

Environmental Review Team Report

Breslin Subdivision

Old Lyme, Connecticut



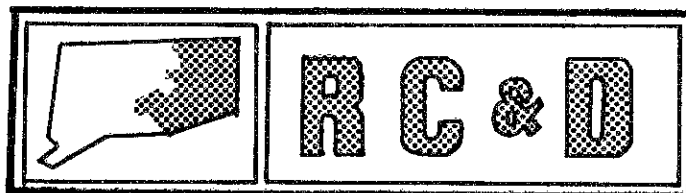
EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team
Report

on

Breslin Subdivision
Old Lyme, Connecticut

August 1978

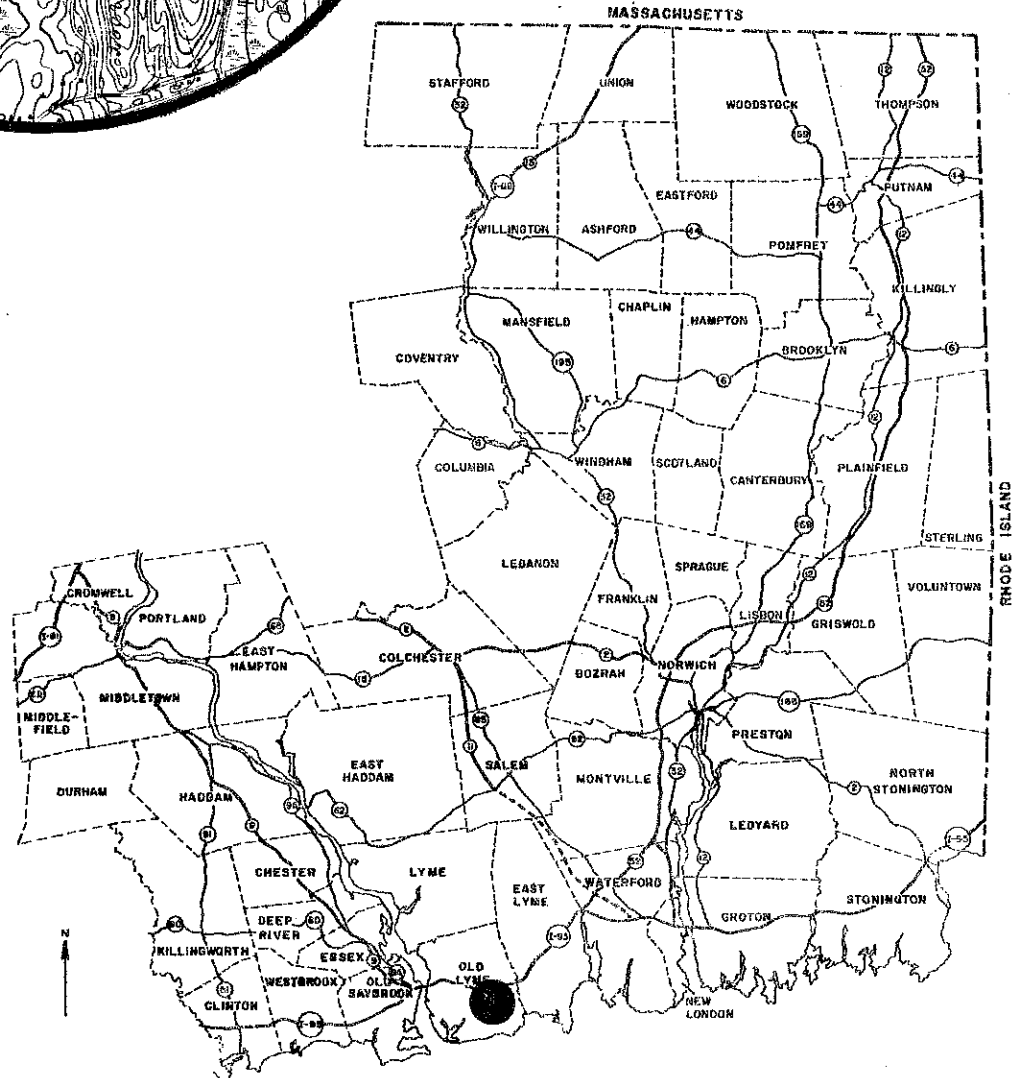


eastern connecticut resource conservation & development area

environmental review team
139 boswell avenue
norwich, connecticut 06360

Location of Study Site

BRESLIN SUBDIVISION
OLD LYME, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
BRESLIN SUBDIVISION
OLD LYME, CONNECTICUT

This report is an outgrowth of a request from the Old Lyme Planning Commission to the New London 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 as a project measure. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist of the United States Department of Agriculture (USDA), Soil Conservation Service (SCS). Reproductions of the soil survey map as well as a topographic map of the site were distributed to all ERT participants prior to their field review of the site.

The ERT that field checked the site consisted of the following personnel: Mark Traceski, Soil Conservationist, Soil Conservation Service (SCS); Mike Zizka, Geologist, Department of Environmental Protection (DEP); Tim Hawley, Forester (DEP); Donald Capellaro, Sanitarian, State Department of Health; Ed Meehan, Regional Planner, Connecticut River Estuary Regional Planning Agency; and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field checked the site on Thursday, July 13, 1978. Reports from each Team member were sent to the ERT Coordinator for review and summarization for the final report.

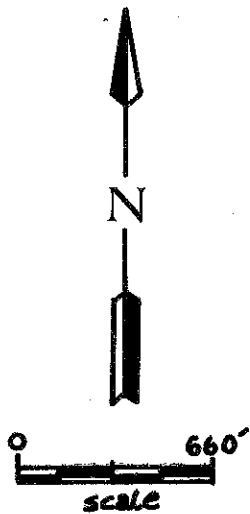
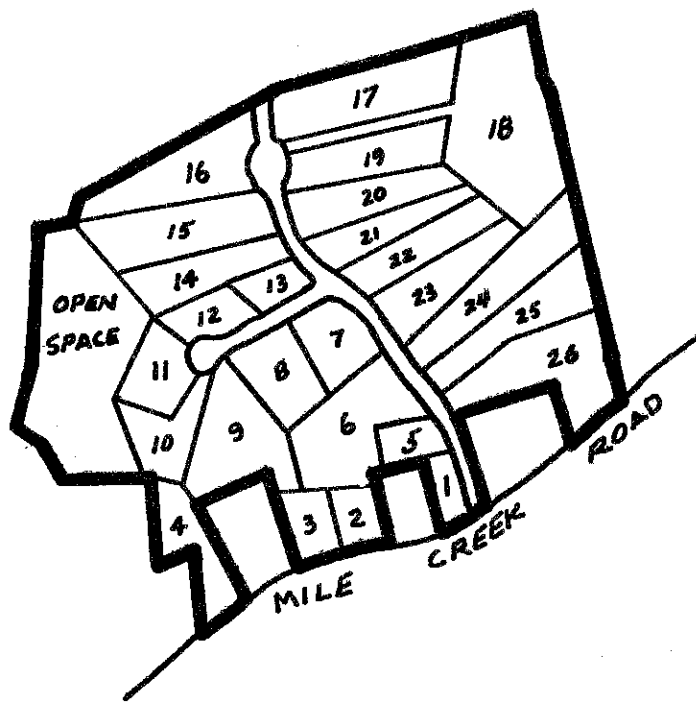
This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. This report identifies the existing resource base and evaluates its significance to the proposed development and also suggests considerations that should be of concern to the developer and the Town of Old Lyme. 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 Project Committee hopes you will find this report of value and assistance in making your decisions on 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.

PRELIMINARY SUBDIVISION PLAN

BRESLIN SUBDIVISION
OLD LYME, CONNECTICUT



ALL LOT LINES SHOWN ARE APPROXIMATE.

INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to review a 60 acre parcel for proposed subdivision in the Town of Old Lyme. The parcel is currently in the private ownership of Thomas J. Breslin, Inc., of Deep River. Preliminary plans have been drawn by Radcliffe Engineering.

The site is located to the north of Mile Creek Road and east of Brown's Lane. It is currently wooded with a lush growth of greenbrier as groundcover. The most notable features of the property are Armstrong Brook and its associated wetlands on the western side of the property, the intermittent watercourse and related wetlands along the eastern side of the property, the numerous large boulders in the central portion of the site, the bedrock outcrops in the western section of the site, and the steeply sloping terrain to the west which descends into the Armstrong Brook wetland area.

The preliminary proposal indicates that the property will be subdivided into 26 lots of one acre or more. Single family dwellings will be established on these lots which will be served by on-site sewage disposal and on-site wells. A single access road, with two cul-de-sacs, is proposed to extend from Mile Creek Road into the subdivision. The rough grading for this road had been established by the date of the field review and appeared to have a slope of 10% in most areas. This grading process also revealed the exceptionally stony nature of the soil on this site. Boulders in excess of four feet in diameter lined this roadway on the date of the field review. The subdivision proposal also includes a 5+ acre area along Armstrong Brook to be donated to the Town as open space. Radcliffe Engineering asserts that the preliminary design was influenced by location of inland wetlands on the site, topographic and subsurface conditions.

The Team is concerned primarily with the steep slopes, numerous boulders and shallow-to-bedrock soils on this site. These factors may present problems for installation and proper functioning of on-site sewage disposal systems. After development there may be a considerable increase in run-off on the eastern portion of the site; this should be kept in mind when designing the surface drainage system and erosion control plan for this subdivision. The proposed dead end roads in this development and the possible necessity of widening Mile Creek Road are also valid concerns that the Planning Commission may wish to consider before approving the final plans for this subdivision.

ENVIRONMENTAL ASSESSMENT

GEOLOGY

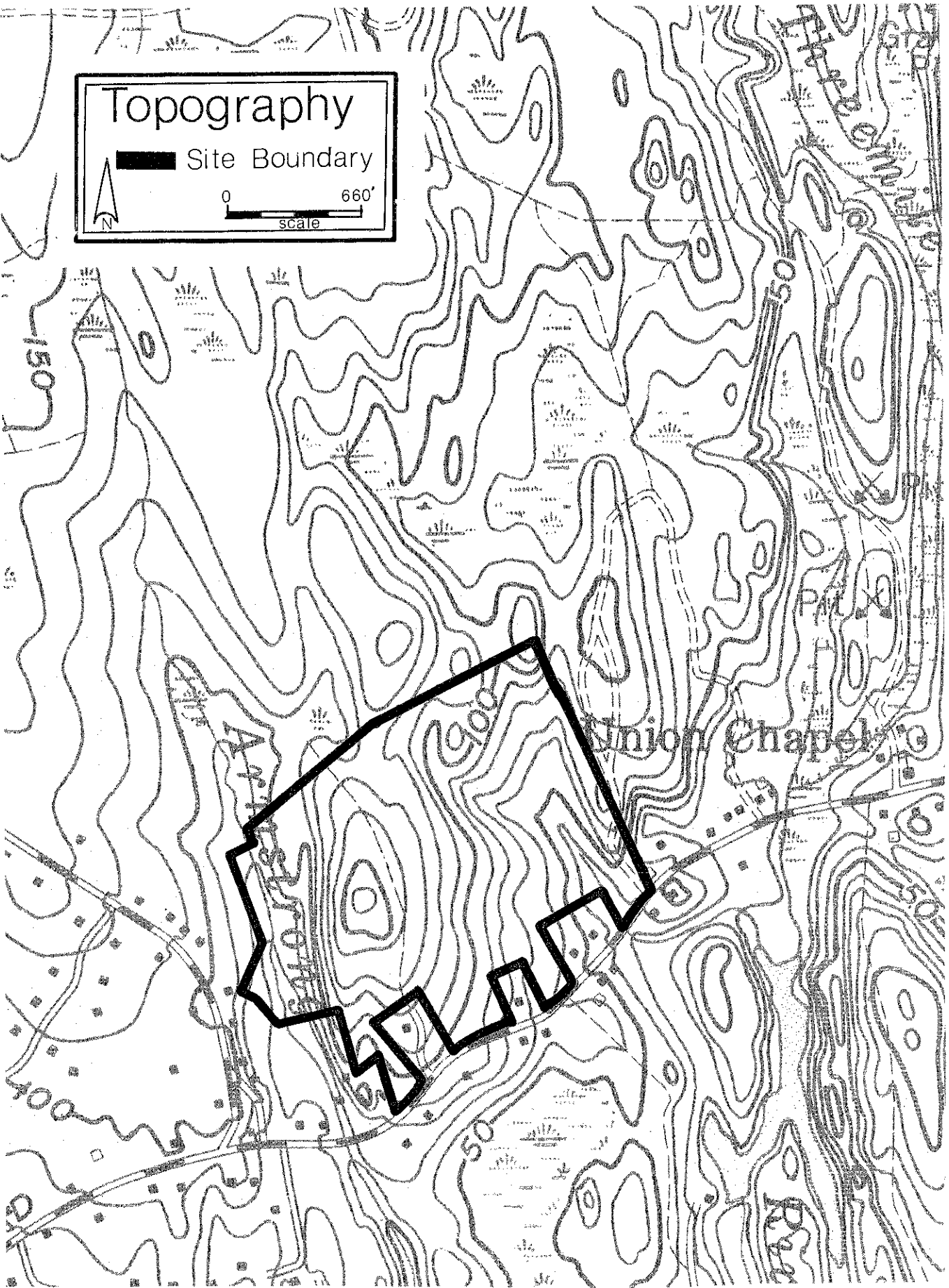

The bedrock underlying and cropping out on the Breslin property is mapped and described in The Bedrock Geology of the Old Lyme Quadrangle, Connecticut Geological and Natural History Survey Quadrangle No. 21, by Lawrence Lundgren, Jr., (1967). Most bedrock on the property is included in a unit known as the Plainfield Formation. The bedrock consists of gray biotitic quartz-feldspar gneiss with layers of schist and amphibolite. These rocks are intruded by coarse-grained granites and pegmatites, which contain very large crystals of biotite and pink microcline, and smaller crystals of quartz and plagioclase.

Topography

■ Site Boundary

0 660'

scale



Surficial geologic materials on the Breslin property are described in Connecticut Geological and Natural History Survey Quadrangle Report No. 31, The Surficial Geology of the Essex and Old Lyme Quadrangles, by R.F. Flint (1975). A generally thin, discontinuous blanket of unconsolidated glacial deposits overlies bedrock on the property. Known collectively as till, the deposits consist largely of rock particles that have widely divergent sizes and shapes. These particles were plucked, abraded, or otherwise removed from preexisting geologic materials, and then redistributed on the land, by moving glacier ice. The texture of the till on the property varies from place to place, but it generally is granular and bouldery. In the western part of the property the till tends to have a silty to sandy matrix; in the eastern part, the till often approaches the texture of a clean sand and gravel deposit. The coarsening of the till toward the east probably reflects the greater activity of glacial meltwater in that vicinity: slightly east and southeast of the property, in the valley of Three Mile River, stratified sand and gravel deposits from former meltwater streams are found. The surficial geology map shows the general thickness of till on the property.

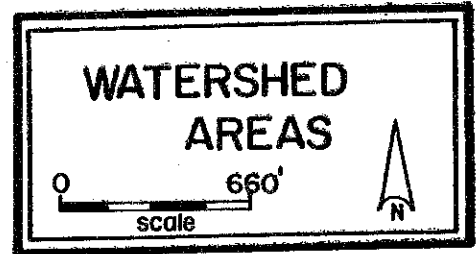
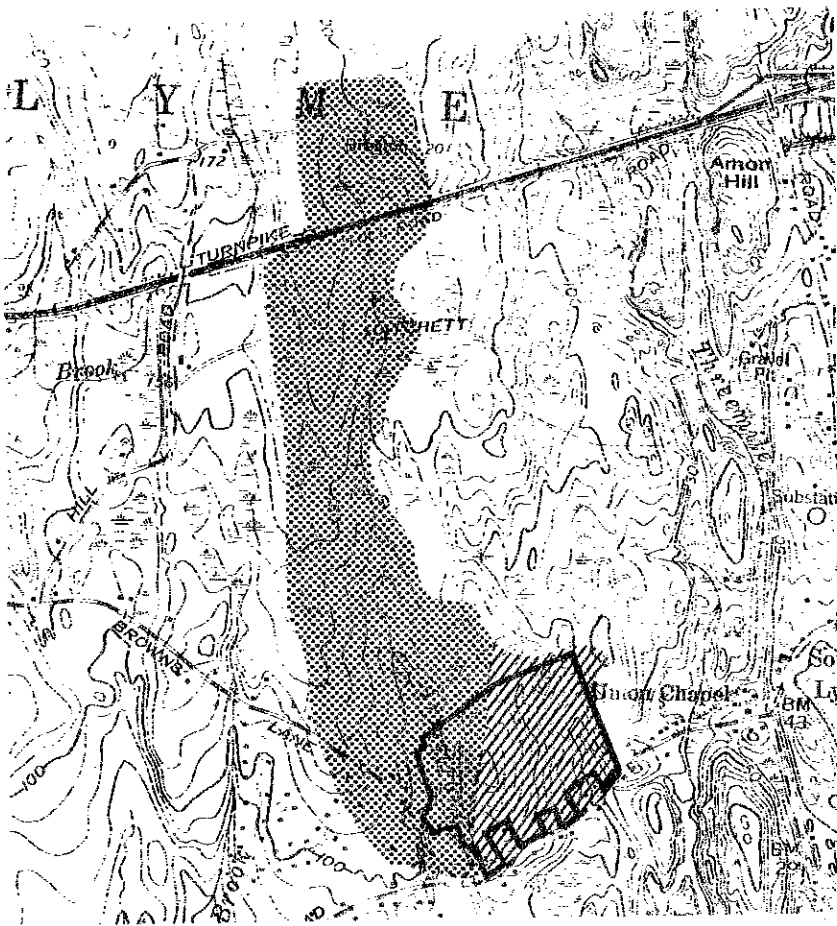
HYDROLOGY

Approximately the eastern two-thirds of the property drains toward the southeast. Water flows into a small natural channel, which passes through a culvert on Mile Creek Road, and ultimately enters Three Mile River. The western third of the property drains westward into Armstrong Brook.



Development of the Breslin property would increase the amount of direct runoff that is shed from the land during and after storm events. The increase would result largely from the establishment of impervious surfaces, such as roofs and driveways, over presently permeable land, and from the removal of vegetation, which returns part of the precipitation to the atmosphere.

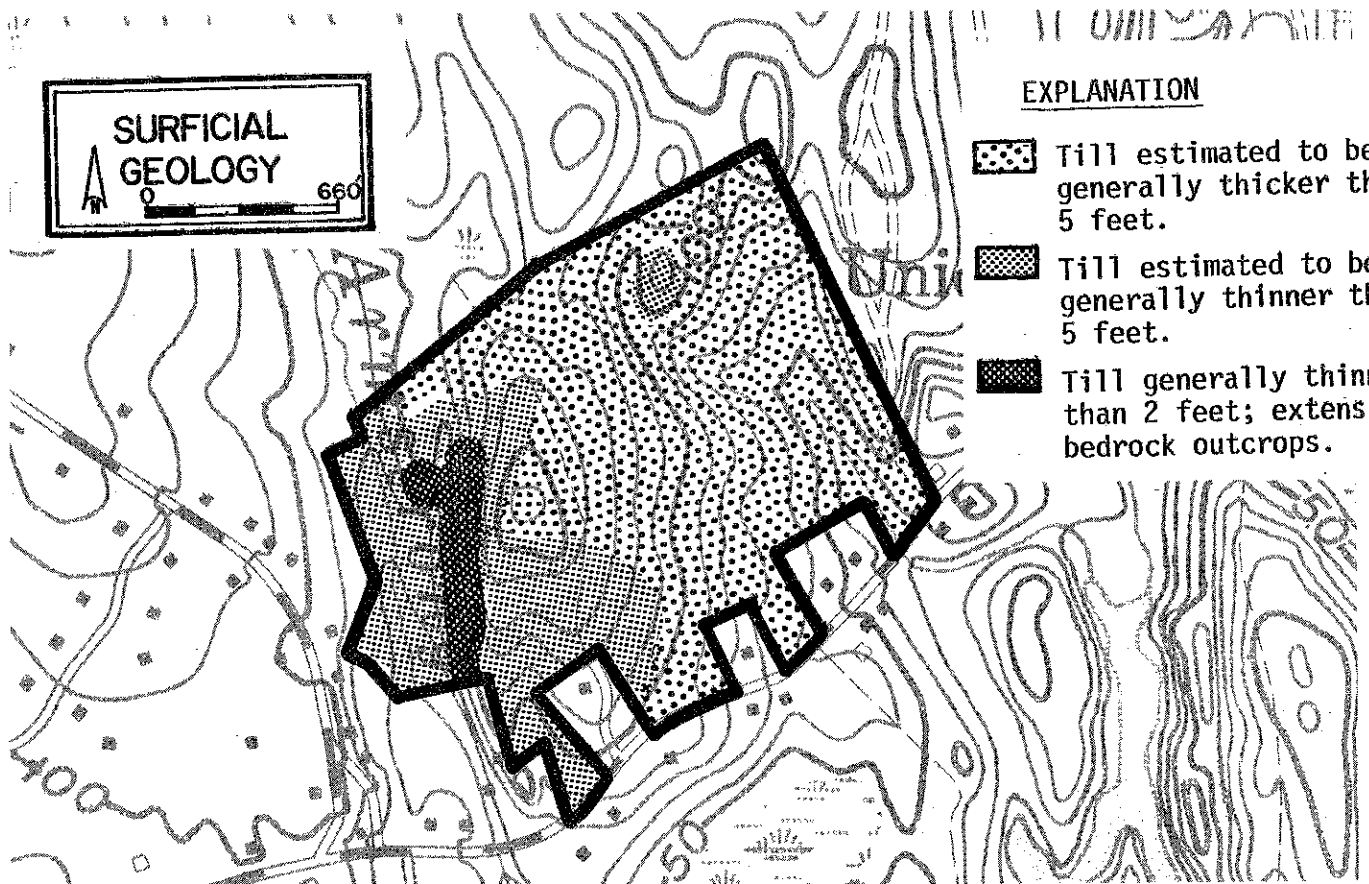
Peak flows at the culvert that receives water from the eastern part of the subdivision are likely to be increased significantly by the development. On the other hand, peak flows in Armstrong Brook at Mile Creek Road may not be noticeably affected. The reason for these different predictions is that Armstrong Brook receives additional runoff from an area that is many times larger than the contributing portion of the Breslin property; the watershed containing the eastern part of the property, however, includes very little additional land (see Watershed Map).

It is possible to estimate changes in peak flow that will be brought about by development. One method for doing this is outlined in Technical Release No. 55 (TR-55) of the USDA Soil Conservation Service. The method involves the estimation of runoff curve numbers for the affected watershed. The curve numbers relate the amount of precipitation during a storm event to the amount of direct runoff from the land. Criteria for determining the curve numbers include soil type, land use, and type of vegetative cover. No curve numbers were estimated for the Armstrong Brook watershed because the changes there are not expected to be hydrologically significant. For the watershed containing the eastern part of the Breslin property, the runoff curve number may be estimated to increase from 61 to 67. As a result, peak flows following a 50-year, 24-hour storm would be expected to increase by approximately 50 percent. The latter figure is not meant to be a definitive engineering measurement; it is meant only to be a "ballpark" guide to both the developer and the town for comparing the present capacity and effectiveness of the drainage system on Mile Creek Road to the expected demands on the system following






EXPLANATION

-  Armstrong Brook watershed area.
-  Watershed affecting the culvert on Mile Creek Road at eastern edge of the property.



EXPLANATION

-  Till estimated to be generally thicker than 5 feet.
-  Till estimated to be generally thinner than 5 feet.
-  Till generally thinner than 2 feet; extensive bedrock outcrops.

development. The Radcliffe Engineering firm has provided the Town with a detailed study of the proposed storm drainage network.

VEGETATION/WILDLIFE RESOURCES

The vegetation is largely composed of a poor overstory of red oak, white oak, and black birch with a medium to light understory of alternate dogwood, maple leaf viburnum, greenbrier, and poison ivy. Red maple is found in the wetter areas.

The brook bottom (open space area) is composed of red maple, red oak, white ash, white oak, black birch, American beech, hickory, American elm, sweet pepper bush, sassafras, spicebush, alternate leaf dogwood, blueberry, ferns, skunk cabbage, and partridge berry. This stream area with adjacent bedrock outcrops is suitable for low intensity open space uses. This will protect and preserve this unique and fragile area.

Although evidence of white-tail deer and chipmunk were seen, no significant wildlife concerns were noted on the field inspection.

FOREST RESOURCES

The site is entirely forested by a 60 to 80 year old red oak/black oak stand. Most of the trees are pole or small sawlog size. Greenbriers cover most of the ground to a height of three feet, severely limiting access and use of the forest. Hickory saplings and clumps of viburnum are scattered throughout the forest. Where openings have occurred in the overstory, poison ivy grows intermixed with greenbrier.

The vegetation is more diverse along the western eight acres of the property adjacent to Armstrong Brook. The oaks share dominance with black birch, occasional beech and tulip tree. Here, the briars are replaced by ferns, spicebush, sweet pepperbush and highbush blueberry.

Oaks throughout the site suffered serious injury from gypsy moth infestation about 1974 and many will never fully recover. Approximately twenty percent of these trees are now dead, and an additional twenty percent may die within the next five years. These trees pose a serious hazard for a residential area. These dangers can be minimized by harvesting the dead and dying trees prior to development. It should be possible to retain over half of the trees, particularly those with large full crowns. A competent private forester should be retained to identify the trees which should be removed, and to supervise closely the harvesting operation so that healthy trees are not damaged. (Names of qualified private foresters are available from the Department of Environmental Protection in Marlborough.)

The density of greenbrier and poison ivy will increase following removal of these trees, as more sunlight and soil moisture become available to the plants. In order to counteract this surge in growth, it will be necessary either to mow the area repeatedly or to plant trees which grow rapidly and which will eventually shade out the vines. Those tree species with active surface feeder roots may also serve to clear the area by starving those vines in their feeding area. Mowing will no doubt be difficult and costly due to the number of rocks and stumps throughout the site.

Use of herbicide to control vine growth is not recommended because of the intensity of treatment which would be necessary. Several broadcast applications would be required for initial knockdown, and frequent subsequent applications would be necessary to keep the vines in check. Complete vine control would expose the soil to erosion. Furthermore, the long-range effects of such high-intensity treatments are unknown.

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 "Special Soils Report: Southeastern Connecticut Region," 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 most representative of the Breslin Subdivision include the Canton series, the Charlton series, and the Leicester, Ridgebury and Whitman series. These soils limit development by their slope, stoniness, slow percolation rate and susceptibility to frost action.

The Canton series (52BC) consists of gently sloping, sloping, moderately steep and steep, well drained soils on uplands. They formed in a fine sandy loam mantle underlain by friable, gravelly and sandy glacial till. Canton soils have moderately rapid or rapid permeability. Major limitations are related to slope and stoniness.

The Charlton series (17LC) consists of gently or moderately sloping, moderately steep or steep, well drained soils on uplands. They formed in friable glacial till. Charlton soils have moderate to moderately rapid permeability. Major development limitations are related to slope and stoniness.

The Ridgebury, Leicester and Whitman series (43M) is made up of poorly and very poorly drained soils. These soils occur in an intricate and complex pattern and separation of each individual soil was not practical on the scale surveyed. Each mapping unit may contain an individual soil or a percentage of each of the three soils. They are similar to the soil described for their series.

The Leicester series consists of nearly level, poorly drained soils on uplands. They formed in friable glacial till. Leicester soils have moderately rapid permeability and a high water table at or near the surface 7 to 9 months of the year. Major use limitations are related to wetness and stoniness.

The Ridgebury series consists of nearly level, poorly drained soils on drumlins,

and rounded or elongated hills of uplands. They formed in compact glacial till. Ridgebury soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a high water table at or near the surface 7 to 9 months of the year. Major limitations are related to stoniness, wetness, and slow permeability in the substratum.

The Whitman series consists of nearly level, very poorly drained soils on uplands. They formed in compact glacial till. Whitman soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a water table at or near the surface 9 to 10 months of the year. Major limitations are related to slow permeability, wetness and stoniness.

The soil limitation chart included in the Appendix to this report elaborates on the development problems which may occur on this site. Much of the site presents problems for the installation and proper functioning of septic systems due to soils which are shallow to bedrock and have steep slopes. Approximately 14% of the site has a seasonally high water table or slow percolation problems. If septic systems are engineered and placed to avoid high water table areas, shallow bedrock areas, drainageways, and excessive slopes, few problems should be anticipated. Due to the nature of the soils on this site and the proximity of Armstrong Brook and its associated wetlands, a sediment and erosion control plan should be followed explicitly when developing this site. Connecticut's Erosion and Sediment Control Handbook published by the Soil Conservation Service will aid both the developer and the Town in preparing and approving an adequate erosion and sediment control plan. Standards and specifications for both mechanical and vegetative practices listed within the Handbook are available at the New London County Extension Service Building, Norwich, Connecticut.

FOUNDATION DEVELOPMENT/GRADED CONDITIONS

No organic or otherwise unstable soils were seen on the site.

Shallow to bedrock soils occur within the area, particularly along the western portion of the parcel. Roads, basements, and driveways should be located to avoid shallow bedrock problems. Lots #8, 9, 10, 11, 12, 13, 14, and 18 require special attention in this regard.

Steep slopes are a major limiting factor over most of the site. Most lots require construction on at least 10 to 15 percent slopes. Such slopes present a significant erosion and sedimentation hazard. This hazard can be overcome by constructing according to an adequate erosion and sedimentation control plan and schedule. Practices should be designed and applied as directed in the Connecticut Erosion and Sediment Control Handbook. Such a plan should include: avoidance of disturbing steeper slopes and natural drainageways; minimum site disturbance and grading; fertilizing, liming, and seeding specifications and schedules for all disturbed areas; and a planned sequence of development to avoid disturbing large blocks of lots on the same slope at one time. Disturbed slopes which will be left open during the fall, winter, or spring should be temporarily seeded or mulched as specified in the Handbook. Soil Conservation Service specifications recommend seeding by September 30th for most grasses. If not, mulching is recommended. If drainageways or steep slopes need to be disturbed, measures such as hay bale check dams should be used to prevent soil from washing downhill during the construction period.

WATER SUPPLY

Water for the subdivision is to be supplied by individual on-site wells. Due to the terrain, reliability during dry periods, and allowance for greater flexibility in the placement of a well, it would be expected and recommended that drilled wells be utilized. It has generally been recognized that a minimum of one acre of land is necessary where both on-site wells and subsurface sewage disposal systems are to be provided. All of the proposed lots are one acre or larger. The yield from drilled or rock wells is generally adequate to supply sufficient water in order to meet the domestic needs of single family dwellings. Old Lyme is unique in that the town health department has adopted a regulation which requires a well to be developed first on any building site in order to assure the availability of an adequate water supply before the issuance of a building permit. Water quality can generally be expected to be satisfactory for a potable supply. However, in some regions, mineral constituents, particularly iron and/or manganese, will exceed standards and corrective water treatment will be needed in order to prevent objectionable color, staining or taste.

Problems with groundwater quality may also arise if poorly renovated septic system effluent is introduced into the bedrock fracture network which feeds the wells. The potential for this problem can be minimized by judicious placement of septic systems, avoiding shallow-to-bedrock areas, and by careful engineering in marginal locations.

WASTE DISPOSAL

It is understood that the town director of health has given approval for the subdivision with the stipulation that all sewage disposal systems are to be pre-engineered before individual permits for lots will be considered for approval.

Soil mapping data has indicated that the major portion of the property has severe limitations for subsurface sewage disposal. The principle adverse factors being wet soils, large boulders (surface and subsurface), slope and in some areas the depth to underlying ledge rock. Based on visual observations and consideration of the terrain, an area of particular concern would be the proposed lots along the cul-de-sac at the west end of the property. Bedrock is at a shallow depth, the slope drops off steeply and the possible locations for houses in the front portions of the lots is restricted by the building line (50') setback. In accordance with provisions of the Public Health Code (Section 19-13-B20) there is to be a minimum of 4 feet of soil between the bottom of any sewage leaching system and underlying bedrock. Other areas of the property, excluding wetlands, generally appear more favorable for subsurface sewage disposal although further testing needs to be made in the specific areas where the leaching systems would be located. The large and numerous boulders encountered along the proposed roadway going into the property will also present a hindrance to sewage installation on lots within this area. Care should also be taken to see that possible on-site disposal (burial) of these stones will not be done in a manner or in a location which would jeopardize or restrict the primary or reserve areas utilized for on-site sewage disposal.

SITE DESIGN

This site is surrounded by a 140 acre tract on which a February, 1974, ERT report was made. The interrelationship of these two tracts is significant from a natural resource point of view and for town planning decisions. The probable long-range residential development of frontage along Mile Creek Road will mean the eventual reconstruction of this thoroughfare to collector road status. It also means that the Planning Commission should now be seeking the reservation of adequate street line rights-of-ways (setback from Mile Creek centerline) in anticipation of meeting this need. Consideration should also be given to the design of new subdivision streets and their eventual interconnection to form a logical road system that avoids long dead ends. In addition to showing a right-of-way extending to the top of the subdivision it would also seem prudent to request that final site designs show the extension of a right-of-way east from the top (probably along the right-of-way to lot #18), to the boundary with N/F Geo. Achenbach. The reservation of such a right-of-way carried to the boundary line would permit a second interconnection with the surrounding property.

The location of the 5.6± acres of open space along Armstrong Brook will provide a measure of preservation to this watercourse and wetlands; however, the site plan provides no access into this area other than from adjacent lots 10-15 and from a questionable 21' easement which seems to extend from Mile Creek Road up the center of the brook. This open space area would be more accessible if the final site plan showed an easement extending from the cul-de-sac serving lots 10-11 or an easement running to the open space between lots 14/15. It should be noted that the applicant's Surface Report to the Planning Commission (4/12/78) suggested the possible use of this open space area as a likely location for a firewell. The design of the open space as shown on the preliminary plan does not permit its use for potential firewell sources because of the lack of access previously mentioned and because the steep slope along the Armstrong Brook boundary would be a hazard to fire equipment attempting to reach this area. A possible firewell source which could be investigated exists at the juncture of Mile Creek Road and the 21' easement up the Armstrong Brook. This location has direct road access. In addition, the Team observed in the field that the streambelt along the west side of Armstrong Brook is incrementally being filled by an adjacent property owner. Correction of this filling, the construction of a sediment basin on the north side of Mile Creek Road and a general "clean-up" of this easement might make it useable for fire protection water sources as well as a link in an open space corridor along the Armstrong Brook.

ROADS AND UTILITIES

The Mile Creek/Brown's Lane section of Old Lyme has been undergoing rapid subdivision activity in the last several years. These two town roads, Mile Creek in particular, are beginning to function as collector systems for abutting subdivisions. At present the design width of Mile Creek Road is sufficient; however, additional traffic demands will necessitate improvement to its capacity to bring it up to collector road standards. As part of the Final Subdivision Plan, the rights-of-way along the frontage on Mile Creek Road, measured from the center line, should be shown. The purpose of establishing the right-of-way is to ensure that the town has sufficient space within the street right-of-way to upgrade Mile Creek Road to an adequate design capacity.

As there is no existing storm drainage system on Mile Creek Road, construc-

tion of this system to serve the subdivision is proposed by the developer.

Construction of 2,355 feet of public road with curbing and a conduit storm drainage system is proposed by the developer. There also is a 570± foot driveway accessing lot #18 from the northern cul-de-sac. A potential road extension to the Broath property to the north from this northern cul-de-sac is proposed. Installation of the roads, driveways, and houses will add 4± acres of impervious surfaces to the site. Final development plans should demonstrate adequate engineering design to prevent peak flow scouring and erosion at and below the outlets of the storm drain system. Peak discharges into natural areas or drainageways should be at a non-erosive velocity. Such practices as riprapping and energy dissipating plunge pools may be needed below the culverts under Mile Creek Road. The proposed riprap channel draining the northern cul-de-sac appears to be adequate. However, it is recommended that it outlet in a level lip spreader onto level ground where proposed.

If the road cut is left open during the construction period, it will become a sediment source. The roadway should be constructed and surfaced with the storm drain system operational prior to house/lot construction. Driveways should be graveled or surfaced soon after being constructed. All cut or fill slopes should be vegetated or mulched to eliminate potential erosion problems.

Steep driveways will also be troublesome to homeowners. Driveways should be laid out as close to the contour as possible to lessen steepness and erosion hazard during construction.

Catch basin inlets should be ringed with butted hay bales during construction to keep sediment out of the storm drains and outlet areas. Sediment collecting around the hay bales should be cleaned periodically and bales replaced as needed. Rocks can be placed on hay bales to hold them firmly on paved surfaces. Additional sediment can be trapped by staking a hay-bale check dam a distance below the storm drain outlets. All hay bales in drainageways should be removed and sediment cleaned out after construction is completed.

A pocket of poorly drained soil, where water ponds temporarily, is located directly north of the northern cul-de-sac. Should the road be extended, a culvert will be needed and the roadbed should be designed to overcome potential frost heaving in these soils.

The developer may wish to adjust the finished grade of the main access road, as the proposed 10% finished grade will be steep under winter driving conditions.

It is also recommended that the access to the proposed open space right-of-way be relocated as it presently enters Mile Creek Road directly over Armstrong Brook. This route is severely limited for the development of a path or road if such were desired by the Town.

HAZARDS

Wetlands and steep topography along the site's western perimeter (Armstrong Brook) should be left undisturbed. The proposed use of these areas for open space is compatible with the wetlands features. Wetlands along the subdivision's eastern boundary (lots 19-26) will require special care in the placement of sanitary facilities and residential uses.

No flood-prone hazards have been identified for this area of Old Lyme.

Potential hazards may result at the intersection of the proposed road with Mile Creek. Adequate sight lines should be established by setting the street right-of-way from the centerline of Mile Creek and removing obstructions from within the right-of-way.

SERVICES TO SUPPORT DEVELOPMENT

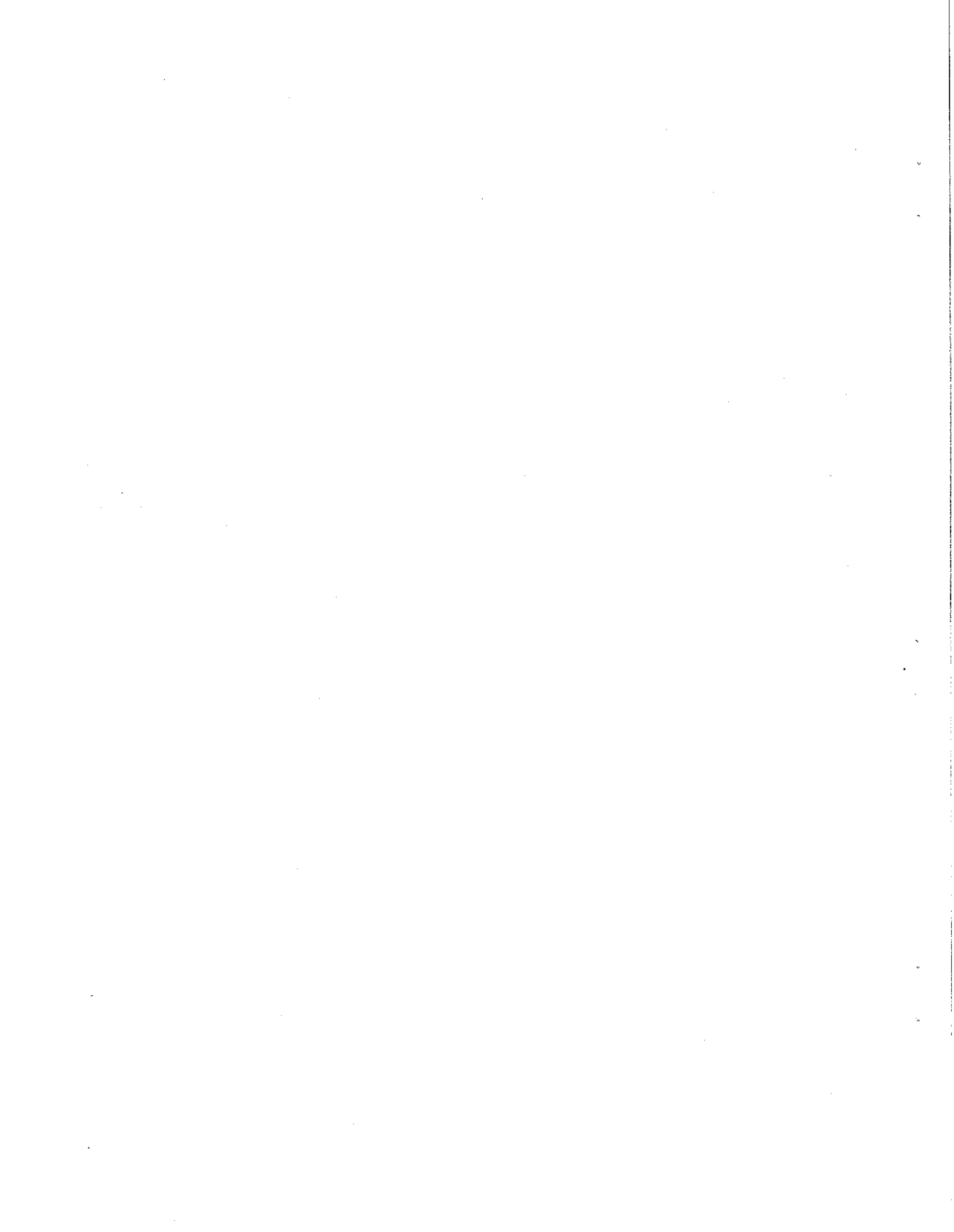
Services to support the development include both on-site and off-site facilities. On-site services (water supply and waste water disposal) can be provided by the developer. Off-site services will be the responsibility of the town. These include solid waste collection/disposal, education, fire protection and eventual maintenance of the proposed road. Old Lyme's education facilities are being expanded and should be adequate to accommodate the additional pupil load generated by this subdivision. Old Lyme's municipal solid waste collection program will have to be expanded to include these additional homes. Based on Old Lyme's current rate of growth the town's existing landfill will be adequate until 1980. Extension of fire service for the "South Lyme" section is anticipated in the near future with the construction of a new fire station on Cross Road, approximately 2 1/2 miles away from the proposed subdivision. The location of a firewell or pond nearby or on the proposed subdivision site should be considered. Maintenance of both the proposed subdivision road and Mile Creek Road will be necessary. As mentioned previously, the town can expect that the traffic generated by this subdivision as well as other recent developments along Mile Creek Road and Brown's Lane will necessitate the improvement of these rural roads to collector design capacity.

COMPATIBILITY OF SURROUNDING LAND USES

The proposed subdivision is compatible with surrounding land uses, both existing and recommended in the Town Planning and Zoning Regulations.

ALTERNATE LAND USES

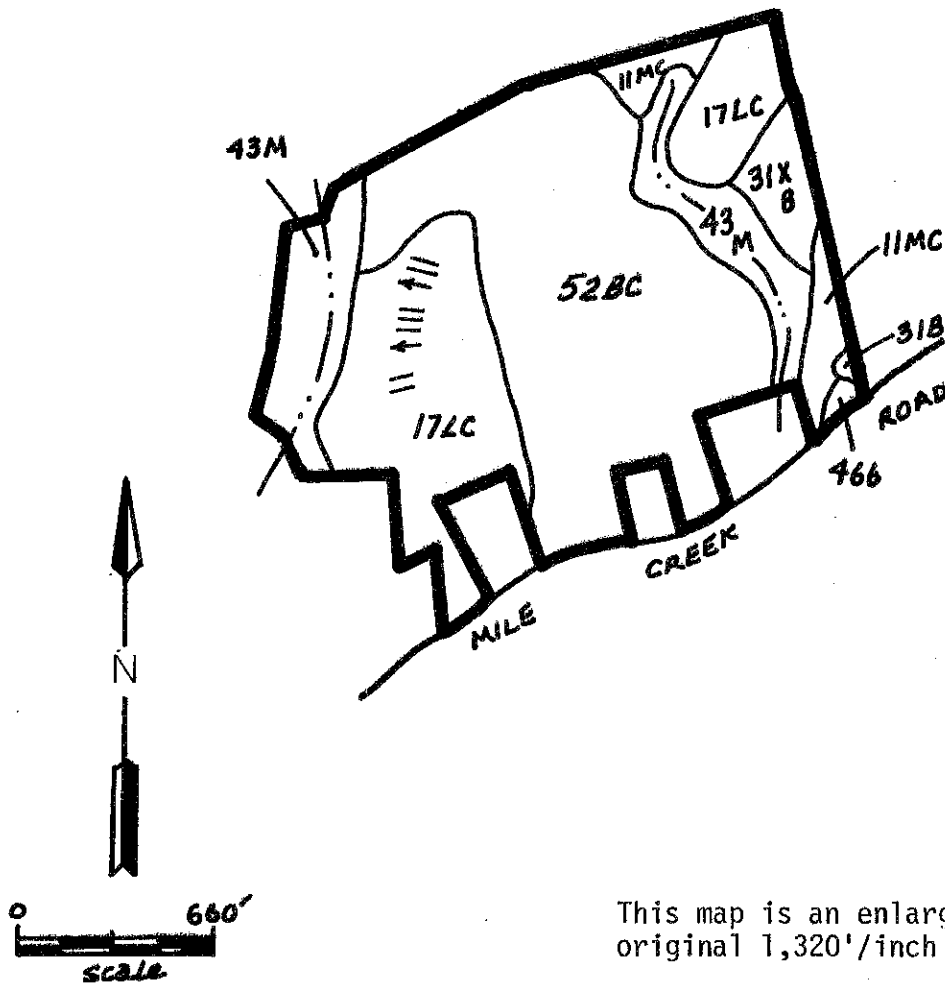
The Team Planner has no specific recommendations for alternative land uses for this parcel. Relative to the site's existing natural resources, priority should be given to a land use plan which maintains the wetlands as open space and allows for a road layout which will permit eventual extension into adjacent developing uses.



Appendix

SOILS

BRESLIN SUBDIVISION
OLD LYME, CONNECTICUT



This map is an enlargement from the original 1,320'/inch scale to 660'/inch.

Information taken from: Interim Soil Report, New London County, Connecticut, 1978; Soil Survey Sheet No. 620 prepared by the United States Department of Agriculture, Soil Conservation Service. Advance copy, subject to change.

BRESLIN SUBDIVISION
OLD LYME, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series	Natural Soil Group	Soil Symbol	Approx. Acres	Percent of Acres	Principal Limiting Factor	Urban Use Limitations*			
						On-Site Sewage	Buildings with Basements	Streets & Parking	Land-Scaping
Leicester, Whitman, Ridgebury		43M	10	18	percs slowly, wetness, lg. stones, floods	3	3	3	3
Charlton		17LC	15	25	slope	2	2	2	2
Hollis					depth to rock	3	3	3	3
Canton		11MC 52BC	30	50	large stones	3	3	3	3
Charlton						3	3	3	3
Woodbridge		31XB 31B	3 1	5 1	percs slowly, frost action	3 3	3 3	3 3	2 1
Walpole		466	1	1	wetness, frost action	3	3	3	3
Totals:			60	100					

Limitations for Urban Uses: 1 = slight, 2 = moderate, 3 = severe.

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.

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.