

McGOEY, HAUSER and EDSALL CONSULTING ENGINEERS D.P.C.

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TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT:YOUNG SUBDIVISIONPROJECT NO.:20-02PROJECT LOCATION:SECTION 8, BLOCK 1, LOT 52.2 Town of Newburgh
SECTION 108.004, BLOCK 5, LOT 20.21 & 20.3 Town of MarlboroughREVIEW DATE:24 JUNE 2020MEETING DATE:2 JULY 2020PROJECT REPRESENTATIVE:ENGINEERING AND SURVEYING PROPERTIES

- 1. The Town of Marlborough Planning Board as Lead Agency issued a Negative Declaration for the project.
- **2.** The project is before the Board for a public hearing. The Town of Marlborough Planning Board, held a public hearing on 18 May 2020.
- **3.** Both Town's Planning Board Attorney's are working with the applicant to address filing of deeds/covenants which will permanently connect the parcels which span the Town/County lines.

Respectfully submitted,

McGoey, Hauser and Edsall Consulting Engineers, D.P.C.

Patrick J. Hines Principal

PJH/dns





www.EngineeringPropertiesPC.com 71 Clinton Street Montgomery, NY 12549 phone: (845) 457-7727 fax: (845) 457-1899

May 4, 2020

Town of Marlborough Planning Board 21 Milton Turnpike Milton, NY 12547

ATTN: Chris Brand, Chairman

RE: APPLICATION #2020-02 50 MILL HOUSE ROAD TAX LOT # 108.004-5-20.21

Dear Mr. Brand:

Please find attached 12 copies of the revised plan set for the above referenced project. The plans have been revised in accordance with a review comment letter prepared by the Ulster County Planning Department dated April 1, 2020 and a comment letter from McGoey, Hauser and Edsall Consulting Engineers, D.P.C. dated 17 April 2020. Below is a comment by comment response to each comment letter:

Ulster County Planning Recommendations:

Ulster County Health Department Review

An application was made to the Ulster County Department of Health on February 27, 2020 for Realty Subdivision approval which is currently under review for the approval of the proposed well and septic systems located on Lots 1 & 4. It should be noted that the proposed well on Lot 4 is located a distance greater than 200' away from the existing subsurface septic system on Lot 3. In addition, the existing driveway for Lot 3 provides a natural surface break in drainage patterns from the developed area of Lot 3 and the proposed area of Lot 4 therefore any speculative failure of the septic on Lot 4 will not impact the proposed improvements of Lot 4.

Archaeology Survey

In accordance with SEQR requirements a Phase 1A & 1B archaeology survey was completed for the project. The report has been submitted to New York State Historic Preservation Office for their review. In addition, below is the conclusion and recommendations directly from the report (copy attached).

The Phase IA had determined that based upon topographic characteristics and proximity to prehistoric sites, the property was assessed as having an above average potential for encountering prehistoric sites. Based upon topographic characteristics and proximity to historic sites, historic map documented structures and roads, the property was assessed as having a higher than average potential for encountering historic sites. During the course of the Phase IB archaeological field survey, 65 ST's were excavated. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. No further work is recommended.

Driveway – Advisory Comment

In accordance with additional comments received from the Town Engineer and planning board members, the proposed driveway for Lot 4 has been combined with the existing driveway of Lot 3 and a common access easement has been shown on the plan and will be filed with the Ulster County Clerk's office.

McGoey, Hauser & Edsall

- As stated above, an application was made to the Ulster County Department of Health on February 27, 2020 for Realty Subdivision approval which is currently under review for the approval of the proposed well and septic systems located on Lots 1 & 4. In addition, joint soil testing was originally scheduled for March 19, 2020, however due to the ongoing COVID-19 pandemic, the UCHD advised that although they would be unable to be present that the soil testing consisting of testpits should still be performed and submit photos along with the standard documentation paperwork for their review.
- 2. An environmental subconsultant, Peter Torgersen, prepared a letter (copy attached) regarding the potential impact on the Bald Eagle. The letter was electronically submitted to the NYSDEC on April 17, 2020 and a response has not been received to date.
- 3. As stated above, a Phase 1A & 1B archaeology survey was completed for the project with a recommendation of no further studies. The report has been submitted to New York State Historic Preservation Office for their review.
- 4. A copy of the plans was e-mailed and hard copy of this submission has been sent to the Highway Superintendent for his comments.
- 5. A response to the Ulster County Planning Comments are above. A copy of the response to the Town of Newburgh, including responses to Orange County Planning comments are attached.
- 6. No response required.
- 7. The following note has been added to the plans regarding the requirement of covenants to be filed for Lots 2, 3 & 4 in both Ulster and Orange County Clerk's Office.

Lots 2, 3 & 4 (although considered as single lots for building purposes) encompass separate tax lots in the Town of Marlborough and the Town of Newburgh. Restrictive covenants shall be filed with the County of Ulster and county of Orange Clerks' offices ensuring that individual tax lots cannot not be sold, transferred, or foreclosed on separately. If you have any additional questions and/or comments, please don't hesitate to contact this office.

Sincerely, Engineering & Surveying Properties, PC

annes

Jay Samuelson, P.E. Principal

encl.

cc: David & Susan Young Patrick Hines, MHE Town of Newburgh Planning Board



www.EngineeringPropertiesPC.com 71 Clinton Street Montgomery, NY 12549 phone: (845) 457-7727 fax: (845) 457-1899

May 4, 2020

Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, NY 12550 **ATTN: John Ewasutyn, Chairman**

RE: APPLICATION #2020-02 50 MILL HOUSE ROAD TAX LOT # 8-1-52.2

Dear Mr. Ewasutyn:

Please find attached 12 copies of the revised plan set for the above referenced project. The plans have been revised in accordance with a review comment letter prepared by the Orange County Planning Department dated March 11, 2020 and a comment letter from McGoey, Hauser and Edsall Consulting Engineers, D.P.C. dated April 2, 2020. Below is a comment by comment response to each letter:

Orange County Planning:

Comments:

 In accordance with SEQR requirements a Phase 1A & 1B archaeology survey was completed for the project. The report has been submitted to New York State Historic Preservation Office for their review. In addition, below is the conclusion and recommendations directly from the report (copy attached).

The Phase IA had determined that based upon topographic characteristics and proximity to prehistoric sites, the property was assessed as having an above average potential for encountering prehistoric sites. Based upon topographic characteristics and proximity to historic sites, historic map documented structures and roads, the property was assessed as having a higher than average potential for encountering historic sites.

During the course of the Phase IB archaeological field survey, 65 ST's were excavated. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. No further work is recommended.

2. An environmental subconsultant, Peter Torgersen, prepared a letter (copy attached) regarding the potential impact on the Bald Eagle. The letter was electronically submitted to the NYSDEC on April 17, 2020 and a response has not been received to date.

Advisory Comments:

Safe Drinking Water:

An application was made to the Ulster County Department of Health on February 27, 2020 for Realty Subdivision approval which is currently under review for the approval of the proposed well and septic systems located on Lots 1 & 4. It should be noted

that the proposed well on Lot 4 is located a distance greater than 200' away from the existing subsurface septic system on Lot 3. In addition, the existing driveway for Lot 3 provides a natural surface break in drainage patterns from the developed area of Lot 3 and the proposed area of Lot 4 therefore any speculative failure of the septic on Lot 4 will not impact the proposed improvements of Lot 4.

Driveway Locations:

In accordance with additional comments received from the Town Engineer and planning board members, the proposed driveway for Lot 4 has been combined with the existing driveway of Lot 3 and a common access easement has been shown on the plan and will be filed with the Ulster County Clerk's office.

McGoey, Hauser & Edsall

- 1. No response required.
- 2. No response required.
- 3. The following note has been added to the plans regarding the requirement of covenants to be filed for Lots 2, 3 & 4 in both Ulster and Orange County Clerk's Office.

Lots 2, 3 & 4 (although considered as single lots for building purposes) encompass separate tax lots in the Town of Marlborough and the Town of Newburgh. Restrictive covenants shall be filed with the County of Ulster and county of Orange Clerks' offices ensuring that individual tax lots cannot not be sold, transferred, or foreclosed on separately.

- 4. As stated above, a Phase 1A & 1B archaeology survey was completed for the project with a recommendation of no further studies.
- 5. As stated above, an environmental subconsultant, Peter Torgersen, prepared a letter (copy attached) regarding the potential impact on the Bald Eagle.
- It is understood that a public hearing will not be scheduled until the Town of Marlborough completes SEQR. We anticipate that to be completed on May 18, 2020.

If you have any additional questions and/or comments, please don't hesitate to contact this office.

Sincerely, Engineering & Surveying Properties, PC

anu

Jay Samuelson, P.E. Principal

encl

cc: David & Susan Young Patrick Hines, MHE Town of Marlborough Planning Board

PETER D. TORGERSEN, ENVIRONMENTAL SCIENCES

110 Town Line Road, Pearl River New York 10965, 845 642 8939 petertorger271@gmail.com

April 4, 2020

Michael Lynch Engineering & Surveying Properties PC 71 Clinton street Montgomery, New York 12549

Re: Young Subdivision/Bald Eagle Habitat

Dear Mr. Lynch,

The above site is located about ½ mile from the west bank of the Hudson River which is a waterbody known to be used by Bald Eagles. Bald Eagles were once threatened but have made a comeback and in 2007 were removed from the Federal Endangered Species List. The Bald Eagle is now commonly sighted over the Hudson, Neversink, Rondout and Delaware Rivers. The NY City Reservoirs are also popular locations for seeing Bald Eagles There are still regulations that can inhibit construction if an eagle nest is located in the vicinity. If construction is visible from a known nest site a 660 foot buffer must be used. If construction is not visible from the nest than a 330 foot buffer must be used.

The Bald Eagle is one of the largest birds of prey found in North America. It's primary food is fish however if the opportunity presents itself it will also pursue small mammals, waterfowl, seabirds and during winter, carrion. They can live over 30 years and mate for life. Once a pair chooses a nest site they use it for the rest of their lives. Nests are always a short distance from a waterbody and almost always a White Pine. The White Pine is chosen because it usually rises above the forest canopy and the spacing of the limbs on large Pines allows the Eagles to glide into the nest. The close proximity to water is important because it allows the eagle bring fish back to the nest when feeding the young.

The project site is a 10.68 acre site that currently has 2 existing homes. The proposed subdivision will create lots for 2 additional homes. The onsite habitat is all early successional forest with the usual lawns and driveways for the two homes. There are no large towering White Pines onsite. The area south of Millhouse Road does have the occasional large White Pine however this location is just too far from the Hudson River to be considered potential habitat. Eagles nest along the edge of feeding areas where they can look from the nest out over the water. This site is located on the far side of a small hill that stands between it and the Hudson. The existing residences and their associated noises and lights also remove this location from consideration. I was limited to walking just the subject parcel however because of the seasonal lack of leaves I could see quite

far and observed no existing nests on any directly adjacent parcel. The DEC Environmental mapper does not indicate that any Bald Eagle nests are known to be in the vicinity just that it is close to the Hudson River. The proposed further development of this site will have no impacts and Eagles or potential Eagle habitat.

Yours truly,

Peter Torgersen

NEW YORK STATE OF OPPORTUNITY.

Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO Governor

ERIK KULLESEID Commissioner

May 04, 2020

Michael Lynch **Project Engineer** Engineering & Surveying Properties, PC 71 Clinton Street Montgomery, NY 12549

Re: SEQRA Young Subdivision 50 Mill House Rd, Marlboro, NY 12542 20PR01674 20-02

Dear Michael Lynch:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP) as part of your SEQRA process. These comments are those of OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

If this project will involve state or federal permitting, funding or licensing, it may require additional review for potential impacts to architectural and archaeological resources, in accordance with Section 106 of the National Historic Preservation Act or Section 14.09 of NYS Parks Recreation and Historic Preservation Law.

OPRHP has reviewed Phase I Archaeological Investigation at 50 Mill House Road, Townships of Newburgh, Orange County and Marlborough, Ulster County, New York (Tracker Archaeology, April 2020). Based on the information provided, OPHRP has no concerns regarding the proposed project under SEQRA. Should the project design be changed, we recommend further consultation with this office.

If you have any questions, please don't hesitate to contact me.

Sincerely,

. A. Hora

Philip A. Perazio, Historic Preservation Program Analyst - Archaeology Unit Phone: 518-268-2175 e-mail: philip.perazio@parks.ny.gov

via email only

John Ewasutyn, Town of Newburgh; Virginia Flynn, Town of Marlborough CC:

Phase I Archaeological Investigation at 50 Mill House Road Townships of Newburgh, Orange County and Marlborough, Ulster County, New York

Apríl 2020

Prepared for: Engineering & Surveying Properties, Montgomery, New York

> Alfred G. Cammisa, M.A. with Alexander Padilla

> > 1016

MANAGEMENT SUMMARY

<u>PR#:</u> 20PR01674

Involved agencies: Town of Marlborough, Ulster County Town of Newburgh, Orange County NYDEC

Phase: Phase IA & IB

Location: Town of Newburgh, Orange County Town of Marlborough, Ulster County

Survey Area: Length: up to 500 feet (152meters) north-south Width: about 440 feet (134 m) east-west Acres Surveyed: 4.5 acres (1.8 hectares) with steep slopes

<u>USGS:</u> Wappingers Falls, NY

Survey overview: ST no. & interval: 65 ST's at 50 ft (15m) intervals Size of freshly plowed area: na Surface survey transect interval: na

Results: No prehistoric or historic remains <u>Structures</u>: No. Of buildings/structures/cemeteries in project area: overhead utility lines No. Of buildings/structures/cemeteries adjacent to project area: 4 dwellings No. Of previously determined NR listed or eligible buildings/structures/cemeteries/districts: none No. Of identified eligible buildings/structures/cemeteries/districts: none

<u>Authors:</u> Alfred G. Cammisa, M.A. Alexander Padilla, B.A.

Date of Report: Report completed April, 2020

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INTRODUCTION

Between April 1 and 16, 2020, TRACKER Archaeology, Inc. conducted a Phase IA and IB Archaeological Investigation at 50 Mill House Road, Townships of Newburgh, Orange County and Marlborough, Ulster County, New York.

The purpose of the Phase IA documentary study was to determine the prehistoric and historic potential of the project area for the recovery of archaeological remains. The Phase IA was implemented by a review of the original and current environmental data, archaeological site files, other archival literature, maps, interviews, and documents. The prehistoric and historic site file search was conducted utilizing the CRIS resources of the New York State Historic Preservation Office in Waterford. Various historic web sites may have been queried via the internet to review any pertinent site information.

These investigations have been conducted in accordance with the standards set forth by the New York Archaeological Council and the New York State Historic Preservation Office.

The Phase IB survey provided actual evidence for the presence or absence of any archaeological sites within the property through ground surface and subsurface field testing.

The project area consists 2 proposed lots, Lots 1 & 4, about 4.5 acres with steep slopes, from a larger property. The property as a whole is located at 50 Millhouse Road, Marlborough, NY. It is bound to the north by Mill House Road and to the remaining sides by private properties.

The investigation was completed by TRACKER Archaeology, Inc. of Monroe, New York. Prehistoric and historic research was conducted by PI, Alfred G. Cammisa, M.A. Field work was conducted by Alfred G. Cammisa, crew chief, Alfred T. Cammisa, and field technicians, Bryan Hague, B.A. and Eric Hague, B.A. Report preparation was by Alfred G. Cammisa with Alexander Padilla (CAD).

The work was performed for Engineering & Surveying Properties, Montgomery, New York.

ENVIRONMENT

<u>Geology</u>

The study area is located in the southeast portion of New York State in the northeast part of Orange County and the southern section of Ulster County.. This region of New York lies within the Ridge and Valley Physiographic Province near the interface of the Hudson Highlands. This province, also known as the Newer Appalachians, extends from Lake Champlain to Alabama. It passes as a narrow lowland belt between the New England Uplands (Taconic Mountains and Hudson Highlands) to the east and the Appalachian Plateau (Catskill and Shawangunk Mountains) and Adirondack Mountains to the west. The characteristic topography is a succession of parallel valleys and ridges trending roughly in a northeasterly direction. This is a region of sedimentary rocks which were easily eroded and subjected to folding or bedding of the rock layers. The eastern limit of the Ridge and Valley Province is a broad, well-defined valley, 300 to 600 feet above sea level, known as the Great Valley. In the vicinity of Ellenville, the Great Valley is called the Wallkill Valley (Schuberth 1968: cover map, 16-18; Isachsen et al 2000: 4, 53-54; New York-New Jersey Trail Conference 1998: cover map).

Soils and Topography Soils on the project area consist of:

| Name | Soil Horizon Depth in(cm) | Color | Texture Inclusion | Slope % | Drainage | Land- form |
|-------------|---|------------------------|----------------------|------------|----------|--------------------|
| Bath-Nassau | Ap=0-6n (0-15cm) B=6-11 (-28) | 10YR4/3-3/3 10YR5/4 | GrSiLo or ShSiLo | 8-25 | Well | Glacial till |
| Chenango | Ap= 0-9in (0-22cm) B= 9-15(-38) | 10YR343 10YR5/6 | GrSiLo | 3-8 &8-15 | well | glacial outwash |
| Hoosic | Ap= 0-8in (0-20cm) B2= 8-14(-36) | 10YR343 10YR5/6 | GrLo & GrSaLo | 3-8 & 5-16 | Well | Glacial outwash |
| Mardin | Ap= 0-8in (0-20cm) B2= 8-15(-38) | 10YR4/3 10YR5/6 | GrSiLo | 3-8, 8-15 | well | glacial till |

(Tornes 1979:map, 16-17, 26, 32, 110,114, 117; Olsson 1981:map#7; 35, 38-39, 93, 95).

KEY:

<u>Shade</u>: Lt=Light, Dk=Dark, V=Very <u>Color</u>: Br=Brown, Blk=Black, Gry=Gray, Gbr=Gray Brown, StBr=Strong Brown, Rbr=Red Brown, Ybr= Yellow Brown <u>Soils</u>: Si=Silt, Lo=Loam, Sa=Sand, Cl=Clay <u>Other</u>: Sh=shale, M=Mottle, Gr=Gravelly, Cb=cobbles, Ch=channery, Fi=Fine,/=or

Elevations on the project areas range from approximately 150 to 200 feet above mean sea level.

<u>Hydrology</u>

The project area is about 640 feet east of a tributary of Lattingtown Creek. The tributary and Lattingtown Creek intersect near the mouth of the Hudson River.

Vegetation

The predominant forest community in this area was probably the Oak Hickory. This forest is a nut producing forest with acorns and hickory nuts usually an obvious part of the leaf litter on the forest floor. The Oak Hickory Forest intermingles with virtually all other forest types. The northern extension of this forest community was also originally called the Oak-Chestnut forest, before the historic Chestnut blight (Kricher 1988:38, 57-60).

At the time of the Phase IB field work, the property consisted of a woods and thicket with some high canopy trees, middle story and undergrowth of briars and saplings.

PREHISTORIC POTENTIAL

A prehistoric site file search was conducted at the New York State Historic Preservation Office. The search included a 1 mile radius around the study area. The following sites were recorded:

| NYSM Site | NYSHPO Site | Distance from APE ft(m) | Site Type |
|--|--------------|---------------------------------|--|
| | 11150.000004 | 4718(1438) | Indian Burial Ground:On hill overlooking creek adjacent to colonial cemetery |
| Cant read (obscured by 15SR00358/ DEP ACES Architectural survey area) | | 5053+ (large circle) (1540+) | NA |

Assessing the known environmental and prehistoric data, we can summarize the following points:

-The project ares is about 640 feet east of a tributary of Lattingtown Creek.

-The property contains level to steeply sloping terrain with well drained soils.

-Prehistoric sites are situated in the vicinity of the project area.

In our opinion, the study area has an above average potential for the recovery of prehistoric sites. The type of site encountered could be a procurement/processing site from the Woodland or Archaic periods.

HISTORIC POTENTIAL

Seventeenth Century

At the time of European contact and settlement, the study area and surrounding territory were probably occupied by either the Warranawonkongs or the Waoranecks people, both of which interfaced near the study area. Both are branches of the Delaware linguistic group (Hearne Brothers nd:wall map; Becker 1993:19).

At the time of European contact and settlement, the study area was probably occupied by the Minsi group proper. The Waoranecks lived between Stony Point and Danns Kammer (near Newburgh Bay) with their western boundary unknown. The Waoraneck people were likely a sub-branch and/or clan or village related to the large Munsee (Minsi) tribe belonging to the Delawarean linguistic family. The term "Minsi" (or "Munsee") means people of the stony country" or abbreviated as "mountaineers" (Ruttenber 1992A:35, 44-45, 49-50, 93; Ruttenber 1992A:221; Becker 1993:16-22; Hearne Brothers nd:wall map; Weslager 1991:45; Synder 1969:2).

Population estimates for the Munsee are 600 to 800 individuals. The Munsee are described by Becker (1993:18) as possibly horticultural.

According to Ruttenber (1992A:94-95) the Warranawonkongs were an Esopus chieftaincy. The Warranawonkongs occupied a territory which extended from the Dans-Kammer to the Katskill mountains and which included the Wallkill drainage as well as the Shawangunk and Esopus.

Population of the Esopus were approximately 300. They are reported as foragers according to Becker (1993:18).

An Indian fort was supposed to have been constructed along the Shawangunk Kill. The fort was destroyed by Captain Kreiger and his men while pursuing the Indians for the recapture of the prisoners taken at the Esopus and Hurley massacres in 1663 (Foote 1907:377).

After the fort and cornfields were destroyed by Kreiger and his men (outside Indians and Dutch), a second fort was constructed about 4 hours from the original. It was located on the east bank of the Shawangunk Kill in Shawangunk. Kreiger destroyed the second fort as well. Both forts were located along Indian foot trails (Ruttenber 1992A:149-152; Ruttenber 1992B:391).

Eighteenth Century

In 1714, Luis Moses Gomez, the first Sephardic Jew in the county, purchased 2500 acres where several Indian trials converged and built a house near a stream. That stream was a central gathering place and camping ground for the local Indians. Luis and his son conducted a thriving fur trade with the Indians at the Mill House for more than 30 years (Mathews 1983).

The City of Newburgh was founded in 1709 by a group of more than 50 (Palatines) Germans from the Palatine. The area became known as the Palatine Parish Patent. However, by 1740, many soon left for Pennsylvania or died off. By 1743, they were followed by immigrants from England, particularly the Ulster-Scotch to whom were transmitted all previous claims of the Germans, both in territory and church. By 1752 the settlement was given the name of Newburgh, in memory of Newburgh, Scotland. One of the most prominent Scottish residents was Jonathan Hasbrouck, a landowner and businessman, who bought a large tract of land and built a home that would later become George Washington's headquarters (Anonymous 1910:3; www.newburghrevealed 2002).

During the Revolutainary War, the Mill House was sold to a Dutch-American patriot and used as a meeting center for the Patriot army. During the war the house had a second floor built (Mathews 1983).

The 1779 Sauthier map shows the study property located on the Marlborough-Newburgh border along the Albany Post Road (Figure 3).

Nineteenth Century

Newburgh soon became a thriving village. By mid-century, the population approximated seven thousand. There had been some drift of Holland-Dutch from Columbia County, Orange County, Duchess County, Putnam County, Westchester County, and other adjoining counties to Newburgh and it became apparent that a Dutch Reform Church was needed. In 1834 the Reverend Cruikshank was sent to Newburgh as a missionary to try to gather a Dutch church. The beginning of the church in Newburgh was feeble, but by 1835 meetings and services were being held in the Associate Reformed Church at First and Grand Streets (Anonymous 1910:4; www.newburghrevealed 2002).

The 1850 Sydney Map of Newburgh depicts the project area with a structure across Mill House Road (Figure 4).

The 1853 map of Marlborough shows a house across Mill House Road (Figure 5).

The 1875 Beers atlas of Marlborough shows no structures on or immediately adjacent to the project area (Figure 6).

The 1875 Beers atlas of Newburgh shows no structures on or immediately adjacent to the project area (Figure 7).

Local industries included fruit as the principal industry, eiderdown & wool, a crate factory, as well as summer boarding vacation, at this time (Mathews 1983).

Twentieth Century

The 1903 USGS map depicts two structures immediately on or adjacent to the project area (Figure 7).

An historic site file search was conducted at the New York State Historic Preservation Office. The search included a 1 mile radius around the study area. The following sites were recorded:

| NYSM Site | NYSHPO Site | Distance from APE ft(m) | Site Type |
|-----------|---|-------------------------|--|
| | 7114.000142 967(295) 7114.000224 3534(1077) | | Gomez Mill House root cellar locus: above ground, 1860-1880 w/ironstone, whiteware, porcelain, stoneware, redware, kaolin pipes, bottle glass, faunal, etc. |
| | | | Conway Tenant house 1: complete superstructure, late19th-early20th century |
| | 1115.000005 | 4847(1477) | Smith's Burial Ground: on hill overlooking Old Man's Creek |

Assessing the known environmental and historic data, we can summarize the following points:

-The project ares is about 640 feet east of a tributary of Lattingtown Creek.

-The property contains to steeply sloping terrain with well drained soils.

-Historic sites are in the neighborhood of the project area and the road is historic.

-Historic map documented structures were on or immediately adjacent to the project area at one time or another.

In our opinion, the project parcel has a higher than average potential for the recovery of nineteenth century sites.

FIELD METHODS

<u>Walkover</u>

Covered ground terrain was reconnoitered at about 15 meter intervals, or less, to observe for any above ground features, such as berms, rock configurations, or depressions, which might be evidence for a prehistoric or historic site. Photographs were taken of the project area.

Shovel Testing

Shovel tests were excavated at 15 meter intervals across the project area. Steep slopes were avoided due to their poor potential for encountering archaeological sites. Each shovel test measured about 30 to 40 cm. in diameter and was dug into the underlying subsoil (B horizon) 10 to 20 cm. when possible. All soils were screened through 1/4 inch wire mesh and observed for artifacts. All shovel tests (ST's) were mapped on the project area map at this time.

Soils stratigraphy was recorded according to texture and color. Soil color was matched against the Munsell color chart for soils. Notes on ST stratigraphy and other information was transcribed on field forms and in a notebook.

FIELD RESULTS

Field testing of the project area included the excavation of 65 shovel tests. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. Heavy dumping was evident on proposed Lot 4 consisting of large amounts of cut trees and branches, wood chips and wood chip mulch, discarded trucks, cars, machinery, and wood furniture, braces, etc. Some of the slopes on Lot 4 appeared to have been terraced at some time in the past, possibly to support an apple orchard.

Stratigraphy Stratigraphy across the project corridor consisted of:

-O horizon -2 to 6 cm. thick of root mat, leaf litter, and humus.

-A horizon - 20 to 25 cm. thick of 10YR4/3 brown gravelly loam.

-B horizon - 10 or more dug into of 10YR5/6, yellow brown gravelly loam.

CONCLUSIONS AND RECOMMENDATIONS

The Phase IA had determined that based upon topographic characteristics and proximity to prehistoric sites, the property was assessed as having an above average potential for encountering prehistoric sites. Based upon topographic characteristics and proximity to historic sites, historic map documented structures and roads, the property was assessed as having a higher than average potential for encountering historic sites.

During the course of the Phase IB archaeological field survey, 65 ST's were excavated. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. No further work is recommended.

BIBLIOGRAPHY

1910 A Brief History, Prepared for the seventy fifth anniversary celebration. American Reformed Church, Newburgh, New York.

Becker, Marshall Joseph

Anonymous

1993 The Lenape and Other "Delawarean" Peoples at the time of European Contact: Populations Estimates Derived from Archaeological and Historical sources, in Journal of the New York State Archaeological Association, #105 Spring. Eagers, Samuel W.

1847 An Outline History of Orange County. S.T. Callahan, Newburgh.

Foote, Charles E.

1907 History of Ulster County. Alfonso T. Clearwater, editor.

Hasbrouck, Kenneth E.

1983 *History of Ulster County with emphasis on the Last 100 Years, 1883-1983.* Historians of Ulster County.

Kricher, John C. and Gordon Morison

1988 The Peterson Field Guide Series: Eastern Forests of North America. Houghton Mifflin Company, Boston.

Mathews, John

1983 The Town of Marlborough, in *The History of Ulster County with emphasis on the last 10 years*. Compiled by the Historians of Ulster County for the tercentenary Year

Morrison, David A.

1908 History of Orange County, New York. Van Deusen and Elms. Editor, Russell Headley.

New York-New Jersey Trail Conference

1998 New York Walk Book. New York-New Jersey Trail Conference.

Olsson, Karl S.

1981 Soil Survey of Orange County, New York. U.S. Department of Agriculture, Soil Conservation Service in Cooperation with Cornell University Agricultural Experimental Station.

Ruttenber, E.M.

1992A Indian Tribes of Hudson's River - to 1700. Hope Farm Press, Saugerties, New York.

1992B Indian Tribes of Hudson's River - 1700-1850. Hope Farm Press, Saugerties, New York.

Ruttenber, E.M. and L.H. Clarke

1881 History of Orange County, New York. Everts and Peck, Philadelphia.

Schuberth, Christopher J.

1968 The Geology of New York State and Environs. New York: Natural History Press.

Synder, John P.

1969 The Story of New Jersey's Civil Boundaries: 1606-1968. Bureau of Geology-Topography, New Jersey.

Tornes, Lawrence, A.

1979 *Soil Survey of Ulster County, New York.* U.S.D.A., soil conservation Service in cooperation with Cornell University Agricultural Experimental Station.

Town of Newburgh

2002 Newburgh's History. <u>http://www.newburghrevealed.org/historypalatine.htm</u>.

Weslager, C.A.

1991 The Delaware Indians - A History. Rutgers University Press, New Jersey.

<u>Maps</u>

Beers, F.W.

1875 County Atlas of Orange County, New York. F.W. Beers, New York.

1875 County Atlas of Ulster County, New York. F.W. Beers, New York.

Hearne Brothers

no date Indians of New York. Earth Science Projection Map. Hearne Brothers, Michigan.

Sauthier, Claude Joseph

1779 A Chronological Map of the Province of New York in North America, Divided into Counties, manors, Patents, Townships, and Grants of Land. William Faden, London.

Sidney, J.H.

1850 Map of Orange County, New York. Newell S. Brown, Newburgh and Philadelphia.

United States Geologic Survey

- 1957 Newburgh, New York quadrangle map, 7.5 minute series.
- 1903 Newburgh, New York quadrangle map, 15 minutes series.

APPENDIX 1

Figure 1

Ν

Wappingers Falls, NY USGS











 $||\bar{c}_{\mathcal{B}}||$ • D Harring Mos Holmes J.Young-G.Wy80 Figure 6 Ν F. Grely. Ch IN L.Bloomera a dt E Hur A.Fowler. 1875 Beers atlas J.Conklin ark W. Cak L. manues G.Barnhart Puro seal Sea \mathfrak{D} S. Flowler More R. C. a Sygant Challerton my scott Waque Thoing BARlose. 160 1241 Gerow-Heory Brs 71.50 D.D.Tu r GGW.Lawson S be Merrit II Turd 18.10 Lanson SCHOOL A Toute R C.Duffais Markety 6 Harle J.Barry Nº8 Decentral B.Pover. Sturde A 8.2 Peantant Martin G. Bayton H Macher Sucol PRATTY W.S.Clarken Desce 2 Berrigh J. Suples 00. 1294 CWygant" S. Yelran 2Decker Minter St. 521 SHarris zerark. Smith Blewilligers IST. Thrank Barle AVE WARE GWIL $O(u) \in C$ Clong Dubat CHE HE 14 uller EBactes (Jorte?) C Dubiris tirdsigtt FM Conel 12.5 I Staples C Brush 1001 e, EPIS. MWyqant-F.Ind VR Beynalds 5 F.T. L. Splerope NO D.Brown hennedy DHowell * trailerrood. T. Buckl 240 Patter and 195 1 SORT Butts enason. T. Buckley Byan EReymplas torn SCHOOL Delaylor law.Pu ERA alfred and project hor Med Williams area Balory 112 kWHI. Suples project H area U B E G N

Figure 7 Ν 1875 Beers atlas-Newburgh 🔸 Mrs.S. W Henderson project area project area ond Young W.H.Arms F inghan 8 HAryistrong DEFowler 6 360 Armstrong 60 A Sugar Armstrong Barns Lodge Conklin EDARHILL J.J. CEMETERS Hover Davis Barns Jr. 450 D.T. Weed~



(Joins lower











APPENDIX 2

SHOVEL TESTS

| <u>STP</u> 1 | Lv 1 2 3 | Depth(cm) 0-4 4-27 27-37 | <u>Texture</u> rootmat,leaves GrLo GrLo | Color humus 10YR4/3 10YR5/6 | <mark>Hor.</mark> A/O A B | Comments NCM NCM NCM |
|-----------------|--------------------------|--|--|---|------------------------------------|-------------------------------|
| 2 | 1 | 0-4 | rootmat,leaves | humus | A/O | NCM |
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 3 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-28 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 28-38 | GrLo | 10YR5/6 | B | NCM |
| 4 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 5 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 6 | 1 | 0-6 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 6-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 7 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27–37 | GrLo | 10YR5/6 | B | NCM |
| 8 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-40 | GrLo | 10YR5/6 | B | NCM |
| 9 | 1 | 0-3 | rootmat,leave, | humus | A/O | NCM |
| | 2 | 3-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-30 | GrLo | 10YR5/6 | B | NCM |
| 10 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-24 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 24-36 | GrLo | 10YR5/6 | B | NCM |
| 11 | 1 | 0-2 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 2-26 | GrLo,wet | 10YR4/3 | A | NCM |
| | 3 | 26-37 | GrLo | 10YR5/6 | B | NCM |
| 12 | 1 | 0-2 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 2-24 | GrLo,wet | 10YR4/3 | A | NCM |
| | 3 | 24-34 | GrLo | 10YR5/6 | B | NCM |

| 13 | 1 | 0-3 | rootmat,leaves | humus | A/O | NCM |
|----|--------|----------------|----------------|---------|-----|-----|
| | 2 | 3-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-40 | GrLo | 10YR5/6 | B | NCM |
| 14 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 15 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-28 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 28-38 | GrLo | 10YR5/6 | B | NCM |
| 16 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-28 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 28-38 | GrLo | 10YR5/6 | B | NCM |
| 17 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 18 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 19 | impede | ed by dumped w | ood | | | |
| 20 | impede | ed by dumped w | ood | | | |
| 21 | impede | ed by dumped w | ood | | | |
| 22 | 1 | 0-5 | rootmat,leaves | humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 23 | 1 | 0-5 | rootmat,leaves | humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 24 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 25 | 1 | 0-5 | rootmat,leaves | humus | A/O | NCM |
| | 2 | 5-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 26 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 27 | 1 | 0-6 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 6-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |

| 28 | 1 2 3 | 0-5 5-26 26-36 | rootmat,leaves GrLo GrLo | humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
|----|-------------|------------------------|--------------------------------|------------------------------|---------------|-------------------|
| 29 | 1 2 3 | 0-5 5-29 29-40 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
| 30 | impede | ed by dumped w | ood | | | |
| 31 | impede | ed by dumped w | ood | | | |
| 32 | impede | ed by dumped w | ood | | | |
| 33 | impede | ed by dumped w | ood | | | |
| 34 | 1 2 3 | 0-5 5-25 25-35 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
| 35 | 1 2 3 | 0-5 5-25 25-35 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
| 36 | 1 2 3 | 0-5 5-25 25-35 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
| 37 | 1 2 | 0-5 5-30 | rootmat,leaves wood mulch | ,humus | A/O fill | NCM NCM |
| 38 | 1 2 | 0-5 5-30 | rootmat,leaves wood mulch | ,humus | A/O fill | NCM NCM |
| 39 | 1 2 | 0-5 5-60 | rootmat,leaves wood mulch | ,humus | A/O fill | NCM NCM |
| 40 | impede | ed by dumped w | ood | | | |
| 41 | 1 2 3 | 0-5 5-23 23-rock | rootmat,leaves GrLo | ,humus 10YR4/3 | A/O A | NCM NCM |
| 42 | 1 2 3 | 0-2 2-24 24-34 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |
| 43 | 1 2 3 | 0-4 4-24 24-34 | rootmat,leaves GrLo GrLo | ,humus 10YR4/3 10YR5/6 | A/O A B | NCM NCM NCM |

| 44 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
|----|---|-------|-----------------|---------|-----|-----|
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-40 | GrLo | 10YR5/6 | B | NCM |
| 45 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 46 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-24 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 24-34 | GrLo | 10YR5/6 | B | NCM |
| 47 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-40 | GrLo | 10YR5/6 | B | NCM |
| 48 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-40 | GrLo | 10YR5/6 | B | NCM |
| 49 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 50 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 51 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-36 | GrLo | 10YR5/6 | B | NCM |
| 52 | 1 | 0-5 | rootmat,leave,l | humus | A/O | NCM |
| | 2 | 5-26 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 26-37 | GrLo | 10YR5/6 | B | NCM |
| 53 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-39 | GrLo | 10YR5/6 | B | NCM |
| 54 | 1 | 0-3 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 3-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 55 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 56 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |

| 57 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
|----|-------------|-------------------------|------------------------|-------------------|----------|------------|
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 58 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-27 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 27-37 | GrLo | 10YR5/6 | B | NCM |
| 59 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 60 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 61 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 62 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 63 | 1 | 0-5 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 5-25 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 25-35 | GrLo | 10YR5/6 | B | NCM |
| 64 | 1 2 3 | 0-2 2-27 27-roots | rootmat,leaves GrLo | ,humus 10YR4/3 | A/O A | NCM NCM |
| 65 | 1 | 0-4 | rootmat,leaves | ,humus | A/O | NCM |
| | 2 | 4-24 | GrLo | 10YR4/3 | A | NCM |
| | 3 | 24-35 | GrLo | 10YR5/6 | B | NCM |







| DIS | STRICT R-1 | | | TOWN OF NEWBURGH - ZONING DISTRICT AR | | | |
|-----|----------------------|-----------------------|-----------------------|---------------------------------------|------------|----------------------|-----------------------|
| | LOT 1 | LOT 2 | LOT 4 | MINIMUM BUILDING REQUIREMENTS | REQUIRED | LOT 3 | LOT 4 |
| E) | 84,720 SF (1.94 AC.) | 187,988 SF (4.32 AC.) | 115,762 SF (2.66 AC.) | LOT AREA | 40,000 SF | 76,898 SF (1.77 AC.) | 115,762 SF (2.66 AC.) |
| | 150.63 FEET | 326.6 FEET | 359.7 FEET | LOT WIDTH | 150 FEET | 268.4 FEET | 359.7 FEET |
| | 594.1 FEET | 427.6 FEET | 399.1 FEET | LOT DEPTH | 150 FEET | 470.8 FEET | 399.1 FEET |
| | > 75 FEET | 196.0 FEET | 62.9 FEET | FRONT YARD | 50 FEET | 62.2 FEET | 62.9 FEET |
| | > 50 FEET | 160.3 FEET | 284.5 FEET | REAR YARD | 50 FEET | 80.6 FEET | 284.5 FEET |
| | > 50/110 FEET | 106.3/248.0 FEET | 37.8/257.0 FEET | SIDE YARD (ONE/BOTH) | 30/80 FEET | 85.9/211.4 FEET | 37.8/257.0 FEET |
| | | | | LIVABLE FLOOR AREA | 900 SF | > 900 SF | > 900 SF |
| | | | | | | | |
| | | | | MAXIMUM ALLOWABLE | | | |
| | < 35 FT | < 35 FT | < 35 FT | MAXIMUM BUILDING HEIGHT | 35 FT | < 35 FT | < 35 FT |
| | < 10% | < 10% | < 10% | MAXIMUM BUILDING COVERAGE | 10% | < 10% | < 10% |
| | | | | MAXIMUM LOT COVERAGE | 20% | < 20% | < 20% |





| LOT 2 | LOT 4 | MINIMUM BUILDING REQUIREMENTS | REQUIRED | LOT 3 | LOT 4 |
|-----------------------|-----------------------|-------------------------------|------------|----------------------|-----------------------|
| 187,988 SF (4.32 AC.) | 115,762 SF (2.66 AC.) | LOT AREA | 40,000 SF | 76,898 SF (1.77 AC.) | 115,762 SF (2.66 AC.) |
| 326.6 FEET | 359.7 FEET | LOT WIDTH | 150 FEET | 268.4 FEET | 359.7 FEET |
| 427.6 FEET | 399.1 FEET | LOT DEPTH | 150 FEET | 470.8 FEET | 399.1 FEET |
| 196.0 FEET | 62.9 FEET | FRONT YARD | 50 FEET | 62.2 FEET | 62.9 FEET |
| 160.3 FEET | 284.5 FEET | REAR YARD | 50 FEET | 80.6 FEET | 284.5 FEET |
| 106.3/248.0 FEET | 37.8/257.0 FEET | SIDE YARD (ONE/BOTH) | 30/80 FEET | 85.9/211.4 FEET | 37.8/257.0 FEET |
| | | LIVABLE FLOOR AREA | 900 SF | > 900 SF | > 900 SF |
| | | | | | |
| | | MAXIMUM ALLOWABLE | | | |
| < 35 FT | < 35 FT | MAXIMUM BUILDING HEIGHT | 35 FT | < 35 FT | < 35 FT |
| < 10% | < 10% | MAXIMUM BUILDING COVERAGE | 10% | < 10% | < 10% |
| | | MAXIMUM LOT COVERAGE | 20% | < 20% | < 20% |
| | | | | | |



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|--|---|
| SURVEY PLAN | SURVEYIN |
| YOUNG MILLHOUSE ROAD TOWN OF NEWBURGH TOWN OF MARLBOROUGH RANGE / ULSTER COUNTY, NY | ENGINEERING & |
| DRAWN BY: BDB SCALE: 1" = 40' TAX LOT: 8-1-52.2 (OC) 108.004-5-20.21 (UC) RS-1 | © COPYRIGHT 2020 ENGINEERING & SURVEVING PROPERTIES, PC |
| | . ~ |



| REQUIRED SEPARATION DISTANCES FROM WASTEWATER SYSTEM COMPONENTS | | | | | | | | | |
|---|-----------------------------|---|----------|---------------|---------------------------|--|--|--|--|
| SYSTEM COMPONENTS | WELL (f) OR SUCTION LINE | STREAM, LAKE, WATERCOURSE (b), OR DEC WETLAND | DWELLING | PROPERTY LINE | DRAINAGE DITCH(b), (g) | | | | |
| HOUSE SEWER | 50' | 25' | 3' | 10' | - | | | | |
| SEPTIC TANK | 50' | 50' | 10' | 10' | 10' | | | | |
| EFFLUENT LINE TO D-BOX | 50' | 50' | 10' | 10' | 10' | | | | |
| DISTRIBUTION BOX | 100' | 100' | 20' | 10' | 20' | | | | |
| ABSORPTION FIELD | 100' (a) | 100' | 20' | 10' | 50' | | | | |
| SEEPAGE PIT | 150' (a) | 100' | 20' | 10' | 50' | | | | |
| DRY WELL (ROOF & FOOTING) | 50' | 25' | 20' | 10' | 50' | | | | |
| RAISED OR MOUND SYSTEM (c) | 100' (a) | 100' | 20' | 10' | 50' | | | | |
| INTERMITTEN SAND FILTER (c) | 100' (a) | 100' | 20' | 10' | 50' | | | | |
| EVAPOTRANSPIRATION-ABSORPTION SYSTEM (c) | 100' (a) | 50' | 20' | 10' | 50' | | | | |
| COMPOSTER | 50' | 50' | 20' | 10' | 10' | | | | |
| SANITARY PRIVY PIT | 100' | 50' | 20' | 10' | 20' | | | | |
| PRIVY, WATERTIGHT VAULT | 50' | 50' | 20' | 10' | 10' | | | | |

NOTES:

a. WHEN SEWAGE TREATMENT SYSTEMS ARE LOCATED IN COARSE GRAVEL OR UPGRADE AND IN THE GENERAL PATH OF DRAINAGE TO A WELL, THE CLOSEST PART OF THE TREATMENT SYSTEM SHALL BE AT LEAST 200 FEET AWAY FROM THE WELL.

b. MEAN HIGH WATER MARK

c. FOR ALL SYSTEMS INVOLVING THE PLACEMENT OF FILL MATERIAL, SEPARATION DISTANCES ARE MEASURED FROM THE TOE OF SLOPE OF THE FILL d. ANY WATER SERVICE LINE UNDER PRESSURE (i.e. PUBLIC WATER SUPPLY MAIN, HOUSEHOLD SERVICE LINE, WELL TO HOUSEHOLD SERVICE LINE) LOCATED WITHIN 10 FEET OF ANY ABSORPTION FIELD, SEEPAGE PIT OR SANITARY PRIVY SHALL BE INSTALLED INSIDE A LARGER DIAMETER WATER

MAIN TO PROTECT THE POTABLE WATER SUPPLY e. ANY WATER SERVICE LINE UNDER PRESSURE (i.e. PUBLIC WATER SUPPLY MAIN, HOUSEHOLD SERVICE LINE, WELL TO HOUSEHOLD SERVICE LINE) CROSSING A SEWER SHALL BE INSTALLED WITH ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE THE SEWER SO BOTH WATER CONNECTING

JOINTS ARE AS FAR AS POSSIBLE FROM THE SEWER. SECTION 8.6 OF THE GLUMRB RECOMMENDED STANDARDS FOR WATER WORKS, SHALL BE FOLLOWED FOR SEPARATION OF WATER MAINS, SANITARY SEWERS AND STORM SEWERS

THE MINIMUM SEPARATION DISTANCE BETWEEN A SEPTIC TANK AND COMMUNITY TYPE PUBLIC WATER SUPPLY WELL SHOULD BE 100 FEET. DISTRIBUTION BOXED AND ABSORPTION FACILITIES (e.g., LOCATED A T LEAST 200 FEET FROM THE COMMUNITY TYPE PUBLIC WATER SUPPLY WELLS g. RECOMMENDED SEPARATION DISTANCES

ADDITIONAL SEPARATION REQUIREMENTS

1. WELL TO SWALE, WATERCOURSE OR STREAM - 25'

2. ABSORPTION FIELD TO OPEN DRAINAGE, CULVERT, OR STORM SEWER(NON-GASKETED PIPE) OR CATCH BASIN - 50'

3. ABSORPTION FIELD TO CULVERT OF STORM SEWER (GASKETED, TIGHT PIPE) - 35'

4. ABSORPTION FIELD TO CURTAIN DRAIN - 15'

5. ABSORPTION FIELD, PITS, EXPANSION AREA, TO TOP OF EMBANKMENT OR STEEP(1 ON 3)

SLOPES - 25'

6. DRAINAGE PIPES WITHIN 25' OF ANY WELL MUST BE WATERTIGHT

7. WELL TO CEMETERY PROPERTY LINE - 100'





| PERC HOLE # | PERC HOLE DEPTH | PERC HOLE DIA | TIME | PERCOL | STABLIZED RATE | | | | | |
|-------------------|-----------------------|---------------------|--------|-----------|-------------------|-------------|----------|--------|--|--|
| | | | FINISH | | | | | | | |
| 02/12/20 PT-01 | 24" | 10" | START | STOPWATCH | USED FOR TIM | D INTERVALS | | 11 MIN | | |
| | | | TIME | 00:09:16 | 00:09:34 | 00:10:01 | | | | |
| 02/12/20 PT-02 | 24" | ' 10" | FINISH | | | | | | | |
| | | | START | STOPWATCH | USED FOR TIM | D INTERVALS | | 25 MIN | | |
| | | | TIME | 00:17:37 | 00:23:47 | 00:24:16 | | | | |
| |) 24" | 10" | FINISH | | | | | | | |
| 02/12/20 PT-03 | | | START | STOPWATCH | USED FOR TIM | D INTERVALS | | 5 MIN | | |
| | | | TIME | 00:03:38 | 00:03:41 | 00:04:18 | 00:04:31 | | | |
| |) 24" | 24" 10" | FINISH | | | | | | | |
| 03/19/20 PT-04 | | | START | STOPWATCH | USED FOR TIM | D INTERVALS | | 9 MIN | | |
| | | | TIME | 00:06:33 | 00:07:31 | 00:08:05 | | | | |

SEPTIC SYSTEM DESIGN SCHEDULE

| LOT | NUMBER OF BEDROOMS | STABILIZE PERC RATE (min) | FLOW RATE (GPD) | APPLICATION RATE (GPD/Sq. ft.) | REQUIRED AREA (Sq. ft.) | REQUIRED ABSORPTION FIELD LENGTH (ft) (BASED UPON 2' WIDE TRENCH) | REQUIRED FIELD LENGTH BASED USING QUIK4 EQUALIZER CHAMBERS (25% REDUCTION) | REQUIRED ABSOPTION FIELD LENGTH FOR AN ELJEN ABSOPTION TRENCH | PROPOSED ABSORPTION FIELD LENGTH (ft) |
|-------|-----------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------------|--|---|--|---|
| LOT 1 | 4 | 9 | 440 | 0.90 | 489 | 245 | N/A | 84 | 21 UNITS = 84 EQ. LF. |
| LOT 4 | 4 | 25 | 440 | 0.60 | 734 | 367 | 276 | N/A | 70 CHAMBERS = 280 EQ. LF. |



1. SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM THE HOUSE.

- 9. GROUT ALL PIPE PENETRATIONS INTO AND OUT OF ANY DISTRIBUTION OR DROP BOX. 10. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN THE PUBLICATION "INDIVIDUAL RESIDENTIAL WASTEWATER TREATMENT SYSTEMS, DESIGN HANDBOOK", LATEST EDITION, AND APPENDIX 75-A OF THE NEW YORK STATE DEPARTMENT OF HEALTH.
- 11. ABSORPTION TRENCH PIPE TO BE CAPPED AT END.

NOTES:

- 12. ABSORPTION SYSTEM TO BE LOCATED A MINIMUM DISTANCE OF 20 FEET FROM ANY DWELLING UNIT.
- 13. SEPTIC TANK JOINTS MUST BE SEALED AND TESTED FOR WATERTIGHTNESS. 14. PROVIDE 30" OF SOLID PIPE PRIOR TO START OF PERFORATED ABSORPTION PIPE AND BE BACKFILLED WITH NATIVE MATERIAL.
- 15. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE DWELLING, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.
- 16. DROP BOXES SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT THEY ARE LEVEL AND OPERATING PROPERLY.
- 17. HEAVY EQUIPMENT SHLL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING, OR AFTER CONSTRUCTION, EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION SO TO AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A CHANGE OF ABSORPTION CAPACITY OF THE SOIL ON SHICH THE DESIGN WAS BASED.
- 18. ALL UNUSED OUTLETS WILL BE PLUGGED AND SEALED WITH AN ASPHALTIC MATERIAL OR EQUILVALENT. 19. A MINIMUM OF 4' OF UNDISTURBED SOIL MUST BE AVAILABLE BETWEEN TRENCHES.

SHALLOW FILL EJLEN SYSTEM (LOT 1) SCALE: N.T.S.

DEEP TEST HOLE RESULTS

| | DEPTH | DESCRIPTION |
|---|---------------------------------------|--|
| 0 | 0" - 3" 3" - 28" - | TOP SOIL BROWN SANDY SILTY LOAM NO GROUNDWATER, NO MOTTLING, BEDROCK @ 28" |
| 0 | 0" - 3" 3" - 28" 28" - 39" - | TOP SOIL TAN SILTY LOAM BROWN SILTY SANDY GRAVELLY LOAM NO GROUNDWATER, NO MOTTLING, BEDROCK @ 39" |
| 0 | 0" - 3" 3" - 30" 30" - 68" - | TOP SOIL TAN SILTY LOAM BROWN GRAVELLY SANDY SILTY LOAM NO GROUNDWATER, NO MOTTLING, NO BEDROCK |
| 0 | 0" - 3" 3" - 24" 24" - 66" - | TOP SOIL TAN SILTY LOAM BROWN GRAVELLY SANDY CLAY LOAM WITH SHALE POCKETS NO GROUNDWATER, NO MOTTLING, NO BEDROCK |

PERCOLATION TEST RESULTS



| No. | DATE | 5 |
|-----|----------|----|
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