Milton View and Milton Woods Subdivisions

King's Mark Environmental Review Team Report

King's Mark Resource Conservation and Development Area, Inc.

Milton View and Milton Woods Subdivisions

Environmental Review Team Report

Prepared by the
King's Mark Environmental Review Team
of the King's Mark
Resource Conservation and Development Area, Inc.

for the
Inland Wetlands Commission
and the Planning and Zoning Commission
Litchfield, Connecticut

October 2002

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Acknowledgments

This report is an outgrowth of a request from the Litchfield Inland Wetlands Commission and the Litchfield Planning and Zoning Commission to the Litchfield County Soil and Water Conservation District (SWCD). The SWCD referred this request to the King's Mark Resource Conservation and Development Area (RC&D) Executive Council for their consideration and approval. The request was approved and the measure reviewed by the King's Mark Environmental Review Team (ERT).

The King's Mark Environmental Review Team Coordinator, Elaine Sych, would like to thank and gratefully acknowledge the following Team members whose professionalism and expertise were invaluable to the completion of this report.

The field review took place on Tuesday, July 16, 2002.

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I would also like to thank, Ruth Mulcahy, land use administrator, Robert Miller and Mark Brown, inland wetland commission members, Bill Wilson and Katherine Davis, planning and zoning commission members, Ken Hrica, engineer for the applicant, and Perley Grimes, attorney for the applicant, for their cooperation and assistance during this environmental review. Also in attendence at the pre-field walk meeting were Webster Janssen, intervenor, John Baker, neighbor and Bill Moorhead, consultant to the neighborhood group.

Prior to the review day, each Team member received a summary of the proposed projects with location and soils maps for the properties. During the field review Team members were given additional information including plans and project reports. Wetlands reports were mailed to Team members on August 1, 2002. Some Team members made individual or additional visits to the project sites. Following the

review, reports from each Team member were submitted to the ERT coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to compete with private consultants by providing site plans or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project - all final decisions rest with the town and applicant. This report identifies the existing resource base and evaluates its significance to potential management, and also suggests considerations that should be of concern to the town. The results of this Team action are oriented toward the development of better environmental quality and the long term economics of land use.

The Eastern Connecticut RC&D Executive Council hopes you will find this report of value and assistance in reviewing these proposed residential developments.

If you require additional information please contact:

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Introduction

Introduction

The Litchfield the Inland Wetlands Commission and the Planning and Zoning Commission have requested assistance from the King's Mark Environmental Review Team in conducting a review of the proposed Milton View and Milton Woods Subdivisions.

These two subdivisions are located in the historic Milton section of Litchfield on Milton Road, Headquarters Road, Shearshop and Potash Roads.

Milton View is a subdivision of ±40.37 acres of land located between Milton and Headquarters Road south of Milton Green. Six (6) single family building lots will be created with on-site sewage disposal and water supply wells. The lots range in size from 3.7 acres to 9.7 acres. Lots 1-4 will be accessed by a wide shared driveway and Lots 5 & 6 will be accessed by a second shared driveway. The site is hilly and wooded with a large wetland system located in the west-central portion of the site and a smaller wetland in the central portion of the site. 28 acres will be in conservation easement. It was stated at the ERT meeting that the Litchfield Land Trust would hold the easements.

Milton Woods Subdivision is located between Shearshop and Potash Roads north of the Milton Green. The ±63.26 acre site is proposed for six (6) single family building lots with individual on-site wells and septic systems. Lots 1, 2 and 4 will share a wide common driveway, Lots 3 and 6 will share a driveway and Lot 5 will have its own driveway. The lots range in size from 4.7 acres to 19 acres. The site slopes generally to the west, with a series of intermittent brooks that convey stormwater to Shearshop Road and eventually to the Marshepaug River. The site is characterized by "wind-rowed" trees and vegetative regrowth resulting from a late 1980's tornado.

Five wetlands are found on the property. Approximately 44 acres will be in conservation easement.

Objectives of the ERT Study

The commissions are requesting the ERT to have additional technical assistance in reviewing the proposed projects due to the extensive wetlands and the unique historic nature of the area. The report will aid the commissions in their analysis of possible environmental and land use impacts to the town. Of specific concern are: impacts to on-site and off-site wetlands and watercourses, aquatic impacts, stormwater management, lack of open space designation and preservation of the historic district and rural character. The ERT report will provide natural resource information, a discussion of potential impacts, and guidelines and recommendations for the protection of natural, cultural and community resources.

The ERT Process

Through the efforts of the inland wetlands commission and the planning and zoning commission this environmental review and report was prepared for the Town of Litchfield.

This report provides an information base and a series of recommendations and guidelines which cover the topics requested by the commissions. Team members were able to review maps, plans and supporting documentation provided by the applicant and town.

The review process consisted of four phases:

1. Inventory of the site's natural resources;
2. Assessment of these resources;

3. Identification of resource areas and review of plans; and
4. Presentation of education, management and land use guidelines.

The data collection phase involved both literature and field research. The field review was conducted on Tuesday, July 16, 2002. Some Team members made individual and/or additional site visits. The emphasis of the field review was on the exchange of ideas, concerns and recommendations. Being on site allowed Team members to verify information and to identify other resources.

Once Team members had assimilated an adequate data base, they were able to analyze and interpret their findings. Individual Team members then prepared and submitted their reports to the ERT coordinator for compilation into this final ERT report.

Figure 1.

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Location Map

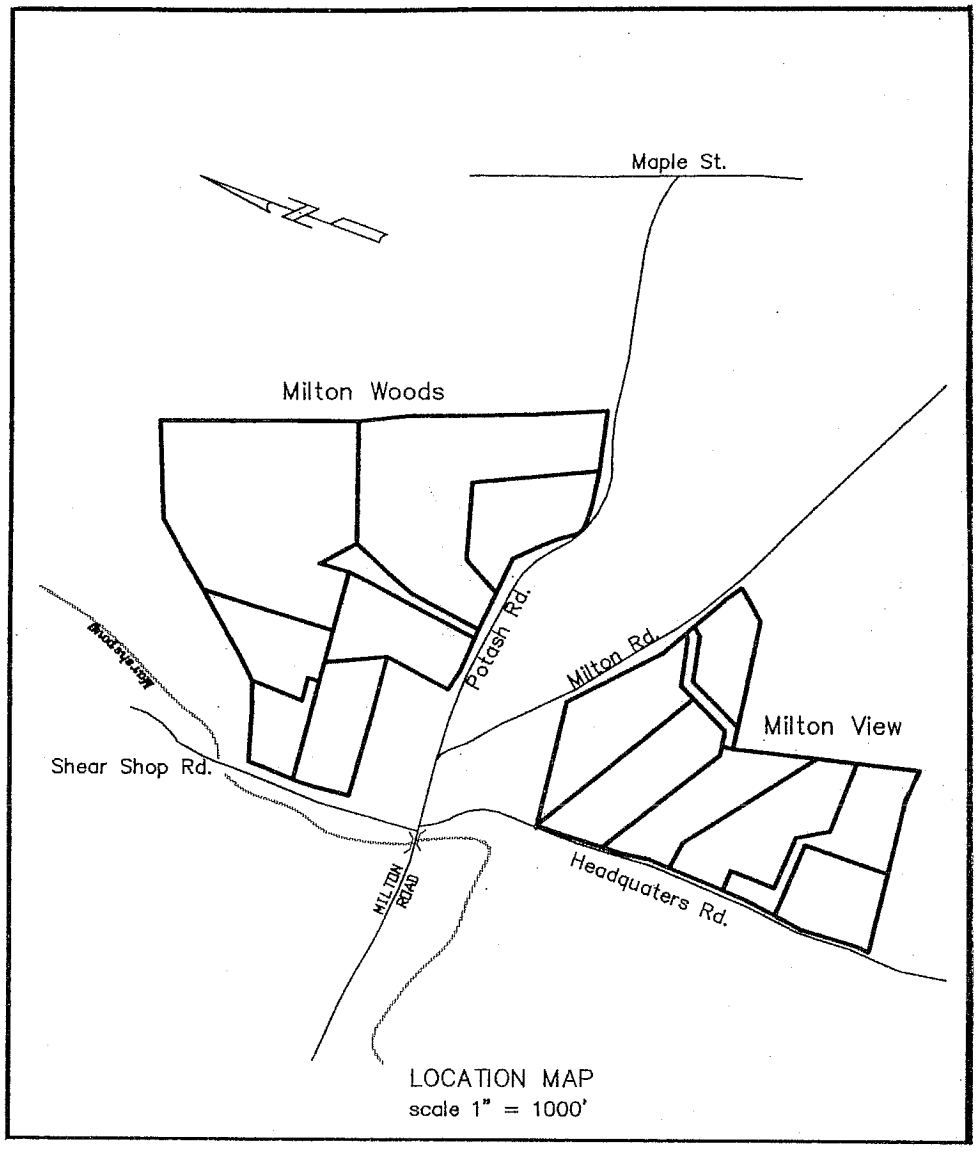

Figure 2.

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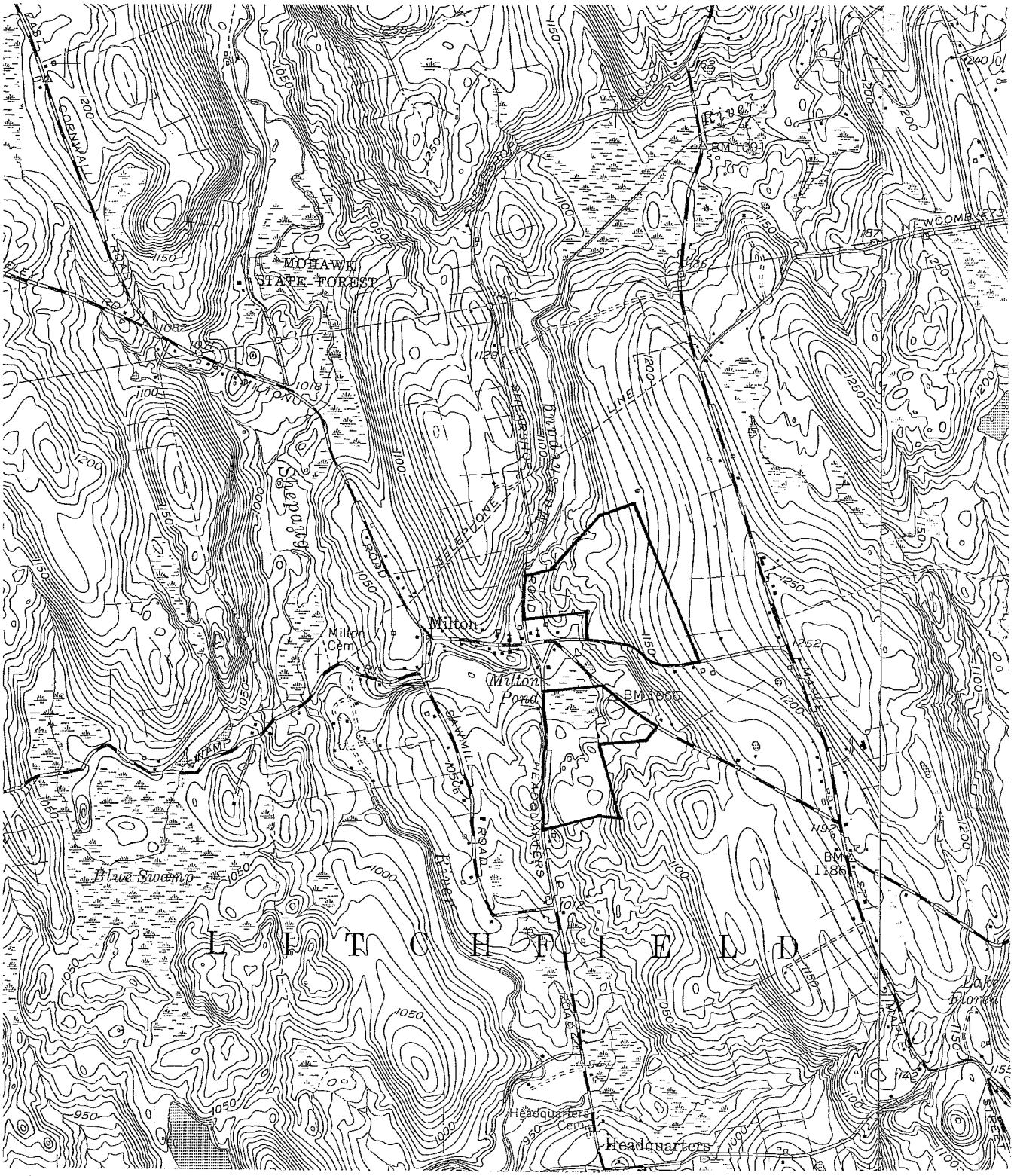
Topographic Map

Scale 1″ = 2000′



Topography and Geology

Topography

The two proposed subdivisions, Milton Woods and Milton View, straddle a gentle valley between two drumlinoid till ridges. On the flanks of the drumlins, slopes are gentle to moderate, the ground surface relatively smooth and the depth to bedrock generally in excess of 30 feet. Irregular, hummocky topography, abundant outcrops with a thin veneer of overburden characterize much of the valley floor although the topographically low areas are essentially flat as they have been filled with wetland swamp deposits.

Runoff from both subdivisions flows into the Shepaug River and eventually into the Shepaug Reservoir - a public water supply.

Surficial Geology

The smooth elongated drumlins that bound the subdivisions on their east and northwestern edges are both thick mounds of glacial till - a poorly sorted mix of ground up rock debris dragged and molded into their streamline form at the base of the last major ice sheet to cover Connecticut, 20,000 - 30,000 years ago. The thin, patchy till cover in the topographically irregular valley area between the ridges was probably partially removed and reworked by subglacial meltwaters as the ice sheet retreated. The extensive low wetland area just east of Milton pond is probably underlain by several feet of sands and gravels transported and deposited by these meltwaters.

Lots 5 and 6 of the Milton Woods subdivision lie on the flank of one of the thick till ridges. Physical characteristics such as depth to bedrock and permeability of the till are likely to be fairly uniform and predictable on these sites. The others lots are

situated on the valley floor where the overburden is quite variable in thickness, and because it may have been reworked by subglacial waters probably quite variable in its permeability as well.

Bedrock Geology

The bedrock observed in outcrops on the Milton View and Milton Woods subdivisions were non-rusty weathering garnet-quartz-feldspar biotite gneiss and massive non-rusty weathering black amphibolites. However, according to the Bedrock Geology map of Connecticut (Rodgers, 1985) and the Cornwall Quadrangle Geologic map by Gates, (1961) the area is underlain by the Manhattan Schist (equivalent to the Waramaug Formation of Gates), which is typically a rusty weathering schistose gneiss. It is of course likely that the rusty weathering rock does not outcrop because they were deeply weathered and thus preferentially eroded by the ice sheet so that today they occupy low spots in the topography. Although the evidence on the surface suggests otherwise, it is thus possible that some Milton View and Milton Woods' wells may encounter iron rich groundwater.

Soil Resources

Description of Soil Capabilities and Limitations

Milton View and Milton Woods

Hollis, Very Rocky Fine Sandy Loam (Hr).

Hollis soils cover most of the upland soils at Milton View and a small portion of Milton Woods. The Hollis Soils on site are well drained and their permeability tends to be moderately rapid (8 -12 minutes per inch)(Project Report, C.C.A., L.L.C. July 2002). The Hollis soils on site are very shallow and are rarely deeper than 12 inches to bedrock, rocks or boulders. Therefore, there is not much soil to work with. These soil conditions will increase the degree of difficulty to install septic systems, dwellings, basements, roads and lawns. The Soil Survey of Litchfield County (USDA, 1986) states that "the soil properties and site features are so unfavorable (for Hollis soils) to overcome that special design, increase and costs and possible increased maintenance will be required".

Merrimac, Sandy Loam (My).

The Merrimac Soils only occupy a very small corner of Milton View. Merrimac soils are excessively well drained and usually have a very deep profile (2 feet of sandy loam on top of sands and gravel). These characteristics of Merrimac soils make them very easy to install septic systems, dwellings, basements, roads and lawns. The Soil Survey of Litchfield County (USDA, 1986) states that "the soil properties and site features are generally favorable (for Merrimac soils) for the (above) indicated uses and limitations are easily overcome".

Rumney, Fine Sandy Loam (Ru).

Rumney soils are poorly drained/wetlands and only a small area exits at Milton Woods. Rumney soils are usually formed in flood plains and are made of deposited sediments. This soil type has severe limitations, however, no activities have been proposed for this area.

Peat and Muck (Pk).

There is only a small part of Milton Woods that contain the Pk soil type. Peat and muck soils contain almost all organic matter and continue to be organic deep into the soil profile (6+ feet). This soil type has severe limitations, however, no activities have been proposed for this area.

Leicester, Ridgebury and Whitman Complex (Lg).

This complex of soils is found on both Milton Woods and Milton View. These soils are poorly drained and generally very rocky below the surface horizons (USDA, 1970). The State of Connecticut classifies this complex as a wetland soil type. However, only a few hundred square feet of this soil complex will be developed (only for driveway crossings). Please see the wetland soils section of this document for recommendations.

Gloucester, Very Stony Sandy Loam (Ge).

Gloucester soils make up much of the upland soil to be developed on Milton Woods. Gloucester soils are excessively well drained with a large portion of stones and cobbles. These characteristics of Gloucester soils make them moderately easy to install septic systems, dwellings, basements, roads and lawns. The Soil Survey of Litchfield County (USDA, 1986) states that "the soil properties and site features are moderately favorable ((for Gloucester Soils) for the (above) indicated uses, however some special planning, design or maintenance are needed".

Woodbridge, Stony Fine Sandy Loam and Very Stony Fine Sandy Loam (Wy and Wz).

Woodbridge soils make up some of the upland soil to be developed on Milton Woods. Woodbridge soils are moderately well drained with a large portion being made up of stones and cobbles. These soil characteristics will increase the degree of difficulty to install septic systems, dwellings, basements, roads and lawns. The Soil Survey of Litchfield County (USDA, 1986) states that "the soil properties and site features are so unfavorable (for Woodbridge soils) to overcome that special design, increase and costs and possible increased maintenance will be required".

Recommendations on Sediment and Erosion Control

All the soil types mentioned above are extremely erodible. Therefore, there must be a rigorous sediment and erosion control plan in place before the first tree is cut. Please note the following recommendations to assure that an adequate plan is compiled and submitted to the Town of Litchfield Land Use Department for review and certification.

Preservation of Trees and Woodlands
as a Method for Sediment and Erosion Control

The plan of development does an excellent job of buffering the wetlands and delineating the construction limits. Disturbing existing vegetation as little as possible is one of the best ways to control erosion and soil movement. Attached is a copy of new guidance on protecting existing trees as a method of sediment and erosion control. It is section 5-1 of the New Connecticut Guidelines on Sediment and Erosion Control (CT DEP, May 2002). Please consider incorporating this section into the Final Sediment and Erosion Control Plan (see Appendix A).

Water Quality Protection

Both Milton Woods and Milton View are within the Marshepaug Watershed, which flows to a sensitive surface water resource (The Shepaug River). Open water resources in Connecticut are very vulnerable to construction activities, which are the largest contributor of Non-point Source (NPS) Pollution (NRDC, 1999).

NPS pollution is diffuse discharges that emanate from areas in the watershed but do not necessarily enter watercourses at any one point. NPS discharges are intermittent and are usually associated with precipitation and runoff events (CT Department of Environmental Protection).

Since erosion rates are much higher for construction sites relative to other land use, the total yield of constituents that cause water quality reduction are higher (NERDC, 1999). Studies indicate that poorly managed construction sites can yield as much as 1,000 tons of sediments per acre, as compared to 1 ton per acre or less for forest land (NRDC, 1999).

Sediment and Erosion Control Check List

Attached is a checklist titled "Erosion and Sediment Control and Stormwater Management Plan Worksheet" that is used to assure that a Sediment and Erosion Control Plan is complete (see Appendix A). Please consider using this as a guideline when creating the sediment and erosion control plan. All the sediment and erosion control measures that the checklist asks for may be found in the new Connecticut Guidelines For Soil Erosion and Sediment Control (CT DEP, 2002).

References

Connecticut Department of Environmental Protection, (CT DEP, 2002). Connecticut Guidelines For Soil Erosion and Sediment Control.

Natural Resource Defense Council, 1999. Storm Water Strategies. Community Response To Runoff Pollution, Natural Resource Defense Council Inc.

United States Department of Agriculture, 1986. Soil Survey of Litchfield County Addendum, Soil Conservation Service. USDA, Washington D.C.

United States Department of Agriculture, 1970. Soil Survey of Litchfield County, Soil Conservation Service. USDA, Washington D.C.

Figure 3.

Soils Map

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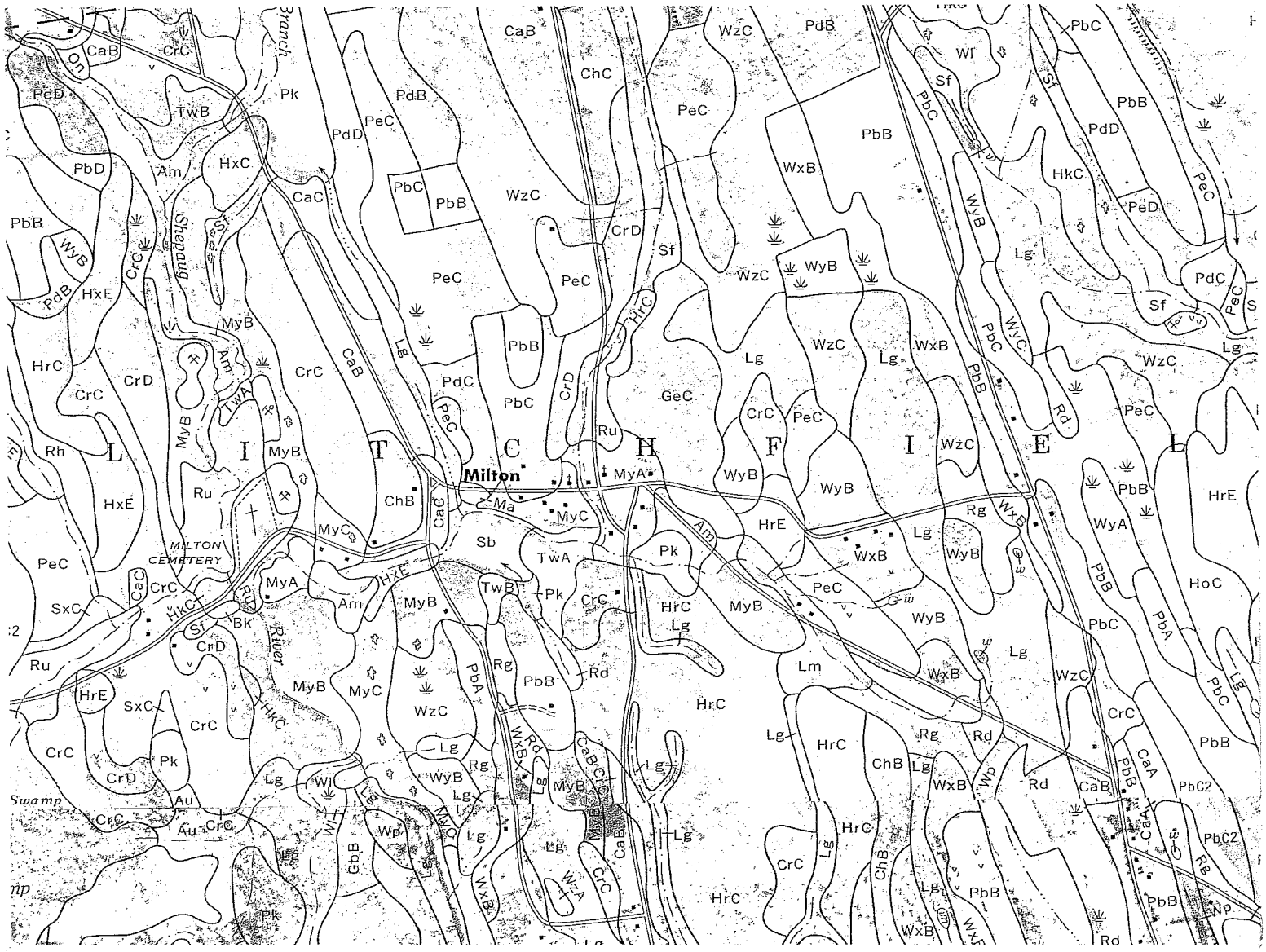
Scale 1″ =1320′



Wetland Resources

Site overview

This development proposal encompasses two parcels. The larger of the two, Milton Woods, is 63.3 acres in size and has six lots proposed. Milton View is 40.37 acres and also proposes six lots. Both parcels will have on site well and septic.

All of the Milton Woods acreage and about 34 of the 40 Milton View acres drain into the Marshapaug River watershed. The southern most six acres (±) of Milton View drain into the Shepaug River watershed. Both of these parcels are completely wooded.

Milton Woods reaches an elevational high of nearly 1,200 feet above sea level in the southeast corner of the parcel. The low point of ~1,049 is located at the western border along Shear Shop/Headquarters Road. On the Milton View parcel the highest elevation is 1,102 feet in the extreme southeast corner of the parcel and the low point is ~ 1,040 in the wetland in the northwest corner. Generally the sites are hilly with slopes in the 3 to 8 percent range.

Neither of these two parcels encounters permanent watercourses. However, in all, there are three driveway crossings of intermittent streams proposed. The proposed roadways and driveways are gravel. The exception to this is the entrance road and cul-de-sac in the northwest portion of Milton Woods. Here the road will be paved because of slope concerns.

The footprint of the 12 structures depicted on the plans the Team received is 30 feet by 70 feet. At 2,100 square feet for the footprint and minimal lawn area in addition to gravel driveways, the impact of these structures is minimal from a

resource viewpoint. The percentage of impermeable surface to that of the whole acreage is quite small on both parcels. In that the peak of the houses are likely to be below the top of the tree line the aesthetic impact should be minimal as well.

The most prominent wetland of the proposal is the forested wetland that dominates the north and northwest corner of Milton View. This area has a diverse hydrologic regime. It includes pockets of open water interspersed with small upland areas large enough to support trees and includes small tussocky upland islands scattered though out. Reportedly it is quite wet with standing water under normal moisture springtime conditions. The shrub layer vegetation of this wetland features, in part, pepperbush, alder, and red maple saplings.

Of the 103.7 acres combined total in this proposal, 72 acres (69.4%) are proposed to be set aside as Conservation Easement areas.

National Wetland Inventory Classification

The U.S. Fish and Wildlife Service has mapped and classified the wetlands and watercourses using a system of codes for all the topographic maps in the state. These parcels occur on the Cornwall quadrangle, 1: 24,000 scale National Wetland Inventory (NWI) maps. Because of the scale of mapping, the inventory classifies wetlands that are the largest or most conclusively observed on the aerial photography.

At this location the single large wetland observed, as described above, has been mapped as palustrine wetlands, with palustrine being defined as: *of or pertaining to a swamp; mar shy.*

The single palustrine classification on this property is classified as PFO/SS1E. The descriptions of these are as follows: palustrine (P), forested (FO), mixed

with scrub shrub (SS) broad leafed deciduous (1), seasonally saturated (E). This classification applies to the large wetland in the north central and northwest portion of Milton View.

Water Quality

The surface water quality (which includes the wetlands and watercourses) of the area surrounding the parcel have been mapped by the Department of Environmental Protection as being Class AA. Assumptions are made on many of the classifications over the extent of the map and not all surface water gets quality tested. However, with no known sources of major pollutants the wetlands on the site can be assumed to have the water quality classification of AA.

The entire area is classified as GAA, which is the highest classification given in the state. As with the surface water, not all of this was field checked for the creation of the map but indications point to it, and the result is mapped as, excellent water quality.

The water quality classifications as described in the: *Summary of the Water Quality Standards and Classifications (1997)* are as follows:

Inland surface water Classifications

Class AA

Designated uses: existing or proposed drinking water supply, fish and wildlife habitat, recreational use (may be restricted,) agricultural and industrial supply. Discharge restricted to: discharges from public or private drinking water treatment systems, dredging and dewatering, emergency and clean water discharges.

Groundwater Classifications

Class GAA

In addition, the groundwater classification for the area is also GAA for the same reasons listed above.

Soils

Michael D. Temple of Nutmeg Soil Service delineated the wetland soils on these parcels. The wetland boundaries appear on the map(s) that the Team received on the day of the field walk. Unfortunately most of the flags in the field were not present at the time of the walk.

The wetland soils on the Milton Woods parcel are dominated by Leicester, Whitman, Ridgebury Very Stony Fine Sandy Loam complex shown as Lg on the map. This soil type is described as being ". . . being made up of poorly drained Leicester and Ridgebury soils and a very poorly drained Whitman soil. All of these soils are nearly level and very stony. They occur in similar patterns and they are similar enough in behavior that their separation is not important for the objectives of this survey . . . Forest covers most of the acreage but scattered areas have been cleared and are used for unimproved pasture . . ." in the Litchfield County Soil Survey. This soil dominates the Eastern side of the parcel with fingers reaching down slope to the west. Along Headquarters Road there are some wetland soils mapped as Rumney. Rumney is described as consisting of "poorly drained soils that developed on floodplains . . . largely in forest or idle . . . draining the soil for cultivated crops is impractical in many places because flooding is rather frequent . . . Even if drainage is improved, seasonal flooding remains a hazard.

Milton View features fingers of the same Lg soils type in the southern and central wetland areas. However, to the north, the large mapped wetland

denoted on the NWI map has the mapped soil type of Pk, which is Peats and Muck. This is composed of ".. .organic materials deposited in bogs and swamps where the water table is at or near the surface most of the year . . . These deposits range from about three feet to more than 25 feet in depth."

The wetlands the Team visited on the field walk were all forested wetlands with a full overstory of trees and a mixed, often thin, understory of shrubs and herbs.

Comments Regarding the Sites

In all, the proposed plan does well to avoid impacts to wetlands. Litchfield wetland regulations limit encroachment upon wetland soils to 50 feet and 100 feet from streams and intermittent streams. Except for the three driveway crossings of intermittent streams (all of which were dry at the time of the field visit) the proposal has met these regulations.

Generally speaking, it is likely that most of the downhill drainage is not channeled (i.e. appearing as intermittent streams) but occurs in sheet flow down hill across the forest floor. Even some of the more distinctly defined intermittent stream courses dispersed into sheet flow upon encountering course woody debris perpendicular to their flowpath.

Milton View has the largest wetland of either property on its northwest corner. This large area of peat and muck is home to a variety of shrub layer species including Pepperbush, Alder and Red maple saplings. It is very tussocky and bordered by Red oak and White pine on its fringes which rise into drier upland elevations.

Milton View proposes one driveway crossing. This is situated at the narrowest part of the wetland finger (Lg soils) just east of the driveway that serves Lot 6 on its way to serving Lot 5. The proposed pipe with flared ends should provide

amply for the flow. Impact will be minimal to this fully shaded, intermittent waterway.

There is an isolated depression marked as "logging area" (on the reduced one sheet plan given to Team members for the field review)on the proposal. It is located in the buildable square of Lot 3. At the time of the field walk there was a layer of leaf duff over organics with Sensitive fern emerging. Visually, it appeared to have just recently dried out when most everything else was long since dry. It appears to be vernal in its hydrologic behavior - wet in spring and drying in summer. Whether it is used as an active breeding pool for amphibians could not be established at the time of this visit. The Wetland and/or Conservation Commission(s) may very well want to investigate further before site work begins on this lot.

Milton Woods features the one area of road/driveway which, because of steepness of slope, will be paved. Th is the road to the cul-de-sac abutting Lots 1 and 2.

Two driveway crossings are proposed on this parcel. On Lot 5, a fairly steep (8 to 10%) intermittent stream channel was present. It was dry at the time of the field visit. The point of observation was at the proposed crossing. Here the channel was about three feet wide and 18 inches deep. The sidewalls exposed cobbles. The bottom was silty with some leaf duff and sensitive fern growing at the edge. The nature of this waterway - flashy - will be preserved as it passes through the proposed piping structure. Just to the west of the driveway is a small leafy depression which had long since dried out.

The other driveway crossing is just uphill of the proposed house location on Lot 3. This crosses an intermittent stream that is the least defined of the three channels described. There is barely a channel and even then it fans out to the

point of being indistinguishable due to flow interference by deadfall just downslope of the proposed crossing.

- A Wood frog was located by the proposed reserve septic area on Lot 6 of the Milton Woods subdivision. That particular parcel is surrounded to the north, east and south with LG wetland soils. The Wood frog is recognized as an obligate vernal pool species by biologists. That means that somewhere in the area there is a vernal pool. Although no vernal pools with water were observed by the wetland reviewer on this walk, the Wood frog indicates vernal areas are near. This particular frog was small, about one inch in length in a sitting position. This size indicates its status as a juvenile having emerged from the pool this spring. In their recent book entitled: *Best Management Practices - Conserving Pool Breeding Amphibians in Residential a*nd *Commercial Developments in the Northeastern United States,* Metropolitan Conservation Alliance, 2002, Michael Klemens, Ph.D., and J. Calhoun, Ph.D., cite mean juvenile migration distances as 1550 feet from their host pool. Thus, by insinuation, there is a vernal pool within several hundred feet from the location where the frog was observed.

- Migration distances vary significantly for many vernal pool species. Klemens and Calhoun show mean distances from the host pool for the spotted salamander at 386 feet, for the Jefferson salamander at 477 feet, and (again) juvenile wood frogs at 1550 and adult wood frogs with a maximum of 3835 feet.

The proper agencies in town will have to determine the value of this and plan accordingly to have the area further investigated at the proper time of year by a competent biologist/field ecologist.

More About Vernal Pools

Vernal pools are small, isolated, seasonally ponded wetlands with no permanent inlet or outlet. They frequently exist in a forested setting with a treed overstory and shrub and herb layer present, sometimes prolifically so.

Typically vernal pools are small, shallow, circular or oblong depressions in the landscape which fill with water during the wetter periods of the year (spring and late fall) and become drier during the warmer summer months. True vernal pools also support unusually diverse and dynamic assemblages of wildlife. Much of this wildlife is solely dependent on these areas for one or more periods of their life cycle. Because of the absence of permanent water, fish do not live in these pools, making these areas attractive to certain animals that would normally fall prey to carnivorous fish.

The impacts of development on the vernal pool wildlife assemblage could be significant. The amphibian life that use the pools as breeding grounds soon migrate into the surrounding uplands to live out their adult phase and return to the pools only to breed. Modification of these adjacent upland areas therefore could have a significant impact on the associated wetlands.

That vernal pool species need a great deal of upland for their habitat was borne out in the field walk. The Wood frog was located amid typical upland surroundings of full canopy dominated by red maples with a thin shrub layer.

Minimal loss of tree and shrubs should be a goal once the vernal pool is located. On slopey lots that drain by sheet flow the loose, unrooted soil would likely be subject to easy erosion. Vernal pools are often situated on the landscape in a position to receive erodable soils and thus have their water quality and other aspects of the vernal pool environment compromised.

Stormwater Management

Stormwater Permitting

Since the site construction involves the disturbance of over five acres, Connecticut's General Permit for the Discharge of Stormwater and Dewatering Wastewaters (the "Permit") will cover the projects. The permit requires that the site register with the Department of Environmental Protection (CTDEP) at least 30 days before the start of construction. The registrant must also prepare, submit and keep on site during the construction project a Stormwater Pollution Control Plan (the "Plan").

Please note that while this review is based primarily on the state Permit, many of the erosion and sedimentation issues are included in the Connecticut Guidelines for Soil Erosion and Sediment Control (the "guidelines"), and are issues that must be dealt with on a local level before being included in the Plan. It should also be noted that the permit requires compliance with the guidelines. The developer must register for the permit, and the contractor and any subcontractors involved in grading must sign the contractor certification statement in the permit. Any registration submitted by anyone other than the developer will be rejected.
The Plan must include a site map as described in Section 6(b)(6)(A) of the General Permit and a copy of the erosion and sedimentation (E & S) control plan for the site. The E & S plan that has been approved by the Town in conjunction with the CTDEP Inland Water Resources Division (IWRD) and the local Soil and Water Conservation District may be included in the Plan. This plan and site map must include specifics on controls that will be used during each phase of construction. Specific site maps and controls must be described in the Plan, as well as construction details for each control used. The permit requires that "the plan shall ensure and demonstrate compliance with" the guidelines.

The Plan must be flexible to account for adjustment of controls as necessary to meet field conditions. At a minimum, the plan must include interior controls appropriate to different phases of construction. Structural practices including sedimentation basins are required for any discharge point that serves an area greater than 5 disturbed acres at one time. The basin must be designed in accordance with the guidelines and provide a minimum of 134 cubic yards of water storage per acre drained. At a minimum, for discharge points that serve an area with between 2 and 5 disturbed acres at one time, a sediment basin, sediment trap, or other control as may be defined in the guidelines for such drainage area, designed in accordance with the guidelines, shall be designed and installed. All sediment traps or basins shall provide a minimum of 134 cubic yards of water storage per acre drained and shall be maintained until final stabilization of the contributing area. Outlet structures from sedimentation basins shall not encroach upon a wetland. The commissioner must approve any exceptions in writing. Silt fence installation must comply with the guidelines, and may be used only in drainage areas of one acre or less. Maintenance of all structural practices shall be performed in accordance with the guidelines, provided that if additional maintenance is required to protect the waters of the state from pollution, the Plan shall include a description of the procedures to maintain in good and effective operating conditions.

These projects have a large amount of wetlands that must be protected, which makes weekly inspections and modifications to erosion controls an important part of these projects. The permit (Section 6(b)(6)(D)) requires inspections of all areas at least once every seven calendar days and after every storm of 0.1 inches or greater. The plan must also allow for the inspector to require additional control measures if the inspection finds them necessary, and should note the qualifications of personnel doing the inspections. In addition, the plan must include monthly inspections of stabilized areas for at least three months following stabilization and the end of construction.

Section 6(b)(6)(C)(ii) of the permit requires the plan to address dewatering wastewaters that this site may generate. Specific details for construction control during installation of all wetland crossings must be provided.

Post-construction Stormwater Treatment

The permit (Section 6(b)(6)(C)(iii)) requires that the plan include a design for post-construction stormwater treatment of 80% of total suspended solids from the stormwater discharge shall be used in designing and installing stormwater management measures. Such measures may include but are not limited to: stormwater detention structures (including wet ponds); stormwater retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff on-site; vegetated buffer strips; sediment removal chambers or structures; and sequential systems (which combine several practices). Swirl concentrators are effective at removing sediment, but they require a long-term maintenance commitment from the town or a homeowners association greater than that required for a basin once it is fully grown-in and stabilized. If an in-ground, "black-box" solution is used, swirl concentrator technology is a minimum requirement. Some newer generation swirl concentrators also incorporate filtration systems to address other pollutant issues, but these also require long-term maintenance plans.

Erosion and Sediment Control Notes

General permit stabilization requirements include the following: "where construction activities have permanently ceased or have temporarily been suspended for more than seven days or where final grades are reached in any portion of the site, stabilization practices shall be implemented within three days".

Other Issues

It is strongly recommended that the local wetland and zoning commissions ensure that the bonds required for these projects be adequate to remediate all wetlands and watercourses in the event of control failures on these sites. The developer should be aware that regardless of the storm event size, they would be responsible for remediation of any impacts. The developer must also be aware that if lots are sold off to individual homeowners, the developer is still responsible for maintenance of control structures for three months after final stabilization of the site.

This report addresses some of the major issues concerning the projects and does not constitute a complete review of the Plans for permitting purposes.

Sewage Disposal

The following are technical comments from a cursory review of the plans:

- All soil test data (deep test pits, percolation tests) should be included on the plan.
- The subdivision plans should stipulate the basis of design for each of the proposed subsurface sewage disposal systems. This should also include minimum leaching system spread calculations for each lot or a note indicating MLSS is not applicable.

The CT DPH Environmental Engineering Section feels that the plans submitted demonstrate feasible preliminary locations for the subsurface sewage disposal systems. They are available to discuss any of the above comments or any other sewage disposal concerns.

The Natural Diversity Data Base

The Natural Diversity Data Base maps and files regarding the project have been reviewed. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at the site in question.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of the request. This information is a compilation of data collected over the years by the Environmental & Geographic Information Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Aquatic Resources

Site Description

There are large expanses of wetlands and numerous intermittent streams on the 40.37 acre Milton View and on the 63.3 acre Milton Woods parcels. Neither the wetlands nor streams of either parcel provide fisheries habitat.

Aquatic Habitats and Resources

While neither the Milton View nor the Milton Woods parcels contain perennial aquatic habitats, they lie within a drainage to the Marshepaug River. Fish surveys of the Marshepaug River immediately upstream of the Shearshop Road bridge have been conducted by the Inland Fisheries Division (the "Division"). The surveys confirmed the presence of a diverse stream fish community of the following species: wild brown trout *(Salmo trutta),* blacknose dace *(Rhinichthys atratulus),* longnose dace *(Rhinichthys cataractae),* common shiner *(Luxilus cornutus),* creek chub *(Semotilus atromaculatus),* and white sucker *(Catostomus commersoni).* These fish species are commonly found in Connecticut's coldwater streams.

Several pumpkinseed sunfish *(Lepomis gibbosus)* and brown bullhead *(Ameiurus nebulosus)* were also collected in the fish survey. These species are common to warmwater lakes and ponds and are transient in free flowing streams such as the Marshepaug River.

Impacts

Six single family residential house lots are proposed for both the Milton View and Milton Woods parcels. Lot sizes on each parcel range in size from 3.7 to 9.7

acres and 4.7 to 19 acres respectively. Twenty-eight acres on the Milton View parcel and forty-four acres on the Milton Woods parcel will be put into permanent conservation easements. The acreage included in the conservation easements includes most if not all of each parcel's wetlands. The preservation of wetlands in conservation easements will best maintain their ability to act as a "filter" to prevent off-site discharge of sediments, nutrients, fertilizers, and other non-point source pollutants from the proposed house lots and access ways to surface waters such as the Marshepaug River. Such non-point source pollutants can degrade habitat and water quality.

Recommendations

The development of residential house lots on the Milton View and Milton Woods parcels is not anticipated to promote long-term adverse impacts to the habitats and resources of the Marshepaug River. In the effort to eliminate the potential for short-term impacts during construction on both parcels, it is recommended that the following measures be incorporated into the design of both developments:

- Establish comprehensive erosion and sediment control plans with mitigative measures (detention-infiltration/water quality basins, haybales, silt fence, etc.) to be installed prior to and maintained through all phases of site development. Land clearing and other disturbance should be kept to a minimum with all disturbed areas being protected from storm events and be restabilized in a timely manner.

- Limit regulated activities adjacent to wetlands and intermittent drainages to historic low precipitation periods of the year.

Planning Considerations

Consistency of Project with State and Regional Plans

The Connecticut Conservation and Development Policies Plan, 1998 - 2003 classifies the subject site as a "Conservation Area" and "Historic Area". The State Plan encourages comparatively low density development in "Conservation Areas" in order to "plan and mange, for the long term benefit, the lands contributing to the state's need for food, fiber, water and other resources, open space, recreation, and environmental quality and ensure that changes in use are compatible with the identified conservation values." The subject site is classified as a "Conservation Area" because it is located within a public water supply watershed (i.e., it is part of the drainage area to the Shepaug reservoir).

The State Plan also recognizes Milton Center as a significant historic area. According to the State Plan, "The ... historic areas of the state are ... essential to the quality of life in Connecticut, and must be maintained and protected from adverse effects." (p. 101). Land use change in proximity to these resources is supported by the State Plan only if it: 1) is a compatible use that aids in long-term preservation and will not involve significant alterations and replacements that detract from the appreciation of the historical and cultural values, and 2) will not introduce visual, audible, or other elements so significantly out of character with the structure and setting as to make public access and enjoyment unreasonable.

The Growth Policy Map of the Litchfield Hills Council of Elected Officials classifies the subject site as a "Rural Area" and "Sensitive Resource Area". Densities even less than the minimum needed to sustain on-site sewage disposal and well systems are reasonable in these areas in order to protect sensitive resource areas and channel growth to less remote locations.

The Town of Litchfield Vision Plan also places a high priority on historic preservation, and water quality protection. According to the Town Plan, "Litchfield is a community that is rich in historic character ...Preservation of the historic character and buildings should be balanced with development of contextually sensitive new development that supports and enhances the visual quality of the town." The Town Plan also places a high priority on the protection of water quality and advocates that appropriate steps be taken to preserve the quality of water in the community.

The proposed project is generally consistent with the density of development envisioned in these advisory regional and state policy plans. Since this is a public water supply watershed, however, particular care is warranted during project planning and implementation to minimize any potential impacts to water quality.

Design Considerations

The use of shared driveways, as proposed by this project, is a planning and design technique that is supported by the LHCEO's Regional transportation Plan. The use of shared driveways will serve to reduce the number of new curb-cuts on Headquarters Road, Milton Road, and Shear Shop road, thus helping to maintain roadway capacity and the scenic character of the streetscape.

The average daily traffic on Milton Road in the vicinity of the proposed project is about 1100 vehicles based on a traffic count taken in 2001. Single family dwellings typically generate about 10 vehicular trips on an average weekday according to the Institute of Transportation Engineers. thus, the twelve lots proposed by the Milton View and Milton Woods subdivisions could be expected to generate an additional 120 trips per day on the local roadway network. Milton road has sufficient capacity to absorb this additional traffic.

The establishment of the building envelopes and conservation easements, as proposed, will help to ensure wetland and water quality protection. In addition, the

proposed conservation easements for the Litchfield Land trust will provide opportunities for passive recreational use and enjoyment of the land such as bird watching, nature study, and hiking.

The proposed house locations for the lots have generous setback distances from the roadways of 100 feet or more. This will serve to buffer the impact of the houses on the surrounding area and help to maintain the rural character of Milton Center.

The orientation of many of the proposed housing units could be modified to have direct southern exposure along the roofline, which is particularly attractive for solar design. Consideration should be given to re-orienting the housing units and incorporating passive solar design principals into the project where feasible. Solar design is specifically encouraged in Section 5.3 of the Litchfield Subdivision Regulations.

The proposed driveway to Lot #4 of Milton Woods appears to have a rather steep grade of 15% near the proposed house site. The proposed Common Drive of Milton Woods has segments with slopes of 12%. While Litchfield's Zoning Regulations provide for a maximum driveway grade of 12% for interior lots, and up to 15% for interior lots for a length of no more than 100', the Commission may wish to request a detailed design prepared by a professional engineer which addresses driveway location, existing and proposed grades, drainage, base materials and paving, erosion controls and construction details for all driveway segments with slopes over 10%. The sightline distances for the proposed driveways should also be documented by the applicant to ensure safe access to, and egress from, the proposed lots. The sightline at the proposed driveway serving Lot #5 on Potash Road appears to be particularly limited to the west.

If the Commission wishes to minimize the visual impact of the project, consideration should be given to modifying the width and surface of the driveways as now proposed. The proposed project calls for paved, 18-foot wide common driveways,

and 12-foot wide residential driveways which may or may not be paved. Jim Gibbons, a land use planner with UCONN's Cooperative Extension System, states the following in a publication on driveways: "As a general rule, driveways should be designed to be as narrow, short and few as possible". According to Randall Arendt in his highly regarded book entitled "Rural by Design", the average car or pickup is only about 5 1/2 to 6 1/2 feet wide, and even dump trucks and school buses rarely exceed seven feet in width. He suggested that when common drives are used to serve up to five or six homes, the driveway width could be adjusted to 15 or 16 feet. (p.191).

Litchfield's Zoning Regulations call for common driveways to have a pavement width of 18 feet with 2 foot shoulders. The Commission has the flexibility to modify this requirement however under Section 6.7 of the regulations. Since many of the roadways in Milton have a width of only 18 feet, consideration should be given to reducing the width of the common driveways to 15 or 16 feet, and perhaps utilizing alternative paving surfaces as suggested by UConn's NEMO program (www.nemo.uconn.edu) in order to minimize stormwater impact and enhance the "fit" of the new driveways into historic Milton Center. It should be noted that just east of the proposed project on Milton Road, is a gravel driveway of 14 or 15 feet wide that is functioning as a common drive for several homes. This driveway appears to function adequately, maintains rural character, and blends into the streetscape of Milton Road.

The Commission may also wish to consider the proposed residential driveway width of 12 feet. According to UConn's NEMO program, "a width of 9 feet is usually more than adequate for comfortable and safe driving and parking on a single lane driveway". (see NEMO webpage cited above). Turnouts could be provided for long driveways (e.g. the driveways serving Lot #5 of Milton Woods) to allow two vehicles to pass.

Archaeological and Historical Significance

A review of the State of Connecticut Archaeological Site files and maps show no known archaeological site in the project area. Field review indicates that topographic and environmental features of the project area suggest a moderate to high sensitivity toward undiscovered archaeological resources.

The State Historic Preservation Office notes that the proposed subdivisions are located in immediate proximity to the Milton Center Historic District which is listed on the National Register of Historic Places. Milton Center is an important 18th century rural community center which flourished as a small-scale industrial area in the mid-19th as a result of the hydropower of the Shepaug River. The Milton Center National Register Historic district retains a small-scale rural ambiance with extensive farmlands and woodlands surrounding the historic residential structures. The National Register inventory-nomination form provides further historic architectural and archaeological information about this significant village center. (see Appendix B)

The State Historic Preservation Office strongly recommends that all new construction remain in keeping with the rural architectural character of the community. Mature tree species and existing viewsheds should be retained as a visual buffer between new structures and the historic district. Where warranted, additional landscaping and appropriate plantings should be undertaken.

The Office of State Archaeology notes that the proposed subdivision areas possess a moderate to high sensitivity for prehistoric, historic, and industrial archaeological resources. Several 19th century mill sites are identified within the Historic District; additional archaeological resources are expected within the proposed development parcels.

Both the Office of State Archaeology and the State Historic Preservation Office strongly recommend that an archaeological reconnaissance survey be undertaken in order to professionally identify, evaluate, and consider all archaeological resources within the proposed project areas. All archaeological studies must be carried out pursuant to the Connecticut Historical Commission's *Environmental Review Primer for Connecticut's Archaeological Resources.*

Appendix A

Erosion & Sediment Control and Stormwater Management Plan Worksheet

Project Name _____
Town _____ Location _____
Town Staff Contact _____ Phone Number _____
Date Received for Review _____ Requested Completion Date _____
Submitted for Review by _____
Materials Received for Review _____

Total Area of Project (acres) _____ Total number acres of disturbed land _____
Number of Lots _____ Project Engineer _____
Site Visit Date _____ Reviewed By _____
Review Completion Date _____

Narrative Section including information on the following:

____ Purpose and description of the project, including ultimate land use.
____ Estimates of *total acres* in the project site and *total acres expected to be disturbed* by the project.
____ Identification of site-specific erosion or sediment control concerns and issues.
____ Identification of off-site erosion or sediment control and issues.
____ Phases of development. If more than one phase is planned, indicate sequence of implementation.
____ Anticipated start and completion dates for each phase of the project.*
____ Provide or identify where in the E&S plan the following information is found:
  ____ Design criteria, construction details, and maintenance program for proposed erosion and sediment control measures;
  ____ Sequence of major operations in each phase, such as installation of erosion control measures, clearing, grubbing, grading, excavation, drainage and utility installation, temporary stabilization, road base, paving for roadways and parking areas, building construction, permanent stabilization, removal of temporary erosion control measures;
  ____ Time (days) necessary to complete major operations included in the sequence.
____ Identification of other required local, state, and federal permits.
____ Conservation practices to be used.
____ List of all other documents to be considered part of the E&S plan (e.g. reports of hydraulic and hydrologic computations, boring logs, test pit logs, soils reports, etc…)

Support Documentation for Engineered Measures:

____ Hydraulic Calculations (both on site and relevant off site)
  ____ Size and locations of existing and proposed channels or waterways with design calculations and construction details.
  ____ Existing pre-development peak flows with calculations.
  ____ Anticipated post-development peak flows with calculations.
  ____ Changes in peak flows.
  ____ Potential off-site effects of increased peak flows or volumes.

* Dates are often subject to change depending on markets, financing, permit approvals and weather conditions. A change in a start date can mean a restriction or prohibition for the use of proposed measures, and, therefore,

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Erosion & Sediment Control and Stormwater Management Plan Worksheet

Support Documentation (cont'd):

____ Design calculations and construction details for measures intended to control erosion .
____ Design calculations and construction details for measures intended to control groundwater (i.e. seeps, high water table, etc...).
____ Boring logs, test pit logs, soils reports, etc...
____ Impervious surface coverage percentage.
____ Roof.
____ Parking.
____ Other.

Site Illustration(s) Checklist:

Features Required on All Maps or Illustrations

____ North arrow.
____ Scale (including graphical scale).
____ Title block including: name of the project, author of the map or illustration, owner of record for the project, date of illustration creation and any revision dates.
____ Property lines.
____ Legend.
____ Signature and seal of professional engineer.
____ Name and signature of project soil scientist.

Site Locus map

____ Scale (1:24,000 recommended).
____ Project location (showing property boundaries and area within 1,000 feet of property boundaries).
____ Roads, streets, buildings.
____ Major drainage ways (at least named watercourses).
____ Public water supply watershed areas, well heads and aquifer boundaries.

Topography, Natural Features, and Regulatory Boundaries

____ Existing contours (two [2] foot intervals).
____ Proposed grades and elevations.
____ Limits of cuts and/or fills.
____ Upland soil boundaries.
____ Seeps, springs.
____ Inland wetlands boundaries.
____ FEMA identified floodplains, floodways.
____ State established stream channel encroachment lines (DEP permit).
____ Streams, lakes, ponds, drainage ways, dams.
____ Existing vegetation.
____ Tidal wetland boundaries and coastal resource limits (e.g. mean high water, shellfish beds, submerged aquatic vegetation, CAM boundary).

Road and Utility Systems

____ Proposed and existing roads and buildings with their locations and elevations.
____ Access roads (temporary and permanent).
____ Location of existing and/or proposed septic systems.
____ Location and size of existing and/or proposed sanitary sewers.

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____ Location of other existing and/or proposed utilities, i.e. telephone, electric, gas, water, etc...

Erosion & Sediment Control and Stormwater Management Plan Worksheet

Site Illustration(s) Checklist (cont'd):

Drainage Patterns

____ Existing and proposed drainage patterns.
____ Size of drainage areas (acres, square feet).
____ Size and location of culverts and storm sewers (existing and proposed).
____ Size and location of existing and proposed channels or waterways, including design calculations and construction details to control channel erosion.
____ Major adjacent/surrounding land uses:
    ____ Current.
    ____ Zoned/proposed.

Clearing, Grading, Vegetative Stabilization

____ Areas to be cleared, and sequence.
____ Disposal of cleared material (off-site and/or on-site).
____ Areas to be graded or excavated, and sequence of grading or excavation.
____ Slopes of cuts or fills.
____ Areas and acreage to be armored or structurally stabilized.
____ Areas and acreage to be vegetatively stabilized (temporary and/or permanent).
____ Proposed vegetation including details of plants, seed, mulch, fertilizer, lime, planting dates, etc...

Erosion and Sediment Control Illustrations:

Project Development

____ Location of E&S measures on site plan with appropriate symbol.
____ Construction illustrations and specifications for measures (e.g. construction entrances).
____ Maintenance requirements of measures during construction.
____ Person(s) responsible for maintenance during construction.
____ Maintenance requirements of permanent measures after project completion.
____ Organization or person(s) responsible for maintenance of permanent measures with the authority to maintain, as designed, or upgrade, as needed, measures to control erosion and sedimentation.
____ Handling of emergency situations (e.g. severe flooding, rains or other environmental problems).
____ Design criteria, construction details, and maintenance program for proposed E&S measures; sequence of major operations within each phase; time (days) required for major operations identified in the sequence (if not provided in the Narrative section of checklist).

Individual Lot Development

____ Sediment and erosion control measures for individual lots.

Resource Extraction associated with development or extraction operations, including quarrying:

____ Enhanced sediment and erosion control measures with applicable federal/state/local permits.

Additional Comments:

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Typical Construction Sequence

Site Work:

- Install construction entrance(s).
- Flag limits of clearing for the project or phase.
- Install temporary erosion and sediment controls prior to any soil disturbance.
- Establish staging area for any equipment to be used in sensitive areas.
- Clear, grub, chip, or log the site to the limits of clearing.
- Dispose of stumps and boulders in accordance with approved plans.
- Inspect condition of temporary erosion and sediment control measures.
- Construct initial de-watering, stilling, and settling basins.
- Install permanent drainage and erosion control features: swales, splash pools, detention or retention basins. Permanently stabilize prior to use.
- Place rip-rap where required.
- Install outfall protection.
- Install underground utilities and storm drainage system at the furthest downstream point and work upstream. Keep flow out of system during construction.
- Modify, as needed during construction, and maintain erosion and sediment control measures.
- Construct roads, drives, and parking areas.
- Install septic systems, sewer connections, curtain drains (shallow excavations), and building foundations.
- Stabilize areas where final grading is complete and areas where no further vehicular traffic is anticipated (i.e. septic systems, yard areas, and along drives).
- Commence building construction.
- Ensure permanent stabilization of all disturbed areas prior to issuance of certificate of occupancy. This includes ALL landscaping requirements.

For Subdivisions Done in Phases:

- Repeat entire cycle for all subsequent phases.

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I. Application, Planning and Review

A solid foundation for effective soil erosion and sedimentation control should be established at the beginning of a project. The most efficient way to minimize risk and obtain erosion and sedimentation plan compliance is to educate and inform the developer at the time of application.

Expectations that an applicant complete careful analysis when selecting management practices to avoid or minimize erosion and sedimentation should be clearly communicated in the application instructions. Individual towns may customize these expectations to address local conditions, such as:

- particularly sensitive geological or environmental areas;
- unusual or difficult soil or geological formations;
- vulnerable groundwater areas.

Making the Connecticut Guidelines for Soil Erosion and Sediment Control accessible to applicants will promote implementation of current best management practices. Encourage planning that considers the physical characteristics of the site and controls drainage within natural drainage areas.

Application review ensures that the developer's planned erosion and sediment control measures are adequate. Necessary adjustments, identified prior to the developer's investment of time and materials on a site, will be more effectively implemented.

The plan review worksheet "Erosion & Sediment Control and Stormwater Management Plan Worksheet", provided on page 3, is designed to simplify the town's plan review. This worksheet, which uses the draft Connecticut Guidelines for Soil Erosion and Sediment Control (revised 2001) as a technical reference, is a guide to help the reviewer ensure that all necessary information is included in the plan. Plan reviewers should be careful to require only applicable information. In order to establish consistency, the worksheet should be supplied to individuals who either prepare and submit, or review plans. Assignment of a party responsible for maintaining erosion and sedimentation control measures is critical.

Construction sequence should also be clarified during application review. A construction sequence or schedule is a chronological agenda of construction activities. A properly developed construction sequence:

- provides for efficient use of labor, material, and equipment, and;
- minimizes on-site disturbance and off-site impacts.

Requesting access to the contractor's scheduling documents at this stage and throughout the project can simplify the monitoring of erosion and sedimentation control measures. Scheduling methods, originally based on time or time - cost trade-offs, have merged into Critical Path Method (CPM) scheduling. While some commonly accepted notation has evolved, there are no standardized computer programs. The scheduling output submitted will vary widely in format. However, with an understanding of the basic CPM concepts, the reviewer will find the monitoring information needed.

During construction scheduling, consider sequence of construction, construction techniques, landscaping, future operations, and maintenance requirements. By properly sequencing construction, the amount of exposed ground and the duration of the exposure can be minimized. Phasing can help limit the number, scope and severity of erosion problems because it allows for a focus on clearing, grading, and stabilization of each portion of the site. One phase can depend on a prior, but not a subsequent phase. Each phase must be structured to stand alone.

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I. Application, Planning and Review (cont'd)

Several guiding principles should be considered when formulating a construction sequence and schedule:

1. Install erosion and sediment control measures prior to any soil disturbance.
2. Clear only what is necessary. Prior to construction clearly mark areas to be left undisturbed.
3. Stockpile topsoil and spoil when appropriate. Establish cover if stockpiles will remain for longer than one month. Surround all piles with hay bales, silt fence, etc.
4. Establish permanent roads, underground utilities, and drainage systems as quickly as possible.
5. Establish final grades and permanent cover as soon as possible.
6. Maintain vegetative buffer strips along wetlands and waterbodies.
7. Establish temporary cover on all disturbed areas where final grade or vegetation will not be established promptly. Give consideration to site, soil and anticipated weather conditions.
8. Keep track of the weather forecast. Inspect sites before and after storms.
9. Regularly clean out and maintain all sediment control structures to ensure proper operation and storage capacity.

A sample "Typical Construction Sequence" is provided on page 6. It is intended to serve as a template from which a site appropriate construction sequence can be developed. The sample is not intended to provide standard language for all erosion and sediment control plans. To make construction scheduling and monitoring easier, milestone/completion dates can be associated with all, or major, items in the sequence.

The revised Connecticut Guidelines for Soil Erosion and Sediment Control (revised 2001) contains a matrix which provides a structured framework for the critical analysis of a development plan and identifies appropriate soil and erosion control measures. The single page matrix cites problems encountered during site development, conditions requiring control, strategies to address the problems or conditions, and specific measures that can be used to control potential soil erosion and sedimentation. A copy of the "Erosion and Sediment Control Measure Selection Matrix" proposed for inclusion in Connecticut Guidelines for Soil Erosion and Sediment Control (revised 2001) is found on page 7.

Local commissions and/or plan reviewers can use the matrix as a reference to help assess whether proposed specific measures are appropriate for a given problem. Furthermore, commissions and reviewers can use the matrix to suggest alternative or additional measures to be used by a developer to protect against soil erosion or sedimentation.

Erosion and sediment control is required under many local, state, and federal regulations. An overview of these regulations, which is a copy of the "Matrix of Laws Which May Require Erosion and Sediment Control Implementation" proposed for inclusion in Connecticut Guidelines for Soil Erosion and Sediment Control (revised 2001) begins on page 17.

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Appendix B

NPS Form 10-900
(8-86)

OMB No. 1024-0018
Expires 10-31-87

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic NA

and or common Milton Center Historic District

2. Location

street & number Portion of Milton, Headquarters, Shearshop, Sawmill and Blue Swamp roads ___ not for publication NA

city, town Litchfield ___x___ vicinity of Milton

state CT code 09 county Litchfield code 005

3. Classification

Category	Ownership	Status	Present Use	
_x_ district	___ public	_x_ occupied	_x_ agriculture	___ museum
___ building(s)	_x_ private	___ unoccupied	___ commercial	_x_ park
___ structure	_x_ both	___ work in progress	___ educational	_x_ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	_x_ religious
___ object	___ in process	_x_ yes: restricted	___ government	___ scientific
	___ being considered NA	___ yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	___ other:

4. Owner of Property

name See continuation sheet.

street & number

city, town ___ vicinity of state

5. Location of Legal Description

courthouse, registry of deeds, etc. Litchfield Land Records, Town Clerk, Town Office Bldg.

street & number West Street

city, town Litchfield state CT

6. Representation in Existing Surveys

See also continuation sheet

title State Register of Historic Places has this property been determined eligible? ___ yes _x_ no

date 1975 ___ federal _x_ state ___ county ___ local

depository for survey records Connecticut Historical Commission
59 South Prospect Street

city, town Hartford state CT

NPS Form 10-900-a
(3-82)

OMB No. 1024-0018
Exp. 10-31-84

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

For NPS use only
received JUL 3 1986
date entered

Since there are no street numbers in Milton, properties are listed in sequence of geographic location, starting with the east-west spine of the district along Potash Road, the Common, Milton Road, and Blue Swamp Road. The listing is from east to west. Properties on Shearshop Road and Sawmill Road, the north-south arteries, follow, arranged from north to south.

The three-part number identifying each parcel is made up of the map, block and parcel numbers used in the Assessor's records. The district happens to fall on parts of three maps.

The mailing address of the owner is RD 1, Litchfield, CT 06759 unless another address is shown.

Site	Parcel	Owner
1	154 69 -	Town of Litchfield.
2	154 69 3	Mary S. Raymond
3	138 71 12	Raymond Realty Co.
4	138 71 14	James John & Mary A. Todd
5	138 71 13	Milton Congregational Church
6	137 77 8	G. H. Griffin, Jr., North Road, Bantam, CT 06750
7	154 69 2	Trinity Episcopal Church
8	154 69 1	Milton Public Hall Association
9	154 75 11	Alrene M. Janssen
10	137 77 9	Paul, Jr., & Patricia D. Deering
11	137 77 9C	Paul, Jr., & Patricia D. Deering
12	154 75 10	Milton Congregational Church
13	154 75 9	David R. & Rosanne S. Wilson
14	137 77 9A	William E. & Laura L. Dunn
15	137 77 10	Robert M. Martin, et al

Site	Parcel	Owner
16	137 77 11	James E. & Alvina Sheldon
17	137 77 12	Walter Charles Sheldon
18*	154 75 8	Ingrid O. Nesbit
19*	154 75 7	E. Walter & Evelyn K. Snyder 327 Martling Rd., Tarrytown, NY 10591
20	137 77 13	Hope Conn
21	137 77 14	Gerald M. & Nadina A. Napolitano
22	154 75 6	E. Walter & Evelyn K. Snyder 327 Martling Rd., Tarrytown, NY 10591
23*	154 76 5	Reeves W. Hart, Jr., et al 18 Briar Rd., Wilmington, DE 19803
24	137 77 15	Edward J. & Frances M. Litwin
25	154 76 4	Dewey L. & Elizabeth E. Kizzia
26	137 79 14	Bureau of Water, City of Waterbury 21 E. Aurora St., Waterbury, CT 06708
27	154 76 3	Janet F. Goller, 300 W. 108th St., NY, NY 10075
28	154 76 2	Eleanor Payne Goss,16601 Briandale Rd., Deerwood MD 20855
29	154 76 1	Milton Cemetery
30	137 79 27 Partial	Pasternak, Varsenig Z.
31	137 77 16	Bureau of Water, City of Waterbury, 21 E. Aurora St., Waterbury, CT 06078
32	137 77 17	Blaine A., Jr., & Eleanor H. Cota
33	Bridge 1	Town of Litchfield
34	Bridge 2	Town of Litchfield

* Part of the parcel is included in the district

National Register of Historic Places

David Welch House
Potash and Milton Roads
Listed February 16, 1984

Trinity Episcopal Church
Milton Road
Listed April 23, 1976

Federal

Depository: National Park Service, U.S. Department og Interior, Washington, D.C.

Archaeological Preservation and Archaeological Conservancies in Litchfield County, Connecticut

Sites 055-075, 074-007, 074-008

1982

Local (American Indian Archaeological Institute)

Despository: Connecticut Historical Commission, 59 South Prospect Street, Hartford, CT

7. Description

Condition		Check one	Check one	
___ excellent	___ deteriorated	___ unaltered	_x_ original site	
_x_ good	_x_ ruins	_x_ altered	_x_ moved	date 1961 site 35
___ fair	___ unexposed			1966 site 21

Describe the present and original (if known) physical appearance

The Milton Center Historic District is located in the Town of Litchfield about four miles northwest of the center of town. The district is oriented in an east-west direction encompassing churches, schools, former water power site, and houses in the center of the village of Milton. The components of the district[1] may be broken down as follows:

11 18th-century structures
7 19th-century structures[2]
1 20th-century structure
5 parcels significant because of function or artifacts
1 cemetery
8 non-contributing properties
2 bridges

The east-west spine of the district is Milton Road running from the David Welch House (site 2, see map) on the east, westerly to the Common (5), Episcopal Church (7), Milton Hall (8), and Congregational Church (12).

The focus of the district is the Common (5), a triangular piece of unimproved land at the intersection of Milton Road with Headquarters and Shearshop roads. The Common retains its 18th- and 19th-century appearance, without plantings of trees and shrubs. At the northwest corner of the Common the Shepaug River flows under Milton Road in a southerly direction before taking a turn to the west, where it entered Milton Pond, now drained. Waterpower provided by the Shepaug River brought the first settlers to the village. The stone lining of the river where it crosses the corner of the Common, the 19th-century iron bridge, and the Congregational Church (12) beyond provide a view (Photorgraph 1) of basic components of the district.

Across Milton Road at the north end of the Common the Center includes the Congregational Church at the left followed by the Guild Tavern (9), Shearshop Road, Milton Hall (8) and Trinity Episcopal Church (7). A picture, c. 1925, (Photograph 2) shows this scene the same as it appears in 1986. (Photograph 3) The Guild Tavern is unusual for its 4-bay side elevation, while Milton Hall adds one of the few Queen Anne-style touches to the district with the imbricated shingles in its gable ends. (Photograaph 4) Milton Hall replaces a store (Photograph 5) that burned in the 1890s. The district now has no store. The Episcopal Church is an early (1802) example of Gothic Revival features (Photograph 6) in a building with proportions and mass that would equally well accept Greek Revival treatment.

At the south end of the Common, on site 4, are two Milton schools. Milton Academy (1855), on the far left in Photogroph 7, still retains some original glazing and board-and-batten siding, while the Milton District School (1896) still has its distinctive tower, belfry, bell, and pyramidal roof with flared eaves.

Further to the west Milton Road is lined with historic houses and with four 20th-century houses that do not contribute to the 18th- and 19th-century character of the district. Among the historic houses, the Hugh Welch Mansion (1840) is a large square 5-bay Greek Revival structure (18), while across the street two smaller houses have doorways similar to one another with transom lights and plain entablatures (17, 20). The first of these is sheathed on its front elevation in flush matched boarding, an unusual feature.

At the end of this section of Milton Road where it turns almost 90 degrees to the north stands the second David Welch House of 1765 (23), impressively sited behind a picket fence. (Photograph 8) The house is large and its parcel is large, 90 acres.

The Shepaug River, whose power potential attracted the first settlers to Milton, flows from the north through the village in two branches. The East Branch enters the district at Shearshop Road,[3] cuts across the corner of the Common and turns 90 degrees to the west where the Milton Pond was located for two centuries. The dam for the pond was at Sawmill Road. The East Branch continues westerly beyond the location of the dam to the western boundary of the district where it joins the West Branch and the single stream flows south. (Photograph 17)

Even though the dam at Sawmill Road, first built about 1740, survived until the flood of 1955, no picture of it has come to hand. Sawmill Road ran across the top of the dam, the highway sloping down to its height, and then up again. Now the East Branch flows through a concrete culvert. Earth has been piled on top of the culvert, making Sawmill Road run almost flat instead of dipping down as it did for centuries. (Photograph 9) The site of the former pond is now marshland (Photograph 10) with secondary forest growth. A nail forge was located on the edge of Milton Pond. Low walls still in place at the northwest corner of the parcel near the road (Photograph 18) demonstrate that a rectangular building, running parallel with the road, once stood there. (See sketch.) The gorge west of the site of the dam (Photograph 11) was the site of the Seelye Sawmill and Hutchinson Cider Mill. Several masonry artifacts are found along the edges of the stream and the steep banks of the ravine. Halfway up the south bank is a portion of a masonry

wall and a cavity that may have been part of the waterpower system. (Photograph 19) Several brownstone ashlar blocks at the water's edge (Photograph 20) are left from a building that once stood nearby. (See sketch.)

While there appear to be no extant pictures of the dam, the pond, or mills that stood near them, there is a 1910 photograph of the Smith carriage factory that stood at the western edge of the district. (Photograph 12) Foundations of a structure are on the site. (30, Photograph 13) The carriage factory location is shown on an 1852 map.[4] (Photograph 17)

Near the western edge of the district the Milton Cemetery (29) lies behind a stone wall of massive granite blocks with 19th-century iron gates. (Photograph 14) Milton citizens who fought in the Revolutionary War and many other distinguished Milton men and women are buried there.

Inventory

Since there are no street numbers in Milton, properties are listed in sequence of geographic location, starting with the east-west spine of the district along Potash Road, the Common, Milton Road and Blue Swamp Road. The listing is from east to west. Properties on the north-south arteries, Shearshop Road and Sawmill Road, follow, arranged from north to south.

The designation C or NC before the description indicates whether the property is considered to contribute or not contribute to the historic and architectural significance of the district.

Dates are taken from the Final Report of the Milton Historic District Study Committee except those taken from Assessor's records as noted.

1. C Vacant land. Lawn between Trinity Church and Milton Hall.

2. C David Welch House. c. 1756. A 5-bay, central-chimney house with later additions. Listed in the National Register of Historic Places February 16, 1984.

3. C Jennings House. c. 1852. (1820 Assessor) Long, narrow, 26x60' 2-story frame house. Front door under gable end faces the Common. The house has been enlarged from time to time. Barn.

4. C Milton Academy. c. 1855. Built as frame 2-classroom structure with two doors and board-and-batten siding. 47x28'. Original glazed door to left. Garage door to right. Horizontal window in gable.

   C Milton District School. 1897. 1-room 28x36' schoolhouse with 6x8' tower, belfry, bell and flagpole. Three 6-over-6 windows on each side. Active as a school 1897-1946. Interior converted to dwelling.

5. C The Common. Open land, not landscaped. Congregational Church was built on this site.

6. C Late 18C with early 20C alterations. 1½-story frame 30x24' gable-roofed house covered with weathered wooden shingles. Neo-Classical Revival front porch with round columns. Horizontal 5-pane windows under eaves. Front roof slope covered with standing-seam metal.

7. C Trinity Episcopal Church. 1802. Oliver Dickinson, joiner/architect. 32x63' frame church with Gothic arched windows. Interior finished 1826. Fine stained glass. Listed in the National Register of Historic Places April 23, 1976.

8. C Milton Hall. c. 1900. Frame, vernacular, 30x40' 1-story structure. On the front elevation facing the Common, there is a gable-roofed entry under the main gable end. In both gables regular and fish-scale shingles are laid in alternating courses. Elsewhere the walls are covered with clapboards. There is a wing to the east. Windows are 2-over-2.

9. C Guild Tavern. c. 1782. Frame 38x27' 5-bay central-chimney central-doorway gable-roofed house covered with clapboards. Side elevation facing the Common has the unusual fenestration pattern of four bays regularly spaced at both first and second floors, under attic fanlight. Wing to north. Rebuilt after serious fire in 1960s, which may account for the 4-bay fenestration.

10. C A. B. Beach House. Late 19C. 26x50' gable-roofed 1-story house covered with clapboards. Because of the change in grade, the basement is fully exposed on the north and east elevations. After the store and Post Office that stood on the site of Milton Hall was destroyed by fire in 1894, the basement was used as a store.

11. NC Vacant land. Included for visual continuity.

12. C Milton Congregational Church. 1791. Greek Revival, 36x50' church covered with clapboards. Central double 4-paneled door flanked by plain pilasters and 12-over-12-over-12 windows. Paneled corner pilasters front and rear. Three 12-over-12-over-12 windows each side elevation. Tympanum without fenestration. First 8x8' stage of steeple covered with vertical flush boarding to molded cornice. Second stage has louver in each face and paneled corner pilasters as found in the main block. Built on the Common where the exterior was painted yellow. Moved to present location in 1828, at which time it may have assumed its Greek Revival character. For many years thereafter its carriage sheds stood on that part of the Common adjoining the Shepaug River. On the interior there is a gallery at the back only. Pulpit and central chandelier appear to date from the High Victorian era. Steeple added 1843.

13. C 1880 Assessor. T-shaped frame 2-story gable-roofed house sited above the road. Wrap-around porch has square posts with sawn brackets. Windows are 2-over-2. Paired peaked attic windows. Extensive stone fences and retaining walls. Three sheds.

23. C Jeremiah Griswold/Second David Welch House. c. 1765. Large 37x28' 2-story 5-bay central-chimney central-entrance house covered with clapboards. The paneled double door has a 7-pane transom. 12-over-12 windows are spaced in a 2-1-2 rhythm. There are narrow corner boards. Second floor has hewn overhang front and sides, third floor on the sides. The ell and shed extensions were added in 1823. Picket fence. 90 acres. Notation on the back of a photograph at Litchfield Historical Society says the house was built in 1775 for Lt. Jehiel Parmelee by Oliver Dickinson. The Historic District Study Committee found that the house was already standing when Parmelee bought the property.

24. C Mid 18C. 1-story 26x24' 3-bay house covered with clapboards. Central stone chimney. Windows are 6/6. Prior to 1850 Methodists met here for services conducted by a circuit preacher. Sited on edge of the bank of the former Milton Pond.

25. C Before 1852. 1760s Assessor. In the front elevation, facing east, of the 1-story house are three 6-over-6 windows and, at the extreme right, a door. A corbeled brick chimney rises from the ridge line at the extreme right. Shed-roofed extension to the west. Apparently altered from time to time.

26. C Vacant land. Is a deep ravine through which flows the East Branch of the Shepaug River. (Photograph 11) The 18C Seelye saw mill was located on the north side of the river. The structure was torn down in the 1940s. The 19C Hutchinson cider mill was on the south side of the river. See Sketch Map.

27. NC 1792, sign on house. Gable-roofed 1-story 32x32' house, covered with clapboards. There is a flat-roofed section across the rear and an 18x24' wing to the right with asymmetrical gable roof. Moved to this location in 1930s from near the mill pond of parcel 34, where it probably was a component of one of the mills. Enlarged in the 1940s. Considered to be Non-Contributing because of the small-paned picture windows on either side of the front door. (Photograph 16)

28. NC 1930 Assessor. 1-story 30x32' stucco summer residence.

29. C Blue Swamp Burying Ground. 18C. Graves of Revolutionary War soldiers and many others prominent in Milton's history are found here. The stone wall of massive granite blocks has 19th-century iron gates. The term Blue Swamp relates to the blue gentian found in the area in the 18th century. 3.75 acres.

30. C Site of the carriage shop. (Photograph 12) For purpose of delineating the district boundary, the north-south line between parcels 18 and 27 is extended to Blue Swamp Road. The portion of parcel 27 east of the line is included in the district. The portion west of the line is the site of a contemporary house.

31. C Vacant land. Site of the mill pond which was 165 feet long in the east-west direction by 80 feet wide. It was drained after the flood of 1955 which damaged the dam. Pratt's Nail Forge was located here. See Sketch Map.

32. C John Buell House. c. 1728. 2-story/full garret. Lean-to added c. 1740. 36x29' chestnut frame, double front plate, central sto chimney, clapboard siding, batten wide-pine doors. Windows are 9-over-6, 6-over-4, and 4-over-4; in the lean-to 6-over-6 and 2-over-2. All quarrels are 5¼x7" poured glass. The house was rescued from demolition in 1961, disaasembled, moved from its origi site on the eastern side of Litchfield, and re-assembled on 12.9 wooden acres retaining 18th-century stone fences. The house has received museum quality restoration and period gardens have been re-created. The 1-story ell was added in 1975.

33. C Bridge 1, on Milton Road. c. 1915 Town Director of Public Works. An iron bridge similar to others of contemporary date constructed in the town by Berlin Steel Construction Co. of Berlin, CT. This one is not indentified with the maker's name plate.

34. NC Bridge 2, on Sawmill Road. c. 1955 Town Director of Public Works. Double concrete box culvert.

1.
The local Milton Historic District of more than 150 properties includes a larger portion of the village.

2.
One property (4) has two 19th-century historic structures.

3.
Shearshop Road is so named because a factory for the manufacture of shears was operated on the east side of the road near the district. The shear shop was the last manufactory to operate in Milton, closing in 1891. It occupied a site where earlier there had been a puddling furnace in which the Welch family had an interest.

4.
The area's largest nail forge, active at the time of the Revolutionary War, was on the Shepaug River near the carriage factory. There were 17 mills and factories in the village by 1820. [White, Alain C., The History of the Town of Litchfield, Connecticut, 1720-1920. (Litchfield: Enquirer Print, 1920)]

5.
Kilbourne's description of Trinity reads, "The architecture is of the old style, with galleries and large windows rounded at the top. It has been enlarged by the addition of a chancel, and improved by the way of new seats, a stained chancel-window, and other internal arrangements." [Kilbourne, P. K., Sketches and Chronicles of the Town of Litchfield (Hartford; Case, Lockwood & Co., 1859) p. 135.] This passage suggests the possibility that the pointed-arch windows are an alteration. If they are original they are an unusually early example of the use of a Gothic Revival motif. If they are not original, then question arises as to whether the other interior Gothic Revival features may also be alterations. The National Register nomination does not address these issues.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	_X_ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	_X_ architecture	___ education	___ military	___ social/ humanitarian	
_X_ 1700–1799	___ art	___ engineering	___ music	___ theater	
_X_ 1800–1899	___ commerce	_X_ exploration/settlement	___ philosophy	___ transportation	
_X_ 1900–	___ communications	_X_ industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates See Item 7 **Builder/Architect** See Item 7

Statement of Significance (in one paragraph)

Criteria C (Architecture), A (History), and D (Archeology)

The Milton Center Historic District contains several excellent examples of pre-Revolutionary War architecture and later 19th-century structures. These buildings, which continue to exist in their original relationship to one another, together form an entity of quality and integrity that is architecturally significant. (Criterion C - Architecture). The buildings and sites depict the 18th- and 19th-century origin and development of the district, based on the waterpower potential of the Shepaug River. There have been few intrusions. (Criterion A - History) The presence of early industrial sites offers the potential for developing useful information through their examination. (Criterion D - Archeology)

Criterion A - History

The area now known as Milton was called West Farms. It was settled and developed because of its attracrive potential for water power development. Among the first settlers, who arrived before 1740, were Justus Seelye, David Welch and Jeremiah Griswold from New Milford. Welch engaged in the iron business as a merchant, buying and selling ore mined in northwestern Connecticut. One of the men he dealt with was Ethan Allen, the Revolutionary War hero. Welch also brought ore to Milton and processed it in a puddling furnace located north on Shearshop Road behind his house.[1] Griswold, a builder, constructed the dam at Sawmill Road, which formed Milton Pond, and also the second David Welch House (23). Others took advantage of the waterpower available from the Shepaug River at several sites. In the district the Seelye Sawmill, Pratt Nail Forge, and Hutchinson Cider mill were located near the dam at Milton Pond.

The community became a religious and political entity through the usual course of pleading hardship in reaching the church at Litchfield Center in bad weather. Permission to hold services at Milton during winter months was requested in 1768. The Third Ecclesiastical Society of Litchfield built the meetinghouse on the Common in 1791. Four years later the General Assembly granted a petition for establishment of the independent Milton parish.

Famous and near famous people associated with the district included Lt. John Griswold, son of Jeremiah Griswold. John Griswold, who lived on Sawmill Road south of the district, was an early inventor of an ironclad naval vessel. He tested a model of his armored vessel on Milton Pond early in the 19th century. Oliver Dickinson, joiner/architect of Trinity Church, was the father of Anson Dickinson, nationally known painter of miniatures. The Welch family continued prominent in the district's affairs. David's son, John, became an Episcopalian and gave the land on

which Trinity Church stands. Hugh Welch, grandson of David Welch, built the Greek Revival house, the last architecturally significant house to be built in the district, after he achieved success as a banker.

The district's years of growth and prosperity coincided with the period when waterpower was important as a source of energy for industry. Activity was strong until about the middle of the 19th century, when the advent of steam and railroads brought decline to industry based on waterpower. In the district no developments succeeded waterpower. The railroad did not come to Milton; there were no other natural resources to exploit; it was not a crossroads, county seat, or trading center. Industry faded away and was not replaced by other activity. Now it takes searching to find factory foundations and dam abutments. Many of the civil, domestic, and religious structures, however, have survived and continue to tell their story of the past.

The Milton Center Historic District enjoys a rural setting and is surrounded by farmland and woodland. Indeed, the Jeremiah Griswold (Second David Welch) House is set on a 90-acre farm. Nevertheless, the significance of the district does not relate to its rural setting but derives from its industrial development. The waterpower potential of the Shepaug River was the attraction that drew the early settlers to Milton Center and the development of the waterpower was the driving force in the history of the village. While the mills and factories that used the waterpower have now disappeared, the stream itself runs through the district as it always has, and foundations, stone walls, and remnants of the waterpower system clearly indicate the industrial past. The community of houses, churches, schools, and village hall that was built as a necessary complement to the industry is substantially intact, giving an excellent understanding of the appearance and function of the Milton Center Historic Disrrict at the time of its 19th-century industrial eminence.

Criterion C - Architecture

The two David Welch houses are fine examples of pre-Revolutionary War architecture, both being designed in the traditional 5-bay central-chimney central-doorway manner. Welch's first house (2) later received a 3-bay addition to the east, for a store, and an ell. These additions and out-buildings are intact. Similarly, his second house (23) has a large added ell and substantial outbuildings, intact. The presence of these two complexes of fine houses with additions and service buildings, largely unchanged in the past 150 years, is a factor of major significance in the district.

The third significant 18th-century structure is the John Buell House[2] at site 35 (Photograph 15). Although not indigenous to the district, it is the only surviving architecture in the town dating to the first settlement of Litchfie The ell was added to represent the 19th-century original which was beyond sal vage. It houses modern conveniences. No visible intrusions mar the house c its environment.

The Congregational Church is of more architectural interest than its standard Greek Revival appearance suggests because the Greek Revival features are added. It would be interesting to know whether, when originally built on the Common, it was a meetinghouse with door on a side elevation, but this information and the reason why it was moved are not known.

The Episcopal Church is significant because its joiner/architect, Oliver Dickenson, (1757-1847) is known[3] and because the use of pointed arch windows in its design, if original, is very early.[4]

The two small 18th-century houses on the south side of Milton Road (17,20) have interesting similarities in their doorways and are examples of modest homes in contrast to the large David Welch houses. The Hugh Welch Mansion across the street from them is a monumental expression of the Greek Revival style, unlike any other structure in the district.

The two school buildings at the south end of the Common help to give a sense of the late 19th-century ambience of the Milton community. The board-and-batten siding of the Milton Academy and the belfry tower of the District School are characteristic of their era.

Criterion D - Archeology

Since the the attraction that drew early settlers to Milton was its water power factilities, industrial sites were established early in the 18th century and continued to be the community's raison d'etre to the end of the 19th century. While all buildings associated with these enterprises are gone, visible stone foundations abound. It is likely that examination of these locations, notably sites 26 and 31 in the district, would yield useful and worthwhile information of an archeological character.

Investigatiion and study at site 31 might yield information placing the building whose walls remain there in the industrial history of Milton Center, perhaps illustrating the functioning of a nail forge. Investigation and study of site 26 might yield information placing its artifacts in the industrial history of Milton Center, probably as parts of the sawmill and cider mill that stood on this parcel below the dam. The low stone walls on site 30 appear to be those of the carriage factory shown by the 1852 map to have been located on this parcel. Aside from natural growth of vegetation, and with the exception of construction work on Sawmill Road where it crosses the river, the sites appear to be little disturbed by extraneous occurrences during the 20th century.

1.

The house at site 2 was a gift from his father-in-law to David Welch at the time of his marriage. David Welch in turn gave the house to his son John when John was married in 1785. At that time David Welch moved to the house at site 23.

2.

The owners' extensive documented research supports the architectural, historical, and geneological significance of the John Buell House. See Eleanor H. Cota, letter May 11, 1986, to Connecticut Historical Commission.

3.

William Spratts, the architect of British origin, also lived in Milton on Sawmill Road southwest of the district.

4.

At Union Church, Barkhamsted (1829), Gothic-arched apertures also were used in a structure of standard Greek Revival proportions.

9. Major Bibliographical References

See continuation sheet.

10. Geographical Data

Acreage of nominated property 90 prox.

Quadrangle name Cornwall Quadrangle scale 1:24000

UTM References See continuation sheet.

	Zone	Easting	Northing
A			
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification The district boundary is shown by the dotted line on the map drawn at scale of 1" = 400'. For boundary justification see continuation sheet.

List all states and counties for properties overlapping state or county boundaries

state	NA	code	NA	county	NA	code	NA
state	NA	code	NA	county	NA	code	NA

11. Form Prepared By

name/title	David F. Ransom/Consultant, edited by John Herzan, National Register Coordinator
organization	Connecticut Historical Comm. date February 9, 1986
street & number	59 South Prospect Street telephone 203 566-3005
city or town	Hartford state CT

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___X___ state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature

title Director, Connecticut Historical Commission date June 24, 1986 resub: 10/17/86

For NPS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest: date

Chief of Registration

Beers, F. W., Atlas of Litchfield County, Connecticut (New York: 1868), plate 39.

Cota, Eleanor H., letter May 11, 1986, to Connecticut Historical Commission regarding the John Buell House (site 35).

Final Report of the Milton Historic District Study Committee, 1975.

History of Litchfield County, Connecticut (Philadelphia: J. W. Lewis & Co., 1881) v. 1.

Kilbourne, P. K., Sketches and Chronicles of the Town of Litchfield (Hartford: Case, Lockwood & Co., 1859).

Page, Rev. W. E., "Centennial Address Delivered in the Congregational Church, Milton, Conn., Aug. 21, 1898."

White, Alain C., The History of the Town of Litchfield, Connecticut, 1720-1920 (Litchfield: Enquirer Print, 1920).

Woodford, E. M., "Map of the Town of Litchfield, Litchfield County, Connecticut," 1852.

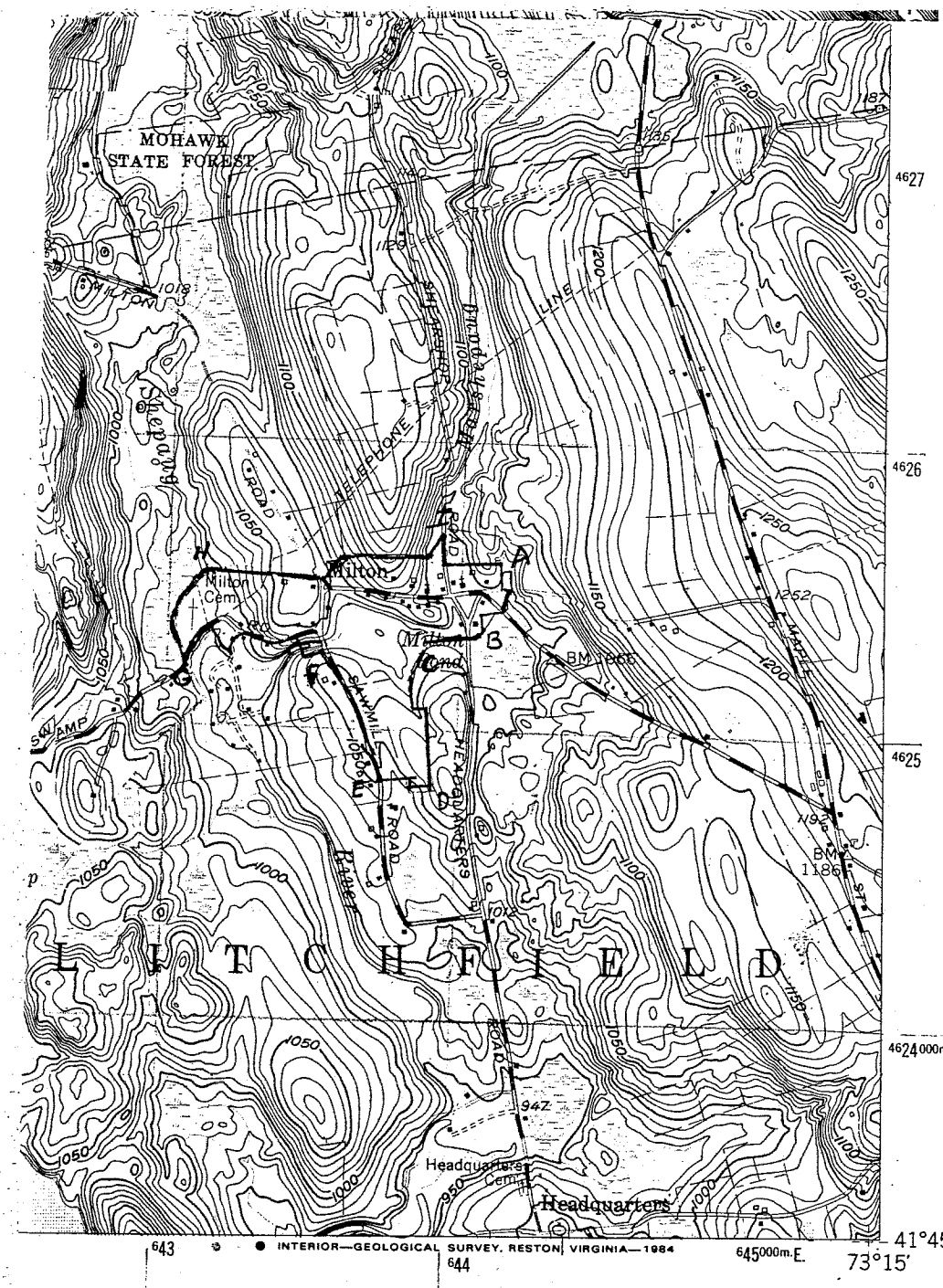
UTM References

A 18/644150/4625590
B 18/644080/4625320
C 18/643880/4625260
D 18/643290/4624800
E 18/643740/4624820
F 18/643520/4625260
G 18/643060/4625200
H 18/643120/4625520
I 18/643910/4625680

Boundary Justification

The boundary is drawn to encompass that part of Milton which historically formed Milton Center during its period of industrial activity. While the mills and factories have all but disappeared, the river continues to flow through the district with industrial artifacts still in place on sites 5, 31, 26, and 30. Community support structures were built on Milton Road north of the river where the common, schools, churches, tavern, store, and meeting hall are or were, as well as houses. The two fine Welch houses, sites 2 and 23, define the east and west ends of this section of Milton Road. Non-contributing sites along Milton Road are included for visual continuity and in order to avoid doughnuts.

The boundary is drawn through parcels 18, 19, and 23, excluding from the district substantial acreage belonging to these parcels, because that acreage is rural in character whereas the district has an industrial and industrial-related theme. The cemetery, site 29, is included because it is a source of data on people important to the center's history, while the house at site 32 is included because the site adjoins the mill pand parcel 31 and because the house, of museum quality, is perhaps the oldest in Litchfield. The greater Milton community has several other houses that probably are of National Register quality but they do not form part of the Center.



Milton Center
Historic District
Litchfield, CT
UTM References

Milton Center
Historic District
Litchfield, CT

UTM References
A 18/644150/4625590
B 18/644080/4625320
C 18/643880/4625260
D 18/643920/4624800
E 18/643740/4624820
F 18/643520/4625260
G 18/643060/4625200
H 18/643120/4625520
I 18/643910/4625680

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1984

ROAD CLASSIFICATION

Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
U. S. Route
State Route

(LITCHFIELD)
6367 II NW

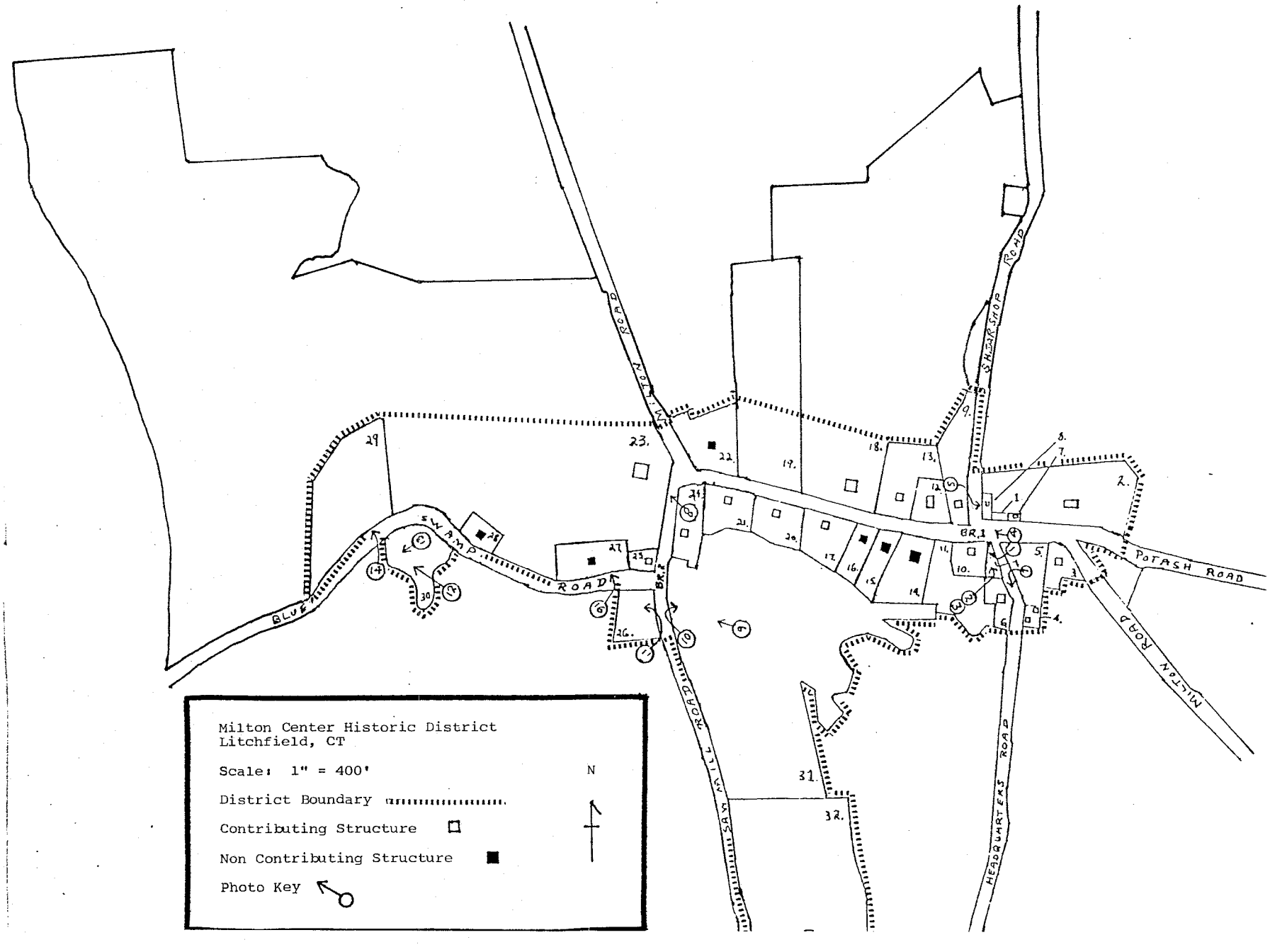
CONNECTICUT

QUADRANGLE LOCATION

CORNWALL, CONN.

41073-G3-TF-024

1956
PHOTOREVISED 1984
DMA 6367 IV SE—SERIES V816


Milton Center Historic District
Litchfield, CT
Scale: 1" = 400'
N
District Boundary
Contributing Structure
Non Contributing Structure
Photo Key
BLUFF ROAD
SWAMP ROAD
BR. 1
BR. 2
SAW MILL ROAD
HEADQUARTERS ROAD
POTASH ROAD
MILTON ROAD
SHOP ROAD
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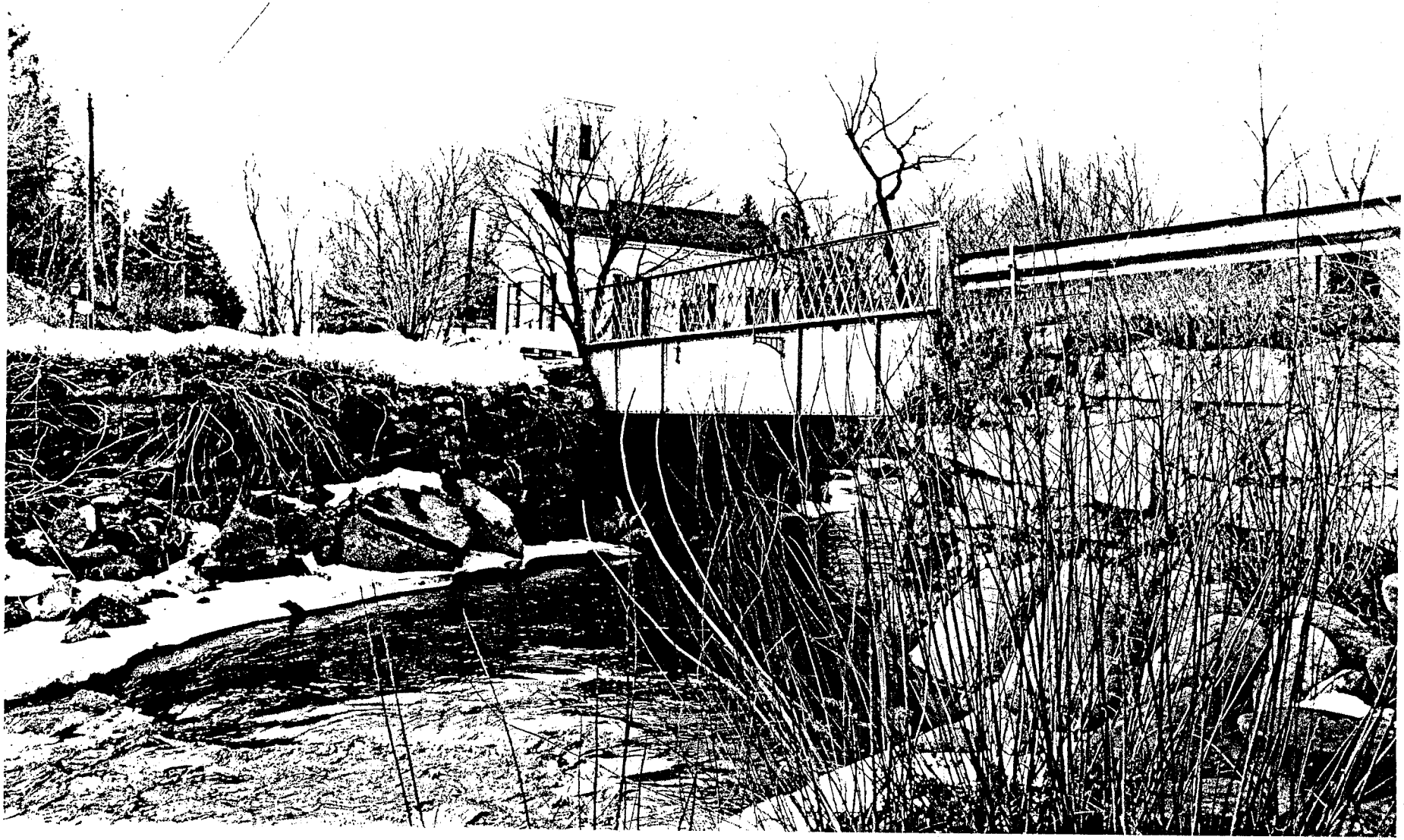
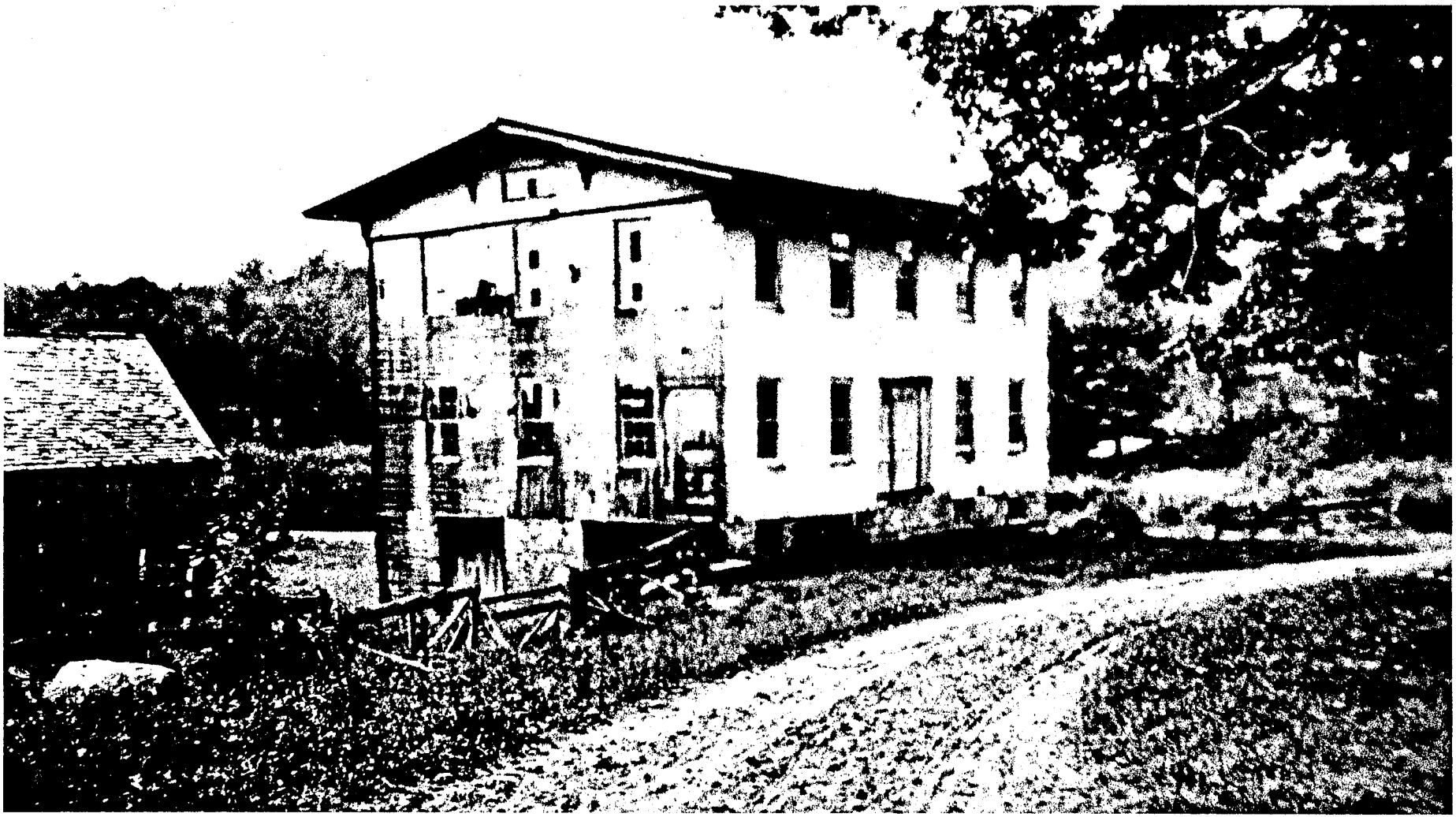
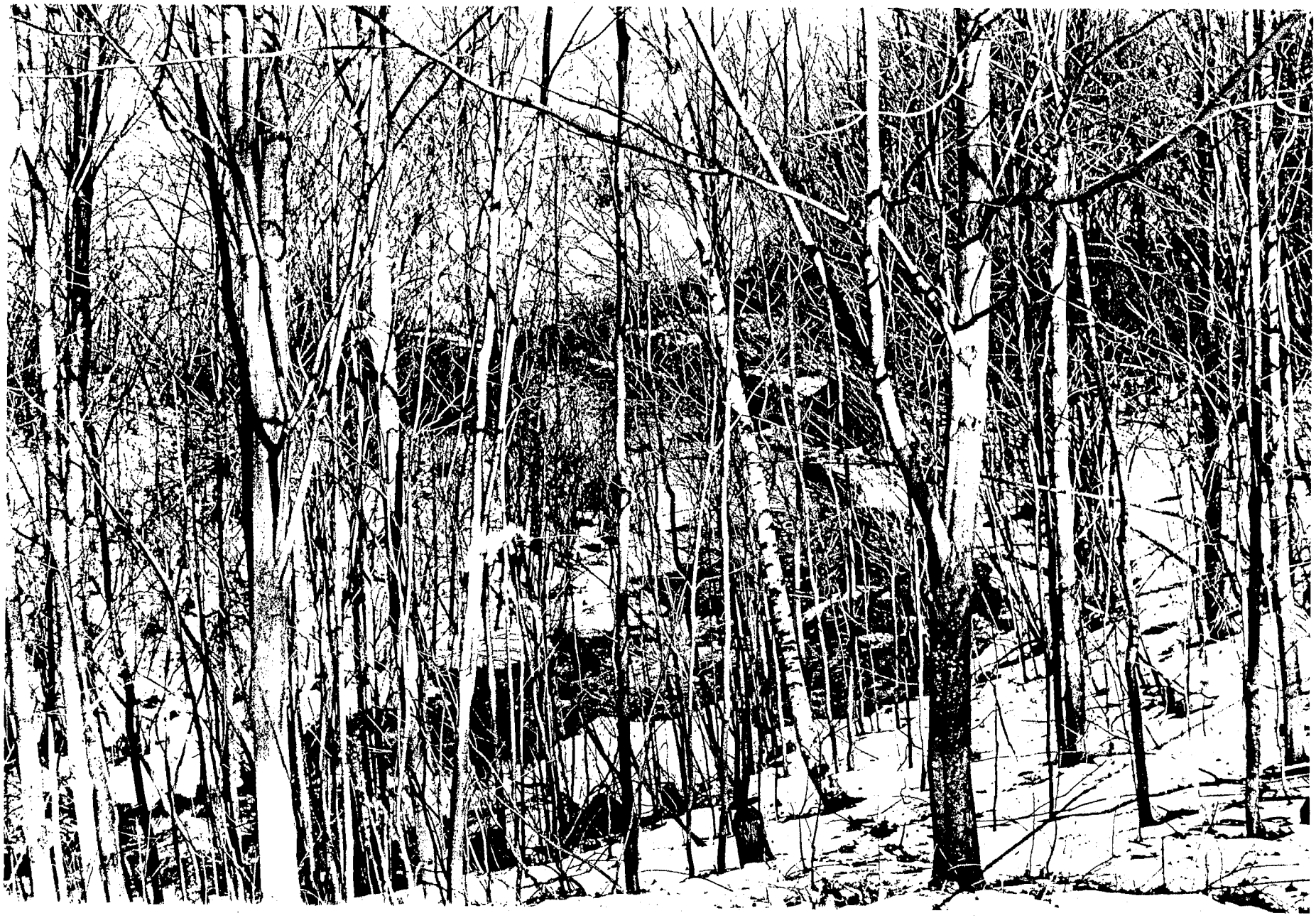
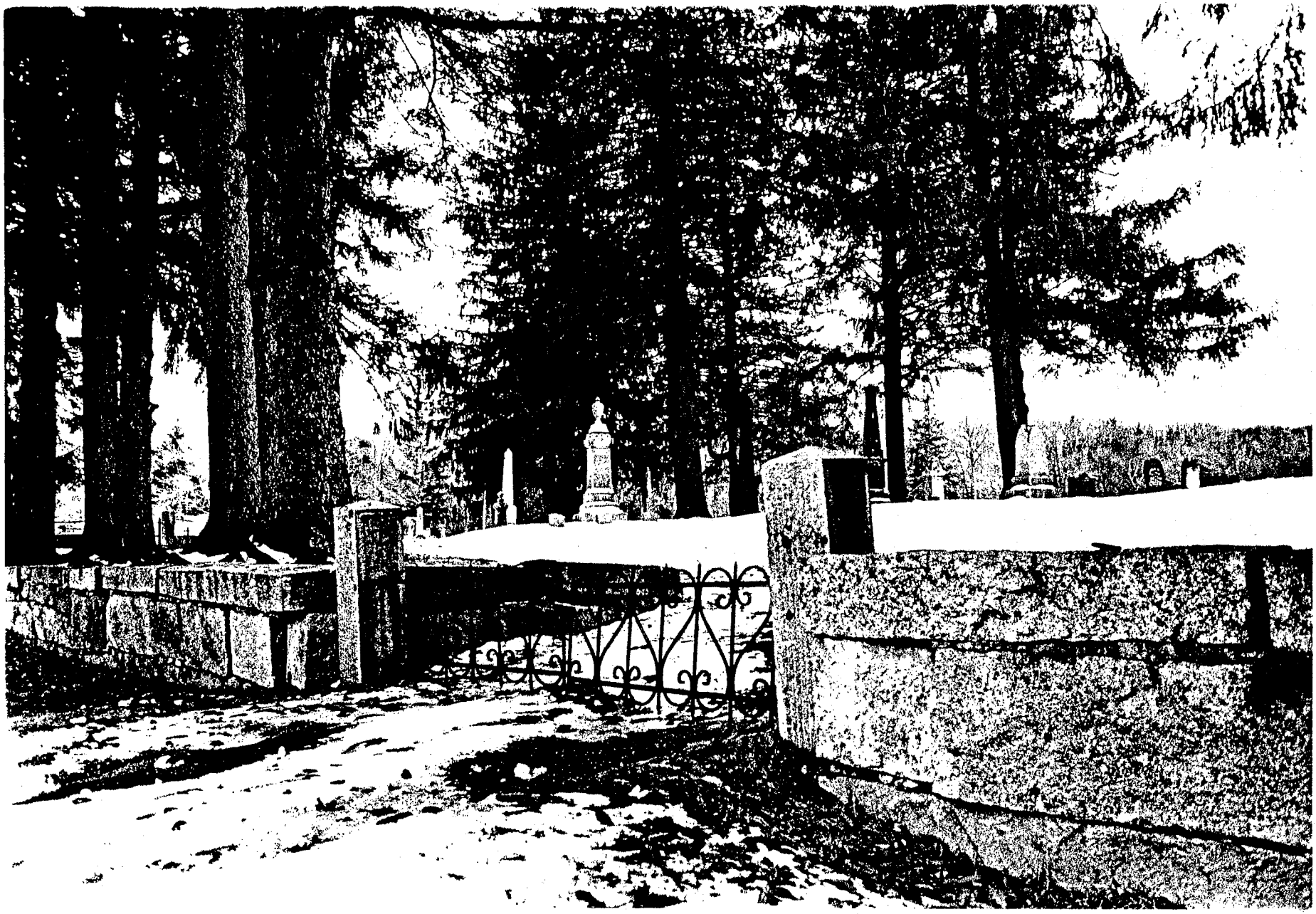
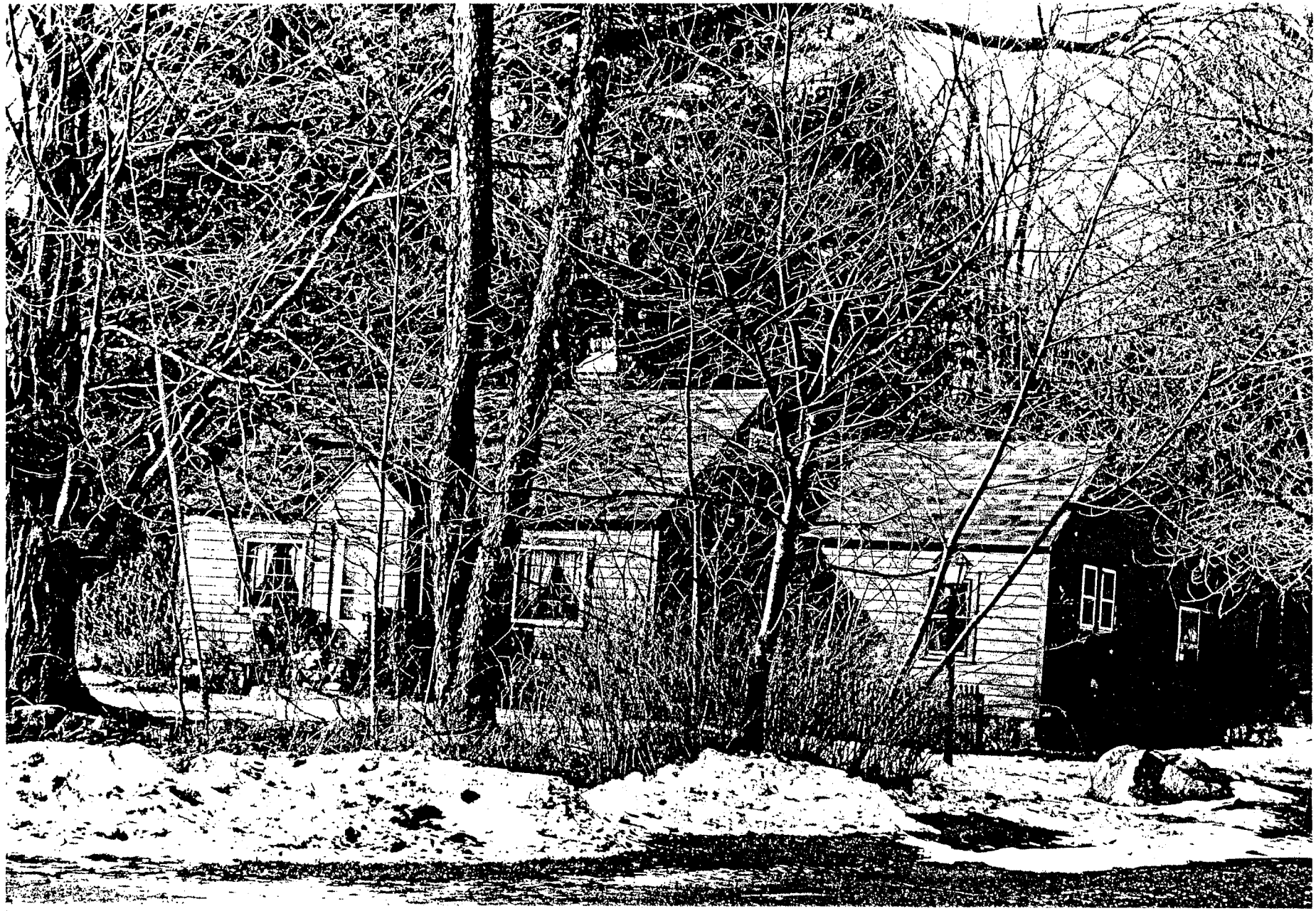


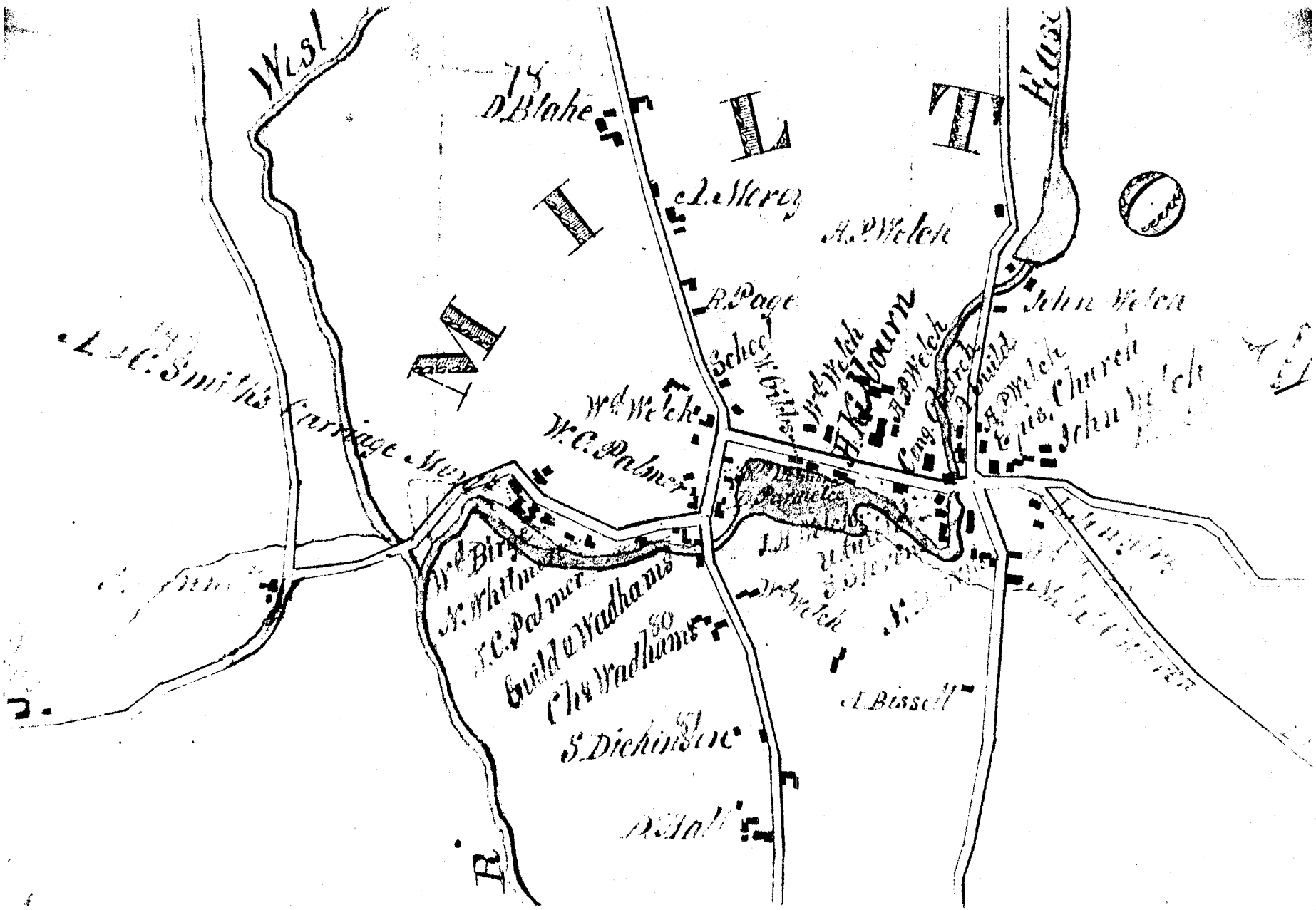

MILTON CENTER. MILTON CONN.










West
East
MILL
D. Blake
A. Weld
R. Page
Wd. Weld
W. C. Palmer
Guild & Wadhams
Chs Wadhams
S. Dickinson
J. Bissell
Congl. Church
Epis. Church
John Weld

About the Team

The King's Mark Environmental Review Team (ERT) is a group of environmental professionals drawn together from a variety of federal, state and regional agencies. Specialists on the Team include geologists, biologists, soil scientists, foresters, climatologists and landscape architects, recreational specialists, engineers and planners. The ERT operates with state funding under the aegis of the King's Mark Resource Conservation and Development (RC&D) Area - an 83 town area serving western Connecticut.

As a public service activity, the Team is available to serve towns within the King's Mark RC&D Area - *free of charge*.

Purpose of the Environmental Review Team

The Environmental Review Team is available to assist towns in the review of sites proposed for major land use activities or natural resource inventories for critical areas. For example, the ERT has been involved in the review of a wide range of significant land use activities including subdivisions, sanitary landfills, commercial and industrial developments and recreation/open space projects.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision making. This is done through identifying the natural resource base of the site and highlighting opportunities and limitations for the proposed land use.

Requesting an Environmental Review

Environmental reviews may be requested by the chief elected official of a municipality or the chairman of an administrative agency such as planning and zoning, conservation or inland wetlands. Environmental Review Request Forms are available at your local Soil and Water Conservation District and through the King's Mark ERT Coordinator. This request form must include a summary of the proposed project, a location map of the project site, written permission from the landowner/developer allowing the Team to enter the property for the purposes of a review and a statement identifying the specific areas of concern the Team members should investigate. When this request is reviewed by the local Soil and Water Conservation District and approved by the King's Mark RC&D Executive Council, the Team will undertake the review. At present, the ERT can undertake approximately two reviews per month depending on scheduling and Team member availability.

For additional information regarding the Environmental Review Team, please contact the King's Mark ERT Coordinator, Connecticut Environmental Review Team, P.O. Box 70, Haddam, CT 06438. The telephone number is 860-345-3977.