

APPENDIX C
ACOE JD Application

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September 17, 2014

U.S. Army Corps of Engineers
New York District
26 Federal Plaza
New York, NY 10278

Attn: Naomi Handell

Re: Jurisdictional Determination Request File Number NAN-2014-00705-EHA by Scenic
Development

CEA No.: 06010

Dear Ms. Handell:

In response to the August 22, 2014 letter from the Army Corps of Engineers (ACOE),
CEA Engineers, P.C. (CEA), in conjunction with Atzl, Scatassa and Zigler P.C., submit
the following comment responses, revised drawings and data forms:

- Wetland Delineation Survey, prepared by Atzl, Scatassa & Zigler P.C., June 13,
2014, (Rev. 9/2/14) (Site survey).
- Wetland Delineation Map, prepared by CEA, June 17, 2014, (Rev. 9/5/14)
(Delineation map).
- Wetlands and Waters of the U.S., prepared by CEA, June 17, 2014, (Rev. 9/5/14)
Wetlands and waters map).
- Wetland Delineation Report – JD Checklist, prepared by CEA, June 2014 (Rev.
9/12/14) (Attachment 1).
- ACOE Wetland Determination Data Forms (Attachment 2).
- Aquatic Resources Spreadsheet, prepared by CEA, September 17, 2014
(Attachment 3).

*1. Provide affected parties contact information (name, address, phone, email). Also
provide a contact name, phone number and email address for Scenic Development,
LLC.*

- The contact information for Scenic Development, LLC has been provided. Please
refer to Attachment 1.

2. As per the site inspection conducted August 4 and August 5, 2014, the following changes should be made to the plan entitled "Wetland Delineation Map" prepared by CEA Engineers and dated June 17, 2014 make the following changes:

- *Show all culverts*
 - All culverts are depicted on project drawings. Please refer to the Site survey, Delineation map, and Wetlands and Waters map.
- *Show stream(s) near A25*
 - The stream is now depicted on project drawings. Please refer to the Site survey, Delineation map, and Wetlands and Waters map.
- *Provide names and addresses of easement holders*
 - Please refer to the Site survey, Delineation map, and Wetlands and Waters map.
- *Features shown in blue between B32 and B34 should be changed to green*
 - The changes were made as requested. Please refer to the Delineation map.
- *Adjust wetland line as discussed in the field at A8 through A 10 and provide data sheet for A 10 area*
 - The adjustments were made per our field discussions and subsequent survey revisions.
 - Please refer to the Site survey, Delineation map, and Wetlands and Waters map.
 - Please refer to Attachment 2.
- *The upland area between the Y wetland and the YY wetland is jurisdictional wetland and should be included with the YY wetland*
 - The area is now identified and labeled as a wetland.
 - Please refer to the Site survey, Delineation map, and Wetlands and Waters map.
- *Confirm that you have submitted a representative data form for each wetland type*
 - Four different palustrine wetland types were identified onsite and each was classified using the Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al. 1979.
 - Data forms A-9, A-28 and B-8 represent wetland type PFO1C (Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded).
 - Data forms BB-15, TW-18/20, X-8, X-17, X-51, X-79, YY-4 (Attachment 2), and YY-45 represent wetland type PFO1E

(Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded/Saturated).¹

- Data form CC-8 represents wetland type PEM1 (Palustrine, Emergent, Persistent).
 - Data forms CC-12, CC-13, CC-15, CC-16, CC-15/16, CC-16, and CC-33 represent wetland type PEM5(E) (Palustrine, Emergent, Phragmites, (Seasonally Flooded/Saturated)).
- *Provide data forms for YY 4 and X37*
 - Data forms for YY 4 and X 37 have been provided. Please refer to Attachment 2.
 - *Make stream order corrections as discussed in the field*
 - The stream order corrections were completed. Please refer to Attachments 1 and 3.
 - *Along with a full size copy, provide a black and white, 8.5 inch by 11 inch copy of the revised Wetland Delineation Map. The 8.5 inch by 11 inch map must be legible.*
 - Attached, please find the requested copies.

Sincerely,

Carpenter Environmental
Associates, Inc.



Greg M. Fleischer, PWS
Vice President

¹ Wetland 6 was classified by the National Wetlands Inventory as wetland type PSS1E (Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Seasonally Flooded/Saturated). CEA classified this wetland as a PFO1E wetland type. Data form YY-4 represents Wetland 6.

Attachment 1

Wetland Delineation Report – JD Checklist

ACOE Checklist of Information Included with Requests for Jurisdictional Determinations (JD)

1. Name, mailing address and phone number of:
 - Current Property Owner
 - Mr. Yechiel Lebovits – Scenic Development, LLC, 3 Ashel Lane, Monsey, NY 10952
 - scenicdevelopment@gmail.com
 - (845) 425-0200
 - Applicant
 - Mr. Yechiel Lebovits – Scenic Development, LLC, 3 Ashel Lane, Monsey, NY 10952
 - scenicdevelopment@gmail.com
 - (845) 425-0200
 - Wetland Delineator
 - Greg Fleischer, PWS – Carpenter Environmental Associates, Inc. 610 County Route 1, Unit 2F, Pine Island, NY 10969
 - G.fleischer@cea-enviro.com
 - (845) 781-4844 x323

2. Locations
 - Site Location Map
 - Figure 1
 - Center of site
 - lat. 41°10'31.33" N, lon. 74°04'23.29" W

Wetlands Coordinates (Table 2)

 - Center of Wetland 1
 - lat. 41°10'37.24" N, lon. 74° 04'10.02" W
 - Center of Wetland 3
 - lat. 41°10'47.57" N, lon. 74°04'10.80" W
 - Center of Wetland 4
 - lat. 41°10'20.32" N, lon. 74°04'39.08" W
 - Center of Wetland 5
 - lat. 41°10'27.09" N, lon. 74°04'37.19" W
 - Center of Wetland 5A
 - lat. 41°10'27.43" N, lon. 74°04'36.82" W
 - Center of Wetland 5B
 - lat. 41°10'27.34" N, lon. 74°04'33.74" W
 - Center of Wetland 5C
 - lat. 41°10'27.98" N, lon. 74°04'31.71" W
 - Center of Wetland 5D
 - lat. 41°10'29.52" N, lon. 74°04'31.04" W

- Center of Wetland 6
 - lat. 41°10'21.90" N, lon. 74°04'32.48" W
- Center of Wetland 6A
 - lat. 41°10'23.71" N, lon. 74°04'29.55" W
- Center of Wetland 6B
 - lat. 41°10'24.47" N, lon. 74°04'29.60" W
- Center of Wetland 6C
 - lat. 41°10'26.05" N, lon. 74°04'28.76" W
- Center of Wetland 6D
 - lat. 41°10'26.88" N, lon. 74°04'30.20" W
- Center of Wetland 6E
 - lat. 41°10'27.13" N, lon. 74°04'31.28" W
- Center of Wetland 7
 - lat. 41°10'28.77" N, lon. 74°04'29.01" W
- Center of Wetland 8
 - lat. 41°10'32.80" N, lon. 74°04'34.40" W
- Center of Wetland 9
 - lat. 41°10'15.22" N, lon. 74°04'34.50" W

Tributaries

- Tributary 1 (upper)
 - 1st order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'42.69" N, lon. 74°04'09.05" W (Table 3)
 - End: lat. 41°10'46.77" N, lon. 74°04'10.80" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 1 (lower)
 - 1st order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'47.20" N, lon. 74°04'10.69" W (Table 3)
 - End: lat. 41°10'52.14" N, lon. 74°04'13.80" W (Table 3)
 - Perennial, relatively permanent waters (RPW)
- Tributary 2
 - 1st order stream
 - Located in the northwestern corner of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'31.39" N, lon. 74°04'36.03" W (Table 3)
 - End: lat. 41°10' 41.50" N, lon. 74°04'36.80" W (Table 3)
 - Perennial, relatively permanent waters (RPW)
- Tributary 3 (upper)
 - 1st order stream

- Located in the southwestern portion of the subject property (Figure 4 (Rev. 9/5/14))
- Reach:
 - Start: lat. 41°10'15.73" N, lon. 74°04'46.54" W (Table 3)
 - End: lat. 41°10'24.58" N, lon. 74°04'39.63" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 3 (lower)
 - 2nd order stream
 - Located in the southwestern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'24.58" N, lon. 74°04'39.63" W (Table 3)
 - End: lat. 41°10'27.73" N, lon. 74°04'37.52" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 4 (upper)
 - 1st order stream
 - Located in the southern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'14.89" N, lon. 74°04'34.52" W (Table 3)
 - End: lat. 41°10'17.22" N, lon. 74°04'36.01" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 4 (lower)
 - 1st order stream
 - Located in the southern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start lat. 41°10'17.22" N, lon. 74°04'36.01" W (Table 3)
 - End: lat. 41°10'24.58" N, lon. 74°04'39.63" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 5
 - 1st order stream
 - Located in the southeastern corner of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'18.57" N, lon. 74°04'29.83" W (Table 3)
 - End: lat. 41°10'28.25" N, lon. 74°04'31.98" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Tributary 6
 - 1st order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'52.00" N, lon. 74°04'59.54" W (Table 3)
 - End: lat. 41°10'50.17" N, lon. 74°04'01.73" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)

- Brian Brook (upper)
 - 1st order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'48.08" N, lon. 74°03'59.88" W (Table 3)
 - End: lat. 41°10'50.17" N, lon. 74°04'01.73" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Brian Brook (upper)
 - 2nd order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'50.17" N, lon. 74°04'01.73" W (Table 3)
 - End: lat. 41°10'50.27" N, lon. 74°04'03.68" W (Table 3)
 - Intermittent, relatively permanent waters (RPW)
- Brian Brook (lower)
 - 2nd order stream
 - Located in the northern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'50.50" N, lon. 74°04'03.78" W (Table 3)
 - End: lat. 41°10'53.55" N, lon. 74°04'07.70" W (Table 3)
 - Perennial, relatively permanent waters (RPW)

Ditches

- Ditch #1
 - Located in the southeastern portion of the subject property (Figure 4)
 - Reach:
 - Start: lat. 41°10'24.58" N, lon. 74°04'27.49" W (Table 4)
 - End: lat. 41°10'28.25" N, lon. 74°04'30.65" W (Table 4)
 - Intermittent, non-relatively permanent waters (Non-RPW)
- Ditch #1A
 - Located in the southeastern portion of the subject property (Figure 4)
 - Reach:
 - Start: lat. 41°10'25.26" N, lon. 74°04'29.46" W (Table 4)
 - End: lat. 41°10'26.22" N, lon. 74°04'29.24" W (Table 4)
 - Intermittent, non-relatively permanent waters (Non-RPW)
- Ditch #2
 - Located in the southeastern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'29.37" N, lon. 74°04'27.77" W (Table 4)
 - End: lat. 41°10'28.34" N, lon. 74°04'30.48" W (Table 4)
 - Intermittent, non-relatively permanent waters (Non-RPW)

- Ditch #3
 - Located in the central southern portion of the subject property (Figure 4 (Rev. 9/5/14))
 - Reach:
 - Start: lat. 41°10'31.75" N, lon. 74°04'31.71" W (Table 4)
 - End: lat. 41°10'32.18" N, lon. 74°04'34.69" W (Table 4)
 - Intermittent, non-relatively permanent waters (Non-RPW)

3. See attached report.

4.

- Current Site use
 - Vacant agricultural fields and forest
- Historic Site use
 - Agriculture - Crop fields
- NWI map
 - Figures 3 & 3A
- NRCS soil map
 - Figure 5
- Watershed
 - Hackensack-Passaic Watershed HUC 12: 020301030203
 - Watershed size
 - 1,133 square miles
 - Average annual rainfall/snowfall
 - 48-50 inches
- Tributaries
 - Tributary 1 (upper): Intermittent, relatively permanent waters (RPW);
 - Tributary 1 (lower): Perennial, relatively permanent waters (RPW);
 - Tributary 2: Perennial, relatively permanent waters (RPW);
 - Tributary 3: Intermittent, relatively permanent waters (RPW);
 - Tributary 4: Intermittent, relatively permanent waters (RPW);
 - Tributary 5: Intermittent, relatively permanent waters (RPW);
 - Tributary 6: Intermittent, relatively permanent waters (RPW);
 - Brian Brook (upper): Intermittent, relatively permanent waters (RPW);
 - Brian Brook (lower): Perennial, relatively permanent waters (RPW);
 - Ditch #1: Intermittent, non-relatively permanent waters (Non-RPW)
 - Ditch #1A: Intermittent, non-relatively permanent waters (Non-RPW)
 - Ditch #2: Intermittent, non-relatively permanent waters (Non-RPW)

- Ditch #3: Intermittent, non-relatively permanent waters (Non-RPW)
- Wetland/Tributary relationship
 - Wetland 1 drains to the north into Tributary 1. Tributary 1 drains offsite to the Mahwah River.
 - Wetland 3 drains to the west and into Tributary 1. Tributary 1 drains offsite to the Mahwah River.
 - Wetland 4 drains to the north via Tributary 3 and into the constructed farm pond. The farm pond drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 5 is situated along the shallow banks of Tributary 3 (lower). Tributary 3 drains to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 5A is situated along the fringe of the constructed farm pond. The constructed farm pond drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 5B is situated along the fringe of the constructed farm pond. The constructed farm pond drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 5C is situated along the fringe of the constructed farm pond. The constructed farm pond drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 5D is situated along the fringe of the constructed farm pond. The constructed farm pond drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6 is situated to the west of Tributary 5 and acts as a secondary channel during high volume storm events. Tributary 5 drains to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6A drains to the west and into Tributary 5. Tributary 5 drains to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6B drains to the west and into Tributary 5. Tributary 5 drains to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6C drains into Ditches #1 and #1A. Ditches #1 and #1A drain to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6D is situated adjacent to Tributary 5 and Ditch #1 along the gas transmission line easement. Tributary 5 and Ditch #1 drain to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
 - Wetland 6E is situated north of the gas transmission line easement to the west of Tributary 5. Tributary 5 drains to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.

- Wetland 7 drains west to the constructed farm pond that drains to Tributary 2 which runs offsite to the Mahwah River.
- Wetland 8 drains west into Tributary 2 which runs offsite to the Mahwah River.
- Wetland 9 is situated on either side of a very shallow ditch that is Tributary 4. Tributary 4 drains to Tributary 3, the farm pond, Tributary 2, and then runs offsite to the Mahwah River.
- Tributary/TNW relationship
 - Tributary 1 drains offsite to the Mahwah River (TNW).
 - Tributary 2 drains offsite to the Mahwah River (TNW).
 - Brian Brook drains offsite to the Mahwah River (TNW).
- River miles to TNW
 - Tributary 1 (perennial RPW) drains to the Mahwah River (TNW) 0.29 miles downstream from the subject property.
 - Tributary 2 (perennial RPW) drains to the Mahwah River (TNW) 0.13 miles downstream from the subject property.
 - Brian Brook (perennial RPW) drains to the Mahwah River (TNW) 0.32 miles downstream from the subject property.
- Aerial miles to TNW
 - Tributary 1 (perennial RPW) drains to the Mahwah River (TNW) 0.24 miles from the subject property.
 - Tributary 2 (perennial RPW) drains to the Mahwah River (TNW) 0.13 miles from the subject property.
 - Brian Brook (perennial RPW) drains to the Mahwah River (TNW) 0.30 miles from the subject property.
- Tributary substrate composition
 - Tributary 1 (upper): unconsolidated bottom; primarily mud.
 - Tributary 1 (lower): streambed; primarily small aggregates (cobble-gravel).
 - Tributary 2: even distribution of unconsolidated bottom composed of mud and streambed consisting primarily of small aggregates (cobble-gravel).
 - Tributary 3 (upper): shallow ditch; primarily mud.
 - Tributary 3 (lower): streambed; primarily small aggregates (cobble-gravel).
 - Tributary 4 (upper): shallow ditch; vegetated.
 - Tributary 4 (lower): streambed; primarily small aggregates (cobble-gravel).
 - Tributary 5: streambed; primarily small aggregates (cobble-gravel).
 - Tributary 6: shallow ditch; primarily mud.
 - Brian Brook: even distribution of unconsolidated bottom composed of mud and streambed consisting primarily of small aggregates (cobble-gravel).
- Potential pollutants

- There are currently no potential pollutants associated with the site as it is fallow agricultural land traditionally used for farming. No evidence of dumping or disposal of hazardous materials was identified during site visits.
- Potential habitat for species
 - No state or federally threatened or endangered species were identified on the project site.
- Justification for proposed “isolated” (SWANCC) or non-jurisdictional determinations on any wetlands or streams:
 - There are no proposed “isolated” (SWANCC) or non-jurisdictional determinations on any wetlands or streams for the subject property.
- Vegetative cover types onsite:
 - Wetland 1: The vegetative community associated with the palustrine wetlands (PFO1C) identified and delineated throughout Wetland 1 consisted of:
 - Wetland plants:
 - red maple (*Acer rubrum*, FAC);
 - swamp white oak (*Quercus bicolor*, FACW);
 - red oak (*Quercus rubra*, FACU);
 - green ash (*Fraxinus pennsylvanica*, FACW);
 - white oak (*Quercus alba*, FACU);
 - sugar maple (*Acer saccharum*, FACU);
 - highbush blueberry (*Vaccinium corymbosum*, FACW);
 - northern spicebush (*Lindera benzoin*, FACW);
 - red chokeberry (*Photinia pyrifolia*, FACW);
 - gray dogwood (*Cornus racemosa*, FAC);
 - bladder sedge (*Carex intumescens*, FACW);
 - Japanese stilt grass (*Microstegium vimineum*, FAC);
 - skunk-cabbage (*Symplocarpus foetidus*, OBL);
 - common fox sedge (*Carex vulpinoidea*, OBL);
 - tussock sedge (*Carex stricta*, OBL);
 - greenbrier (*Smilax rotundifolia*, FAC);
 - Virginia creeper (*Parthenocissus quinquefolia*, FACU);
 - jewelweed (*Impatiens capensis*, FACW);
 - sensitive fern (*Onoclea sensibilis*, FACW);
 - Christmas fern (*Polystichum acrostichoides*, FACU); and
 - royal fern (*Osmunda spectabilis*, OBL).
 - Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - pignut hickory (*Carya glabra*, FACU);
 - sugar maple;

- red oak;
 - red maple;
 - tuliptree (*Liriodendron tulipifera*, FACU);
 - American elm (*Ulmus Americana*, FACW);
 - gray dogwood;
 - American witch-hazel (*Hamamelis virginiana*, FACU);
 - ironwood (*Carpinus caroliniana*, FAC);
 - flowering dogwood (*Cornus florida*, FACU);
 - Japanese barberry (*Berberis thunbergii*, FACU);
 - Japanese stilt grass;
 - Virginia creeper;
 - Indian-pipe (*Monotropa uniflora*, FACU);
 - wood ferns (*Dryopteris spp.*, FAC);
 - grass species (*Poa spp.*, FACU);
 - poison ivy (*Toxicodendron radicans*, FAC); and
 - sphagnum moss.
- Wetland 3: The vegetative community associated with the palustrine wetlands (PEM5) identified and delineated throughout Wetland 3 consisted of:
 - Wetland plants:
 - common reed (*Phragmites australis*, FACW);
 - jewelweed;
 - tussock sedge;
 - goldenrod species (*Solidago spp.*, FAC);
 - soft rush (*Juncus effuses*, OBL);
 - common fox sedge;
 - bladder sedge;
 - stalk-grain sedge (*Carex stipata*, OBL);
 - deer-tongue rosette grass (*Dichanthelium clandestinum*, FACW);
 - Canadian rush (*Juncus canadensis*, OBL);
 - Japanese stilt grass;
 - purple loosestrife (*Lythrum salicaria*, OBL);
 - Indian hemp (*Apocynum cannabinum*, FAC); and
 - summer grape (*Vitis aestivalis*, FACU).
 - Upland vegetation residing beyond the wetland/upland interface included:
 - rambler rose
 - common red raspberry (*Rubus idaeus*, FACU);
 - Indian hemp;
 - garden bird's-foot-trefoil (*Lotus corniculatus*, FACU);
 - common yarrow (*Achillea millefolium*, FACU); and

- goldenrod.
- Wetland 4: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 4 consisted of:
 - Wetland plants:
 - gray dogwood;
 - green ash;
 - red maple;
 - American elm;
 - swamp white oak;
 - red oak;
 - ironwood;
 - rambler rose (*Rosa multiflora*, FACU);
 - northern spicebush;
 - arrow-wood (*Viburnum dentatum*, FAC);
 - Pennsylvania smartweed (*Polygonum pennsylvanicum*, FACW);
 - jewelweed;
 - skunk-cabbage;
 - Japanese stilt grass;
 - tussock sedge;
 - sensitive fern;
 - cinnamon fern (*Osmunda cinnamomea*, FACW);
 - and
 - goldenrod species.
 - Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - American elm;
 - red oak;
 - sugar maple;
 - pignut hickory;
 - black walnut (*Juglans nigra*, FACU);
 - red maple;
 - sweet birch (*Betula lenta*, FAC);
 - American basswood (*Tilia Americana*, FACU);
 - ironwood;
 - green ash;
 - rambler rose;
 - American witch-hazel;
 - autumn olive (*Elaeagnus umbellata*, NI);
 - common red raspberry;
 - red chokeberry;
 - Dane's rocket (*Hesperis matronalis*, FACU);

- common blue violet (*Viola sororia*, FAC);
- Virginia creeper;
- grass species;
- poison ivy;
- wild strawberry (*Fragaria vesca*, UPL);
- goldenrod species (*Solidago spp.*, FAC)
- American bittersweet (*Celastrus scandens*, FACU)
- Wetland 5: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 5 consisted of:
 - Wetland plants:
 - white oak;
 - red maple;
 - sweet birch;
 - northern spicebush;
 - skunk-cabbage;
 - Japanese stilt grass;
 - summer grape.
 - Upland vegetation residing beyond the wetland/upland interface included:
 - red oak;
 - sweet birch;
 - American witch-hazel;
 - summer grape.
- Wetland 5A, 5C, and 5D: The vegetative community associated with the palustrine wetlands (PEM1) identified and delineated throughout Wetlands 5A, 5C, and 5D consisted of:
 - Wetland plants:
 - red maple;
 - white oak;
 - northern spicebush;
 - tussock sedge;
 - skunk-cabbage;
 - jewelweed;
 - Japanese stilt grass;
 - soft rush;
 - bladder sedge;
 - Pennsylvania smartweed
 - hard-stem club-rush (*Schoenoplectus acutus*, OBL)
 - green arrow-arum (*Peltandra virginica*, OBL);
 - Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - red maple;

- pignut hickory;
 - green ash;
 - American elm;
 - weeping willow (*Salix babylonica*, FACW);
 - rambler rose;
 - goldenrod species;
 - Japanese stilt grass;
 - poison ivy;
 - grass species;
 - summer grape; and
 - Virginia creeper.
- Wetland 5B: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 5B consisted of:
 - Wetland plants:
 - red maple;
 - northern spicebush;
 - gray dogwood;
 - tussock sedge; and
 - sensitive fern.
 - Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - gray birch (*Betula populifolia*, FAC);
 - red oak;
 - red maple;
 - ironwood; and
 - American witch-hazel.
 - Wetland 6: The vegetative community associated with the palustrine wetlands (PFO1E)¹ identified and delineated throughout Wetland 6 consisted of:
 - Wetland plants:
 - red maple;
 - American elm;
 - ironwood;
 - rambler rose;
 - jewelweed
 - tussock sedge;
 - skunk-cabbage;
 - Japanese stilt grass; and
 - Virginia creeper.

¹ The NWI map depicts a PSS1E (Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Seasonally Flooded/Saturated) wetland near CEA flags YY22-YY27. Although there are some shrubs in the understory, this is primarily a forested wetland area.

- wood ferns;
- bladder sedge;
- Canadian rush;
- common fox sedge; and
- goldenrod species.
- Upland vegetation residing beyond the wetland/upland interface included:
 - rambler rose;
 - autumn olive;
 - American basswood;
 - goldenrod species;
 - common blue violet; and
 - American bittersweet.
- Wetland 6C: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 6C consisted of:
 - Wetland plants:
 - red maple;
 - ironwood;
 - pignut hickory;
 - rambler rose
 - skunk-cabbage;
 - Japanese stilt grass;
 - jewelweed;
 - tussock sedge;
 - cinnamon fern;
 - Virginia creeper;
 - wood ferns; and
 - sphagnum moss.
 - Upland vegetation residing beyond the wetland/upland interface included:
 - red maple;
 - ironwood;
 - rambler rose;
 - Virginia creeper;
 - poison ivy;
 - grasses (*Poa spp.*, FACU);
 - Japanese stilt grass; and
 - goldenrod species.
- Wetland 6D: The vegetative community associated with the palustrine wetlands (PEM5E) identified and delineated throughout Wetland 6D consisted of:
 - Wetland plants:
 - common reed

- jewelweed;
- Virginia creeper; and
- pussy willow (*Salix discolor*, FACW).
- Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - rambler rose;
 - mugwort (*Artemisia vulgaris*, UPL);
 - grasses (*Poa spp.*, FACU);
 - goldenrod species; and
 - American bittersweet.
- Wetland 6E: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 6E consisted of:
 - Wetland plants:
 - red maple;
 - ironwood;
 - highbush blueberry;
 - tussock sedge;
 - wood ferns;
 - cinnamon fern;
 - sensitive fern;
 - royal fern;
 - Christmas fern;
 - poison ivy;
 - Virginia creeper; and
 - geranium.
 - Upland vegetation residing beyond the wetland/upland interface included:
 - white oak;
 - yellow birch (*Betula alleghaniensis*, FAC);
 - red oak;
 - sweet birch;
 - red maple;
 - American witch-hazel; and
 - grass species.
- Wetland 7: The vegetative community associated with the palustrine wetlands (PEM5E) identified and delineated throughout Wetland 7 consisted of:
 - Wetland plants:
 - common reed;
 - red maple
 - American elm;
 - gray birch;

- arrow-wood;
- rambler's rose;
- tussock sedge;
- common boneset (*Eupatorium perfoliatum*, FACW);
- goldenrod species;
- Japanese stilt grass;
- hard-stem club-rush;
- Canadian rush;
- jewelweed;
- Clayton's bedstraw (*Galium tinctorium*, OBL); and
- purple loosestrife.
- Upland vegetation residing beyond the wetland/upland interface included:
 - green ash;
 - black walnut;
 - black locust (*Robinia pseudoacacia*, FACU);
 - sugar maple;
 - red maple;
 - sweet birch;
 - weeping willow;
 - rambler rose;
 - autumn olive;
 - common red raspberry;
 - goldenrod species;
 - common boneset;
 - summer grape;
 - poison ivy;
 - Japanese stilt grass;
 - Indian hemp; and
 - grass species.
- Wetland 8: The vegetative community associated with the palustrine wetlands (PFO1E) identified and delineated throughout Wetland 8 consisted of:
 - Wetland plants:
 - red maple;
 - sugar maple;
 - sweet birch;
 - northern spicebush;
 - rambler rose;
 - skunk-cabbage;
 - Japanese stilt grass; and
 - Virginia creeper.

- red oak;
 - sweet birch
 - red maple;
 - pignut hickory;
 - rambler rose;
 - Japanese barberry;
 - Virginia creeper;
 - poison ivy;
 - wood ferns; and
 - grasses species.
- Wetland delineation forms
 - Appendix A
 - Attachment 2
 - Site photographs of all representative areas of the site (taken during the growing season), including any connections between tributaries or between tributaries and wetlands
 - Appendix B
5. Surveyed delineation drawing, including the following:
- Drawing date
 - Figure 2 – 6/13/2014 (Rev. 9/2/14)
 - Scale
 - Figure 2 – 1”=100’ (Rev. 9/2/14)
 - Revision dates
 - Rev. 9/2/14
 - North arrow
 - Figure 2 (Rev. 9/2/14)
 - Existing topographic contours
 - Figure 2 (Rev. 9/2/14)
 - Benchmarks
 - Figure 2 (Rev. 9/2/14)
 - Stamp of a licensed surveyor
 - Figure 2 (Rev. 9/2/14)
 - Boundary lines of the parcel and wetlands with acres shown
 - Figure 4 (Rev. 9/5/14)
 - Boundary lines of the project site with acres shown
 - Figure 4 (Rev. 9/5/14)
 - Delineation flags shown as points that are connected by straight lines (or extend off site at parcel boundaries), and are identified on the drawing with the corresponding number and/or letter that is written on the flag in the field
 - Figures 2 and 4 (Rev. 9/2/14 and 9/5/14, respectively)
 - Appropriate hatching and/or shading to identify the extent of waters of the US, including jurisdictional wetlands, and any “isolated” or non-jurisdictional waterbodies or wetlands
 - Figure 6 (Rev. 9/5/14)

- All defined tributaries on the site, identified either via flagging or a standard tributary symbol that is in the legend, and locations of any other connections between waters (e.g. culverts, ditches and/or swales)
 - Figures 2 and 4 (Rev. 9/2/14 and 9/5/14, respectively)
- Table outlining the acres of the waters of the US, and “isolated” or non-jurisdictional waters, in addition to the linear feet of all tributaries within the boundaries of the project site or parcel.
 - Tables 5 and 6

Attachment 2

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/2014
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: A10 Wetland
 Investigator(s): Greg Fleischer Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR or MLRA): LRR R Lat: 41.177931 Long: -74.068809 Datum: NAD 1983
 Soil Map Unit Name: Alden silt loam NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:33%;"><input checked="" type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border-collapse: collapse;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)																															
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<input type="checkbox"/> FAC-Neutral Test (D5)																																
<p>Field Observations:</p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<p>Wetland Hydrology Present Yes <input checked="" type="checkbox"/> No _____</p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION Use scientific names of plants.

Sampling Point: A10 wetland

Tree Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum (Red maple)</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Quercus bicolor (Swamp white oak)</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>															
3. <u>Ulmus americana (American elm)</u>	<u>30</u>	<u>N</u>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>160</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>90</u></td> <td>x 1 = <u>90</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>165</u></td> <td>x 3 = <u>495</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>365</u> (A)</td> <td><u>815</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.23</u>	Total % Cover of:	Multiply by:	OBL species <u>90</u>	x 1 = <u>90</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>165</u>	x 3 = <u>495</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species _____	x 5 = _____	Column Totals: <u>365</u> (A)	<u>815</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>90</u>	x 1 = <u>90</u>																	
FACW species <u>105</u>	x 2 = <u>210</u>																	
FAC species <u>165</u>	x 3 = <u>495</u>																	
FACU species <u>5</u>	x 4 = <u>20</u>																	
UPL species _____	x 5 = _____																	
Column Totals: <u>365</u> (A)	<u>815</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Vaccinium corymbosum (Highbush blueberry)</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input checked="" type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>5</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Herb Stratum (Plot size: <u>5ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Juncus tenuis (Path rush)</u>	<u>20</u>	<u>N</u>	<u>FAC</u>	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
2. <u>Microstegium vimineum (Japanese stiltgrass)</u>	<u>20</u>	<u>N</u>	<u>FAC</u>															
3. <u>Rosa multiflora (Rambler rose)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
4. <u>Carex stricta (Tussock sedge)</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>															
5. <u>Juncus effusus (Soft rush)</u>	<u>20</u>	<u>N</u>	<u>OBL</u>															
6. <u>Equisetum arvense (Horsetail)</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>															
7. <u>Persicaria maculosa (Lady's thumb)</u>	<u>20</u>	<u>N</u>	<u>FAC</u>															
8. <u>Solidago spp. (Goldenrod)</u>	<u>5</u>	_____	<u>FAC</u>															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>200</u> = Total Cover				Hydrophytic Vegetation Present Yes <u>X</u> No _____														
Woody Vine Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____		Remarks: (Include photo numbers here or on a separate sheet.) Buttress trunks and exposed roots were observed.													
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		

SOIL

Sampling Point: A10 wetland

Profile Description: Describe to the depth needed to document the indicator or confirm the absence of indicators.

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10 YR 2/1						Hemic	
3-8	10 YR 4/1	80	10 YR 3/6	20	C	M	Silty clay loam	Hit refusal

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 14 B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 14 B)
- Thin Dark Surface (S9) (LRR R, MLRA 14 B)
- Loamy Mucky Mineral (F1) (LRR , L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR , L, MLRA 14 B)
- Coast Prairie Redox (A16) (LRR , L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR , L, R)
- Dark Surface (S7) (LRR , L)
- Polyvalue Below Surface (S8) (LRR , L)
- Thin Dark Surface (S9) (LRR , L)
- Iron-Manganese Masses (F12) (LRR , L, R)
- Piedmont Floodplain Soils (F19) (MLRA 14 B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 14 B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer if observed :

Type: Large rocks and roots
 Depth (inches): 8

Hydric Soil Present Yes X No

Remarks:

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/14
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: A10 upland
 Investigator(s): Greg Fleischer Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 8-15
 Subregion (LRR or MLRA): LRR R Lat: 41.177970 Long: -74.068569 Datum: NAD 1983
 Soil Map Unit Name: Wethersfield, gravelly silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<p>Wetland Hydrology Present Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION Use scientific names of plants.

Sampling Point: A10 Upland

Tree Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus rubra (Red oak)</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>29</u> (A/B)
2. <u>Acer rubrum (Red maple)</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Carpinus caroliniana (Ironwood)</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<u>105</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>165</u> x 4 = <u>660</u> UPL species _____ x 5 = _____ Column Totals: <u>265</u> (A) <u>960</u> (B) Prevalence Index = B/A = <u>3.62</u>
Sapling/Shrub Stratum (Plot size: <u>30ft</u>)				
1. <u>Hamamelis virginiana (American witch-hazel)</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Carya glabra (Pignut hickory)</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>55</u> = Total Cover				
Herb Stratum (Plot size: <u>5ft</u>)				
1. <u>Microstegium vimineum (Japanese stiltgrass)</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Dryopteris spp. (wood fern)</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Parthenocissus quinquefolia (Virginia creeper)</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Rosa Multiflora (Rambler rose)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Berberis thunbergii (Japanese barberry)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Solidago spp. (Goldenrod spp.)</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>105</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30ft</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Hydrophytic Vegetation Present Yes _____ No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/14
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: X-37 Wetland
 Investigator(s): Greg Fleischer Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 8-15
 Subregion (LRR or MLRA): LRR R Lat: 41.172699 Long: -74.078719 Datum: NAD 1983
 Soil Map Unit Name: Wethersfield gravelly silt loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:33%;"><input checked="" type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border-collapse: collapse;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input checked="" type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input checked="" type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations:</p> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<p>Wetland Hydrology Present Yes <u>X</u> No _____</p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION Use scientific names of plants.

Sampling Point: X37 Wetland

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer rubrum (Red maple)</u>	60	Y	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B)														
2. <u>Fraxinus pennsylvanica (Green ash)</u>	25	N	FACW															
3. <u>Quercus bicolor (Swamp white oak)</u>	60	Y	FACW															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>145</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>245</u> (A)</td> <td><u>585</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.39</u>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>65</u>	x 3 = <u>195</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species _____	x 5 = _____	Column Totals: <u>245</u> (A)	<u>585</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>50</u>	x 1 = <u>50</u>																	
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UPL species _____	x 5 = _____																	
Column Totals: <u>245</u> (A)	<u>585</u> (B)																	
Sapling/Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Photinia pyrofolia (Red Chokeberry)</u>	5	Y	FACW	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input checked="" type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Cornus racemosa (Gray dogwood)</u>	5	Y	FAC															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
<u>10</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
Herb Stratum (Plot size: 5ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Carex stricta (Tussock sedge)</u>	50	Y	OBL		Hydrophytic Vegetation Present Yes <u>X</u> No _____													
2. <u>Parthenocissus quinquefolia (Virginia creeper)</u>	40	Y	FACU															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>90</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____																		
2. _____																		
3. _____																		
4. _____																		
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Exposed, buttressed, and adventitious roots.																		

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/14
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: X37 Upland
 Investigator(s): Greg Fleischer and Kelly Wood Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): Anthropogenic mound Local relief (concave, convex, none): Convex Slope (%): 8-15
 Subregion (LRR or MLRA): LRR R Lat: 41.172737 Long: -74.78999 Datum: NAD 1983
 Soil Map Unit Name: Wethersfield gravelly silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<p>Wetland Hydrology Present Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION Use scientific names of plants.

Sampling Point: X37 Upland

Tree Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Liriodendron tulipifera (Tuliptree)</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>
2. <u>Quercus rubra (Red oak)</u>	<u>25</u>	<u>N</u>	<u>FACU</u>
3. <u>Quercus alba (White oak)</u>	<u>25</u>	<u>N</u>	<u>FACU</u>
4. <u>Hamamelis virginiana (Witch hazel)</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

170 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____ x 1 = _____	
FACW species _____ x 2 = _____	
FAC species _____ x 3 = _____	
FACU species <u>210</u> x 4 = <u>840</u>	
UPL species _____ x 5 = _____	
Column Totals: <u>210</u> (A) <u>840</u> (B)	
Prevalence Index = B/A = <u>4.0</u>	

_____ = Total Cover

Herb Stratum (Plot size: <u>5ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa spp. (Grasses)</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>
2. <u>Parthenocissus quinquefolia (Virginia Creeper)</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

40 = Total Cover

Woody Vine Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/14
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: YY4 Wetland
 Investigator(s): Greg Fleischer Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3-8
 Subregion (LRR or MLRA): LRR R Lat: 41.173107 Long: -74.074715 Datum: NAD 1983
 Soil Map Unit Name: Wethersfield gravelly silt loam NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table style="width:100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td style="border: none;"><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION Use scientific names of plants.

Sampling Point: YY4 Wetland

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus bicolor</u> (Swamp white oak)	50	Y	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Fraxinus pennsylvanica</u> (green ash)	10	N	FACW															
3. <u>Ulmus americana</u> (American elm)	50	Y	FACW															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>110</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>240</u></td> <td>x 2 = <u>480</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>335</u> (A)</td> <td><u>755</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.25</u>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>240</u>	x 2 = <u>480</u>	FAC species <u>75</u>	x 3 = <u>225</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species _____	x 5 = _____	Column Totals: <u>335</u> (A)	<u>755</u> (B)
Total % Cover of:	Multiply by:																	
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UPL species _____	x 5 = _____																	
Column Totals: <u>335</u> (A)	<u>755</u> (B)																	
Sapling/Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Lindera benzoin</u> (Northern spicebush)	50	Y	FACW	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input checked="" type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Rosa multiflora</u> (Rambler rose)	10	N	FACU															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>60</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
Herb Stratum (Plot size: 5ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Symplocarpus foetidus</u> (Skunk-cabbage)	10	N	OBL		Hydrophytic Vegetation Present Yes <u>X</u> No _____													
2. <u>Microstegium vimineum</u> (Japanese Stiltgrass)	70	Y	FAC															
3. <u>Persicaria pensylvanica</u> (Pennsylvania smartweed)	50	Y	FACW															
4. <u>Impatiens capensis</u> (Spotted touch-me-not)	30	N	FACW															
5. <u>Dryopteris Spp.</u> (Wood ferns)	5	N	FAC															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>165</u> = Total Cover																		
Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Adventitious roots																		

WETLAND DETERMINATION DATA FORM Northcentral and Northeast Region

Project/Site: Patrick Farms City/County: Ramapo Sampling Date: 8/29/14
 Applicant/Owner: Scenic Development, LLC State: NY Sampling Point: YY-4 Upland
 Investigator(s): Greg Fleischer Section, Township, Range: S/B/L: 32.11/1/2,3,4,12,13,14,15,16 and 32.14/2/3
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3-8
 Subregion (LRR or MLRA): LRR R Lat: 41.173108 Long: -74.074715 Datum: NAD 1983
 Soil Map Unit Name: Wethersfield gravelly silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width:50%; border: none;"><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td style="border: none;"><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td style="border: none;"><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p>Secondary Indicators (minimum of two required)</p> <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
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<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
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<input type="checkbox"/> Shallow Aquitard (D3)																																
<input type="checkbox"/> Microtopographic Relief (D4)																																
<input type="checkbox"/> FAC-Neutral Test (D5)																																
<p>Field Observations:</p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<p>Wetland Hydrology Present Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

VEGETATION Use scientific names of plants.

Sampling Point: YY-4 Upland

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus alba</u> (White oak)	70	Y	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17</u> (A/B)
2. <u>Quercus rubra</u> (Red oak)	40	Y	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>110</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>230</u> x 4 = <u>920</u> UPL species _____ x 5 = _____ Column Totals: <u>280</u> (A) <u>1050</u> (B) Prevalence Index = B/A = <u>3.75</u>
Sapling/Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rosa multiflora</u> (Rambler rose)	70	Y	FACU	
2. <u>Hamamelis virginiana</u> (Witch hazel)	40	Y	FACU	
3. <u>Lindera benzoin</u> (Northern spicebush)	10	N	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
<u>120</u> = Total Cover				
Herb Stratum (Plot size: 5ft)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Microstegium vimineum</u> (Japanese stiltgrass)	30	Y	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Persicaria pensylvanica</u> (Pennsylvania smartweed)	5	N	FACW	
3. <u>Poa spp.</u> (Grasses)	10	Y	FACU	
4. <u>Impatiens capensis</u> (Spotted touch-me-not)	5	N	FACW	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>50</u> = Total Cover				
Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Hydrophytic Vegetation Present Yes _____ No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

Attachment 3

Attachment 3 - Aquatic Resources Spreadsheet

September 17, 2014

CEA No. 06010

Waters_Name	Order	Cowadin_Code*	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Start Latitude	Start Longitude	End Latitude	End Longitude	Local_Waterway
Tributary 1 (upper)	1st	R3UBH (R4UBC)		Linear	580	FOOT	RPW	41°10'42.69" N	74°04'09.05" W	41°10'46.77" N	74°04'10.80" W	Mahwah River
Tributary 1 (lower)	1st	R3UBH (R3SB3H)		Linear	725	FOOT	RPW	41°10'47.20" N	74°04'10.69" W	41°10'52.14" N	74°04'13.80" W	Mahwah River
Tributary 2	1st	R3UBH		Linear	1,260	FOOT	RPW	41°10'31.39" N	74°04'36.03" W	41°10'41.50" N	74°04'36.80" W	Mahwah River
Tributary 3 (upper)	1st	R4SBC		Linear	1,050	FOOT	RPW	41°10'15.73" N	74°04'46.54" W	41°10'24.58" N	74°04'39.63" W	Mahwah River
Tributary 3 (lower)	2nd	(R4SB3C)		Linear	440	FOOT	RPW	41°10'24.58" N	74°04'39.63" W	41°10'27.73" N	74°04'37.52" W	Mahwah River
Tributary 4 (upper)	1st	(R4SB7C)		Linear	265	FOOT	RPW	41°10'14.89" N	74°04'34.52" W	41°10'17.22" N	74°04'36.01" W	Mahwah River
Tributary 4 (lower)	1st	(R4SB3C)		Linear	785	FOOT	RPW	41°10'17.22" N	74°04'36.01" W	41°10'24.58" N	74°04'39.63" W	Mahwah River
Tributary 5	1st	(R4SB3C)		Linear	1,260	FOOT	RPW	41°10'18.57" N	74°04'29.83" W	41°10'28.25" N	74°04'31.98" W	Mahwah River
Tributary 6	1st	(R4UBC)		Linear	275	FOOT	RPW	41°10'52.00" N	74°03'59.54" W	41°10'50.17" N	74°04'01.73" W	Mahwah River
Brian Brook (upper)	1st	R3UBH		Linear	250	FOOT	RPW	41°10'48.08" N	74°03'59.88" W	41°10'50.17" N	74°04'01.73" W	Mahwah River
Brian Brook (upper)	2nd	R3UBH		Linear	225	FOOT	RPW	41°10'50.17" N	74°04'01.73" W	41°10'50.27" N	74°04'03.68" W	Mahwah River
Brian Brook (lower)	2nd	R3UBH		Linear	515	FOOT	RPW	41°10'50.50" N	74°04'03.78" W	41°10'53.55" N	74°04'07.70" W	Mahwah River
Ditch 1				Linear	430	FOOT	NRPW	41°10'24.58" N	74°04'27.49" W	41°10'28.25" N	74°04'30.65" W	Mahwah River
Ditch 1A				Linear	110	FOOT	NRPW	41°10'25.26" N	74°04'29.46" W	41°10'26.22" N	74°04'29.24" W	Mahwah River
Ditch 2				Linear	275	FOOT	NRPW	41°10'29.37" N	74°04'27.77" W	41°10'28.34" N	74°04'30.48" W	Mahwah River
Ditch 3				Linear	120	FOOT	NRPW	41°10'31.75" N	74°04'31.71" W	41°10'32.18" N	74°04'34.69" W	Mahwah River
Waters_Name		Cowadin_Code*	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Center Latitude	Center Longitude			Local_Waterway
1		PFO1C	Depress	Area	14.46**	Acres	RPWWD	41°10'37.24" N	74°04'10.02" W			Mahwah River
3		(PEM5)	Slope	Area	0.11	Acres	RPWWD	41°10'47.57" N	74°04'10.80" W			Mahwah River
4		(PFO1E)	Slope	Area	6.15	Acres	RPWWD	41°10'20.32" N	74°04'39.08" W			Mahwah River
5		(PFO1E)	Riverine	Area	0.23	Acres	RPWWD	41°10'27.09" N	74°04'37.19" W			Mahwah River
5A		(PEM1)	Lacustrinf	Area	0.18	Acres	RPWWD	41°10'27.43" N	74°04'36.82" W			Mahwah River
5B		(PFO1E)	Lacustrinf	Area	0.45	Acres	RPWWD	41°10'27.34" N	74°04'33.74" W			Mahwah River
5C		(PEM1)	Lacustrinf	Area	0.20	Acres	NRPWW	41°10'27.98" N	74°04'31.71" W			Mahwah River
5D		(PEM1)	Lacustrinf	Area	0.10	Acres	RPWWD	41°10'29.52" N	74°04'31.04" W			Mahwah River
6		PSS1E (PFO1E)	Slope	Area	0.99	Acres	RPWWD	41°10'21.90" N	74°04'32.48" W			Mahwah River
6A		(PEM1)	Slope	Area	0.06	Acres	RPWWD	41°10'23.71" N	74°04'29.55" W			Mahwah River
6B		(PEM1)	Slope	Area	0.05	Acres	RPWWD	41°10'24.47" N	74°04'29.60" W			Mahwah River
6C		(PFO1E)	Slope	Area	0.24	Acres	NRPWW	41°10'26.05" N	74°04'28.76" W			Mahwah River
6D		(PEM5E)	Depress	Area	0.36	Acres	RPWWD/NRPWW	41°10'26.88" N	74°04'30.20" W			Mahwah River
6E		(PFO1E)	Depress	Area	0.08	Acres	RPWWD	41°10'27.13" N	74°04'31.28" W			Mahwah River
7		(PEM5E)	Depress	Area	0.63	Acres	NRPWW	41°10'28.77" N	74°04'29.01" W			Mahwah River
8		(PFO1E)	Slope	Area	0.52	Acres	RPWWD	41°10'32.80" N	74°04'34.40" W			Mahwah River
9		(PEM1)	Slope	Area	0.08	Acres	RPWWD	41°10'15.22" N	74°04'34.50" W			Mahwah River

*NWI or (Cowardin per CEA)

**Area of Wetland 1 within property boundary



- LEGEND**
- EXISTING 2' CONTOUR
 - EXISTING 10' CONTOUR
 - EXISTING WATERLINE
 - EXISTING FIRE HYDRANT
 - EXISTING GAS LINE
 - EXISTING CATCH BASIN
 - EXISTING STORM DRAIN LINE
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER LINE
 - EXISTING SPOT ELEVATION
 - EXISTING STONEWALL
 - EXISTING WATER VALVE
 - EXISTING UTILITY POLE

- EASEMENT REFERENCE**
- COLUMBIA GAS TRANSMISSION CORPORATION (GAS LINE)
 - 1000 MARCONI DRIVE INC.
 - ROCKLAND COUNTY BOARD OF SUPERVISORS 2014-2015
 - ORANGE AND ROCKLAND UTILITIES, INC. (UTILITIES)
 - NEW YORK STATE POWER AUTHORITY
 - TOWN OF RAMAPO (DRAINAGE)
 - 27' EASEMENT
 - SUFFERN NEW YORK 1000
 - TOWN OF RAMAPO (DRAINAGE)
 - SUFFERN NEW YORK 1000
 - ROCKLAND COUNTY WATER DISTRICT NO. 1 (SEWER)
 - A ROUTE 242
 - ORANGE AND ROCKLAND UTILITIES, INC. (UTILITIES)
 - 23' EASEMENT
 - SUFFERN NEW YORK 1000
- BOUNDARY SURVEY REFERENCES**
- SUBDIVISION OF PROPERTY FOR HAVERSTRAW ROAD LINES, INC. FILED IN THE RECORDS CLERK'S OFFICE ON APR. 15, 1985, IN BOOK 116, PAGE 47 AS MAP NO. 4326.
 - SEWER EASEMENT PLAN FOR HANDED-UNDERBELLS & TOWN OF CLAMSTON FILED IN THE RECORDS CLERK'S OFFICE ON NOV. 11, 1988 IN BOOK 118, PAGE 48 AS MAP NO. 7094.
 - SEWER EASEMENT PLAN FOR TOWN OF CLAMSTON FILED IN THE RECORDS CLERK'S OFFICE ON APR. 15, 2001, IN BOOK 121, PAGE 63 AS MAP NO. 7421.
- TOPOGRAPHIC SURVEY REFERENCE**
- MAPING SCALE: 1" = 40'
- DATE OF PHOTOGRAPHY: 11-18-2011
- SCALE OF PHOTOGRAPHY: 1" = 200'
- COLLECTED: JOHN SURINETS, INC.
- DATUM**
- NAD 83
- UTILITY REFERENCES**
- WATER SERVICE PER MAPS BY U.S.M.A.T.
 - SEWER SERVICE PER A.C.S.S. NO. 1

NO. 1	8-2-14	PER A.C.H.E. MEMO DATED 8-22-2014
REVISION	DATE	DESCRIPTION

ATZL, SCATASSA & ZIGLER P.C.

204 North Main Street - P.O. Box 638
 New City, New York 10955 - Chester, New York 10918
 Tel: (845) 634-6694 - Fax: (845) 489-1015
 Fax: (845) 634-5045 - Fax: (845) 489-1015
 Email: ATZ@atzzy.com

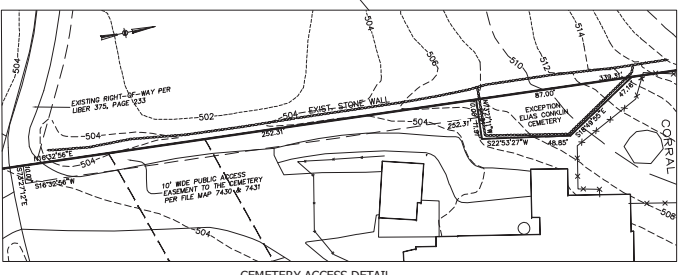
PROJECT:
SCENIC DEVELOPMENT LLC

**TOWN OF RAMAPO
 ROCKLAND COUNTY, NEW YORK**

TITLE:
WETLAND DELINEATION SURVEY

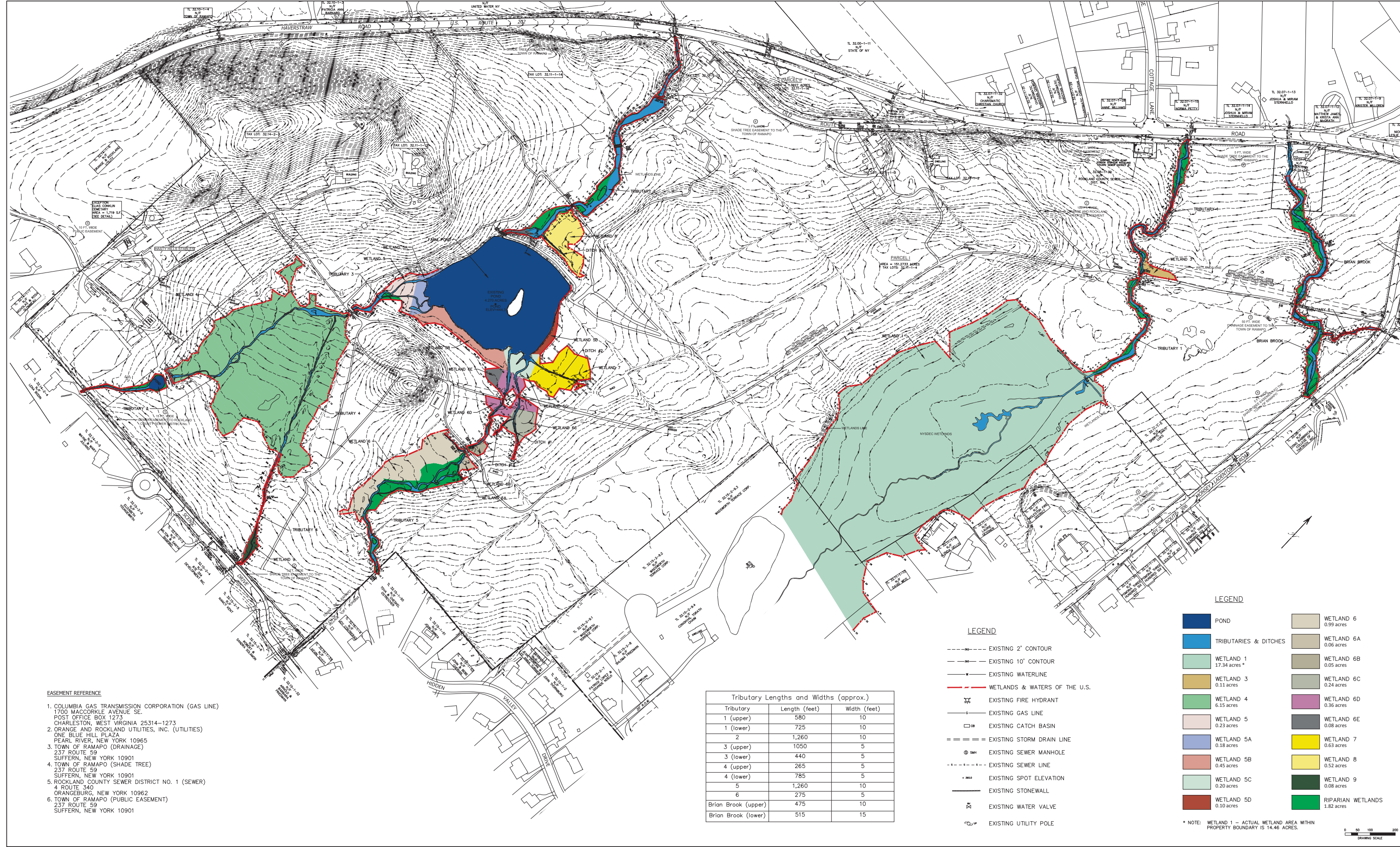
DRAWN BY: ASA	CHECKED BY: JRS
DATE: JUNE 13, 2014	SCALE: 1" = 100 FT.
PROJECT NO:	DRAWING NO:

450 1 of 1



CEMETERY ACCESS DETAIL
 SCALE: 1" = 20'





- EASEMENT REFERENCE**
1. COLUMBIA GAS TRANSMISSION CORPORATION (GAS LINE)
 1700 MACCORKLE AVENUE SE.
 POST OFFICE BOX 1273
 CHARLESTON, WEST VIRGINIA 25314-1273
 2. ORANGE AND ROCKLAND UTILITIES, INC. (UTILITIES)
 ONE BLUE HILL PLAZA
 PEARL RIVER, NEW YORK 10965
 3. TOWN OF RAMAPO (DRAINAGE)
 237 ROUTE 59
 SUFFERN, NEW YORK 10901
 4. TOWN OF RAMAPO (SHADE TREE)
 237 ROUTE 59
 SUFFERN, NEW YORK 10901
 5. ROCKLAND COUNTY SEWER DISTRICT NO. 1 (SEWER)
 4 ROUTE 340
 ORANGEBURG, NEW YORK 10962
 6. TOWN OF RAMAPO (PUBLIC EASEMENT)
 237 ROUTE 59
 SUFFERN, NEW YORK 10901

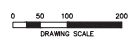
Tributary Lengths and Widths (approx.)

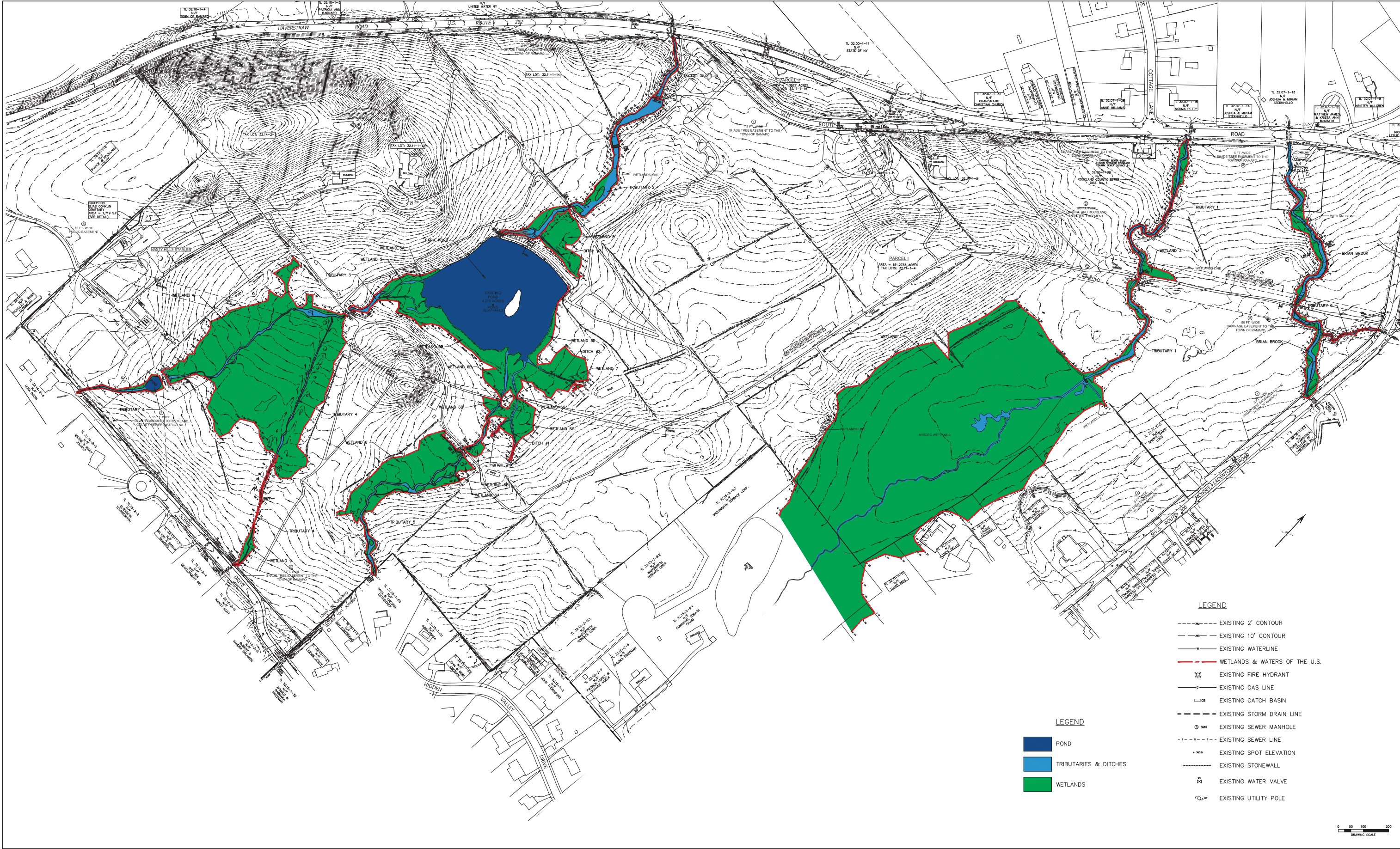
Tributary	Length (feet)	Width (feet)
1 (upper)	580	10
1 (lower)	725	10
2	1,260	10
3 (upper)	1050	5
3 (lower)	440	5
4 (upper)	265	5
4 (lower)	785	5
5	1,260	10
6	275	5
Brian Brook (upper)	475	10
Brian Brook (lower)	515	15

- LEGEND**
- EXISTING 2' CONTOUR
 - EXISTING 10' CONTOUR
 - EXISTING WATERLINE
 - WETLANDS & WATERS OF THE U.S.
 - ⊕ EXISTING FIRE HYDRANT
 - EXISTING GAS LINE
 - EXISTING CATCH BASIN
 - EXISTING STORM DRAIN LINE
 - ⊙ EXISTING SEWER MANHOLE
 - EXISTING SEWER LINE
 - EXISTING SPOT ELEVATION
 - EXISTING STONEWALL
 - ⊕ EXISTING WATER VALVE
 - ⊕ EXISTING UTILITY POLE

- LEGEND**
- POND
 - TRIBUTARIES & DITCHES
 - WETLAND 1
17.34 acres *
 - WETLAND 3
0.11 acres
 - WETLAND 4
6.15 acres
 - WETLAND 5
0.23 acres
 - WETLAND 5A
0.18 acres
 - WETLAND 5B
0.45 acres
 - WETLAND 5C
0.20 acres
 - WETLAND 5D
0.10 acres
 - WETLAND 6
0.99 acres
 - WETLAND 6A
0.06 acres
 - WETLAND 6B
0.05 acres
 - WETLAND 6C
0.24 acres
 - WETLAND 6D
0.36 acres
 - WETLAND 6E
0.08 acres
 - WETLAND 7
0.63 acres
 - WETLAND 8
0.52 acres
 - WETLAND 9
0.08 acres
 - RIPARIAN WETLANDS
1.82 acres

* NOTE: WETLAND 1 - ACTUAL WETLAND AREA WITHIN PROPERTY BOUNDARY IS 14.46 ACRES.





LEGEND

- POND
- TRIBUTARIES & DITCHES
- WETLANDS

LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- EXISTING WATERLINE
- WETLANDS & WATERS OF THE U.S.
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER LINE
- EXISTING SPOT ELEVATION
- EXISTING STONEWALL
- EXISTING WATER VALVE
- EXISTING UTILITY POLE

