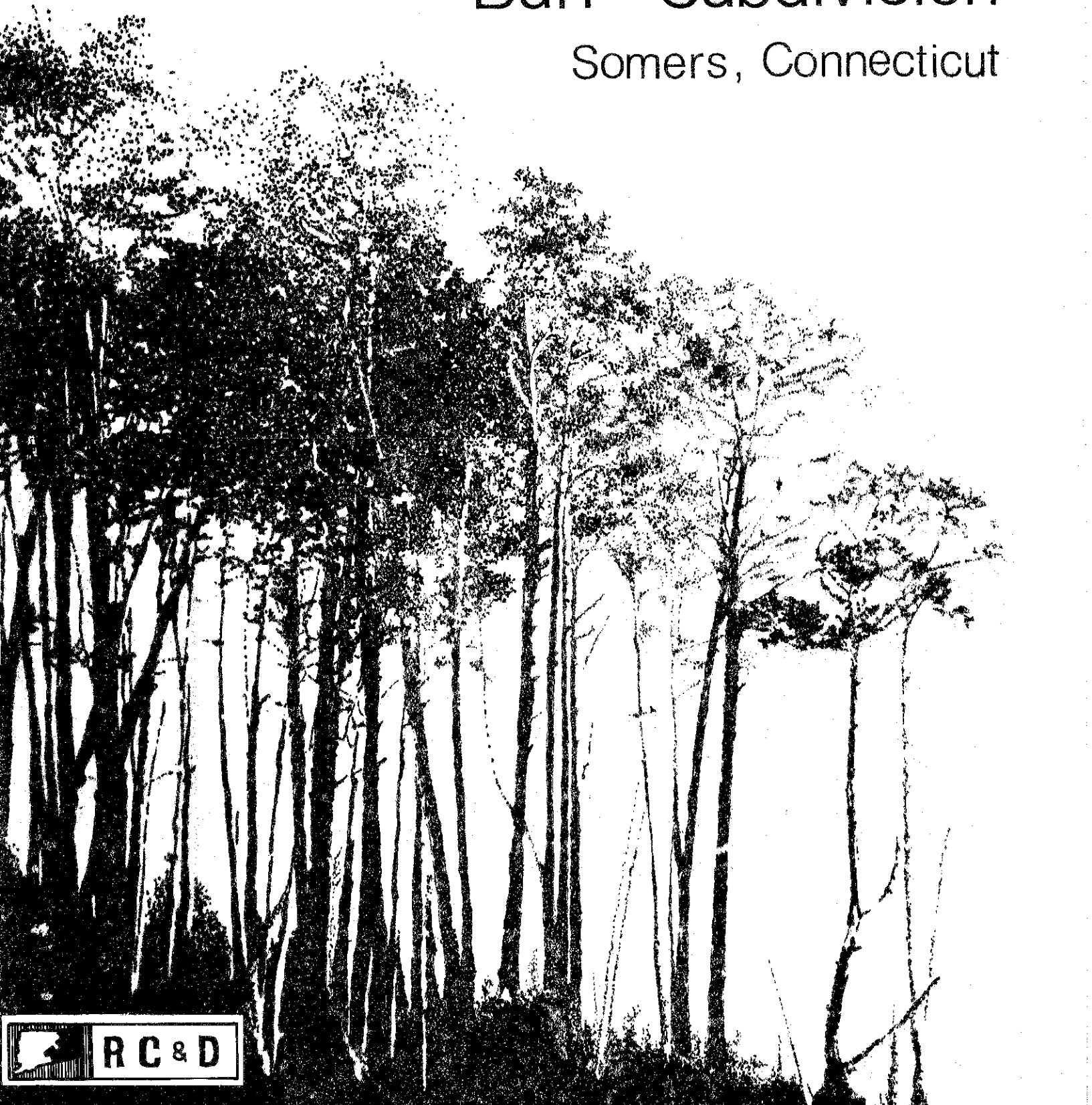


Environmental Review Team Report

# Burr Subdivision

Somers, Connecticut

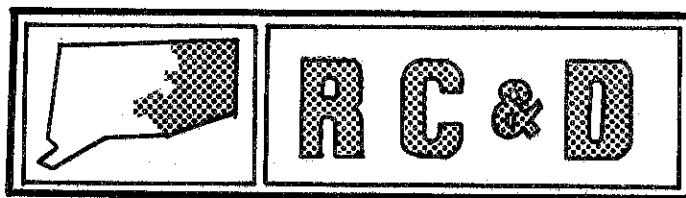


EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team  
Report  
on

Burr Subdivision  
Somers, Connecticut

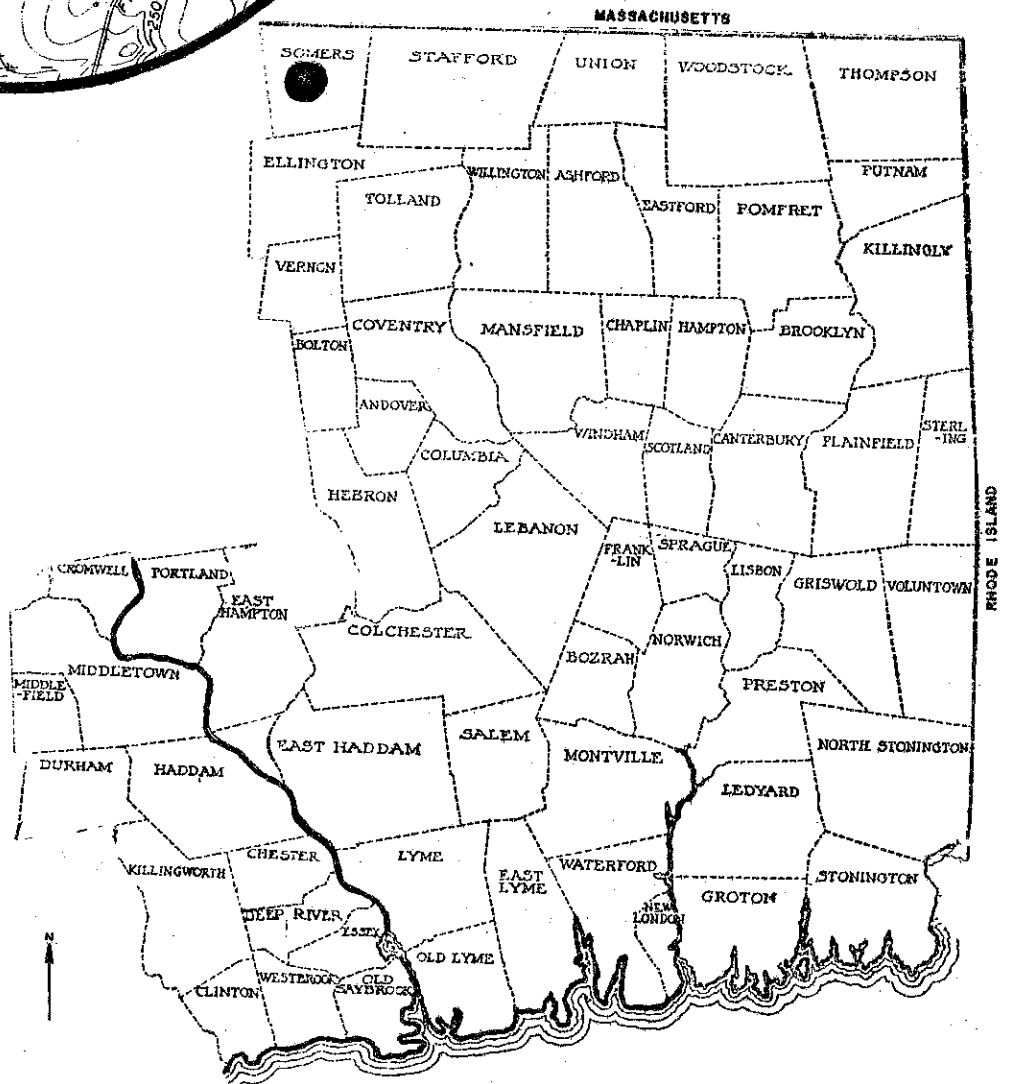
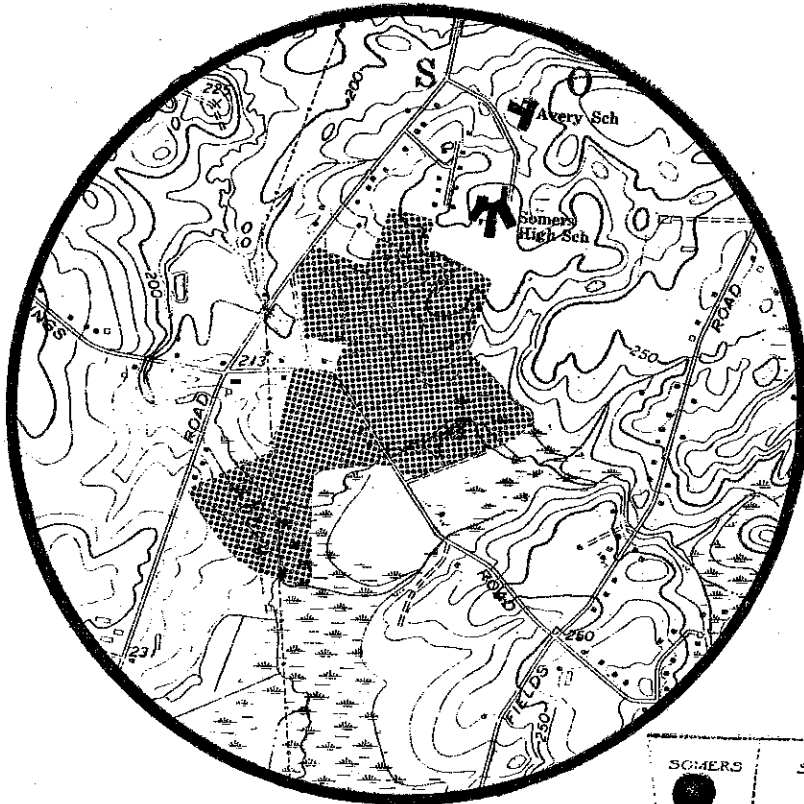
July 1978



eastern connecticut resource conservation & development area  
environmental review team  
139 boswell avenue  
norwich, connecticut 06360

# Location of Study Site

**BURR SUBDIVISION  
SOMERS, CONNECTICUT**



**EASTERN CONNECTICUT  
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT**

ENVIRONMENTAL REVIEW TEAM REPORT  
ON  
BURR PROPERTY  
SOMERS, CONNECTICUT

This report is an outgrowth of a request from the Somers Planning and Zoning Commission to the Tolland County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource Conservation and Development (RC&D) Area Executive Committee for their consideration and approval. The request was approved for the RC&D Executive Committee by David Syme, Committee President, and the measure was reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist from the United States Department of Agriculture, Soil Conservation Service (SCS). Reproductions of the soil survey map, a table of soils limitations for certain land uses and a topographic map showing property boundaries were distributed to all Team members prior to their review of the site.

The ERT that field-checked the site consisted of the following personnel: Timothy Dodge, District Conservationist, Soil Conservation Service (SCS), Tom Ladny, Soil Conservationist, (SCS), Michael Zizka, Geologist, Connecticut Department of Environmental Protection (DEP), Timothy Hawley, Forester, (DEP), Tom Furgalack, State Department of Health, Sia Bauer, Regional Planner, Capitol Region Council of Governments (SRCOG); and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field checked the site on Thursday, June 29, 1978. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

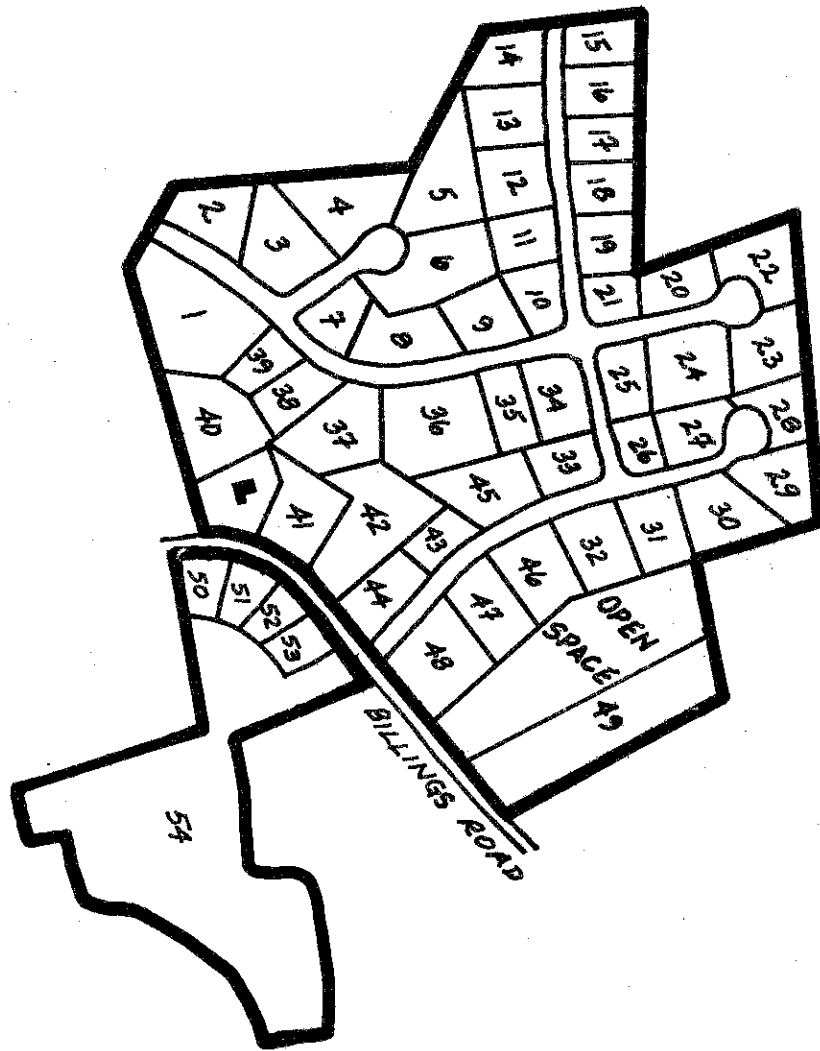
This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. This report identifies the existing resource base and evaluates its significance to the proposed development and also suggests considerations that should be of concern to the developer and the Town of Somers. The results of this Team action are oriented toward the development of a better environmental quality and the long-term economics of the land use.

The Eastern Connecticut RC&D Area Committee hopes that this report will be of value and assistance in making any decisions regarding this particular site.

If you require any additional information, please contact: Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360, 889-2324.

# PROPOSED SUBDIVISION PLAN

BURR PROPERTY  
SOMERS, CONNECTICUT



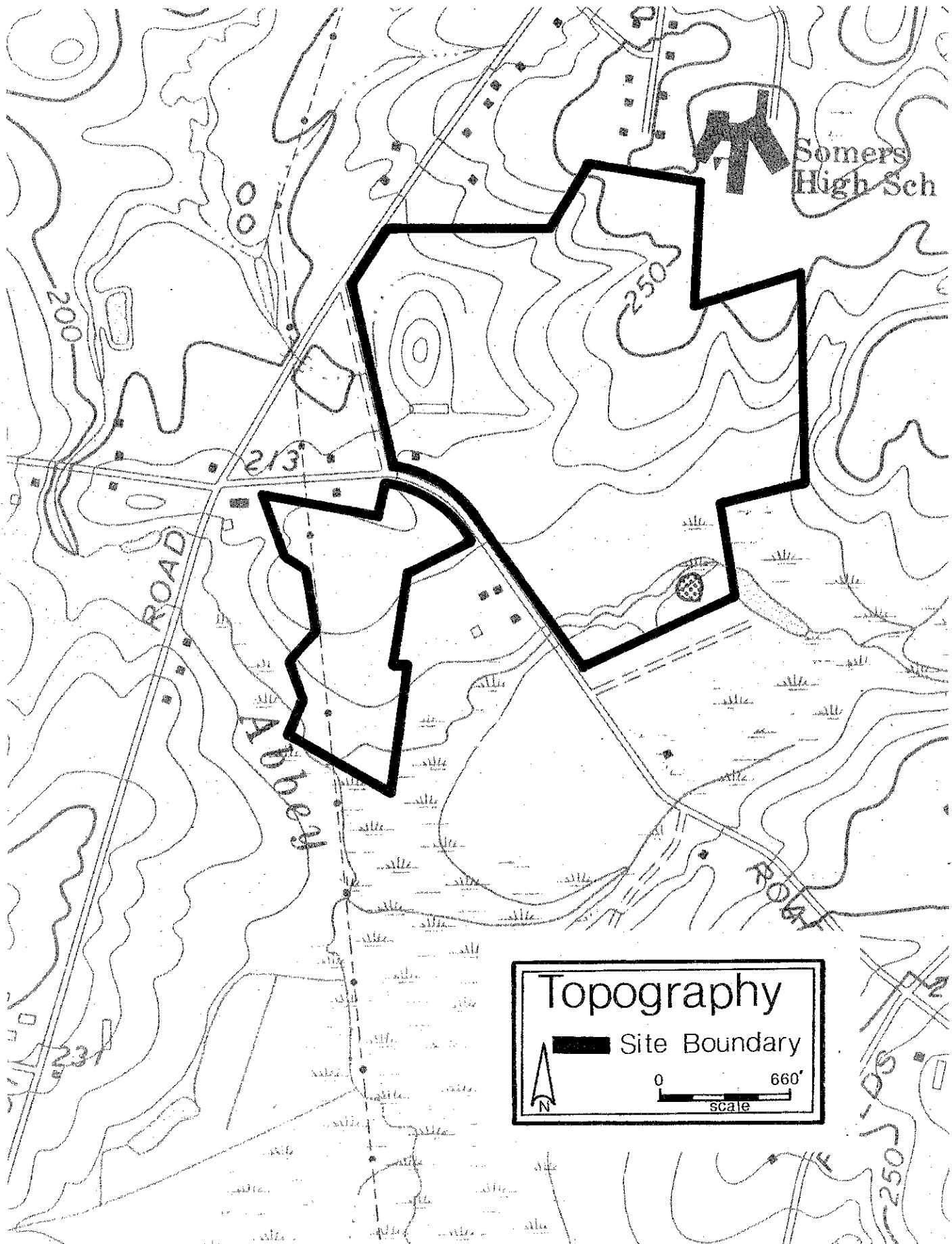
ALL LOT LINES SHOWN ARE APPROXIMATE.

## INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to evaluate a 110 acre parcel for a proposed 54 lot subdivision. The parcel is presently in the private ownership of Charles Burr, a Somers resident. Charles Button, an environmental engineer, has prepared a preliminary subdivision plan for this property. The 54 lots shown on this plan range from one acre to eighteen acres in size. All lots will be serviced by on-site wells and on-site septic disposal systems. The developer proposes to donate a large portion of the designated wetlands to the Town of Somers as an open space - buffer zone for the Abbey Brook drainage system.

The major portion of the site is located between Ninth District Road and Billings Road, approximately 25 acres of the proposed subdivision lies to the south of Billings Road. The northeastern portion of the site borders Somers High School. Route 190, the nearest primary highway, is one half mile north of the site and is directly connected by Ninth District Road. Interstate 91 is approximately 5 miles west of the site. The northernmost parcel has a level to gently rolling topography with occasional slopes in excess of 10%. The majority of this parcel is in open land which is being used for corn cultivation. A woodland borders this field. Approximately 40% of the southern portion of the property is open land presently in corn production. The remainder of the site is in old field succession species and mixed hardwood forest types. A high voltage electric power right-of-way crosses the rear section of this property.

Generally, the Team feels that this site is well suited to residential development. Avoiding areas of rapid or excessively slow percolation and natural drainage ways when locating septic systems is recommended. Grouping plantings or cutting clumps of trees from the woodlands when clearing for house lots will minimize windthrow damage to the existing trees and provide habitat for area wildlife. Many of the soils on this site are naturally droughty and susceptible to erosion when unvegetated. The Team recommends an adequate erosion and sedimentation control plan be included on the subdivision plan before it receives final approval. This will assure minimum erosion on the site and minimum sedimentation in the wetlands during construction. Regrading the small hill on the southern side of Billings Road should be considered, as private drives entering from the curve area would present a hazard to landowners and the Town. Although this site is well suited for residential development, it also contains approximately 50 acres of prime agricultural land, a valuable resource which will be lost to food production should this subdivision be built. The Town of Somers should seriously consider which of these resources, housing or agricultural land, will be most needed in the future.



Somers High Sch

ROAD

Abner

ROAD

Topography

Site Boundary



250

# ENVIRONMENTAL ASSESSMENT

## GEOLOGY

The geology of the Burr property is made up of relatively simple components: a thick layer of stratified drift overlies reddish-brown sandstones and conglomerates (sources: U.S. Geological Survey Map GQ-965, and Connecticut Geological and Natural History Survey Quadrangle Report No. 4). The term "stratified drift" refers to unconsolidated materials that were deposited by meltwater flowing from a wasting mass of glacial ice. Most of the stratified drift on the property appears to be sand, but layers or lenses of gravel probably are present in some places. The thickness of the stratified drift on the property is not known, but records of wells near the site suggest that the thickness ranges approximately from 50 to 100 feet (source: Conn. Water Resources Bulletin No. 25).

## HYDROLOGY

All runoff from the property drains into Abbey Brook, which flows northward into the Scantic River. Roughly half of the northern parcel drains to the south and east into a wetland that borders a tributary of Abbey Brook (see accompanying figure). About 20 lots of the proposed subdivision are included in this half. The other half of the north parcel drains into an intermittent stream that passes under Starr and Ninth District Roads.

Flooding problems are known to exist where Abbey Brook flows under Ninth District Road and Billings Road. The proposed development is likely to have no noticeable impact upon this problem. Flow in Abbey Brook up to the culvert at Ninth District Road is controlled by runoff from an area that is very much larger than the contributing portion of the subdivision. Hence, runoff from the subdivision represents only a small fraction of the total flow in the brook. Moreover, assuming that lawns are established over much of the property, the infiltration of precipitation into the ground during storms could actually increase following development, lessening the amount of water that is quickly shed into Abbey Brook. This would result in a small, perhaps undetectable, decrease in peak flow following storms.

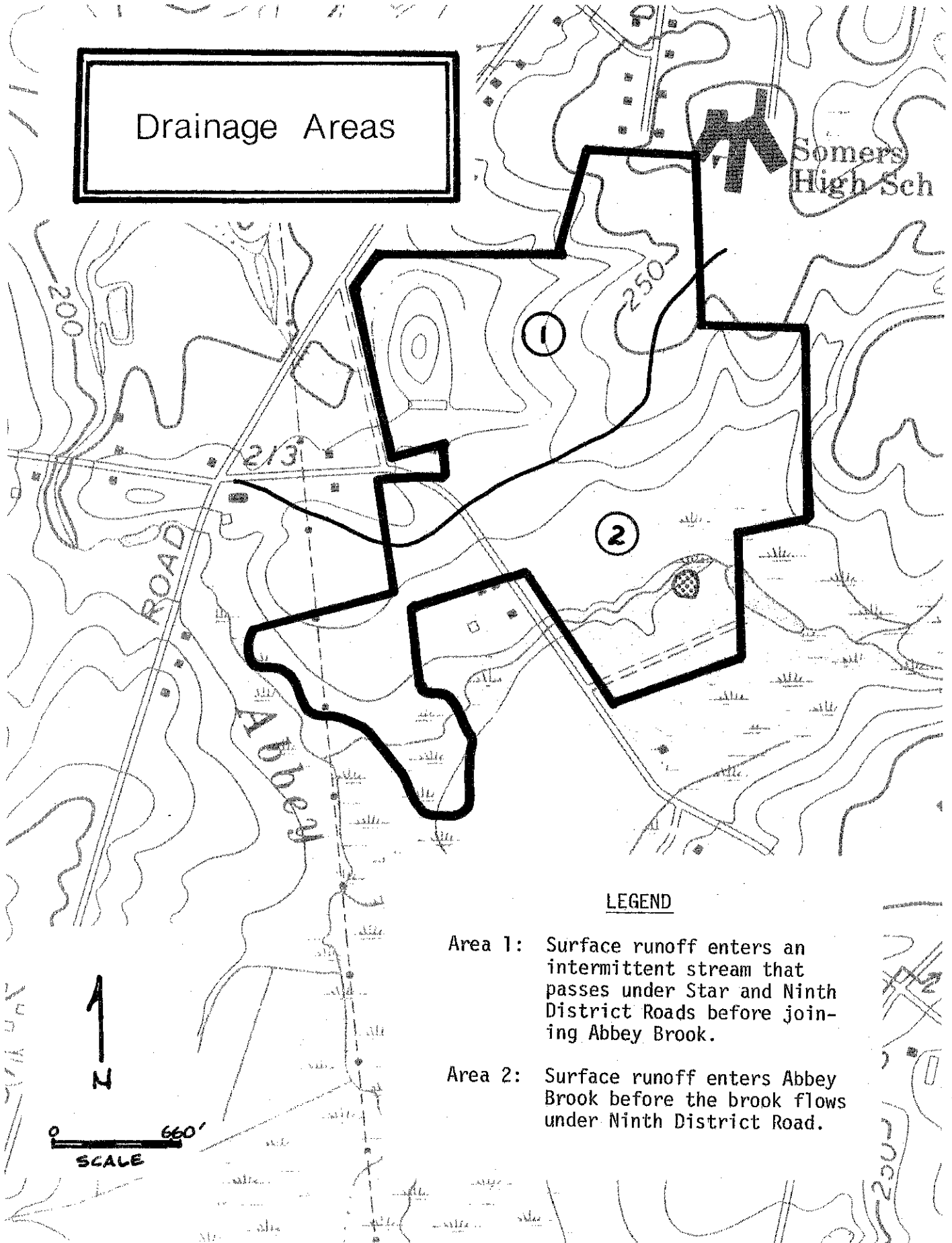
The intermittent stream that passes under Starr and Ninth District Roads is fed almost entirely by runoff from the Burr property. The change in land usage induced by development could therefore have a significant effect on peak flows in this small stream. Assuming that lawns would be established on much of the land, the effect is more likely to be a decrease in peak flows, rather than an increase. The grass would help to retard surface runoff, allow more time for precipitation to enter the soil, and return much of the water to the air by transpiration.

## WILDLIFE RESOURCES

Approximately seven acres of the site are wetlands and contain wetland vegetation, primarily red maple and shrubby varieties. This area exists as a stream-belt or linear corridor along Abbey Brook. Wetlands also form the southwest



# Drainage Areas



## LEGEND

Area 1: Surface runoff enters an intermittent stream that passes under Star and Ninth District Roads before joining Abbey Brook.

Area 2: Surface runoff enters Abbey Brook before the brook flows under Ninth District Road.

border of the property on the parcel south of Billings Road. These areas provide fair to good habitat. Waterfowl and fur bearer value is low.

The area along Abbey Brook provides wildlife habitat primarily for songbirds and small mammals. Its proximity to the cropland does increase its value somewhat.

A shallow (6'±) pond, approximately 1/10 acres in size, is located adjacent to Abbey Brook along the east bank. It provides additional habitat to wildlife; primarily frogs, turtles, insects, and small fish including sunfish and minnows. One or two pairs of ducks may use it for courting activities during the early spring.

Approximately 63 acres are utilized for the production of silage corn. Its greatest value to wildlife is during the fall season when harvest shatters some ears, making the grain available to migrating and resident birds; such as morning dove and pheasant. Raccoon, squirrels and other small mammals also make use of this food source.

The woodland occupies the remaining acreage and provides fair values to wildlife. The mature nature of the woodland canopy (trees greater than 12 inches in diameter) limits sunlight penetration and understory growth. Fruiting shrubs and browse species of plants with high value to wildlife are not common or abundant. The somewhat droughty nature of the soils also limits the potential for growth for these species. The most productive areas for wildlife are the edges or borders where cropland and woodland or wetland meet. These areas provide food, escape cover, breeding and rearing habitat to a wide variety of wildlife including seasonal songbirds and other bird life such as the bobwhite quail and ruffed grouse. Small mammals such as skunk, raccoon, fox, squirrel, and woodchuck frequent this productive habitat type.

Development will result in a loss of both quantity and quality of habitat types. The extent of loss will be determined by the amount of actual development done. By losing the cornland, the edge will be less productive unless the corn is replaced with fleshy fruiting shrubs or small border plantings of annual grains. Retaining as much native vegetation as possible will help minimize habitat losses. Trees with high aesthetic values should remain wherever present. Landscaping should give consideration to wildlife habitat by including fruiting plant species which wildlife use as food sources and by planting in clump configurations which provide a more natural cover situation than single trees or linear rows of shrubs.

## VEGETATION RESOURCES

Highly productive crop land covers over 50 acres of the proposed Burr subdivision site. The remainder of the property varies from recently abandoned farmland to 40 to 50 year-old pine/hardwood stands. These areas are delineated in the Vegetation Map.

Trembling aspen (section G) is a short lived species of little shade value. These aspen trees should be removed to avoid hazards and high removal costs following development. Growth of sapling oak and pine (sections C and G) would be improved by thinning the stand. Trees in section A are not deeply rooted and

windthrow damage may become a problem when the area is opened for development. A change in the water table would probably kill most of the trees in section A.

Except as previously noted, it will be possible to utilize almost any of the existing trees for shade. However, sudden changes in water table or ground level may cause trees to die during one to three years following disturbance. Thus, where digging or grading is necessary, trees should be removed or provided with wells to minimize the effect of the change in grade near the trunk and feeder root system. It should be possible to concentrate areas of construction activity and preserve clumps of trees. This clumping pattern minimizes the risks to trees in those areas to be most heavily developed.

A major portion of the site is listed by the U.S.D.A. Soil Conservation Service as being prime agricultural soils. A law passed in May 1978, allows owners of prime agricultural lands to sell their development rights for such lands to the State. The purpose of this law is to prevent development on land which has a high potential for providing food to the people of Connecticut. Fifty acres of the proposed subdivision are prime agricultural lands and thus eligible for consideration in this program. Property owners may wish to consider an alternative to development which would allow for protection of these resources.

#### VEGETATION TYPE SUMMARY

SECTION A: Red maple swamp, pole-sized dense, approximately 10 acres. Alder, ferns, and jewelweed occur in patches.

SECTION B: Old field vegetation, approximately 10 acres. Steeplebush, goldenrod, strawberry, ferns and morning glory predominate. Patches of alder, sedge, and cattails occur in the wetter areas. Red maple seedlings are becoming established in adequate numbers to fully stock the site within ten years.

SECTION C: Oak/pine forest, sapling size, dense, approximately 10 acres. A mixture of white pine, pitch pine, red oak, black oak and white oak form a sufficiently dense overstory so that little herbaceous cover occurs.

SECTION D: Oak/pine forest, small sawlog size, dense, approximately 10 acres. White pine, red oak, black oak, and white oak form a pleasantly shaded open forest floor. Several shade tolerant perennials, ferns, poison-ivy, and tree seedlings are common. Removal of any of the overstory trees will result in a profusion of hardwood brush and poison ivy. Two herbicide applications on the poison ivy prior to the clearing of houselots are recommended.

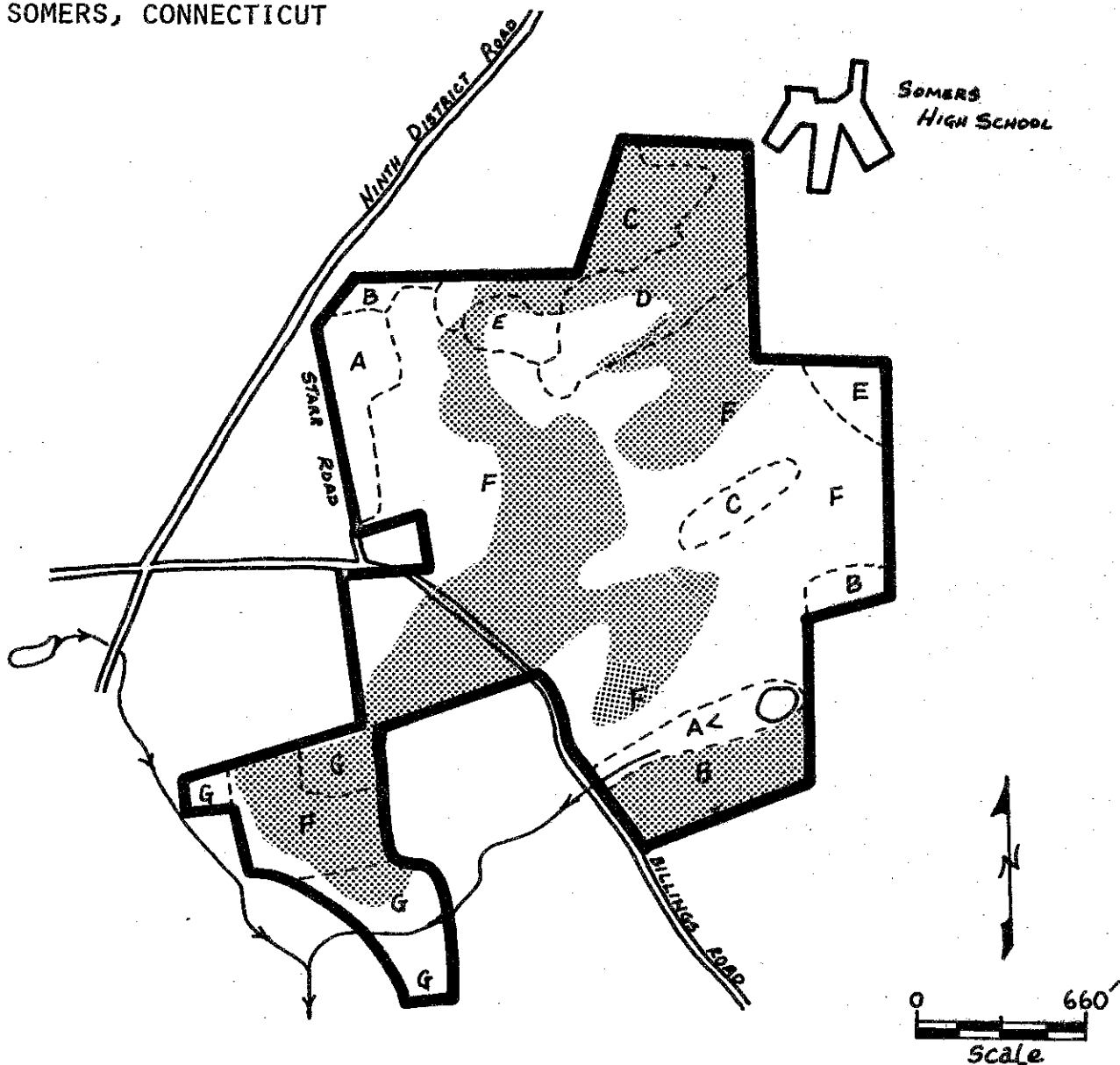
SECTION E: White pine, small sawlog size, dense, approximately 4 acres. A nearly pure white pine stand creates conditions very similar to Section D. The same problem with poison ivy should be anticipated.

SECTION F: Cropland, approximately 63 acres. Planted mostly to corn, this area includes most of the prime farmland on the site. In view of the productivity of the soil, it would be appropriate to reserve this land for agriculture.

SECTION G: Trembling aspen/oak/pine stand, pole and sapling sizes, dense, approximately 8 acres. Trembling aspen overtops the mixed red oak, white oak and white pine stratum. Ferns are the predominate herbaceous cover, and occur in patches.

# VEGETATION MAP

BURR PROPERTY  
SOMERS, CONNECTICUT



prepared by T.C. Hawley, July, 1978

## VEGETATION TYPES

- A. Red maple, pole size, dense, 10 acres
- B. Steeplebush, goldenrod, ferns, 10 acres
- C. Oak-pine, sapling size, dense, 10 acres
- D. Oak-pine, small sawlog size, dense, 10 acres
- E. White pine, small sawlog size, dense, 4 acres
- F. Cropland, 63 acres
- G. Trembling aspen-oak-pine, pole & sapling, dense, 8 acres

## LEGEND:

- Road
- Stream
- Open Water
- Property Line
- Type Boundary
- Prime Farmland (Defined by U.S.D.A.)

## SOILS

A detailed soils map of this site is included in the Appendix to this report, accompanied by a chart which indicates soil limitations for various urban uses. As the soil map is an enlargement from the original 1,320'/inch scale to 660'/inch, the soil boundary lines should not be viewed as absolute boundaries, but as guidelines to the distribution of soil types of the site. The soil limitation chart indicates the probable limitations for each of the soils for on site sewage disposal, buildings with basements, streets and parking, and landscaping. However, limitations, even though severe, do not preclude the use of the land for development. If economics permit large expenditures for land development and the intended objective is consistent with the objectives of local and regional development, many soils and sites with difficult problems can be used. The soils map, with the publication Soil Survey: Tolland County, Connecticut, can aid in the identification and interpretation of soils and their uses on this site. Know Your Land: Natural Soil Groups For Connecticut can also give insight to the development potentials of the soils and their relationship to the surficial geology of the site.

Soils typical of the Burr property include the Manchester series, the Enfield series, the Ellington series, the Hartford series, the Walpole series and the Narragansett series. The majority of these soils are terrace soils which occur above flood plains in river valleys. They are typically underlain by water deposited beds of sand or sand and gravel. Development limitations are related to slope, large stones, wetness, and frost action.

The Manchester soils (MgC, MhC) are droughty, excessively drained soils which are rapidly to very rapidly permeable. They are gravelly sandy loam (MgC) and gravelly loamy sand (MhC) soils. Depth to loose sand and gravel usually varies from 8-18 inches. They are found on 3-15 percent slopes. Development problems are related to slope and droughtiness.

The Enfield (EtB) soil has very irregular slopes from 3-15 percent. It is a silt loam soil from 8 to 18 inches in depth. It is excessively drained and requires erosion control on steeper slopes. Slope and frost action may cause moderate restrictions in development on these soils.

The Ellington (EfA) soil is moderately well drained and is usually found on nearly level terraces. A seasonally high water table restricts internal drainage, causing development limitations through wetness and frost action.

The Hartford soils (HdA, HdB) are well drained to excessively well drained. They are fine sandy loam soils found on 0-3 percent (HdA) and 3-8 percent (HdB) slopes. They are moderately permeable and have high moisture holding capacity. They were formed in sandy and gravelly fluvial deposits mainly from reddish Triassic rocks. Major development limitations are related to slope and droughtiness.

The Walpole series (Wd) consists of deep, poorly and somewhat poorly drained soils formed in glacial drift derived mainly from crystalline rocks. They are nearly level to gently sloping soils in low-lying wet areas on terraces. They limit development by their wetness and susceptibility to frost action.

The Narragansett (NaB) soil is found on 3-8 percent slopes. It is a well-drained silty loam over friable to firm glacial till. It is moderately permeable and easily eroded in unprotected areas. Major development limitations are related to slope and large stones.

Approximately 50 acres of the site have few, if any, limitations to urban development including septic tank filter fields. These deep well-drained soils are moderate to highly permeable with moderate to rapid percolation rates. Surface water runoff should not pose flooding problems. Where Concord Terrace is proposed to cross a natural ravine, the road should be kept as close to the top of the slope as possible to reduce the hazard of erosion. If it is necessary to construct the roadway lower on the slope, more extensive engineering will be required. These soils are droughty and establishment of ground cover will be more difficult on sloping areas.

Approximately 50 acres of this parcel contain soils which are defined by the USDA Soil Conservation Service as being prime farmland. These soils are suitable for the most intensive farming practices having few limitations for these uses. They are located in areas presently utilized for the production of silage corn and along the northerly border in an area presently wooded. Soils defined in the National Cooperative Soil Survey as being prime farmland and present on this site include Agawam, Enfield, Hartford, Narragansett and Windsor soils. There is a program run by the State of Connecticut, Department of Agriculture, to preserve these lands by purchasing the development rights through a purchase fee arrangement to ensure their preservation for agricultural uses. Additional information on this subject may be obtained from the State of Connecticut Commissioner of Agriculture.

An on-site investigation was conducted on June 14, 1978 to flag the limits of the wetlands on the parcel. The wetlands on the parcel south of Billings Road were not delineated in the field. The wetland area along Ninth District Road is not as extensive as indicated by the soil survey. Placement of a roadway through this area should not have a significant impact on the wetland area or pose special engineering problems during construction.

Most of the soils on the site are naturally erosive. This should be taken into account during development. Loss of vegetative cover during development will increase the hazard of erosion and sedimentation. Temporary seedings should be established as soon as possible following excavations. Clearing of existing vegetation should be done in a timely manner so bare areas are not exposed for long times prior to construction. Due to the natural topography of Lots 1, 5, 7, 8, 12 and 23, special attention to surface water runoff may be necessary.

It is suggested that the developer use the Erosion and Sediment Control Handbook published in 1976 by the USDA Soil Conservation Service as a guide in developing a plan to minimize erosion problems associated with development.

#### WATER SUPPLY

It is recommended that wells on the property be finished in bedrock rather than the overlying stratified drift to minimize the chances of effluent contamination. Although the yields from the bedrock are likely to be significantly smaller than those possible from the stratified drift, bedrock yields should be more than

adequate for most household needs. Connecticut Water Resources Bulletin No. 25 contains records of 33 wells in the town of Somers that were finished in bedrock similar to that underlying the Burr property. No well provided less than 3 gallons per minute, and 24 wells provided 10 gallons per minute or more. Only two of the 22 domestic-supply wells in the group of 33 were deeper than 200 feet.

Water quality was reported to be poor or very hard in some locations, probably as a result of high iron or other mineral concentrations within the rock. Because the stratified drift was derived largely from these rocks, it too would be likely to have some mineral problems. Filtration may therefore be necessary for water supplied by some of the wells in the development.

Some concern was expressed at the pre-review meeting about the potential effect of the proposed development on the local stratified drift aquifer. These aquifers are important as possible sources of large groundwater yields, whether for public or industrial supply. Certainly the development will do nothing to enhance the quality of the groundwater in the stratified drift, but it is unlikely that the effect would be severe or crucial to future town needs. Stratified drift is extensive in the Town of Somers; most of the eastern half of the Town is covered by this material. The suitability of any particular site for establishing a high-yield well depends upon the grain size and thickness of the deposit at that location, as well as other hydrologic factors. Not all of the stratified drift would be useful in this capacity. Nevertheless, it is likely that many areas in Somers could serve as the site for a high-yield well, so that the presently proposed development should not prove to be critical. It should also be noted that relatively large yields (greater than 200 gallons per minute) have been obtained from deep bedrock wells in the town. This type of well, however, is very expensive.

Although the proposed development is not expected to have serious effects on groundwater availability within the town of Somers, it is clear that continued development of the aquifer zone could ultimately damage this valuable resource. The town may wish to consider a planning approach based on limiting growth in the aquifer region.

## WASTE DISPOSAL

On-site waste disposal systems are proposed for the entire subdivision.

Few areas seem to exist on the property where septic systems could not function well. Most lots avoid soils with seasonably high water tables, and the sandy substrata should allow abundant aeration of effluent. Some chemical contamination of the groundwater, as with nitrate, is likely to occur, but the degree of such contamination and its effect upon drinking-water supplies cannot be predicted with much certainty. Nitrates are produced in the soil around otherwise properly functioning septic systems, and their concentrations in the groundwater can generally be lowered only by dilution. In turn, the amount of dilution that occurs depends upon several factors, including local precipitation, the extent of the groundwater recharge area, the density of disposal units, the distance of the units from water-supply wells, and the depth of the wells. The hydrology of the Burr property and its environs is not known in detail, nor is the movement of chemical contaminants through groundwater fully understood. It can be stated, however, that the relatively large size of many of the proposed lots will diminish the potential adverse effects of effluent on drinking-water supplies. It is also probably safe

to assume that the prospects of well contamination will be decreased by finishing the wells in bedrock or in the lower part of the stratified drift layer, and casing most of the upper section.

In general, Lots #2 (area of pit 2b), 4, 6, 7, 11, 12, 13, 14, 15, 16, 18, 19, 20, 23, 25, 26, 27, 29, 34, 39, 40, 42, 43, 44, 46, 47 (area of pit 47b), 48 (area of pit 48b), 49 (H<sub>2</sub>O at 40"), 54 (area of pit 54b), were found to be acceptable by the State Department of Health, however, the percolation rates in this group range from less than one minute per inch to five minutes per inch. It is the policy of the North Central Regional Office of the State Department of Health to recommend increased separation distances from wells to septic systems in soils with rapid percolation rates. Generally, 100 feet is recommended (it should be noted that the code requirement is a minimum of 75 feet).

Lots 1, 3, 5, 9, 10, 14, 21, 22, 24, 35, 37, and 45 are of special concern as they have percolation rates of less than one minute per inch.

The proposed public health code regulations pertinent to subsurface sewage disposal and water supply deal with the subject of soils with rapid percolation rates. Using this as a guideline, all areas with percolation rates less than 1 min/inch should be designed so that the septic system is at least 150 ft. from all private wells drawing under 10 gallons/minute and 10 feet from the bottom of the system to ledge. This is made purely as a recommendation by the State Department of Health, it is not meant to infer that this is a code requirement as the regulation has not been formally approved and adopted at this date.

Areas which show slow percolation rate or high groundwater conditions are included in Lots 8, 30, 31, 32, 33, 50, 51, and 52. High groundwater is evidenced by soil mottling on these lots. Engineered septic system design should be required in these areas.

#### NATURAL HAZARDS

The small pond adjacent to Abbey Brook, although shallow, will create a safety hazard to young children. The pond will probably contribute to the mosquito population as will most wetland areas. This should not present itself as a major problem as few lots would be affected.

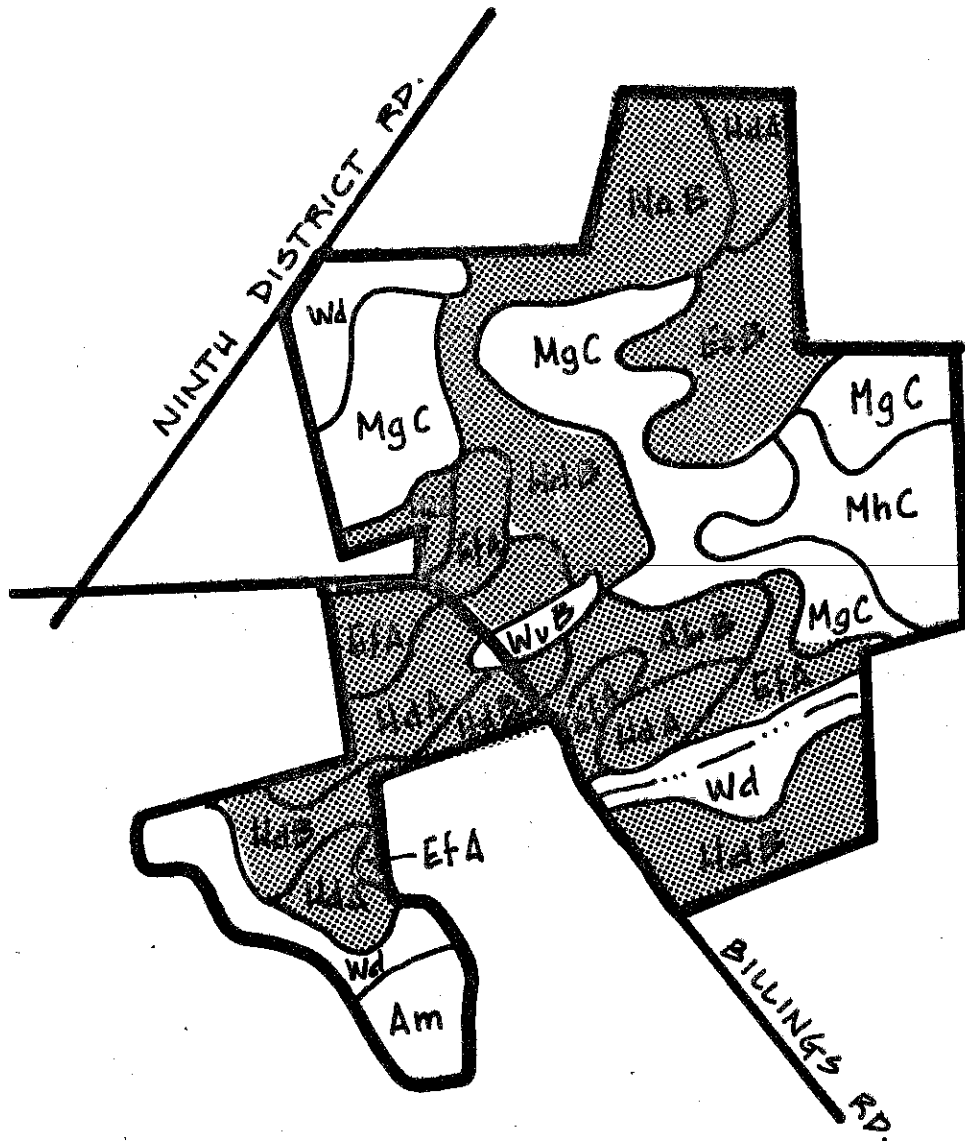
The pond could remain intact and be considered part of the natural streambelt corridor which exists along Abbey Brook, or it could be filled in, eliminating the hazard of relatively deep water to young children. A third alternative might be to partially fill it creating more of a marshy area, with two to three feet of water. This would make it more attractive to wildlife once vegetation became established. However, it would produce more mosquitos and less desirable wildlife such as snakes.

#### RECREATION POTENTIAL

The Town of Somers Subdivision Regulations (Section 2.08) may require up to 10% of the total acreage of a proposed subdivision to be preserved for open space and recreational uses. The developer and landowner propose to donate the streambelt area adjacent to Abbey Brook as an open space area. This section of the site



# SOIL CAPABILITY FOR RECREATIONAL PURPOSES



SOILS MOST SUITABLE FOR INTENSIVE RECREATIONAL USE



SOILS UNSUITABLE FOR EXTENSIVE RECREATIONAL USE

includes wet and moderately well drained soils. The Town, however, is most interested in areas which are suitable for organized sports and in the proximity of existing Town owned lands.

The area adjacent to the school complex would meet the Town's requirements, but it is also land which is excellent for development. Slopes vary from 0 to 5%. Soils are well drained and contain few surface stones. Some grading would be necessary to develop ball fields or court areas. The droughty nature of these soils makes establishment of high quality turf difficult. Irrigation would probably be necessary during the late spring and summer months to ensure turf vigor.

Acquisition of this area by the Town would require a change in the proposed road location and lot configuration, here. The location of the open space area which the developer has proposed would not be suitable for organized sports. It would be suitable, however, for passive recreation and would provide a buffer between the development and Abbey Brook. This buffer or streambelt would help maintain stream quality, allow for some natural flooding and provide wildlife habitat. Utilization of this area as open space would not require changes in the proposed subdivision plan.

Town needs for recreation should determine the choice of land to be dedicated for open space by the developer. Existing facilities and location of facilities are important considerations as well as long term costs for developing these areas into usable recreation sites.

#### ROADS/TRAFFIC CONSIDERATIONS

Capitol Region Council of Governments (CROCG) staff estimates that approximately 375 trips per day will be generated from the proposed units and one of the two peak transportation periods will coincide with the heavy traffic load generated by the start of the school day. As a result, a number of considerations should be made. First, the proximity to Somers High School must be recognized. If children arrive by foot or bicycle, sidewalk or bike path provisions should be made to separate their transportation routes from the auto and school buses. Also, consideration should be made for providing an easement or right-of-way to allow children in the proposed subdivision to walk or bike to the High School. Three intersections in close proximity to the proposed subdivision should be considered to assure that no geometric safety hazards are present. These are the intersections of Billings and Ninth District Road, Billings and Fields Road and Ninth District Road and Route 190. Proposed access to the sites west of Billings Road and the right-of-way proposed off Billings Road going east should be considered for sight distance as visibility appears to be short, frequently under 150 feet. The developer may wish to consider moving the interior lot access road to the east or perhaps regrading the small hill on the southwest side of Billings Road to allow for a longer distance of visibility. Regrading of this hill would no doubt be the safer alternative, as five private driveways will also have to enter Billings Road from this location on the curve. Drives for Lots 50, 51 and 52 would be virtually blind without some type of regrading work in this area.

1975 LAND USE BY CATEGORY

TOWNS	RESIDENTIAL				TOTAL	COMMERCIAL	INDUSTRIAL	OPEN AREA	UTILITIES TRANS	INSTITUTIONAL	RECREATIONAL	AGRICULTURAL	UNDEVELOPED	WATER	SLOPE ABOVE 20%	WETLANDS	ACRES	TOTAL MILES
	HIGH	MEDIUM	LOW	TOTAL														
ANDOVER	0	366	530	896	19	13	195	24	15	78	752	6,085	188	474	1,321	10,010	15.64	
AVON	116	3,035	447	3,598	168	150	167	0	187	795	1,353	5,972	447	1,340	818	14,995	23.43	
BLOCHFIELD	140	3,061	413	3,614	221	889	62	87	367	1,357	3,366	4,192	193	881	1,617	16,846	26.32	
BOLTON	0	750	404	1,154	51	69	17	107	51	288	1,315	4,362	223	619	1,177	9,433	14.74	
CANTON	33	1,461	1,106	2,600	75	117	1	25	52	280	892	7,229	397	3,885	884	16,117	25.18	
EAST GRANBY	60	566	324	950	57	6	199	509	83	86	2,759	3,547	93	1,124	1,840	11,253	17.58	
EAST HARTFORD	1,085	3,319	0	4,404	326	1,256	6	720	295	662	670	1,913	462	0	1,312	12,026	18.79	
EAST WINDSOR	10	539	698	1,247	141	77	56	155	96	98	8,052	4,530	338	260	2,034	17,084	26.69	
ELLINGTON	14	2,134	249	2,397	66	19	130	178	74	282	5,388	9,356	406	646	2,630	22,173	34.65	
ENFIELD	30	4,616	523	5,169	375	250	117	241	391	855	5,546	5,297	552	162	2,990	21,915	34.25	
FARMINGTON	224	2,768	1,244	4,236	340	409	516	390	207	2,154	1,155	5,625	687	452	2,250	18,422	28.78	
GLASTONBURY	102	4,274	915	5,291	186	228	280	610	187	1,440	4,509	15,005	714	2,115	2,883	33,450	52.27	
GRANBY	0	1,238	1,200	2,438	79	0	161	0	69	133	4,121	13,876	123	3,081	2,190	26,271	41.04	
HARTFORD	1,520	2,417	0	3,937	1,907	913	98	823	1,180	1,096	65	944	430	0	142	11,535	18.02	
HEBRON	47	1,140	623	1,810	42	8	22	44	51	296	3,239	13,784	357	635	3,604	23,892	37.33	
MANCHESTER	3,585	1,640	338	5,563	394	569	490	456	320	1,517	1,513	5,493	139	1,176	1,176	17,708	27.67	
MARLBOROUGH	27	853	697	1,577	39	7	65	307	14	283	813	9,475	59	1,115	1,277	15,031	23.49	
NEWINGTON	218	3,007	42	3,267	251	865	359	139	408	311	450	1,490	6	114	751	8,411	13.14	
ROCKY HILL	220	1,499	47	1,766	199	258	115	267	228	399	2,365	2,225	275	19	692	8,808	13.76	
SIMSBURY	69	5,115	946	6,130	232	131	44	72	368	1,502	2,922	7,145	344	1,507	1,560	21,957	34.31	
SOMERS	30	1,220	1,034	2,294	60	33	178	0	209	123	5,461	6,563	120	804	2,452	18,394	28.75	
SOUTH WINDSOR	94	3,083	95	3,272	157	496	217	153	182	436	11,444	5,682	483	0	3,067	18,344	28.66	
SUFFIELD	12	1,347	921	2,280	35	183	47	517	66	83	1,950	15,332	530	1,089	5,228	27,653	43.20	
TOLLAND	17	1,811	1,150	2,978	30	117	170	235	208	361	527	3,952	288	607	724	11,578	18.09	
VERNON	307	3,676	251	4,234	327	167	46	137	1,193	1,271	100	2,397	297	0	246	14,306	22.34	
WEST HARTFORD	111	7,203	206	7,520	817	246	15	204	1,193	1,271	100	2,397	297	0	246	14,306	22.34	
WETHERSFIELD	80	3,483	7	3,570	275	182	0	283	397	652	778	662	576	0	1,040	8,415	13.15	
WINDSOR	196	3,767	201	4,164	224	459	134	330	367	995	5,200	5,499	1,210	279	1,053	19,914	31.13	
WINDSOR LOCKS	15	1,702	0	1,717	239	287	0	1,530	320	165	460	950	186	0	153	6,007	9.38	
CAPITOL REGION																		
ACRES	8,362	71,090	14,611	94,063	7,334	8,404	3,857	8,543	7,708	18,386	82,943	173,446	10,613	22,082	50,288	487,667	761.98	
MILES*	13.07	111.08	22.83	146.57	11.46	13.13	6.03	13.35	12.04	28.73	129.60	271.01	16.58	34.50	78.58			

\*Figures may not add due to rounding.  
Sources: CRCOG 1975 Land Use Analysis.

## LAND USE/SOCIO-ECONOMIC CONDITIONS

Greater than sixty percent of the land area in Somers is in agricultural use or is undeveloped. Undeveloped land encompasses open lands, forested areas and inactive sand and gravel pits and quarries. Wetlands and existing residential development each cover roughly twelve percent of the Town of Somers (see accompanying chart).

Somers plan of development includes extensive residentially zoned acreage. This proposed subdivision lies in an area zoned for single family or duplex residential use, with a minimum lot requirement of 40,000 square feet per unit. Two industrial zones exist shortly to the east along Fields Road. Somers' plan of development concentrates commercial and industrial expansion to the northeast and south of the town center, the southern extension being just east of the site.

The proposed subdivision is approximately one mile southwest of the center of Somers and one and one-half miles southeast of Somersville.

The 1977 estimated population of Somers was 7,100 and the 1978 estimate of housing units was 2,340. The town experienced a 33% increase in housing units between 1970 and 1977. The units were almost exclusively single family units. The population increase was 3% for this same time period.

## COMPATIBILITY WITH SURROUNDING LAND USES

The proposed project would not displace or require the taking of any residential, commercial or industrial uses. It would require the taking of active prime agricultural land. The project is located in an area of convenient access to two commercial centers and to higher population sections of Somers. The proximity of the site to Somers High School will permit an exchange of recreational uses. The proposed subdivision provides for a donation of an estimated 6 acres of wetlands and open lands to the Town of Somers, permitting flexibility on active and passive recreation sites for the town.

## AESTHETICS AND PRESERVATION

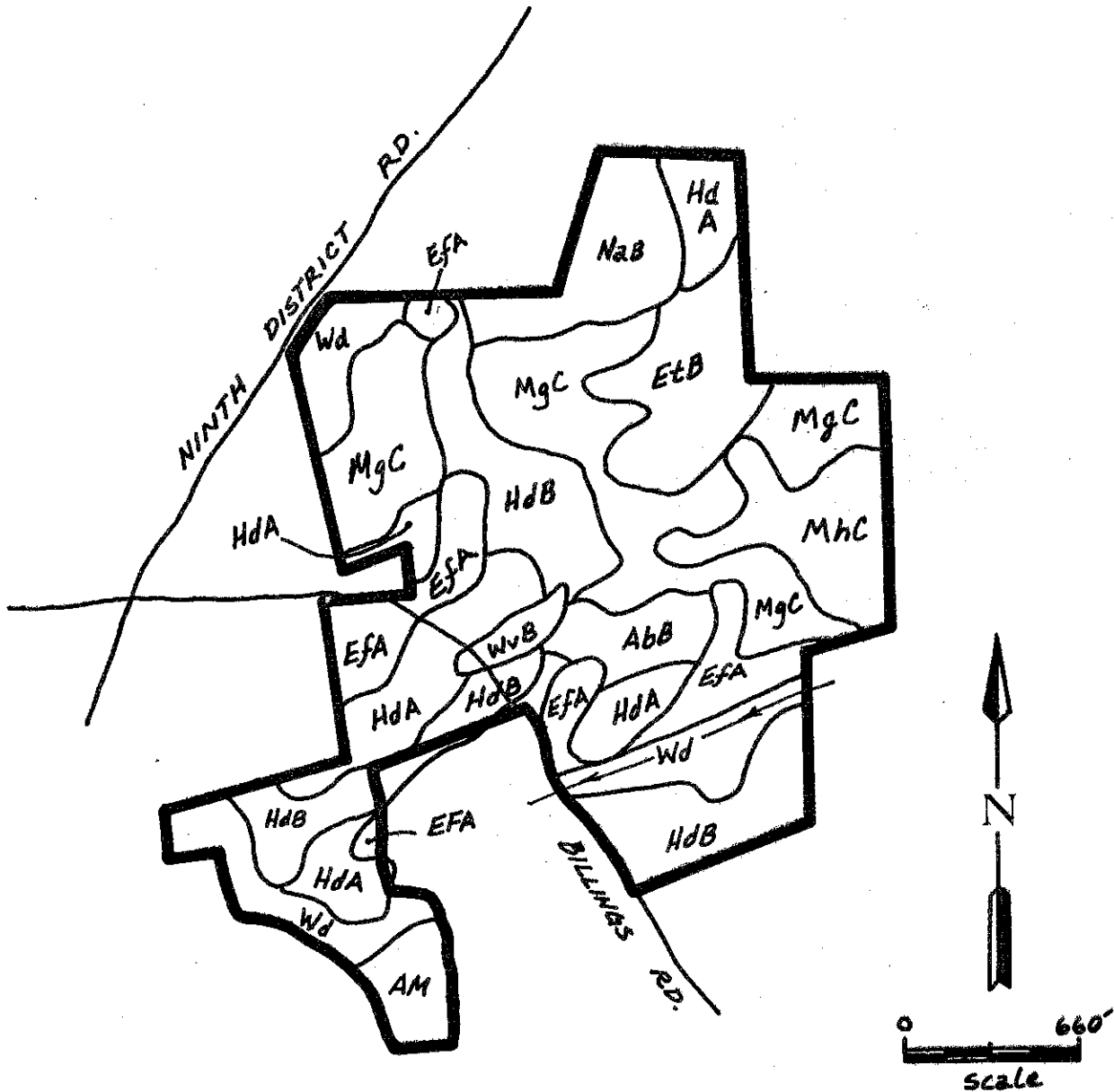
Advantage should be taken of the site's natural drainage pattern and vegetative cover. Proposed development activities should recognize the favorable soils for residential development with septic systems, and the role of the configuration of the land and the vegetation in maintaining adequate drainage. Consideration and support should be given to protecting identified inland wetlands and flood-prone areas as a design element, an efficient natural drainage resource and an environmental attribute of the site.



# Appendix

# SOILS MAP

BURR SUBDIVISION  
SOMERS, CONNECTICUT



Information taken from: Soil Survey, Tolland County, Connecticut, 1961; Soil Survey Sheet No. 7; prepared by United States Department of Agriculture, Soil Conservation Service, Advance Copy, subject to change.

SOILS DATA FOR

BURN PROPERTY -- NORTH PARCEL

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series and Map Symbol	Approx. Acres	Approx. % of Total Acres	Principle Limiting Factor	Land Use Limitations				
				Septic Tank Filter Field	Homes With Basements	Streets & Parking Lots	Lawns And Landscaping	
**Agawam, AbB	4.7	5.3	-	Slight	Slight	Slight	Slight	Slight
Ellington, Efa	10.3	11.6	Wetness	Severe	Severe	Severe	Severe	Slight
**Enfield, EtB	8.1	9.9	-	Slight	Slight	Slight	Slight	Slight
**Hartford, HdA	7.8	8.8	Droughty	Slight	Slight	Slight	Slight	Moderate
**Hartford, HdB	7.5	8.5	Droughty	Slight	Slight	Slight	Slight	Moderate
Manchester, MgC	23.8	26.8	Small Stones, Droughty, Slope	Moderate	Moderate	Moderate	Moderate	Severe
Manchester, MhC	8.8	9.9	" "	Moderate	Moderate	Moderate	Moderate	Severe
**Narragansett, NdB	7.8	8.8	Frost Action	Slight	Slight	Slight	Moderate	Slight
*Swarboro, Sf	1.3	1.5	Wetness	Severe	Severe	Severe	Severe	Severe
*Walpole, Wd	7.8	8.8	Wetness	Severe	Severe	Severe	Severe	Severe
**Windsor, WvB	<u>1.3</u>	1.5	Droughty	Slight	Slight	Slight	Slight	Severe
Total	71.6							

\*Inland Wetlands as defined by P.A. 155 as amended

\*\*Prime Farmlands as defined by the USDA National Cooperative Soil Survey



SOILS DATA FOR

BORE PROPERTY -- SOUTH PARCEL

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series and Msp Symbol	Approx. Acres	Approx. % of Total Acres	Principle Limiting Factor	Land Use Limitations				
				Septic Tank Filter Field	Houses With Basements	Streets & Parking Lots	Lawns And Landscaping	Severe
*Alluvial Land, Am	0.3	1.1	Subject to Flooding	Severe	Severe	Severe	Severe	Severe
Ellington, Efa	5.3	20.0	Wetness	Severe	Severe	Severe	Slight	Slight
**Hartford, Hda	7.5	28.3	Droughty	Slight	Slight	Slight	Slight	Moderate
**Hartford, Hdb	5.0	18.9	Droughty	Slight	Slight	Slight	Slight	Moderate
*Peat & Muck, Pa	7.8	29.4	Vet <sup>1</sup>	Severe	Severe	Severe	Severe	Severe
**Windsor, Wvb	<u>0.6</u>	2.3	Droughty	Slight	Slight	Slight	Slight	Severe
<b>Total</b>	<b>26.5</b>							

\*Inland Wetlands as defined by P.A. 155 as amended

\*\*Prime Farmlands as defined by the USDA National Cooperative Soil Survey

<sup>1</sup>See attached Flood Hazard Boundary Map H, Town of Somers, CT

## SOIL INTERPRETATIONS FOR URBAN USES

The ratings of the soils for elements of community and recreational development uses consist of three degrees of "limitations:" slight or no limitations; moderate limitations; and severe limitations. In the interpretive scheme various physical properties are weighed before judging their relative severity of limitations.

The user is cautioned that the suitability ratings, degree of limitations and other interpretations are based on the typical soil in each mapping unit. At any given point the actual conditions may differ from the information presented here because of the inclusion of other soils which were impractical to map separately at the scale of mapping used. On-site investigations are suggested where the proposed soil use involves heavy loads, deep excavations, or high cost. Limitations, even though severe, do not always preclude the use of land for development. If economics permit greater expenditures for land development and the intended land use is consistent with the objectives of local or regional development, many soils and sites with difficult problems can be used.

### Slight Limitations

Areas rated as slight have relatively few limitations in terms of soil suitability for a particular use. The degree of suitability is such that a minimum of time or cost would be needed to overcome relatively minor soil limitations.

### Moderate Limitations

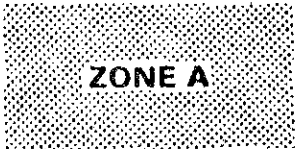
In areas rated moderate, it is relatively more difficult and more costly to correct the natural limitations of the soil for certain uses than for soils rated as having slight limitations.

### Severe Limitations

Areas designated as having severe limitations would require more extensive and more costly measures than soils rated with moderate limitations in order to overcome natural soil limitations. The soil may have more than one limiting characteristic causing it to be rated severe.

**LEGEND**

**SPECIAL FLOOD HAZARD  
AREA**



**ZONE A**

Note: These maps may not include all Special Flood Hazard Areas in the community. After a more detailed study, the Special Flood Hazard Areas shown on these maps may be modified, and other areas added.

CONSULT NFIA SERVICING COMPANY OR LOCAL INSURANCE AGENT OR BROKER TO DETERMINE IF PROPERTIES IN THIS COMMUNITY ARE ELIGIBLE FOR FLOOD INSURANCE.

INITIAL IDENTIFICATION DATE:  
**AUGUST 2, 1974**

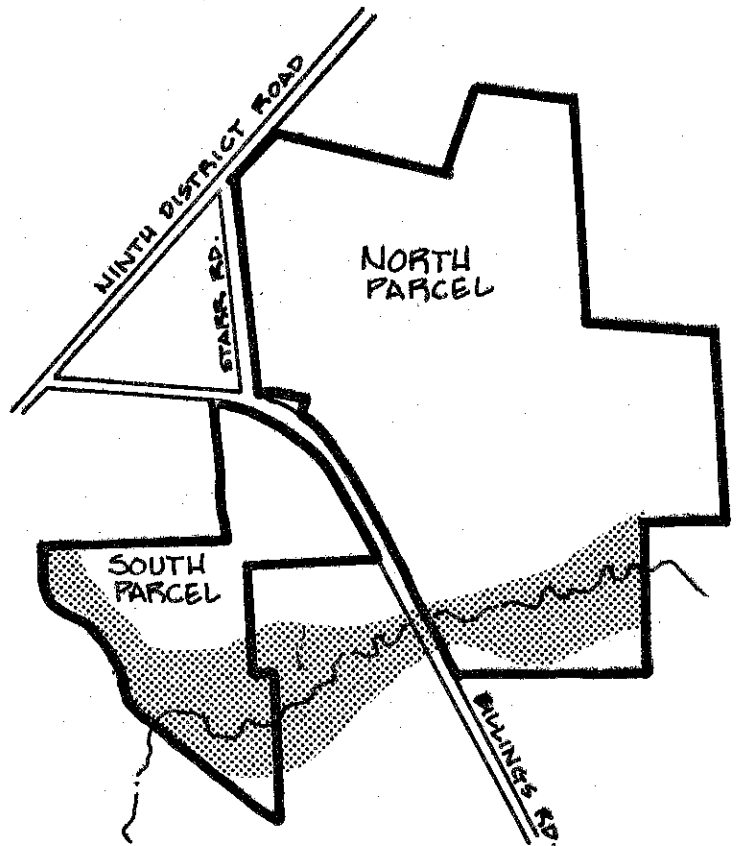
REVISION DATES:  
12/3/76 : SHOW CURVILINEAR BOUNDARY, ADD SFHA,  
REDUCE SFHA.

**DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**  
Federal Insurance Administration

**FLOOD HAZARD BOUNDARY MAP H - 01-14**

**MAP INDEX**  
**TOWN OF SOMERS, CT**  
(TOLLAND CO.)

**COMMUNITY NO. 090112A**



# About the Team

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state, and regional agencies. Specialists on the Team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, archeologists, recreation specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area.

The Team is available as a public service at no cost to Connecticut towns.

## PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, sanitary landfills, commercial and industrial developments, sand and gravel operations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

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 project site and highlighting opportunities and limitations for the proposed land use.

## REQUESTING A REVIEW

Environmental reviews may be requested by the chief elected officials of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the Chairman of your local Soil and Water Conservation District. This request letter should include a summary of the proposed project, a location map of the project site, written permission from the landowner allowing the Team to enter the property for purposes of review, and a statement identifying the specific areas of concern the Team should address. When this request is approved by the local Soil and Water Conservation District and the Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information regarding the Environmental Review Team, please contact Jeanne Shelburn (889-2324), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360.