



To: Town of Amenia Planning Board

Date: January 21, 2015

Memorandum

Project #: 29011

From: Amanda DeCesare, P.E.

Re: MDP and Site Plan Phase 1 Comments
Silo Ridge Resort Community

Silo Ridge Ventures, LLC (the "Applicant") and its professional consultants respond to Michael W. Klemens' October 13, 2014 comments as follows (responses are presented in the same order as the comments; please note the gaps in the numbering are consistent with those in the comment letter)¹:

ADDENDUM TO THE EAF

Table 4: Wildlife. The rationale for modifying the stream crossing with a design equal to or better than the square box culverts needs to be placed under additional mitigation measures for the MDP.

Response MWK-1: The text from the HMP has been added under additional mitigation measures.

Table 4: After the end of "Transportation" in the Resource column, insert "Landscape & Zoning" into what is now a blank box.

Response MWK-2: Table 4 has been revised.

Comparison Sheets: RC-0: It appears as three additional houses have been added into the southern area of estate homes. This appears to be an increased impact over the 2009 approval.

Response MWK-3: Please refer to Table 1 below, which is a summary of the number of units and resultant disturbances from Table 3: Approved Master Development Plan Compared to Proposed MDP in the Addendum to the EAF. The areas impacted are part of a broader plan for the Modified Project

¹Unless otherwise indicated, all references to: (i) the "Amended MDP" are to the Amended Master Development Plan dated January 2015; (ii) the "Addendum to EAF" are to the Addendum to Environmental Assessment Form dated January 2015; (iii) the Site Plan Drawings are to the plans and drawings last dated January 8, 2015; (iv) the Preliminary Subdivision Plat and to the Subdivision Drawings are to the drawings last dated January 8, 2015; and (v) to the "Amended MDP Drawings" is to the drawings accompanying the Amended MDP narrative, all last dated January 8, 2015.



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that appropriately weighs and balances environmental issues and has greatly reduced the potential environmental impacts compared to the current approved October 2009 master development plan.

The total number of proposed dwelling units (including lodging units) has been reduced from the approved 638 to 245. The estate homes have been laid out in the field to best fit the existing topography and minimize natural, forested steep slope disturbance and clearing of existing vegetation.

Specifically:

Revisions to Redtail Pass, Ridgeline Road and Oak Tree Lane

The alignment and grading of these roads have been modified to better fit the land and reduce grading and blasting impacts and associated tree removal. Further, the use of retaining walls mitigates grading impacts in certain areas, allowing for more existing tree areas to be retained, which will provide additional screening for the proposed improvements. Height of individual walls does not exceed eight feet. Where appropriate, multiple walls are proposed.

Creation of Allowable Disturbance Area (ADA) (also known as the "Building Envelope")

All Estate Lots now have an ADA, which have been located on the shallowest existing slopes. All buildings and parking areas shall be located within the ADA thereby reducing the amount of grading and tree removal required for a home. Other than the Project's mass grading and grading associated with the driveway; no mechanized clearing of existing trees greater than 8 inches dbh or grading is permitted outside the approved ADA and driveway envelope. Additionally, driveway envelopes (outside the ADA) have been delineated and are addressed in the Silo Ridge Design Standards for Estate Homes.

Please refer to the following:

- Design Standards for Estate Homes, Appendix K of the Amended MDP; and
- Addendum to the EAF.

It is inaccurate to say that any one modification to the plan has resulted in an increased impact over the 2009 approval when considering the project as a whole. The overall reduction to environmental impacts is evident in the decrease in total site disturbance when comparing the current approved October 2009 master development plan to the Proposed Amended MDP as follows:



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TABLE 1			
Approved MDP Compared to Proposed Amended MDP			
Description	Approved MDP	Proposed Amended MDP	Modification
Number of Units			
Total Units	638	245	Decrease of 393 Units
Site Disturbance			
Total Disturbed Area (acres/percent)	282.9± ac/42%	275.5± ac/40.3%	Decrease of 7.4 acres
Total Disturbance to slopes 15% - 30% (acres)	101.5±	90.0±	Decrease of 11.5 acres
- Disturbance to naturally forested slopes 15% - 30% (acres)	57.8±	50.6±	Decrease of 7.2 acres
Total Disturbance to slopes > 30% (acres)	34.5±	20.3±	Decrease of 14.2 acres
- Disturbance to naturally forested slopes > 30% (acres)	20.0±	13.5±	Decrease of 6.5 acres

RC-1: An unidentified outline/shape along the north side of the road near the stream. Label it or remove it? This is possibly a storm water basin?

Response MWK-4: RC-1 has been revised in Appendix A of the Addendum to the EAF.

RC-2: One estate home is moved much higher up the slope. This appears to be an increased impact over the 2009 approval.

Response MWK-5: Please refer to Response MWK-3.

RC-3: Five additional estate homes are identified in the southern area. This appears to be an increased impact over the 2009 approval.

Response MWK-6: Please refer to Response MWK-3.

Policy Question for the Planning Board: I recommend a reduction in number of estate homes in the southern area to comport with the original approvals, and to reduce the loss of naturally forested slopes, and avoid excessive construction of roads and infrastructure, as well as potential visual impacts. In addition, I would recommend that the Planning Board require design guidelines on the estate lots to minimize the loss of forest and reduce clearing, grading and development-related disturbance on steep slopes. These design guidelines could also address the incidental take of wildlife by drowning in swimming pools adjacent to steep forested slopes and provide guidance for tree removal and mitigation for lost habitat for the Indiana and North Long-Eared bats.

Response MWK-7: Comment noted. Please refer to Response MWK-3.

Habitat Management Plan



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The HMP (which goes hand in hand with the Natural Resources Management Plan) was totally revised and edited as a collaborative effort between VHB and the Town of Amenia's ecological consultant (Klemens). I wrote an explanatory foreword for the HMP which I hope will bring some clarity to this document. I circulated the memo to all of the team, and no one had objections to it so it has now been integrated into the current version of the HMP by VHB. The current version of the HMP comports with the current MDP and Phase One Site Plan in regard to classifying wetlands as either natural or constructed, and distinguishing natural second growth forested steep slopes from steep slopes that have been previously disturbed by agriculture and/or the old golf course. The vegetated wetland buffers around the constructed wetlands were put into their proper ecological perspective. These buffers have far more utility as part of the overall SWPP, than creating *de novo* valuable habitat for biodiversity. Additional data collected on the site since the 2008 HMP prepared by The Chazen Company (TCC) were added to the report and cross-referenced to the various tables in the HMP. A new appendix (E) was added to accommodate the 2014 VHB breeding bird study conducted on the adjacent Harlem Valley Landfill site.

Missing Information: The Natural Resources Management Plan (NRMP) has not been updated for the current revised application. Recommend that this plan, authored by Audubon International, be updated, and submitted, much in the way the HMP was done. When this revised NRMP is submitted, it should be reviewed against the current application materials particularly to ensure that its procedures and recommendations complement those of the HMP.

Response MWK-8: THE NRMP has been revised and is in Appendix P of the Addendum to the EAF. Additionally, the Applicant has provided a letter from Audubon International dated 12/19/14 confirming its approval of the latest version of the NRMP and site plan drawings.

ACOE (Army Corps of Engineers) JURISDICTIONAL DETERMINATION (JD)

Missing Information: The JD expired on July 25, 2013. The attached email response (in yellow highlight) from Brian Orzel, USACE (US Army Corps of Engineers) was given to the Applicant when they submitted the application for the SPO waiver for the golf course work that has been conducted over the last months. "Under Application Number NAN-2006-00216, the New York District issued a jurisdictional determination (JD) on July 25, 2008, which expired on July 25, 2013. Even though the JD just expired, I would still rely on it being pretty accurate, unless they have since performed work on the site."

Now that the Applicant has *since performed work on the site* under the SPO waiver, I recommend that the Planning Board request that the Applicant obtain a formal determination from the ACOE stating that the expired JD is still valid and for what specific period of time. If the ACOE cannot confirm in a formal letter (as opposed to an email communication) that the current JD is valid, I would recommend that the Applicant be required to obtain a new JD. The present JD is a pre-Rapanos determination and therefore a new JD may have additional requirements for mitigation and possibly expanded jurisdictional wetlands on site. *In my professional opinion, the Planning Board would be ill-advised to render a decision on a project that doesn't have a documented current JD from the ACOE.*



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Response MWK-9: Comment noted. The Applicant has submitted an application to the USACE requesting a permit for the proposed action under Section 404 Clean Water Act. All additional information requests from the USACE (the agency with exclusive jurisdiction) have been addressed directly with the USACE to date, and the USACE and USFWS are currently continuing their review of the permit application. Any requirement for an updated jurisdictional determination is at the sole discretion of the USACE. The USACE has not required a new jurisdictional determination to date, and unless otherwise requested, the applicant respectfully requests that the Planning Board acknowledge the USACE's jurisdiction.

It is important to note that no filling or other significant adverse impacts are proposed for the remaining 17 on-site wetlands/streams that were determined to be jurisdictional waters of the United States under the 2008 JD (refer to Appendix D.1 in the Appendix to the EAF). In fact, as detailed in the Silo Ridge Resort Community Revised Habitat Management Plan (HMP), expansion is proposed for five of these features, and extensive mitigation would also occur at others, through the implementation of stream restoration efforts, shoreline planting enhancements and the establishment of vegetated buffers.

Moreover, the commentator's assertion that the existing jurisdictional determination was issued prior to the United States Supreme Court decision in *Rapanos v. United States & Carabell v. United States* (the "Rapanos Decision") is incorrect. The existing jurisdictional determination was issued on July 25, 2008, more than two years after the Rapanos Decision, which was released on June 19, 2006. Furthermore, the existing jurisdictional determination was issued subsequent to the release of the USACE guidance documents "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*" (June 5, 2007) and "Process for Coordinating Jurisdictional Determinations Conducted Pursuant to Section 404 of the Clean Water Act in Light of the Rapanos and SWANK Supreme Court Decisions" (January 28, 2008). Later USACE guidances released after the 2008 jurisdictional determination, including the current draft proposed rule "Definition of Waters of the United States under the Clean Water Act" (April 25, 2014), have sought to clarify, rather than expand, the definition of waters of the United States (including the controversial term "significant nexus") and the jurisdiction of the USACE under the Clean Water Act. As such, in my professional opinion, it is respectfully submitted that current USACE interpretations of the Clean Water Act and processes for determining jurisdictional waters of the United States were already in effect at the time that the 2008 JD was issued and were taken into account by the USACE as part of the JD. Furthermore, as indicated above, any requirement for an updated jurisdictional determination is at the sole discretion of the USACE, as the issuing agency.

Based upon the foregoing, it is respectfully submitted that an updated jurisdictional determination is unnecessary, and that any requirement for same would be at the sole discretion of the USACE, as the issuing agency.



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I limited my review to comments attributed to me. The following numbered comments needs additional attention as follows:

3: There are still too many estate homes on the naturally forested slopes at the southern end of the site.

Response MWK-10: Please refer to Response MWK-3.

7: The Applicant needs to discuss how the stream crossings proposed are equal to or superior to those that are part of the previous approved MDP and included in the Findings Statement. Also cross reference this with the revised language in the HMP and the EAF addendum, check for consistency.

Response MWK-11: The Addendum to the EAF is now consistent with the revised HMP per coordination with Dr. Klemens. Text will be included in the Findings Statement as the applicant continues to work with the Town in completing the document.

11. Add that "the trade-off was protecting an additional 11.5 acres of naturally forested slopes versus grassland to be created on previously disturbed slopes."

Response MWK-12: This will be included in the Findings Statement as the applicant continues to work with the Town in completing the document.

15: Response inadequate, expand.

Response MWK-13: The numbers shown in the Finding Statements that mention a drop from 43 to 25 acres are in reference to "field/meadows/re-vegetated" areas within the protected OPEN SPACE. These are areas that form part of the proposed Open Space, they do not include grasslands within the golf course. The numbers can be found under MDP Sheet SP-4.

In contrast, the note regarding restored grasslands from 134 acres to 96.8 acres takes into consideration the entire site, including grasslands located within the golf course, not just the proposed open space areas. Therefore, as previously stated the comparison is not one in the same which is why the numbers are not the same.

28: Add "incorporated as Appendix E of the HMP."

Response MWK-14: The Breeding Bird Study – Parcel 1 for the Silo Ridge Resort Community is complete and is included as Appendix E of the HMP.

29: Add "disturbed area has been reduced when compared with the 2009 MDP."

Response MWK-15: Please note that the previous responses are not being reissued, however, the Addendum to the EAF has been revised and clearly states that the "disturbed area has been reduced when compared with the 2009 MDP." – Please refer to Table 3 of the Addendum to the EAF.



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37: Again, this need to be consistently treated as a change that was equal to or better than the crossings approved in the 2009 MDP and the Findings Statement.

Response MWK-16: The Addendum to the EAF is now consistent with the revised HMP per coordination with Dr. Klemens. Text will be included in the Findings Statement as the applicant continues to work with the Town in completing the document.

41. Conifers have been planted alongside Route 44 on the lower portions of DeLaVergne Hill therefore the response statement is no longer correct.

Response MWK-17: Proposed *Abies concolor* (Concolor Fir) trees have been removed from the plans in this location, as well as a large grouping of trees at the Route 44 hairpin turn to open up views. It is the Applicant's understanding that a tall, dense shrub screen as described in this comment would not be preferred as it would cut off valley views from Route 44; therefore, native shrub groupings have been proposed downslope on the golf side.

Please refer to Response GMJ-9.

Landscape Plans

My review of the landscape plans has been multi-layered and is an ongoing process. In the initial sets of discussions and comments, the locations of plant palettes and species were harmonized with the original approvals, to ensure that only native plants were used in the transitional areas between natural forested habitats and along waterways. In consultation with the Applicant's team and their landscape consultant Matt Rollins, I removed various plants from the palettes that had the potential to be invasive, including various Eurasian *Viburnum* species. These were replaced with appropriate native species in the palette. We also developed a palette of low growing native species to be placed in the hairpin turn on De DeLaVergne Hill to facilitate long views down the valley. Having reviewed the landscape plans and the arrangement of plant species divided into three categories, native to NY, native the eastern USA but not NY, and not native, I can report to the Planning Board that all sensitive ecological areas have been planted with a palette of plants that are native to New York State in accordance with your original approvals. *Policy Question for the Planning Board: I recommend that the Planning Board allow an ongoing system of consultation between myself and Mr. Rollins as it is anticipated that there will be occasion to have to substitute certain plants because of stock availability or size. This is a very standard procedure in large installations and it is critical that any substitutions carry forward the commitments to native planting around all natural areas and waterways. This will avoid the Applicant having to present each size change/substitution of plant material to the Planning Board. When these changes are made I will send an email to the Planning Board Chair and Secretary, so that the Town has a written record of any changes made.*

The current plan includes Rocky Mountain White Fir (*Abies concolor*) as part of the palette in the DeLaVergne Hill SPO buffer alongside Rte 44 and several Colorado Blue Spruce (*Picea pungens*) proposed to be planted in the SPO buffer at the Wastewater Treatment Plant. I have discussed these issues with the Applicant and these will be removed for several reasons. First, only native species can be used in the first 100 feet of the 800 foot SPO buffer alongside Rt. 44. Both of these species are native to the western USA, and therefore planting them violates zoning as they are currently specified for installation within the first 100 feet of the SPO buffer. Additionally, blue spruce in New England and New York are



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dying from a particularly virulent pathogen and the species is not even commercially available. The planting plan around the WWTP was designed by the WWTP architect, and the Applicant has informed me that Mr. Rollins will be reworking that plan to bring it into compliance in both the species used and in the quality of design and detail that has been illustrated on the rest of the site.

Response MWK-18: Comment noted. Policy Question to the Planning Board. See refer to Response MWK-17 regarding *Abies Concolor*. The WWTP has been relocated to the south to the Golf Maintenance Facility area on the Harlem Valley Landfill Corp. property and will be screened using native plants.

Vegetative Screening

Policy Question for the Planning Board: I believe that the Planning Board needs to carefully review what these planting plans are going to result in over time, and reconcile that both with the SPO zoning as well as the comments concerning the view shed received at the two public hearings.

Vegetative screening has its genesis both in the zoning (SPO) as well as what may be a mis-directed attempt to hide most of the development from the public eye, which will result in blocking large sections of the view shed from DeLaVergne Hill.

The Applicant has proceeded to implement portions of Landscape Plan contained within the Phase 1 Site Plan. Specifically the Applicant moved 13 large white pines (*Pinus strobus*) to recently graded areas adjacent to the golf course. While some of this grading was included in the approved golf SPO waiver, apparently there is at least one area on the Phase 1 Site Plans where the Planning Board is being asked to approve more grading as part of Phase 1. These issues were covered in two memos that I sent to the consulting team concerning a comparison of the March 3rd and August 11th Phase 1 Site Plan and MDP sheets. These memos are attached at the end of this memorandum.

From my standpoint placing those pine trees as the Applicant did has sparked an important conversation about what the site ultimately will look like. Driving up DeLaVergne Hill, a long view down the valley unfolds framed by the lower branches of some of the pine trees; those views could be further opened up by removing some lower branches once these trees are established. But that present, attractively-framed long view down through the valley is quite transitory. The current Phase 1 Site Plan calls for a dense forest of trees to be planted within that buffer area, almost up to the hairpin turn, which effectively means a large part of the view will be lost forever.

The Planning Board is advised to reach a decision on this critical issue—and evaluate carefully if the current Phase One Landscaping Plans are the outcome they wish as it pertains with views into and across the valley from DeLaVergne Hill.

While this screening may have been appropriate for the former approved 2009 MDP, which contained many height waivers and much greater building bulk (and even then I questioned whether this was prudent at that time), it certainly needs to be critically re-evaluated for the much lower profile development envisioned in the current MDP and Phase One Site Plan and in response to the public comments about the long views down the valley.

Response MWK-19: Comment noted. Policy Question to the Planning Board.



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The Planning Board has advised the Applicant that existing trees along the lower section of Route 44 do not need to be removed. However, as additional mitigation for potential visual impacts, the Applicant has committed to working with the Planning Board and NYSDOT to remove existing trees at the hairpin curve, in order to maximize views from DeLaVergne Hill and the Artisan's Park Overlook. Please refer to the following:

- Responses GMJ-8 and GMJ-9; and
- Site Plan Drawings L3.01-L3.02.

I also examined the vegetative palette for the proposed overlook area. All species seem appropriate for that site. However, I would suggest that in lieu of planting three red maples (which are not elegant specimen trees) behind the benches, the Applicant consider a stately specimen tree in that location, such as a Burr Oak (*Quercus macrocarpa*), which would over time add shade, importance, and dignity to the overlook seating area. Alternatively, one could eliminate any tree(s) there as they may over time impede the views of the valley from certain points on Rte. 44. *The Planning Board is advised to carefully review the tree planting plan for the overlook and provide guidance as to what size plantings they wish to see on that area and whether they want any trees at all at the overlook area.*

Response MWK-20: Comment noted. Policy Question to the Planning Board.

All trees and shrubs have been removed from the proposed planting plan for the Artisan's Park Overlook.

Vegetative screening is also question at the Wastewater Treatment Plant (WWTP). A much more diverse palette needs to be established for the overall site (which I believe Matt Rollins has been tasked to do on behalf of the Applicant), however, there is the issue of screening the side of the building, specifically the south elevation that will be partially visible as one descends DeLaVergne Hill toward the hamlet of Amenia. The problem here is that the WWTP sits right up along the NYSEG Right of Way (ROW), grading for the WWTP plant extends onto the ROW, and NYSEG may well be reluctant to allow establishment of anything tall (i.e., trees) on their ROW. Possibly some tall growing shrubs such as bayberry may help break up the building profile a bit, these can be, maintained at the desired height and may be more palatable to NYSEG than trees. So even with some shrub screening, it is quite likely that a portion of the south side of the building may be visible as one drives under the NYSEG power line easement eastward toward the hamlet. Common sense would dictate that this portion of Rte. 44 that is near the junction of West Lake Amenia Road is a transitional zone from the rural area of DeLaVergne Hill toward the hamlet of Amenia. There are a variety of structures that are within the 100 foot SPO buffer, including residences and a restaurant (Serevan), and it may make sense for the Planning Board to focus on ensuring the compatible physical appearance (e.g. clapboard barn-like structure) of the WWTP, as opposed to trying to screen its entire southern elevation from eastward bound traffic on Rte 44, which is impossible without NYSEG's concurrence. Another alternative that has been suggested is using large retaining walls around the WWTP. This will reduce the loss of trees through cuts and fills as currently proposed, but also will camouflage apart of the building by having it hidden below grade.

Response MWK-21: The wastewater treatment plant ("WWTP") has been relocated to the south to the Golf Maintenance Facility area on the Harlem Valley Landfill Corp. property. All engineering, architectural and landscape plans have been updated accordingly. Vegetative screening is proposed at



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the new location. Please refer to Response MWK-22 for further details regarding the vegetative screen at the new proposed location.

A third area of vegetative screening is around the Golf Maintenance Facility as the southern end of the site alongside Rte. 22. There is not an SPO buffer in that area of Rte. 22, but according to the OC zoning, the structure and its appurtenant activities must be completely screened from Rte. 22. The facility is well planted with many trees but there is an area to the north of the facility where additional screen of eastern red cedars and white pines will be needed to block the view of this facility from Rte. 22. This already has been discussed with the Applicant. The area of overflow parking is going to be maintained as lawn. If it is to be used more than a few times a year, a type of pervious paver may make more sense for that area. I leave that determination for the Town's Engineer.

Response MWK-22: A combination of berms and new native trees has been added within the "green buffer" between the Golf Maintenance Facility and Route 22 to shield the structures and the parking areas – please refer to Site Plan Drawing L3.14.

The overflow parking at the Maintenance Facility is shown as "Urbangreen Plastic Pavers" – please refer to Site Plan Drawing C4.14. The area will be used for parking management as needed throughout the year.

Demolition Plan

Sheet C3.10 shows the total number of trees to be slated for removal equaling 1551, but only 577 of these are 12 inches or less DBH. The remainder 12-14 inches (899) and greater than 24 inches (75). I reviewed the list of trees to be removed, eliminating non-native trees such as Norway maples, and early successional species such as aspens and birch, as well as ash which are undergoing severe disease induced declines in our area. The results are that a significant number of large trees (119) representing climax second growth forest will be removed under the current plan. These are all hardwoods except for a single large hemlock. Most of these trees are 20 inches or more in diameter, and some are more than twice that: 32 sugar maples, 23 hickories, 22 red oaks, 13 black oaks, 8 white oaks, 8 maples (unidentified species), 4 black cherry, 3 tulip trees, 2 red maples, 2 oaks (unidentified species), 1 scarlet oak, and 1 hemlock. Many of these large trees must be originating from the steep forested slopes and are likely primarily being impacted by the estate home construction. In addition, several of the shagbark hickories proposed to be removed could serve as maternal (summertime) roosts for two Federally-protected ESA/Candidate ESA bat species (Indiana and Long-eared). I would suggest that the Planning Board require that the Applicant further refine the layout of the estate lots and the clearing/grading plan to avoid taking so many aged trees. The use of design guidelines for the estate lots will help achieve these goals. Also the timing of forest clearing must take place in the late fall-winter in order to incidental take of roosting bats. Missing Information: The tree survey/demolition plans are also incomplete. Some areas of forest to be cleared are not accounted for in the tree removal plan (see C3.08).

Response MWK-23: The project site currently contains 350 acres of existing forested habitat. Following implementation of the proposed action, the project site would support 298.1 acres, or 85 percent of the existing forested habitat, as indicated on the MDP Plans: HMP Existing Conditions (ENV-2) and the HMP Proposed Conditions (ENV-3). As indicated on the MDP Plan, Open Space Plan (SP-4), the 298.1 acres of forested habitat would be preserved in seven large habitat blocks, including a 216.42± acre forested



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block encompassing the majority of the ridge complex that occupies the western portion of the project site. This habitat block supports extensive Beech-Maple Mesic Forest and Appalachian Oak-Hickory Forest communities, as defined in the New York Natural Heritage Program publication, "*Ecological Communities of New York State*"² (ECNYS). These two communities in turn support hundreds of trees of 20-inches diameter-at-breast-height (dbh) or more in diameter, including many representatives from the genera and species indicated by the commentator (sugar maple (*Acer saccharinum*), red maple (*Acer rubrum*), hickories (*Carya* spp.), red oak (*Quercus rubra*), scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*), white oak (*Quercus alba*), black cherry (*Prunus serotina*), tulip tree (*Liriodendron tulipifera*) and hemlock (*Tsuga canadensis*). These individual trees, and the surrounding 216.42± acres of forested ridge complex to be preserved, represent significant potential summer roosting and foraging habitat for the two bat species noted by the commentator (the federally-endangered Indiana bat [*Myotis Sodalis*] and the proposed for federal listing northern long-eared bat [*Myotis septentrionalis*]). Moreover, the latter two communities include numerous trees with exfoliating bark that are known to be utilized as maternity roosts by the two aforementioned bat species, most notably shagbark hickory (*C. ovata*) (as noted by the commentator), pignut hickory (*C. glabra*), mockernut hickory (*C. tomentosa*) white oak and black locust (*Robinia pseudoacacia*).

An additional 47.64± acre forested habitat block would be preserved within and surrounding the NYSDEC-regulated wetland complex (NYSDEC Wetland AM-15) located at the eastern portion of the project site, resulting additional protection of large "specimen" trees (i.e., 20-inches dbh or greater) and bat roosting and foraging habitat. The wooded buffer included in the preservation area features a stand of old-growth shagbark hickory trees that represent prime potential roosting habitat for the two aforementioned bat species.

The five additional habitat blocks proposed for preservation support additional forested communities, including the ECNYS Successional Southern Hardwoods ecological community. Similar to the former

² Edinger, G.J., et al. (editors). 2002. *Ecological Communities of New York State*. Second Edition (Draft). New York Natural Heritage Program, NYSDEC.



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two forested habitat blocks, numerous additional specimen trees of 20-inches dbh or greater occur within these communities, representing additional bat roosting sites.

In contrast, the limited number of trees of 20-inches or greater dbh proposed for removal (119, as noted by the commentator) represent a small fraction of the total number of similar specimen trees growing on-site, particularly in light of the large number of specimen trees to be preserved within the seven aforementioned forested habitat blocks. Furthermore, the removal of these individual trees at various locations does not represent the clearing of entire forest communities, nor the removal of entire bat roosting and/or foraging habitats.

Regarding the timing of the clearing and individual tree removals, all cutting and removal must be conducted in the winter months (November 1 to March 1) only to afford protections to wildlife species and their possible habitat (including endangered Indiana Bats and Northern Long-Eared Bats) unless otherwise specified by USFWS (US Fish & Wildlife Service), and except in bona-fide emergencies, and as necessary to remove damaged or dead trees that threaten the health, safety and welfare of the lot owner and/or the public. Thereby avoiding any potential direct impacts to Indiana bat, northern long-eared bat or other breeding wildlife.

With respect to the missing information noted by the commentator, an additional tree survey was recently completed and the base map has been updated to include all proposed clearing areas. Accordingly, based upon consultations with the Town consultants Dr. Klemens, Mary Ann Johnson and Julie Mangarillo, the tree removal plan now includes all trees proposed for removal within the ADA, as well as those trees impacted by grading. The Demolition Plans and the Tree Removal Table have been updated accordingly.

Finally, it is important to note that, other than the proposed mass grading and grading associated with the driveway, no grading or mechanized clearing of existing trees greater than eight-inches dbh would be permitted outside of the approved ADA and driveway envelopes. The Design Standards for Estate Homes addresses clearing of existing vegetation, as well as what landscaping will be required in order to minimize impact on naturally forested areas, as thoroughly discussed with the Planning Board and its consultants

Based upon the foregoing, no significant adverse impacts are anticipated for specimen trees or bat roosting foraging habitat as a result of the proposed action.

Lighting Plan

The lighting plan is contained on Sheets SL 1.00-1.06. There were no previous landscape lighting plans, however, the discussion of landscape lighting was present in both the approved 2009 MDP (page 44) and the new revised MDP (page 62). While the style and wattage (50 watts versus 20 watts) have changed, the output remains consistent at 1000 lumens. According to the Applicant, Discovery Land has replaced many of the pole lights with up-lit trees, which is their preference for lighting. Does this comply with zoning? As far as ecological impacts are concerned, according to the lighting plan sheets, the proposed tree lights will not be adjacent to any natural areas with a single exception, at the



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entrance area. It is unclear from the plans submitted what the lighting situation will be at the entrance. This is the area adjacent to SWM 6 which was formerly Pond A and Pond B. As a general rule, up-lighting near natural habitats (wetland and forested slopes) should be avoided.

Response MWK-24: Up-lighting has been removed from all landscape lighting. The Lighting Plans, which show photometrics, have been updated accordingly. Additionally, all lighting along the entrance road has been shown on SL1.03.

Enlargement of Easement

In my earlier memos I discussed the possibility that the easement area has expanded to accommodate the drainage pipe and the overflow parking. The Applicant (informally) estimated this at about an acre. I discussed this with the Planning Board's counsel as long as the new disturbance numbers are reflected somewhere in the record, the EAF does not need to be reworked to accommodate this small increase overall project area. Missing Information: I would suggest that the Planning Board request that the Applicant clearly show/add to the record (or point out where it is if it is already in the record) the discussion of this increased area of disturbance.

Response MWK-25: The easement area has expanded due to the addition of the WWTP and the rework of the newly proposed emergency access road to meet the slope requirements specified by the Town Engineer and the Fire Department. It should be noted that the Applicant moved the WWTP to the proposed location in order to reduce impacts to steep slopes, reduce disturbance, and move the plant from the SPO right of way as was suggested by the Town's consultants. Therefore, the newly revised easement has increased from 5.6 acres (August 2014) to 8.6 acres (J). It is customary that changes within the property take effect throughout a review process, therefore it is not necessary to resubmit or revise the original EAF, as was discussed with the Planning Board's counsel.

Conservation Buffer/Easement Boundary Markers

I have examined the conservation buffer markers illustrated on C14.01. They accurately reflect the two types of markers I have discussed with the Applicant. A post mounted marker to delineate the boundary between the homeowner use area and the preserved area that will be installed at the interface between the forested areas and the estate homes, as well as between the golf course and the protected wetland buffers around AM15 and Amenia Cascade Brook. The ground level discs are to be used in areas that are mowed or otherwise managed. These indicate the areas to be protected and the boundaries of the now spray and fertilizer zones. Missing Information: Dutchess Land Conservancy (DLC) and Audubon International (AI) will both be using these markers to monitor the easement and manage the golf course. Therefore, the Applicant should consult with both parties to ensure that the design of these markers are in accordance with their management plans, what should be written on the markers, and also the number and placement of these boundary markers. The written responses from the easement holder (DLC) and the golf course manager (AI) should be incorporated as part of the record of these proceedings.

Response MWK-26: Confirmation from Audubon and Land Trust agency will be provided.



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Northern Long-Eared and Indiana Bats

The Indiana Bat and Long-Eared Bat are both endangered species that potentially occur on site. Both species hibernate in caves and mines, but during the spring, summer, and fall they disperse and use a variety of mature trees (both living and dead) with hollows and exfoliating bark for roosting. Many of the larger trees discussed in the demolition plan (especially shag bark hickories and mature sugar maples) are texturally conducive to serve as roosting habitat for these species. Conservation strategies for these species follow the following sequence: avoidance, minimization, and mitigation. Avoidance is reducing further the loss of mature second growth forest, minimization is reducing the loss of mature specimen trees, especially shag bark hickories and sugar maples, mitigation is avoiding take of these species by restricting clearing activities between November 1 and March 1 (unless another clearing window is provided by the USFWS). The installation of bat roosting boxes can also help offset the loss of tree habitat. Bat boxes are not a substitute for tree preservation.

Response MWK-27: Comment noted. Please refer to the response letter dated October 2, 2014 from VHB to Rosie Miranda, USACE, which was in response to the USACE's letter dated September 8, 2014.

No The applicant recognizes that the project site currently provides potential roosting and foraging habitat for both northern long-eared bat (*Myotis septentrionalis*) and Indiana bat (*Myotis sodalis*). Accordingly, the applicant has proposed significant avoidance, minimization and mitigation measures with respect to these two species. The proposed action is currently under review by the United States Fish and Wildlife Service (USFWS) with respect to federally-protected species, and the applicant and is currently involved in ongoing consultations with this agency regarding the two aforementioned bat species. The proposed action currently incorporates the following avoidance, minimization and mitigation measures with respect to northern long-eared bat and Indiana bat:

- In order to avoid potential direct impacts to northern long-eared bat, Indiana bat and most other breeding wildlife, all cutting and removal must be conducted in the winter months (November 1 to March 1) only to afford protections to wildlife species and their possible habitat unless otherwise specified by USFWS (US Fish & Wildlife Service), and except in bona-fide emergencies, and as necessary to remove damaged or dead trees that threaten the health, safety and welfare of the lot owner and/or the public. The applicant recognizes that the installation of bat roosting boxes does not represent a substitute for tree preservation. Accordingly, a total of, 298.1 acres, or 85 percent of existing forested communities that may represent potential summer roosting and foraging habitat for the two aforementioned bat species would be preserved as open space. As detailed on the MDP Plan, Open Space Plan (SP-4), the preservation of forested land would occur within seven large habitat blocks, including a 216.42± acre block encompassing the majority of the wooded ridge complex that occupies the western portion of the project site. Based upon field observations by VHB, the ridge complex supports Beech-Maple Mesic Forest, Appalachian Oak-Hickory Forest and Successional Southern Hardwoods communities, as defined in "Ecological Communities of New



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York State".^[1] These three communities include numerous trees with exfoliating bark (e.g., hickory [*Carya spp.*], sugar maple (*Acer saccharum*), white oak [*Quercus alba*], black locust [*Robinia pseudoacacia*], etc.) that are known to be utilized as roosting habitat by northern long-eared bat and Indiana bat.

- Additional protection of bat foraging habitat would occur through the preservation of the 47.64± acre, predominantly forested wetland habitat and surrounding forested buffer area located at the eastern portion of the project site (NYSDEC Wetland AM-15). The wooded buffer includes a stand of old growth shagbark hickory (*Carya ovata*) trees that represent prime potential roosting habitat for the two aforementioned bat species.
- Implementation of the proposed action would result in an increase in wetland habitat area (from 24 to 31.4 acres) and aquatic habitat area (from 16 to 20.9 acres), representing the creation of additional potential bat foraging habitat.

^[1] Edinger, G.J., et al. (editors). 2002. *Ecological Communities of New York State*. Second Edition (Draft). New York Natural Heritage Program, NYSDEC.