10"	Good	
2611	Ash (multi stemmed)	13/9"	Good	
2612	Sugar maple	7"	Poor	Vines
2613	Ash	13"	Poor	Broken top/vines
2614	Black cherry	8"	Poor	Vines
2615	Ash	12"	Poor	Standing dead/vines
2616	Sugar maple	18"	Good	
2617	Ash (tagged as 1117)	7"	Poor	Standing dead/vines
2618	Sugar maple (tagged as 1118)	8"	Poor	Vines
2619	Sugar maple	10"	Good	
2620	Ash	11"	Fair	
2621	Ash	9"	Poor	Vines
2622	Ash	7"	Poor	Vines
2623	Black cherry	7"	Poor	Vines
2624	Black cherry	6"	Poor	Vines
2625	Ash	10"	Poor	Vines
2626	Ash	8"	Poor	Vines/broken top
2627	Sugar maple	7"	Poor	Vines
2628	Ash	10"	Poor	Vines

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2629	Ash	9"	Poor	Vines
2630	Crabapple	6"		
2631	Black cherry	8"	Fair	
2632	Sugar maple	7"		
2633	Sugar maple	7"		
2634	Sugar maple	10"		
2635	Ash (tagged as 1135)	16"		
2636	Ash	12"		
2637	Black cherry	6"	Fair	
2638	Ash	13"		
2639	Ash	9"		
2640	Sugar maple	6"		
2641	Sugar maple	7"		
2642	Red oak	10"	Poor	Vines
2643	Ash	6"	Poor	Standing dead
2644	Sugar maple	10"		
2645	Ash	10"	Fair	
2646	Norway maple	17"		
2647	Ash	7"	Poor	Vines
2648	Ash	8"	Fair	
2649	Ash	8"	Poor	Vines
2650	Ash	7"	Poor	Fallen over
2651	Black cherry	10"	Poor	Poor form/vines
2652	Black cherry	8"	Poor	Poor form/vines
2653	Ash	11"	Poor	Vines/decay
2654	Black cherry	7"	Fair	
2655	Ash	13"	Fair	
2656	Ash	14"	Fair	
2657	Sugar maple	9"	Fair	
2658	Sugar maple	15"	Poor	Vines
2659	Black cherry	7"	Poor	Vines
2660	Ash	10"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2661	Sugar maple	9"	Good	
2662	Ash	7"	Fair	
2663	Sugar maple	11"	Good	
2664	Ash	11"	Poor	Vines
2665	Ash	8"	Fair	
2666	Ash	13"	Poor	Vines
2667	Ash	8"	Fair	
2668	Hickory	9"	Poor	Vines/broken top
2669	Sugar maple	12"	Poor	Broken top/vines
2670	Ash	9"	Poor	Vines/broken top
2671	Ash	10"	Fair	
2672	Sugar maple	8"	Good	
2673	Ash	12"	Fair	
2674	Ash	9"	Poor	Broken top/vines
2675	Ash	9"	Poor	Broken top/vines
2676	Ash	7"	Poor	Fallen over
2677	Ash	9"	Poor	Vines
2678	Sugar maple	14"	Good	
2679	Ash	12"	Fair	
2680	Ash	12"	Poor	Vines
2681	Ash	7"	Poor	Vines/leaning tree
2682	Ash	11"	Fair	
2683	Ash	8"	Fair	
2684	Ash	9"	Poor	Broken top
2685	Sugar maple	9"	Fair	
2686	Black cherry	6"	Fair	
2687	Black cherry	8"	Good	
2688	Sugar maple	10"	Good	
2689	Ash	9"	Fair	
2690	Ash	7"	Good	
2691	Ash	9"	Poor	
2692	Crabapple	7"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2693	Ash	15"	Fair	
2694	Ash	9"	Poor	Fallen over
2695	Ash	9"	Poor	Vines
2696	Sugar maple	6"	Fair	
2697	Ash	14"	Poor	Vines
2698	Hickory	10"	Good	
2699	Sugar maple	11"	Fair	Vines
2700	Ash	9"	Poor	Vines
2701	Ash	10"	Poor	Fallen over
2702	Ash	8"	Poor	Vines
2703	Ash	9"	Poor	Vines
2704	Ash	9"	Poor	Vines/broken toop
2705	Ash	8"	Fair	
2706	Missing			
2707	Sugar maple	8"	Fair	Damaged by machine digging test holes
2708	Sugar maple	9"	Fair	
2709	Sugar maple	6"	Fair	
2710	Hickory	32"	Poor	Vines/broken leader
2711	Sugar maple	7"	Good	
2712	Ash	10"	Poor	Vines
2713	Ash	11"	Good	
2714	Hickory	7"	Good	
2715	Sugar maple	9"	Good	
2716	Ash	15"	Poor	Vines
2717	Sugar maple	7"	Poor	Vines/broken top
2718	Sugar maple	10"	Good	
2719	Ash	13"	Fair	
2720	Red oak	17"	Fair	
2721	Hickory	9"	Fair	
2722	Sugar maple	11"	Good	
2723	Ash	11"	Fair	
2724	Black cherry	12"	Poor	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2725	Black cherry	12"	Poor	Vines
2726	Ash	13"	Poor	Vines/broken top
2727	Sugar maple (tagged as 1227)	14"	Fair	
2728	Hickory (tagged as 1228)	12"	Poor	Vines
2729	Hickory (tagged as 1229)	17"	Poor	Vines/broken top
2730	Red oak	9"	Poor	Vines
2731	American beech	5"	Good	
2732	Sugar maple	9"	Fair	
2733	Sugar maple	44"	Poor	Decay/vines
2734	Tulip poplar	17"	Good	
2735	sassafras	31"	Poor	Standing dead
2736	Sugar maple	6"	Good	
2737	Sugar maple	6"	Good	
2738	Sugar maple	6"	Good	
2739	Sugar maple	12"	Good	
2740	Sugar maple (multi stemmed)	13/7"	Poor	Vines
2741	Sugar maple	7"	Good	
2742	Catalpa	8"	Good	
2743	Sugar maple	6"	Good	
2744	Sugar maple	14"	Good	
2745	Red maple (multi stemmed)	5/3/7/3/2"	Fair	
2746	Ash	7"	Poor	Standing dead
2747	Red maple (multi stemmed)	5/3/3"	Poor	
2748	Black cherry	23"	Poor	Vines
2749	Sugar maple	7"	Poor	Vines
2750	Crabapple (multi stemmed)	9/8"	Fair	
2751	Crabapple (multi stemmed)	5/3/3/2"	Poor	
2752	Crabapple (multi stemmed)	7/5/4"	Poor	
2753	Sugar maple	6"	Fair	
2754	Ash (multi stemmed)	12/13"	Good	
2755	Sugar maple	6	Good	
2756	Elm	6	Poor	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2757	Black cherry	9"	Poor	Insects
2758	Crabapple (multi stemmed)	6/7"	Poor	Vines
2759	Crabapple	7"	Good	
2760	Red Maple	18"	Fair	
2761	Red Maple (multi stemmed)	5/3/10"	Poor	
2762	Red Maple (multi stemmed)	9/19"	Good	
2763	Red Maple (multi stemmed)	9/3"	Good	
2764	Red Maple (multi stemmed)	14/6"	Good	
2765	Red Maple (multi stemmed)	12/10/5"	Fair	
2766	Ash	6"	Poor	Vines
2767	Red Maple	17"	Good	
2768	Red Maple	12"	Good	
2769	Red Maple (multi stemmed)	16/6"	Poor	Vines
2770	Black cherry	8"	Poor	Broken branches
2771	Red Maple (multi stemmed)	17/4/2"	Good	
2772	Sugar maple	8"	Good	
2773	Sugar maple	6"	Good	
2774	Sugar maple	8"	Good	
2775	Sugar maple (multi stemmed)	8/6"	Good	
2776	Ash	15"	Poor	Standing dead
2777	Sugar maple	6"	Good	
2778	Sugar maple	9"	Good	
2779	Sugar maple (multi stemmed)	6/8"	Good	
2780	Sugar maple	5"	Good	
2781	Sugar maple	6"	Good	
2782	Sugar maple	7"	Good	
2783	Sugar maple	8"	Good	
2784	Sugar maple	6"	Good	
2785	Sugar maple	12"	Good	
2786	Sugar maple	9"	Good	
2787	Sugar maple	8"	Fair	
2788	Sugar maple	8"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2789	Sugar maple	14"	Fair	Barb wire grown over
2790	Sugar maple	10"	Good	
2791	Ash	31"	Poor	Standing dead
2792	Sugar maple	19"	Fair	Broken limb
2793	Sugar maple	10"	Good	
2794	Sugar maple	6"	Good	
2795	Red maple	10"	Good	
2796	Sugar maple (multi stemmed)	16/7"	Good	
2797	Red maple	9"	Good	
2798	Red maple	14"	Poor	Standing dead
2799	Sugar maple	13"	Good	
2800	Red maple	18"	Good	
2801	Sugar maple	13"	Good	
2802	Sugar maple	9"	Good	
2803	Sugar maple	12"	Good	
2804	Crabapple	6"	Fair	
2805	Sugar maple	8"	Good	
2806	Hickory	8"	Good	
2807	Sugar maple	5"	Good	
2808	Sugar maple	16"	Good	
2809	Sugar maple	6"	Fair	Broken top
2810	Sugar maple	5"	Poor	Vines
2811	Sugar maple	11"	Poor	Vines
2812	Red maple	14"	Fair	
2813	Sugar maple	7"	Good	
2814	Sugar maple	9"	Good	
2815	Red maple (multi stemmed)	13/3/3"	Poor	Vines
2816	Red maple (multi stemmed)	13/4/3"	Fair	
2817	Red maple	16"	Poor	Vines
2818	Red maple (multi stemmed)	11/11"	Poor	Vines
2819	Red maple	16"	Good	
2820	(1320)	16"	Fair	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2821	(1321) Red maple (multi stemmed)	16/10/9/6"	Poor	Vines
2822	(1322) Red maple (multi stemmed)	13/15	Good	
2823	(1323) Red maple (multi stemmed)	10/6/6	Poor	Vines
2824	(1324) Red maple (multi stemmed)	8/9/16	Good	
2825	(1325) Red maple	13	Good	
2826	(1326) Elm	9	Poor	Standing dead
2827	(1327) Crabapple (multi stemmed)	3/7/5/4/6"	Good	
2828	(1328) Sugar maple	6	Fair	
2829	(1329) Sugar maple	7	Poor	Vines
2830	(1330) sugar maple	6	Fair	
2831	(1331) Red maple	12	Fair	Vines
2832	(1332) Red maple	6	Poor	Vines
2833	(1333) Sugar maple	10	Fair	
2834	Red oak	16	Poor	Dead branches/vines
2835	Hickory	9	Fair	
2836	Red maple	12	Good	
2837	Crabapple	10		
2838	Carpinus caroliniana	4		
2839	Sugar maple	7	Good	
2840	Red maple	10	Poor	Broken tops/vines
2841	Sugar maple	6	Good	
2842	Red maple	7	Poor	Vines
2843	Red maple (multi stemmed)	14/6/5/3	Poor	Broken tops/vines
2844	Red maple (multi stemmed)	24/21	Fair	
2845	Red maple	7	Good	
2846	Red maple (multi stemmed)	10/17/12	Fair	
2847	Red maple	8	Good	
2848	Red maple	13	Good	
2849	Red maple	15/9	Good	
2850	Red maple	9/10	Good	
2851	Red maple	13	Good	
2852	Red maple	17/25	Fair	Slight decay

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2853	Red oak	15"	Fair	vines
2854	Sugar maple (multi stemmed)	14/4"	Good	
2855	Red maple	10"	Good	
2856	Red maple	15"	Poor	Decay/broken top (tagged as 2884)
2857	Red maple	8"	Good	
2858	Red maple	11"	Good	
2859	Red maple (multi stemmed)	14/9"	Good	
2860	Tulip poplar (multi stemmed)	20/23"	Good	
2861	Red maple	6"	Good	
2862	Red maple	8"	Good	
2863	Red maple	13"	Good	
2864	Red maple	15"	Good	
2865	Red maple	7"	Good	
2866	Sugar maple	9"	Fair	
2867	Red maple	16"	Good	
2868	Red maple	7"	Good	
2869	Red maple	14"	Good	
2870	Red maple	12"	Good	
2871	Red maple	10"	Good	
2872	Red maple	8"	Good	
2873	Black birch	17"	Good	
2874	Red oak	17"	Good	
2875	Red oak	20"	Good	
2876	Red oak	7"	Good	
2877	Red maple	17"	Good	
2878	Sugar maple	8"	Good	
2879	Sugar maple	8"	Good	
2880	Red oak (multi stemmed)	23/16"	Good	
2881	Red maple	9"	Good	
2882	Red maple	8"	Good	
2883	Red maple	8"	Good	
2884	Red maple	15"	Poor	Decay/broken top (tagged as 2856)

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2885	Red maple	20"	Good	
2886	Sugar maple	6"	Good	
2887	Red oak	21"	Good	
2888	Red maple	5"	Good	
2889	Red maple	11"	Good	
2890	Red maple	7"	Good	
2891	Black walnut	19"	Good	
2892	Sugar maple	11"	Good	
2893	Sugar maple	7"	Good	
2894	Sugar maple	5"	Good	
2895	Sugar maple	5"	Good	
2896	Sugar maple	6"	Poor	Broken top
2897	Missing			
2898	Sugar maple	6"	Fair	
2899	Sugar maple	5"	Good	
2900	Sugar maple	16"	Good	
2901	Sugar maple	9"	Poor	Poor form/decay
2902	Black walnut	6"	Poor	Standing dead
2903	Sugar maple	8"	Good	
2904	Black walnut	12"	Good	
2905	Sugar maple	10"	Good	
2906	Sugar maple	7"	Good	
2907	Sugar maple	10"	Good	
2908	Sugar maple	8"	Good	
2909	Sugar maple	11"	Good	
2910	Sugar maple	7"	Fair	
2911	Sugar maple	7"	Fair	
2912	Ash	10"	Fair	
2913	Ash	6"	Poor	Standing dead
2914	Red maple	7"	Poor	Standing dead
2915	Sugar maple	16"	Good	
2916	Sugar maple	11"	Good	

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS
2917	Sugar maple	13"	Poor	Dead branches
2918	Sugar maple	11"	Good	
2919	Sugar maple	8"	Good	
2920	Sugar maple	5"	Good	
2921	Sugar maple (multi stemmed)	5/8/2"	Good	
2922	Norway maple	14"	Fair	
2923	Hickory	8"		
2924	Sugar maple	5"		
2925	Sugar maple	6"		
2926	Sugar maple	21"		
2927				
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2948				

HANOVER ESTATES

INVENTORY FORM

TREE#	SPECIES	DBH	CONDITION 2012	COMMENTS

BARTLETT TREE EXPERTS
SCIENTIFIC TREE CARE SINCE 1907

2240 SAW MILL RIVER ROAD
ELMSFORD, NY 10523
(914) 592-4520
(914) 592-5068(FAX)

Copies ....1.. Planning Board
..... Town Board
..... Zoning Board
....1.. ~~Legal~~ Dept.
....1.. DOTS Director
....1.. C.A.C.
..... A.R.C.
....1.. Applicant
....1.. Cronin Engineering
.....
Sent 7/9/19

July 5th, 2019

RECEIVED
JUL - 8 2019
PB 2019-11
DEPT. OF TECHNICAL SERVICES
PLANNING DIVISION

Town of Cortlandt
Attn: Chris Kehoe
1 Heady Street
Cortlandt Manor, NY 10547

Re: Hanover Farm Solar Panels

Dear Mr. Kehoe,

I inspected the property at the Hanover Estates site in relation to proposed solar project. The entire site was inventoried and all trees were tagged in 2012 as part of an overall site inspection. The purpose for the inspection at this time was to assess the areas impacted by the new proposal for a solar project and determine what the impact on the trees, in the "yellow area" shown on the drawing, would be.

- The were no "protected species" according to the town code.
- There were no specimen trees or groups of trees in this area.
- I identified the tree species and size of the trees that fell within the limits of disturbance according to the drawing provided to me on the site.
- The understory is nonexistent and there were no small trees or shrubs in this area.
- There were a total on 147 trees in the area.
  - 22 trees were dead or in poor condition.
  - 48 of the total trees were Black Locust which are not highly desirable.
  - There were 5 White Ash but they were all dead or dying.
  - The largest species, by number, were Sugar Maple with a total of 83 trees and of those, 54 were trees with a 12" DBH or less.
  - There is one very large and decent Red Oak (#1800) but it has a lean and some decay and so would not be a specimen tree.

The site had to have been cleared in the not too distant past with 131 of the 147 trees being either a Black locust or a Sugar Maple and more than a third of the total trees are Sugar Maples under 12" DBH.

There area is on a slope and so protecting the trees lower down the hill from having excess soil erode down would be one consideration to protect adjacent trees. I only inspected trees in the "yellow area" shown on the drawing that was provided.

Let me know any questions.

Thanks

Trevor Hall
ISA Certified Arborist PD 0269
NYSDEC C3809904

T. Hall Inventory 7/1/19
Hanover

Tree ID	Species	DBH	Condition	Notes
822	Sugar Maple	22"	Good	
801	Sugar Maple	12"	Good	No tag
820	Sugar Maple	14/8	Good	Tag _____ over
847	Sugar Maple	14"	Good	
819	Hickory (shag)	9"	Good	
818	Sugar Maple	11"	Good	
816	Sugar Maple	16"	Good	
847	Black Locust	22"	Fair	Decay
955	Sugar Maple	8"	Good	No tag
957	Sugar Maple	8"	Good	No tag
954	Sugar Maple	5"	Good	
953	Sugar Maple	27"	Good	
956	Sugar Maple	8"	Good	
958	Hickory	13"	Fair	Vine Damage
959	Sugar Maple	8"	Dead	Borers
960	Black Locust	14"	Dead	
966	Ash	26"	Dead	Emerald Ash Borer
967	Sugar Maple	19"	Good	
995	Sugar Maple	15"	Good	
968	Black Locust	16"	Dead	Fallen
965	Sugar Maple	6"	Good	
964	Sugar Maple	24"	Good	
963	Sugar Maple	8"	Good	
969	Sugar Maple	17"	Good	
970	Sugar Maple	28"	Dead	
994	Sugar Maple	16"	Good	
990	Sugar Maple	23"	Good	
989	Sugar Maple	8"	Good	
988	Ash	11"	Dead	Fallen
986	Sugar Maple	18"	Good	

987	Sugar Maple	21"	Good	
991	Sugar Maple	12"	Good	
985	Sugar Maple	8"	Good	
984	Ash	16"	Dead	Emerald Ash Borer
983	Sugar Maple	14"	Good	
1811	Sugar Maple	26"	Good	
1813	Sugar Maple	13"	Good	
992	Black Locust	14"	Fair	
993	Sugar Maple	12"	Good	
982				
981	Sugar Maple	12"	Good	
1809	Sugar Maple	20"	Good	
1810	Sugar Maple	12"	Good	
1807	Sugar Maple	9"	Good	
1808	Sugar Maple	7"	Dead	
1801	Ash	24"	Dead	Emerald Ash Borer
1802	Red Maple	10"	Good	
1803	Sugar Maple	16"	Good	
1805	Sugar Maple	7"	Good	Tag _____ over
1806	Sugar Maple	11"	Good	
1797	Sugar Maple	6"	Good	
1798	Twin Ash 2		Dead	Fallen
1799	Sugar Maple	16"	Good	
1800	Red Oak	36"	Fair	Lean & decay
1595	Sugar Maple	14"	Good	Tag _____ over
1594	Sugar Maple	13"	Good	
1596	Sassafras	13"	Good	
1597	Sugar Maple	6"	Good	Tag _____ over
1598	Sugar Maple	13"	Good	
1599	Sugar Maple	10"	Good	
1600	Sugar Maple	11"	Good	
1608	Sugar Maple	7"	Good	
1601	Sugar Maple	5"	Good	
1602	Sugar Maple	5"	Good	

1593	Sugar Maple	20"	Good	
1592	Black Locust	7"	Dead	
1591	Sugar Maple	7"	Good	
1584	Sugar Maple	8"	Good	
1585	Sugar Maple	8"	Good	Tag _____ over
1497	Black Locust	11"	Fair	
1498	Black Locust	12"	Fair	
1499	Sugar Maple	12"	Good	
1500	Black Locust	6"	Poor	
1501	Black Locust	11"	Fair	
1583	Sugar Maple	8"	Good	
1580	Black Locust	11"	Good	
1581	Sugar Maple	8"	Fair	
1582	Black Locust	14"	Poor	
1579	Sugar Maple	10"	Good	
1603	Black Locust	12"	Dead	Fallen
1604	Sugar Maple	7"	Good	
1575	Sugar Maple	7"	Good	
1574	Black Locust	9"	Fair	
1573	Sugar Maple	8"	Good	
1572	Sugar Maple	14"	Good	
1571	Black Locust	16"	Fair	
1570	Black Locust	6"	Fair	
1569				
1578	Black Locust	8"	Fair	
1577	Black Locust	12"	Fair	
1576	Black Locust	16"	Fair	
1605	Black Locust	14"	Fair	
1606	Sugar Maple	8"	Good	
1704	Black Locust	11"	Fair	
1607	Sugar Maple	8"	Good	
1608	Sugar Maple	5"	Good	
1700	Sugar Maple	11"	Good	
1701	Black Locust	10"	Fair	

1702	Sugar Maple	8"	Good	
1703	Black Locust	8"	Fair	
1613	Black Locust	14"	Fair	
1614	Sugar Maple	9"	Good	
1615	Black Locust	15"	Poor	Uprooted
1616	Black Locust	12"	Dead	Fallen
1618	Black Locust	15"	Poor	Damaged
1617	Red Maple	11"	Good	
1620	Red Maple	23"	Good	
1619	Black Locust	15"	Fair	
1682	Sugar Maple	6"	Good	
1625	Black Locust	9"	Fair	
1626	Black Locust	9"	Fair	
1627	Black Locust	5"	Dead	
1515	Sugar Maple	13"	Good	
1512	Black Locust	8"	Good	
1513	Black Locust	19"	Good	
1514	Sugar Maple	5"	Good	
1511	Black Locust	18"	Fair	
1510	Sugar Maple	5"	Dead	Damaged
1509	Sugar Maple	8"	Good	
1507	Black Locust	11"	Fair	
1568	Black Locust	10"	Fair	
1569	Black Locust	14"	Fair	
1612	Sugar Maple	9"	Good	
1566	Black Locust	12"	Fair	
1565	Black Locust	14"	Fair	
1564	Sugar Maple	8"	Good	
1563	Black Locust	13"	Fair	
1502	Black Locust	6"	Dead	
1503	Sugar Maple	7"	Good	
1505	Sugar Maple	8"	Good	
1506	Black Locust	18"	Fair	
1504	Black Locust	11"	Fair	

1507	Sugar Maple	10"	Good
1508	Black Locust	6"	Dead
1552	Sugar Maple	6"	Good
1553	Black Locust	12"	Fair
1551	Sugar Maple	6"	Good
1550	Black Locust	18"	Fair
1549	Sugar Maple	12"	Good
1559	Sugar Maple	5"	Good
1558	Black Locust	15"	Fair
1554	Sugar Maple	7"	Good
1555	Black Locust	14"	Fair
1556	Sugar Maple	15"	Good
1557	Black Locust	18"	Fair
1495	Sugar Maple	15"	Good
1490	Black Cherry	18"	Dead

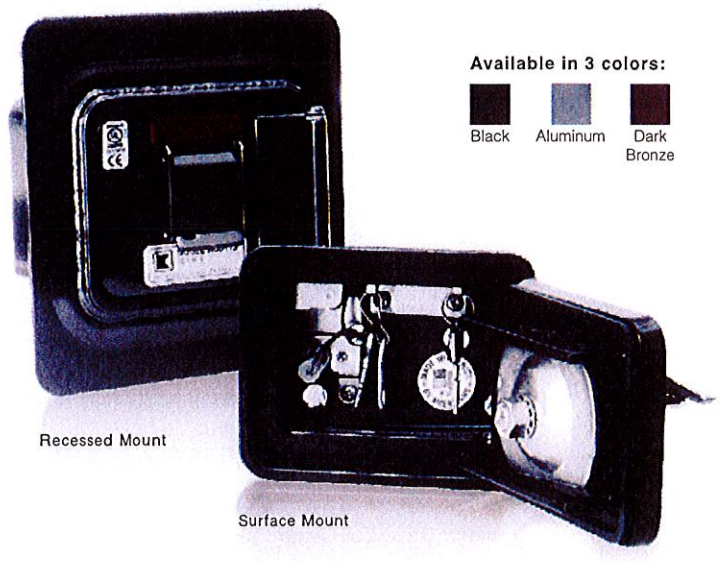
APPENDIX C

- KNOXBOX SPECIFICATIONS
  - KNOXBOX 3200 SURFACE MOUNTED HIGH-SECURITY KEY LOCK BOX

KNOX®
When seconds matter™

KNOXBOX® 3200

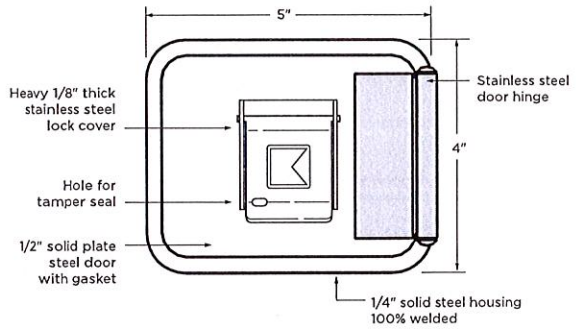
The KnoxBox 3200 is the number one high-security key lock box trusted by first responders and property owners. Store up to 10 keys to quickly gain rapid access to commercial properties.



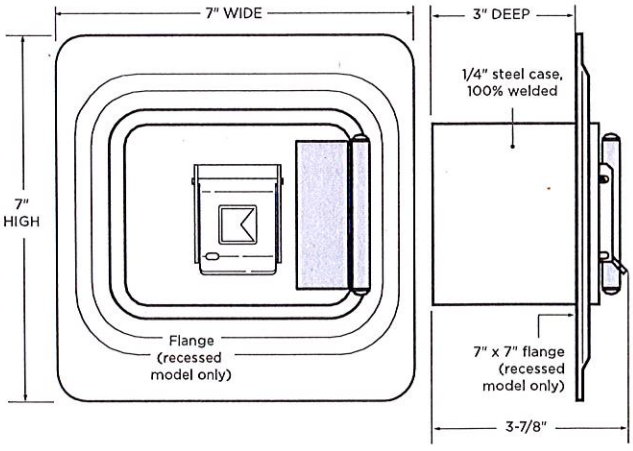
WEIGHT:
Surface Mount - 8 lbs
Recessed Mount - 9 lbs

DIMENSIONS:
Surface Mount Body - 4"H x 5"W x 3-7/8"D
Recessed Mount Flange - 7"H x 7"W

SURFACE MOUNT - FRONT VIEW



RECESS MOUNT - FRONT VIEW **SIDE VIEW**



FEATURES

- Stores maximum 10 keys. Access cards and small entry items may also fit in interior compartment but will reduce max key quantity.
- Built Knox-Rugged and secure: UL 1037, UL 1610, UL 1332, UL 437
- Finished with Knox-Coat® to protect four times better than standard powder coat
- Weather-resistant door gasket
- Hinged door

BENEFITS

- Allows rapid property access
- Reduces property damage
- Prevents forced entry into buildings
- Minimizes first responder injury
- Compliant to National Fire Code (NFPA, IFC, IBC)

OPTIONS

- Knox Tamper Alert connects to building's alarm system for extra security
- Mount types: Recessed and Surface
- 3 color options: Black, Aluminum, Dark Bronze

ACCESSORIES

- Multi-Purpose Switch for use on electrical doors, gates and other electrical equipment
- Recess Mounting Kit for new concrete or masonry construction
- Public Safety Labels
- Tag-Out Tamper Seals
- Key Tags
- Key Rings

ORDERING SPECIFICATIONS

To insure procurement and delivery of the KnoxBox 3200, it is suggested that following specification paragraph is used:

KnoxBox surface/recessed mount with hinged door, with/without UL Listed Knox Tamper Alert. 1/4" plate steel housing, 1/2" thick steel door with interior gasket seal and stainless steel door hinge. Box and lock UL Listed. Lock has 1/8" thick stainless steel dust cover with tamper seal mounting capability.

Exterior Dimensions: Surface Mount Body - 4"H x 5"W x 3-7/8"D Recessed Mount Flange - 7"H x 7"W

Lock: UL Listed. Double-action rotating tumblers and hardened steel pins accessed by a biased cut key.

Finish: Knox-Coat proprietary finishing process

Color: Black, Dark Bronze or Aluminum

P/N: KnoxBox 3200 (mfr's cat. ID)

Mfr's Name: KNOX COMPANY

1601 W. DEER VALLEY RD. PHOENIX, AZ 85027 | T. 800-552-5669 | F. 623-687-2290 | INFO@KNOXBOX.COM | KNOXBOX.COM

MKT-KBSPEC-0019-E

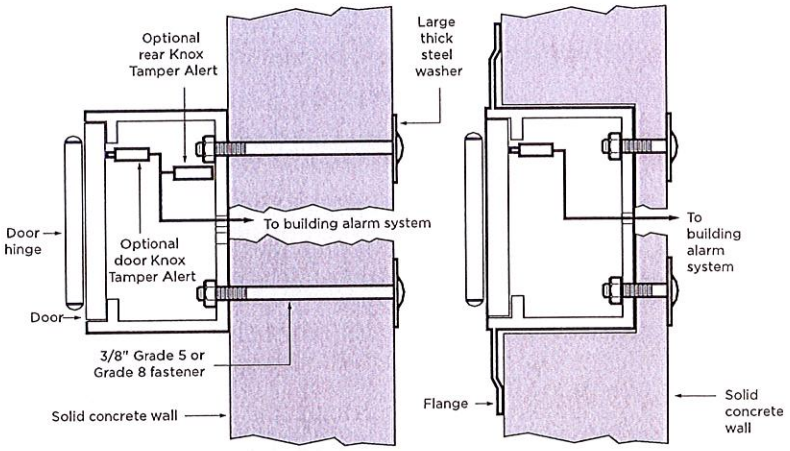
KNOX®
When seconds matter™

KNOXBOX® 3200

GENERAL MOUNTING INSTRUCTIONS

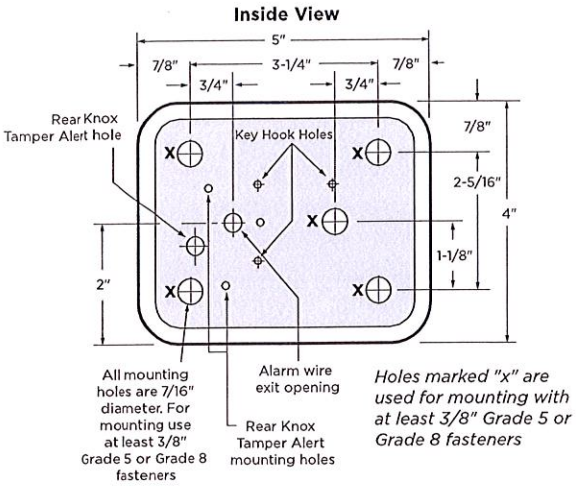
Suggested minimum mounting height, 6 feet above ground.

ATTENTION: KnoxBox is a very strong device that MUST be mounted properly to ensure maximum security and resist physical attack.



KnoxBox 3200 Hinged Door Surface Mount

KnoxBox 3200 Hinged Door Recess Mount



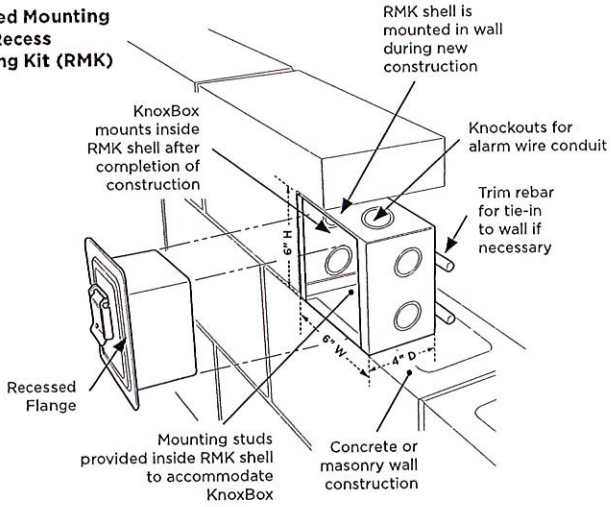
RECESS MOUNTING KIT AND INSTALLATION INSTRUCTIONS

The Recess Mounting Kit (RMK) includes shell housing and mounting hardware, which may only be used for recessed models to cast-in-place within new concrete or masonry construction. The KnoxBox is mounted into the shell housing after construction is completed.

RECESS MOUNTING KIT DIMENSIONS

Rough-in Dimensions:
6-1/2"H x 6-1/2"W x 5"D

Recessed Mounting Using Recess Mounting Kit (RMK)



IMPORTANT:

Care should be taken to ensure the front of the Recess Mounting Kit (RMK) shell housing, including the cover plate and screw heads, is flush with the wall. The RMK must be plumbed to ensure vertical alignment of the box.

ABOUT KNOX COMPANY

Over forty years ago, a unique concept in rapid access for emergency response was born. The KnoxBox®, a high-security key lock box, was designed to provide rapid access for emergency responders to reduce response times, minimize injuries and protect property from forced entry.

Today, one revolutionary lock box has grown into a complete system providing rapid access for public safety agencies, industries, military, and property owners across the world. The Knox Company is trusted by over 14,000 fire departments, law enforcement agencies, and governmental entities.

KNOX COMPANY
1601 W. DEER VALLEY RD
PHOENIX, AZ 85027

T. 800.552.5669
F. 623.687.2290

KNOXBOX.COM
INFO@KNOXBOX.COM

APPENDIX D

- BIODIVERSITY AND NATURAL RESOURCE ASSESSMENT
  - PREPARED BY STEPHEN W. COLEMAN ENVIRONMENTAL CONSULTING, LLC AND DATED DECEMBER 2011 AS PART OF THE HANOVER ESTATES PROPOSED SUBDIVISION APPLICATION PACKAGE

HANOVER ESTATES PROPOSED SUBDIVISION BIODIVERSITY AND NATURAL RESOURCE ASSESSMENT

Prepared for:

The Town of Cortlandt Planning Board

Prepared by:

Stephen W. Coleman
Environmental Consulting LLC
3 Aspen Court
Ossining, New York 10562

December 2011

Copies ..... 1 Planning Board
..... Town Board
..... Zoning Board
..... 1 Legal Dept.
..... 1 DOTS Director
..... 1 C.A.C.
..... A.R.C.
..... 1 Applicant
..... 1 Tim Cronin
.....
Sent 1/5/12

TABLE OF CONTENTS

Project Author:

Stephen W. Coleman Environmental Consulting, LLC 3 Aspen Court Ossining, New York 10562 (914) 494-5544, Fax (914) 762-5260 email steve.coleman8@verizon.net

I. Introduction

The environmental consulting firm of Stephen W. Coleman Environmental Consulting, LLC., has been retained by the Town of Cortlandt Planning Board to conduct a Biodiversity and Natural Resource Assessment of the Proposed Hanover Estates Subdivision located off of Croton Avenue, in the Town of Cortlandt, New York. The property consists of approximately 35.90 acres and includes a freshwater wetlands, meadows, abandoned fields and paddocks, existing buildings, roads and extensive lawn areas, and mixed deciduous forest with moderate and steep slopes.

As outlined in the project's scope, the natural resource inventory surveyed the following target biological groups including mammals, breeding birds, amphibians, reptiles and plant groups including trees, shrubs, wildflowers, grasses and grass-like plants. Special emphasis was placed on the identification of endangered, threatened, and special concern species. Natural Heritage Data Records provided by New York State Department of Environmental Conservation were also reviewed as part of the survey. Existing vegetative communities were described, mapped, and analyzed to determine the habitat values, functions, and overall attractiveness to support environmentally sensitive species. The primary analysis, and report preparation, was carried out by Stephen W. Coleman, B.S. Wildlife Ecologist, with field support provided by Brandon M. Ruhe, M.S., Herpetologist, and Damon S. Oscarson, M.S., field ecologist. Survey work was completed during the months of May through September 2011.

II. Study Area

General Description

The 35.9 acre parcel consists of a post-agricultural use property with large long buildings and barns associated with the Croton Egg Farm. Habitats surrounding the buildings include abandoned pastures, sloping young and mature mixed deciduous woodland, manicured lawn areas, and a wetland and watercourse system. To the east the property borders lands owned by the Central School District, Apple Hill Drive and the Apple Hill Subdivision to the north, Croton Avenue to the west and south.

The forested area on the west and northwest side of the property is a sloping mixed deciduous woodland, draining steeply to the west to Croton Avenue with several flat, plateau areas. It's a moderately mature, well-drained slope with a closed canopy dominated by sugar maple (*Acer ssaccharum*). Some larger specimen trees exist throughout the forested area. This sugar maple stand has little understory with some downed trees and logs. The forest is younger as it slopes uphill to the east with black cherry trees (*Prunus serotina*) and more invasive plants such as black locust (*Robinia pseudoacacia*), Oriental bittersweet (*Celastrus orbiculatus*), mugwort (*Artemisia vulgaris*), garlic mustard (*Alliaria petiolata*), wineberry (*Rubus phoenicolasius*), and multiflora rose (*Rosa multiflora*) closer to the agricultural areas. Other species observed included white ash (*Fraxinus americana*), Japanese barberry (*Berberis*

thunbergii), fox grape (*Vitis labrusca*), Jack-in-the-pulpit (*Arisaema triphyllum*), and Christmas fern (*Polystichum acrostichoides*).

Abandoned agricultural fields we observed to the west, north and northeast of the agricultural buildings. Fields were becoming overgrown with forbs and shrubs and appear to not be regularly maintained. Old cedar fences with hedgerows separate the pastures. Debris piles were located near the buildings. The fields were generally flat and sloped down to the east and southeast to a forested area. Wetland areas draining into the wetland/watercourse to the east were located in the open fields east of the northern-most building. The wetland was marshy and wet with tussock sedges (*Carex stricta*). The poor soils from fill material resulted in a disturbed situation almost exclusively dominated by mugwort and multiflora rose in all the pastures. Other species observed included goldenrod (*Solidago* sp.) and flowering dogwood (*Cornus florida*). Manicured lawns were maintained near the agricultural buildings.

The wetland on the east side of the property is fed from runoff from the hill to the northwest. Some open marshy areas start the wetland with pastures located to the east of the buildings. The wetland/watercourse is mostly wooded with disturbed open areas. A small wooded pooled area, which may function as a vernal pool, was located at the northern end of the watercourse. The wetland drains south downhill forming more of a linear watercourse. The wetland appears to have been ditched in the past.

Species observed in the wetland/watercourse included swamp white oak (*Quercus bicolor*), red maple (*Acer rubrum*), winterberry (*Ilex verticillata*), elm, (*Ulmus* sp.), skunk cabbage (*Symplocarpus foetidus*), tussock sedge, highbush blueberry (*Vaccinium corymbosum*), sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), and common reed (*Phragmites australis*). The forest surrounding the wetland/watercourse was a young to medium aged mixed deciduous woodland. Upland species observed included sugar maple, hickory (*Carya* sp.), black cherry, and tulip poplar trees.

III. Plant Communities

The Hanover Estates Property can best be described as a post agricultural habitat with remnants of old fields, abandoned paddocks, and young to mature remnants of a deciduous upland successional forest. Within this upland complex of mixed deciduous forest is a forested wetland with open water, wet meadows and shrubby thickets. These particular community types and habitats have been described in detail by the New York Natural Heritage Program; by Kiviat and Stevens in their publication titled "Biodiversity Assessment Manual for the Hudson River Estuary Corridor", 2001; and by the reference publication titled " Ecological Communities of New York State (Reschke, 1990, revised 2002).

Several of these forested post agricultural areas tend to overlap and merge from one to another or form subsets within a broader forested community. The species identified are representative of this type of habitat and some of the species are likely to be found

only within certain types of these habitats. In general, the level of disturbance from post agricultural uses has created a mixture of habitats with clear signs of degradation and spread of well established invasive plant species. As a result, the habitats tend to be marginal and limit the attractiveness for environmentally sensitive species of wildlife to be able to utilize these altered habitats. This history of land use is typical in northern Westchester County and the corresponding lack of species richness and abundance is often attributed to the extensive changes caused by a history of intensive agricultural use. The survey was completed for the entire site and specific habitats such as the forested wetland, the mixed deciduous forest, and abandoned post agricultural fields were extensively field searched with limited success.

The results of the natural resources inventory reflect the individual species that were observed to be present on the property and the quality of the habitats reflect the level of species diversity and richness. Due to extensive land use and prior land use disturbance and alterations, the ability of the site to support environmentally sensitive species was determined to be limited. No endangered, threatened or special concern species or habitat communities were identified to be present. The results of species surveys for focal target species groups are as follows:

IV. Natural Resource Inventory

A. Breeding Bird Survey – Methods and Results

The principle survey method involved time-constrained, systematic physical ground searches along random transects throughout each of the habitat types. Unless noted, all species listed were documented through direct observation. Direct observation included visual as well as auditory observation, and evidence of avian activity such as feathers, droppings, tracks, scrapings, and bones. Surveys were conducted between sunrise and two hours after sunrise and/or one hour before and after sunset. One evening survey was completed for potential nocturnal species. All birds observed were identified and recorded to genus and species name. No birds or bird evidence observed during the investigation, were collected as voucher specimens. The breeding bird survey was conducted from 05-10-11 through 06-13-11, for a total of 12.0 hours. The analysis of the data from four consecutive weekly site visits help provide a picture of the number of potential breeding pairs throughout the study site. An individual singing male needed to be recorded a minimum of 3 times to be counted as a probable breeding pair.

A few forest interior species were observed to be present within the study area. The forest interior species were observed within the wetland complex, the transition between these habitats and the intact forested slope sections of the property. This property represents one of the few larger tracts of open land within the area, which makes it attractive for resident avian species. None of the species identified are listed as threatened or endangered in New York State. Seven (7) forest interior species were observed within the project area and include scarlet tanager, wood thrush, red-eyed vireo, ovenbird, eastern wood-pewee , black-capped chickadee , and great-horned owl

The younger second growth forested areas parallel to the wetlands complex to the east, and the edges closest to existing buildings and structures, provides a combination of essential habitats for several more common and adaptable transition and edge type bird species. Forest interior species noted above, were also observed to utilize some of these other habitat areas of the property.

A total of thirty-two (32) different bird species were observed within the general study area during the spring/summer season and represent summer resident breeding bird species. The regional complex of road networks, residential developments and prior land use practices of the subject parcel have created significant fragmentation and overall site disturbances that has reduced the attractiveness of the available habitat for breeding and rearing of young for more regional environmentally sensitive species. Thirty-two different bird species observed is considered below average for properties of this size for nesting bird populations throughout the Westchester area. Due to the fragmentation and prior land use disturbances, the number of common species observed is representative of altered habitats.

Based upon the results of the breeding bird survey, the study site's capability to support populations of rare and environmentally sensitive forest interior species has been compromised. The table below provides information on avian species that were observed as a result of the spring 2011 census.

Common Name	**Scientific Name**	**Probable Breeding Species**
Wild Turkey	*Meleagris gallopavo*	x
Rock Dove	*Columbia livia*	x
Mourning Dove	*Zenaida macroura*	x
Downy Woodpecker	*Picoides pubescens*	x
Northern Flicker	*Colaptes auratus*	x
American Goldfinch	*Carduelis tristis*	
Eastern Wood-Pewee	*Contopus virens*	x
Blue Jay	*Cyanocitta cristata*	x
American Crow	*Corvus brachyrhynchos*	x
Canada Goose	*Branta canadensis*	
Mallard	*Anas platyrhynchos*	x
Black-capped Chickadee	*Parus atricapillus*	x
Tufted Titmouse	*Parus bicolor*	x
White-breasted Nuthatch	*Sitta carolinensis*	x
Great horned Owl	*Bubo virginianus*	
Wood Thrush	*Hylocichla mustelina*	x
American Robin	*Turdus migratorius*	x
Gray Catbird	*Dumetella carolinensis*	x
Red-eyed Vireo	*Vireo olivaceus*	x
Ovenbird	*Seiurus aurocapillus*	x
Yellow Warbler	*Dendroica petechia*	x

Common Name	Scientific Name	Probable Breeding Species
Common Yellowthroat	*Geothlypis trichas*	x
Scarlet Tanager	*Piranga olivacea*	x
Northern Cardinal	*Cardinalis cardinalis*	x
Chipping Sparrow	*Spizella □arolina□*	x
Song Sparrow	*Milospiza melodia*	x
Red-winged Blackbird	*Agelaius phoeniceus*	x
Common Grackle	*Quiscalus quiscula*	x
Brown-headed Cowbird	*Molothrus ater*	x
Northern Oriole	*Icterus galbula*	x
House Finch	*Carpodacus mexicanus*	x
House Sparrow	*Passer domesticus*	x

B. Amphibians and Reptiles Survey – Methods and Results

Surveys for amphibians and reptiles took place during the months of May through August. A total of 11.50 hours were spent in the field. Field work was completed by Brandon M. Ruhe, herpetologist and Stephen W. Coleman. Field inventory techniques included visual searches of downed logs, stumps, leaf litter, and rock piles to determine the presence or absence of individual species, examination of cover types, frog sounds and calls, larval sampling, and identification of egg masses. A detailed description of amphibian and reptile survey techniques can be found in Klemens (1993). A total of 10 species, (seven amphibians and three reptiles) were documented at the site. None of the species identified are listed as endangered, threatened or special concern status species. The species observed are listed in the table below.

Common Name	Scientific Name
Gray Tree Frog	*Hyla versicolor*
Northern Spring Peeper	*Pseudocris crucifer crucifer*
Northern Two-lined Salamander	*Eurycea bislineata*
Red-backed Salamander	*Plethodon cinereus*
Eastern American Toad	*Bufo americanus americanus*
Green Frog	*Ranas clamitans melanota*
Pickerel Frog	*Rana palustris*
Eastern Garter Snake	*Thamnophis sirtalis sirtalis*
Painted Turtle	*Chrysemys picta*
Snapping Turtle	*Chelydra serpentina serpentina*

C. Mammal Survey – Methods and Results

Mammals were surveyed by active ground searches looking for evidence of any animal activity. The primary survey method involved time-constrained, systematic physical ground searches along random transects throughout each of the habitat types. Unless noted, all species listed were documented through direct observation. Direct

observation included visual as well as auditory observation, and evidence of animal signs such as fur, tracks, droppings, scrapings, and bones. All animals observed were identified and recorded to genus and species name. No animals or animal evidence observed during the investigation, were collected as voucher specimens. The mammal survey was conducted from May 10th through August 13th. A total of 9.50 hours were spent in the field. Weather conditions were conducted during optimal field conditions, sunny, warm conditions with average temperature in the mid 70's F.

The mammal survey confirmed the presence of 11 different mammal species on the project site. Gray squirrels, eastern chipmunks, white-tailed deer, raccoons and deer mice were the most commonly observed mammals. Deer were especially abundant as evidenced by numerous well-worn trails, bedding areas and abundant droppings. Chipmunks and gray squirrels were most common along stonewalls and rock outcrops, throughout the forested sections, and along wetland corridors. Raccoons sign was observed primarily along the edge of the wetland. The mammal species observed within the study area are:

Common Name	**Scientific Name**
Virginia Opossum	*Didelphis virginiana*
Short-tail Shrew	*Blarina brevicauda*
Eastern Cottontail	*Sylvilagus floridanus*
Eastern Chipmunk	*Tamias striatus*
Woodchuck	*Marmota monax*
Gray Squirrel	*Sciurus carolinensis*
Southern Flying Squirrel	*Glaucomys volans*
White-footed Mouse	*Peromyscus leucopus*
Raccoon	*Procyon lotor*
Striped Skunk	*Mephitis mephitis*
White-tailed Deer	*Odocoileus virginianus*

D. Botanical Survey - Methods and Results

Vegetative survey methods involved direct field identification of plants observed within the project study area. Inventory included random linear searches throughout the project area. All plants that could be visually observed and identified were recorded. The entire study area was surveyed to observe all plants present. Plants were identified by flower type and floral structure, by plant type, and leaf shape and arrangement. Plants were identified in both flowering and non-flowering conditions. When necessary, individual plants were collected if they required laboratory verification to specific species. Plants within the genus Carex and some of the grass genera were collected and later verified to species. Individual plants were identified by common name and scientific name (genus and species), and recorded. The New York State Department of Environmental Conservation's publication "New York State Endangered, Threatened and Special Concern Species 1998, was used as the definitive list for determining whether any plants observed on the study area would be considered Endangered,

Threatened or Special Concern status. The vegetative survey was conducted from May 10th through August 13th. A total of 7.0 hours were spent in the field.

A total of 75 plant species were observed to be present throughout the study area. This represented 21 species of trees, 22 species of shrubs and vines, and 46 species of forbs (wildflowers, ferns, grasses and grass-like plants). Existing evidence of current and past land use practices within the study area, the forest composition, species diversity and plant community shows positive signs of encroachment and alteration of the habitat types present. Several invasive plant species have become established within the study area. A list of observed plant species by target group follows:

Trees:

Common Name	**Scientific Name**
Norway Maple	*Acer platanoides*
Red Maple	*Acer rubrum*
Silver Maple	*Acer saccharinum*
Sugar Maple	*Acer saccharum*
Black Birch	*Betula lenta*
Ironwood	*Carpinus caroliniana*
Shagbark Hickory	*Carya ovata*
Flowering Dogwood	*Cornus florida*
White Ash	*Fraxinus Americana*
Tulip Poplar	*Liriodendron tulipifera*
American Beech	Fagus grandifolia
Black Walnut	Juglans nigra
Norway Spruce	*Picea abies*
White Pine	*Pinus strobus*
Black Cherry	*Prunus serotina*
White Oak	*Quercus alba*
Black Oak	*Quercus velutina*
Red Oak	*Quercus rubra*
Black Willow	*Salix nigra*
Eastern Hemlock	*Tsuga Canadensis*
American Elm	*Ulmus Americana*

Shrubs and Vines

Common Name	***Scientific Name***
Japanese Barberry	*Berberis thunbergii*
Oriental bittersweet	*Celastrus orbiculatus*
Summersweet	*Clethra alnifolia*
Silky dogwood	*Cornus amomum*
Winged Euonymus	*Euonymus atropurpurea*
Forsythia	*Forsythia spp.*
Witch hazel	*Hamamelis virginiana*
Winterberry	*Ilex verticillata*
Spicebush	*Lindera benzoin*
Virginia Creeper	*Parthenocissus quinquefolia*
Brambles	*Rhubus spp.*
Poison Ivy	*Rhus glabra*
Multiflora Rose	*Rosa multiflora*
Black Raspberry	*Rubus occidentalis*
Wineberry	*Rubus phoenicolasias*
Elderberry	*Sambucus canadensis*
Greenbrier	*Smilax spp.*
Highbush blueberry	*Vaccinium corymbosum*
Arrowood Viburnum	*Viburnum dentatum*
Grape	*Vitis spp.*
Common Privet	*Buxus spp.*
Japanese Honeysuckle	*Lonicera japonica*

Forbs (wildflowers, ferns, grasses and grass-like plants)

Common Name	**Scientific Name**
Garlic mustard	*Alliaria petiolata*
Ragweed	*Ambrosia spp.*
Broom sedge	*Andropogon virginicus*
Wood anemone	*Anemone quinquefolia*
Spreading dogbane	*Apocynum androsaemifolium*
Wild columbine	*Aquilegia Canadensis*
Burdock	*Arctium minus*
Jack-in-the-pulpit	*Arisaema atrorubens*
White wood aster	*Aster divaricatus*
Wood Aster	*Aster spp.*
Common milkweed	*Asclepias syriaca*
Mugwort	*Artemisia vulgaris*
Lady Fern	*Athyrium filix-femina*
Comosa sedge	*Carex comosa*
Laxiflora sedge	*Carex laxiflora*

Common Name	Scientific Name
Tussock Sedge	*Carex stricta*
Fox Sedge	*Carex vulpinoides*
Spotted knapweed	*Centaurea maculosa*
Enchanter' nightshade	*Circaea quadrisulcata*
Bull thistle	*Cirsium vulgare*
Hay-scented fern	*Dennstaedtia punctilobula*
New York Fern	*Dryopteris noveboracensis*
Wood Fern	*Dryopteris spp.*
Daisy fleabane	*Erigeron annuus*
Trout lily	*Erythronium americanum*
Meadow fescue	*Fescue elatior*
Wild strawberry	*Fragaria virginiana*
Wild geranium	*Geranium maculatum*
Jewelweed	*Impatiens capensis*
Wild mint	*Mentha arvensis*
Japanese stilt grass	*Microstegium vimeneum*
Sensitive Fern	*Onoclea sensibilis*
Cinnamon Fern	*Osmunda cinnamomea*
Royal Fern	*Osmunda regalis*
Deer-tongue grass	*Panicum clandestinum*
Wild blue phlox	*Phlox divaricata*
Common reed	*Phragmites communis*
Christmas fern	*Polystichum acrostichoides*
False Solomon Seal	*Smilacina racemosa*
Deadly nightshade	*Solanum dulcamara*
Canada goldenrod	*Solidago Canadensis*
Spagnum moss	*Spagnum spp.*
Skunk cabbage	*Symplocarpus foetidus*
Marsh fern	*Thelypteris thelypteroides*
White clover	*Trifolium repens*
Red clover	*Trifolium pratense*

V. Biodiversity Assessment Summary

Results of the natural resource survey indicate in general a low diversity of wildlife and plant species and community types. Few environmentally sensitive species were observed to be present. Those individuals observed were recorded in low numbers. Specific habitat cover types and physical boundaries of the ecological communities present on the property are not well developed or highly disturbed due to the history of human use and land disturbance from prior agriculture and commercial functions. The buffer to the existing wetland in the eastern side of the parcel has been encroached with existing buildings, and prior landscaping. The combination of the buffer area and adjacent upland has the potential to support box turtles, however, no individuals were observed during the survey period. The impact from white tailed deer is extensive and limits overall plant diversity. Invasive plant species have become well established within the abandoned paddocks and field areas and around the perimeter of the developed areas of the property. The prior ground disturbance has reduced available habitat which restricts the diversity of amphibian and reptile species.

Despite the lower number of more environmentally sensitive indicator species, the existing wetland and wetland buffer area does still provide important roles in water quality maintenance functions, and habitat for more common resident wildlife species. The presence of gray tree frogs indicates that the wetland does provide beneficial habitat for some environmentally sensitive species. This species is attracted to more open wetlands with scrub shrub type habitat. The adjacent woodland and open meadow areas of the property appear capable of supporting box turtles, however, none were observed to be present. The open water areas of the wetland appear to be capable of supporting vernal pool species, however, extensive searches did not find any larvae or egg masses of vernal pool species. A few spring peepers were heard calling, but these may be remnant populations that move throughout the wetland complex and adjacent habitat.

The avian species represented within the target study area is on the low side for typical summer resident breeding bird species. Of this number, seven of the more common forest interior species were observed within the project area. These species usually require larger tracts of relatively mature forest canopy but have demonstrated to be more adaptable to forest fragmentation. The amount of fragmentation and surrounding land use on all sides has limited the attractiveness and use of this area by more environmentally sensitive resident forest interior breeding birds.

The mammal species observed were all common species that are widely adaptable to forest fragmentation and alteration of habitats. They utilize many of the edge areas of different habitats and as a result are less impacted by altered landscapes.

Land Use and Biodiversity Values

The pattern of land development within the subject area has reduced the attractiveness and the ability of remaining habitats to support species that are considered endangered, threatened or special concern. These species often have very specific habitat requirements that often are not met on smaller tracts of land. The adjacent developments and the existing road network have reduced the attractiveness of this area. The size of the parcel does provide an important refuge for existing and more common species of wildlife. The combination of existing wetlands with a mixed age deciduous forest including steeper sloped areas does provide numerous biological benefits and roles within the regional context of water quality, open space, and overall plant and animal diversity. Despite the lack of species richness, the size of the parcel still provides important biological functions that are important in the regional context and any development needs to take these factors into consideration.

Any concentrated development of the property has the potential to result in significant and long-term impacts to existing more common resident wildlife populations. Specifically, a dense development would eliminate much of the forest habitat and successional quality of the forest. This would result in an increase in the amount of forest fragmentation, which will further reduce the attractiveness for the few forest interior bird species observed within the study area. Clearing for the proposed development will favor proliferation of more common and adaptable wildlife species.

Recommended Development Guidelines to Protect Biodiversity

In an effort to preserve the basic ecological functions provided by the subject parcel and to protect the existing wetlands, forested tracts and abandoned fields and meadows, several development guidelines should be considered as follows:

1. Minimize impacts to the existing Wetlands and Wetland Buffer Area

    - The proposed development plans have established a 5.07 acre parcel that includes the majority of the wetland and wetland buffer. An added benefit of the proposed development is that existing buildings will be removed from the buffer area. To maximize protection of the wetland and wetland buffer, it may be advisable to extend the conservation area to include the wetland and buffer area located within proposed lots 6 and 7

    - The proposed subdivision plans have proposed converting a large portion of the buffer for a picnic area and a dog park. The dog park is proposed immediately adjacent to the wetlands.

    - The construction of a dog park immediately adjacent to a wetland will create additional impacts to the functions of the wetland. The increase in pet wastes will introduce additional pathogens to resident wildlife species that utilize the wetland area. The location of the proposed dog park would

be better located outside of the buffer area to the wetlands. The use of some of the buffer as a permanent picnic area and a series of pedestrian trails to be used by the adjacent school property is a less intensive use and should be compatible within the existing buffer. The wetland area could also be used as an outdoor classroom for the adjacent high school.

- Due to the existing condition of the wetland buffer, opportunities are present to restore and enhance wetland functions provided by the buffer area. Strategic placement of new plantings consisting of ground covers, and shrubs would assist with creating more functional habitat adjacent to the wetland and also serve to filter nutrients that may come from more developed areas.

- Storm water basins are proposed along the edge of the wetland buffer. It is assumed that overflow and the outlet to these basins would be directed into the adjacent wetland. The addition of new plantings to filter any water from the basins would assist with water quality maintenance functions.

- Removal of invasive plant species that have become established within the wetlands complex would also improve the habitat and provide more functional habitat for resident wildlife species.

2. Minimize Impacts to Wildlife Movements

- The proposed subdivision plans as presented, essentially develop 100 % of the buildable areas of the property. The subdivision will require extensive removal of existing trees and essentially eliminates any remaining habitat for resident wildlife species. Consideration should be given to reducing the density to a more reasonable level and changing the design to preserve more of the character of the remaining forested areas.

- The use of a cluster subdivision layout would provide an opportunity to preserve more open space and still allow a reasonable number of lots. This would also maximize more functional open space for promoting biodiversity.

- The proposed layout provides little connectivity of open space areas and reduces the ability of wildlife to access the wetlands to the east side of the property. A majority of resident wildlife species utilize wetland areas at some point in their life cycle. Maintaining linear corridors that connect forested areas to the wetlands would allow some access for wildlife that will remain, or that will re-occupy the site after it is developed.

- The development as proposed will result in the displacement of the majority of resident wildlife species. Some of the more adaptable species may return after the development is completed, but the majority will be displaced to other areas. Displacement of white-tail deer to adjacent properties will likely create

additional impacts. The impact of displacement warrants further analysis to determine how to mitigate their impacts to neighboring properties.

- Establishing a permanent linear corridor (recommended width of 50-75 feet behind proposed lots 1-6 would help to maintain a forested buffer between the residences and the wetland. Consideration should be given to setting up a conservation easement and some type of permanent demarcation.

- The proposed layout results in a lot of extra site disturbance due to each lot having individual driveways. The use of shared driveways or placement of driveways together would allow opportunities to maintain larger tracts of forested areas and preserve more groupings of trees.

- Minimal attention has been given to reduce the fragmentation or preserve specimen trees that are located throughout the forested areas of the property. The interior of the property could be designed differently to maximize the amount of open space areas that would remain and be connected to each other. This would preserve more of the structure of the remaining forest and allow more open space to be set aside that is functional and not restricted to minor strips between lots. A detailed tree survey would help to identify groupings of trees and specimen quality trees that are worthy of preservation.

- Larger lot sizes should be considered to reduce the amount of overall site disturbance. Larger lots will reduce the amount of tree clearing, required grading, and the amount of disturbance from road and driveway access.

VI. Summary

To minimize impacts on overall biodiversity and the ecological services provided by the subject parcel, any proposed plans for development of this property should conform to the carrying capacity of the landscape. The proposed layout represents a very intense development that would compromise basic ecological services provided by the parcel. Serious consideration should be given to the use of low impact development measures as noted above, plus concentrating the development on a smaller section of the property. Incorporation of the above guidelines will help preserve the biological integrity and values of the property, and maintain important open space resources of benefit to the surrounding community.

VIII. Technical References

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PHOTOGRAPHS

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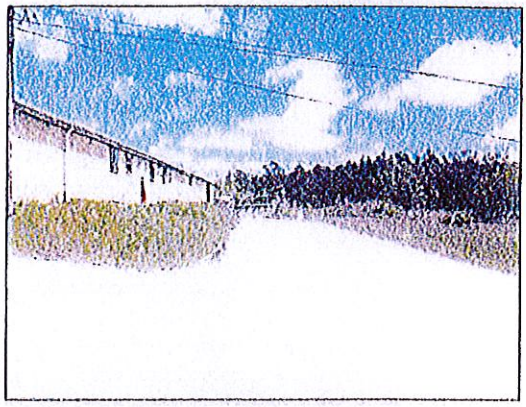
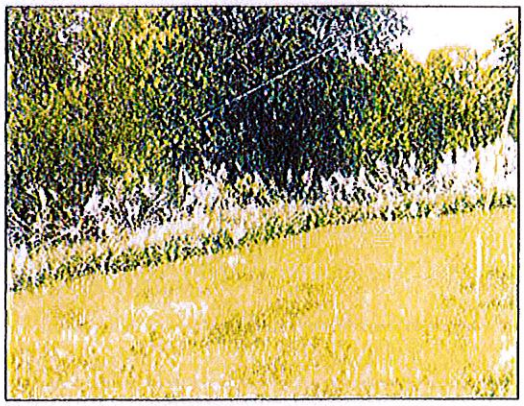


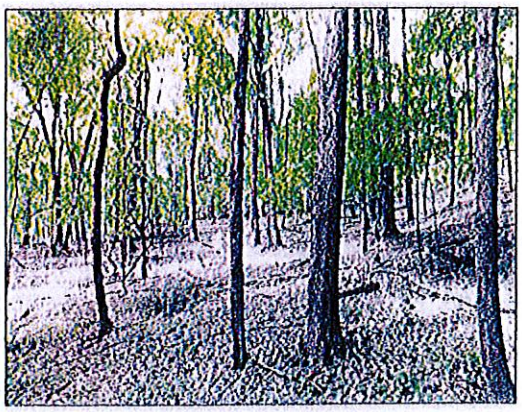
Agricultural buildings with lawns

Agricultural buildings with lawns

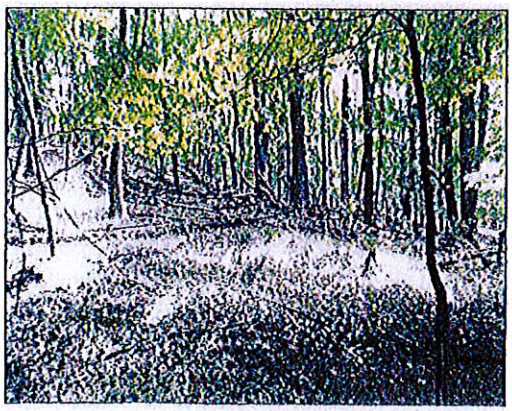


Manicured lawns

Manicured lawns



Western woodland



Western woodland

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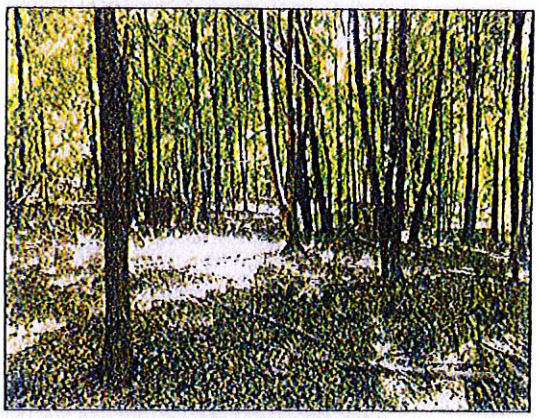
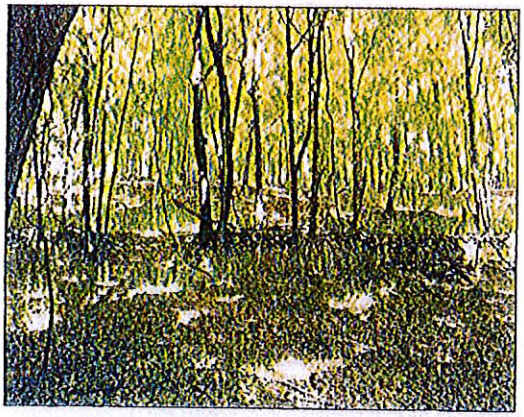
Western woodland

Red-backed salamander



Western woodland



Western woodland

Abandoned pastures

Abandoned pastures

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Abandoned pastures

Abandoned pastures

Abandoned pastures

Abandoned pastures

Debris pile near buildings

Eastern garter snaked

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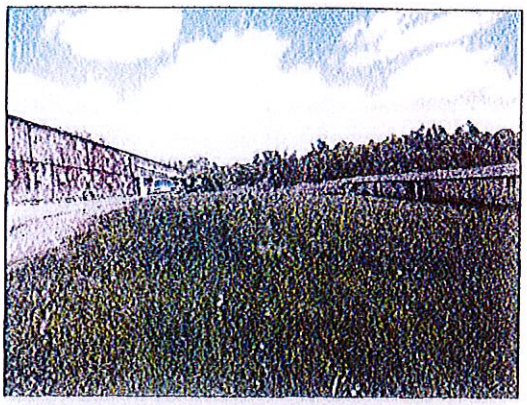
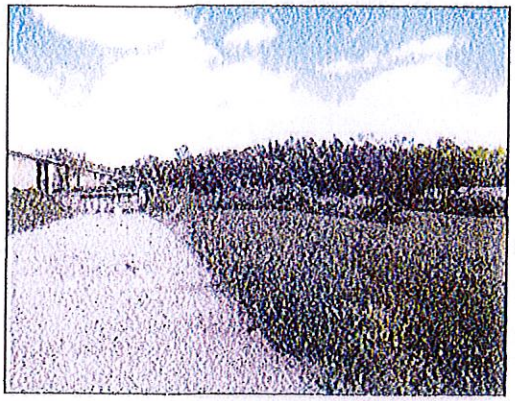


Manicured lawns near agricultural buildings



Manicured lawns near agricultural buildings

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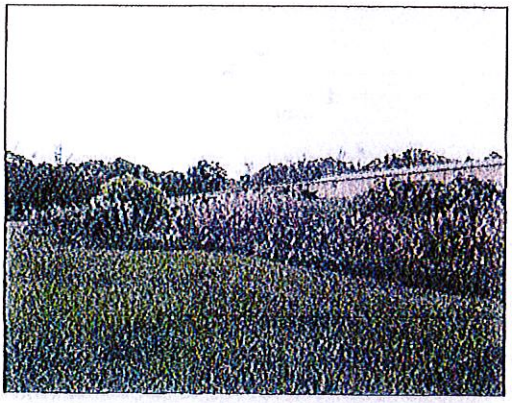

Manicured lawns near agricultural buildings

Wet meadow in abandoned pasture

Abandoned pastures

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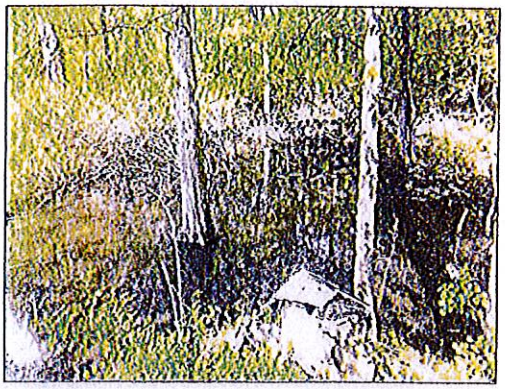
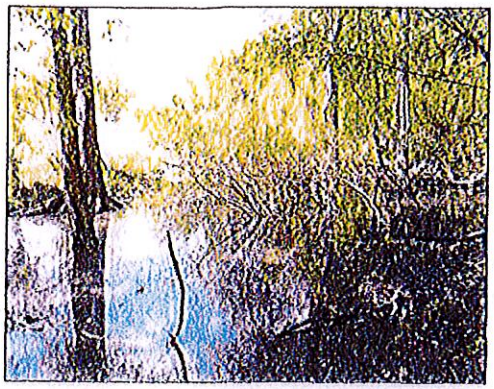


Vernal pool area in eastern wetland/watercourse



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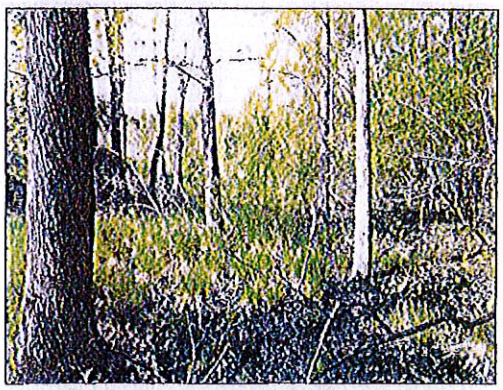
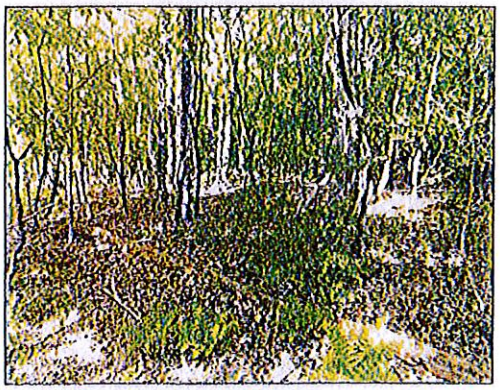


Eastern wetland/watercourse

Eastern wetland/watercourse



Woodland near wetland/watercourse

Eastern wetland/watercourse