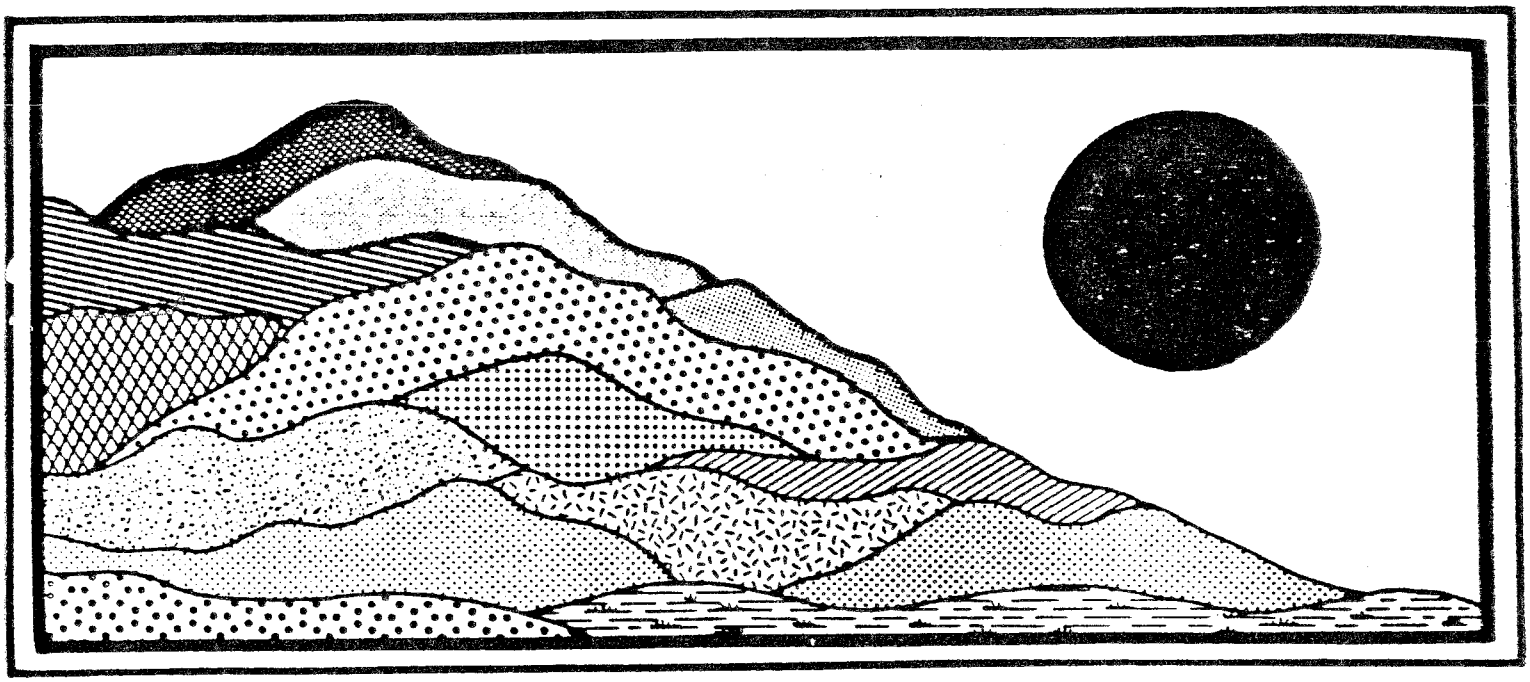
Arrowhead II

Griswold, Connecticut

January 1986



ENVIRONMENTAL REVIEW TEAM REPORT

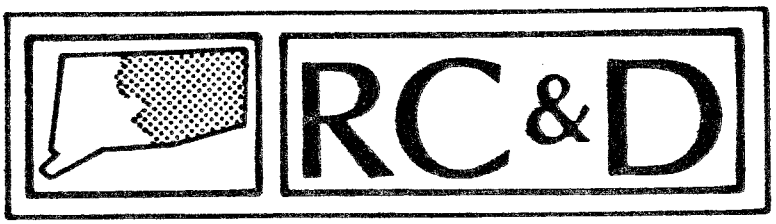
EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Arrowhead II

Griswold, Connecticut

Review Date: DECEMBER 5, 1985

Report Date: JANUARY 1986

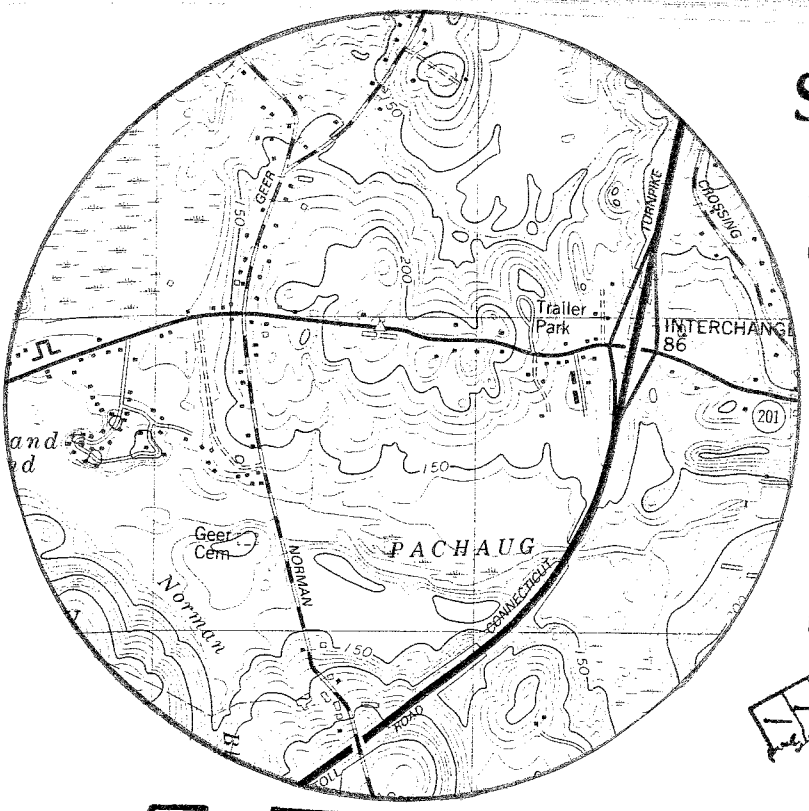


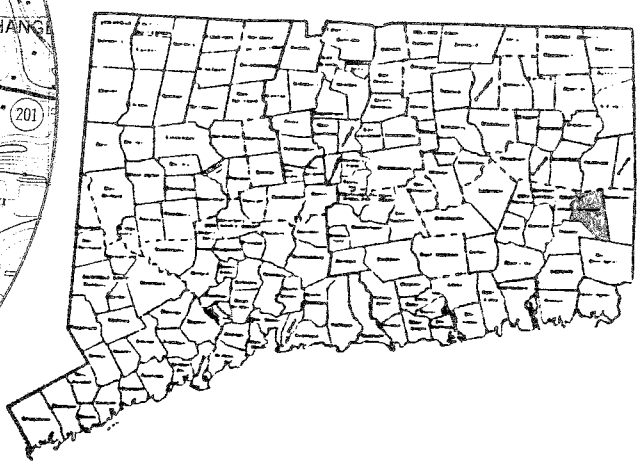
ENVIRONMENTAL REVIEW TEAM
PO BOX 198
BROOKLYN, CONNECTICUT 06234

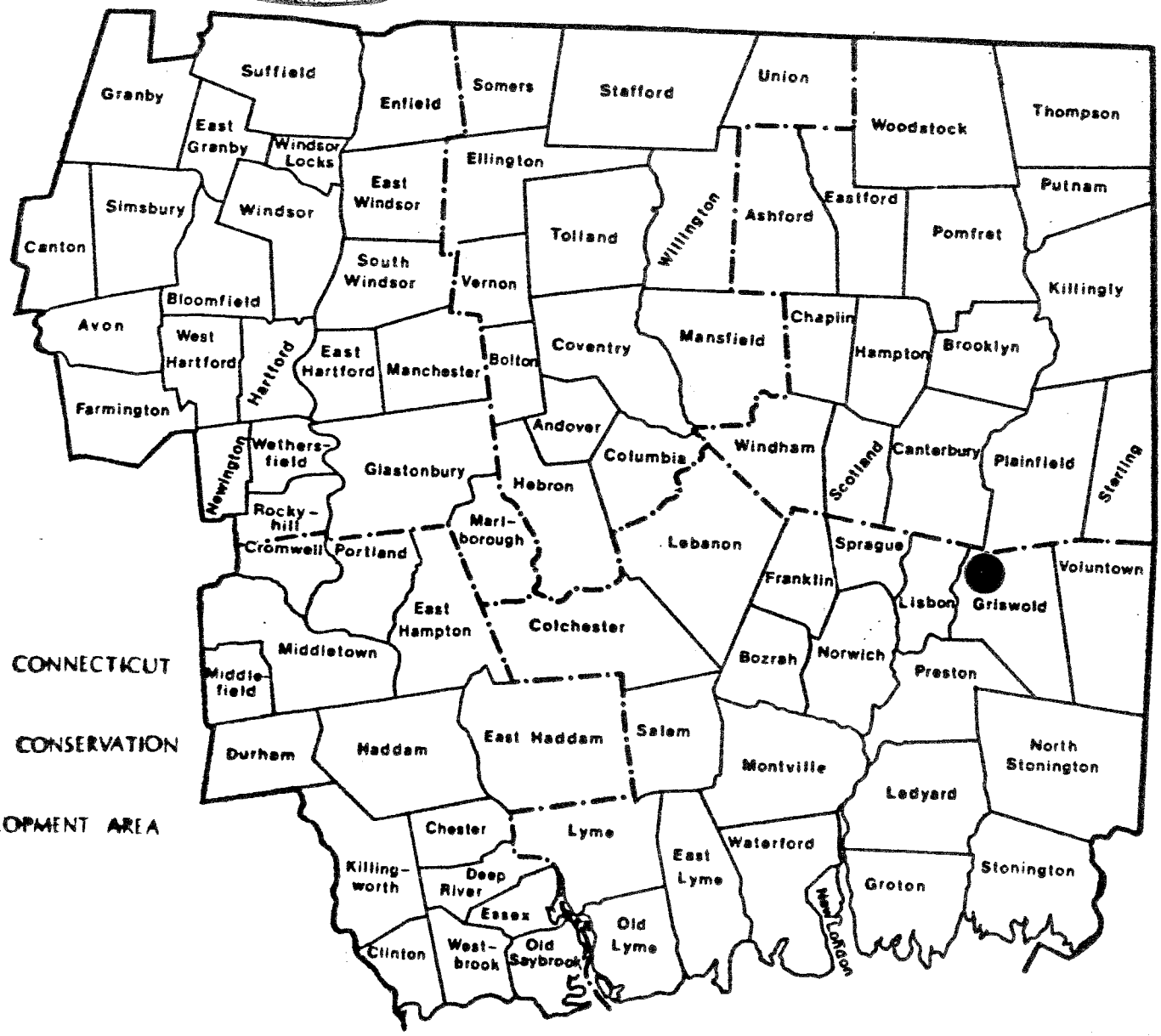
Site Location

ARROWHEAD II SUBDIVISION

GRISWOLD, CONNECTICUT







EASTERN CONNECTICUT

RESOURCE CONSERVATION

& DEVELOPMENT AREA

ENVIRONMENTAL REVIEW TEAM REPORT
ON
THE ARROWHEAD II SUBDIVISION
GRISWOLD, CONNECTICUT

This report is an outgrowth of a request from the Griswold Planning and Zoning 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. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The ERT met and field checked the site on Thursday, December 5, 1985. Team members participating on this review included:

Don Capellaro	- Sanitarian - CT Department of Health
Liz Rogers	- Soil Conservationist - U.S.D.A., Soil Conservation Service
Eric Schluntz	- Fisheries Biologist - Department of Environmental Protection
Harry Siebert	- Transportation Planner - CT Department of Transportation
Charles Storrow	- Regional Planner - Southeastern CT Regional Planning Agency
Elaine Sych	- ERT Coordinator - Eastern CT RC&D Area
Bill Warzecha	- Geologist - DEP, Natural Resources Center

Prior to the review day, each team member received a summary of the proposed project, a list of the Town's concerns, a location map, soils map and a preliminary site plan. Large scale topographic maps of the project area were made available on the review day. The Team met with, and were accompanied by the Town Planner, the project engineer and a representative of the Quinebaug Valley Builders, Inc. 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 designs or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project--all final decisions and conclusions rest with the Town and landowner. 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. 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 Project Committee hopes you will find this report of value and assistance in making your decisions on this subdivision.

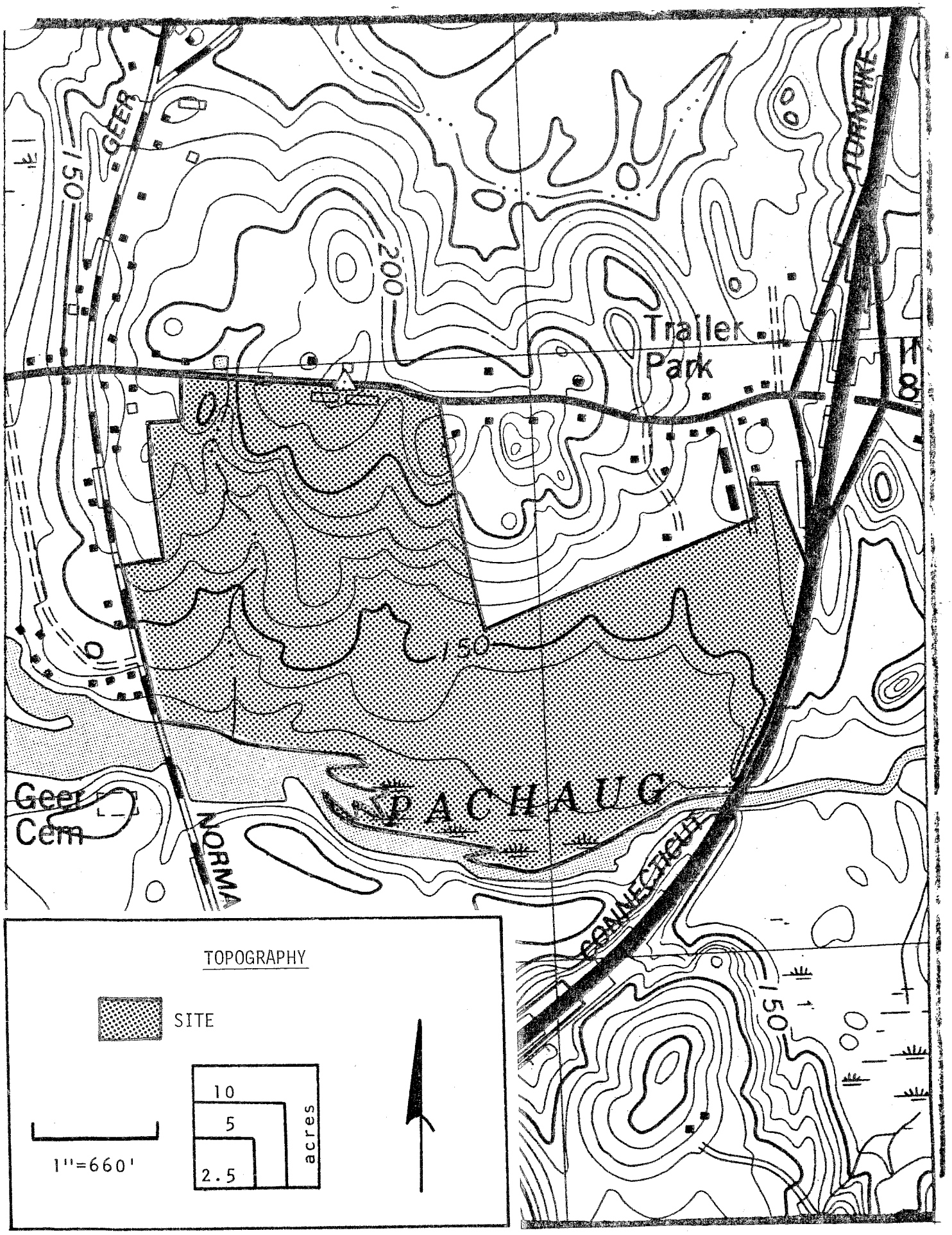
If you require any additional information, please contact:

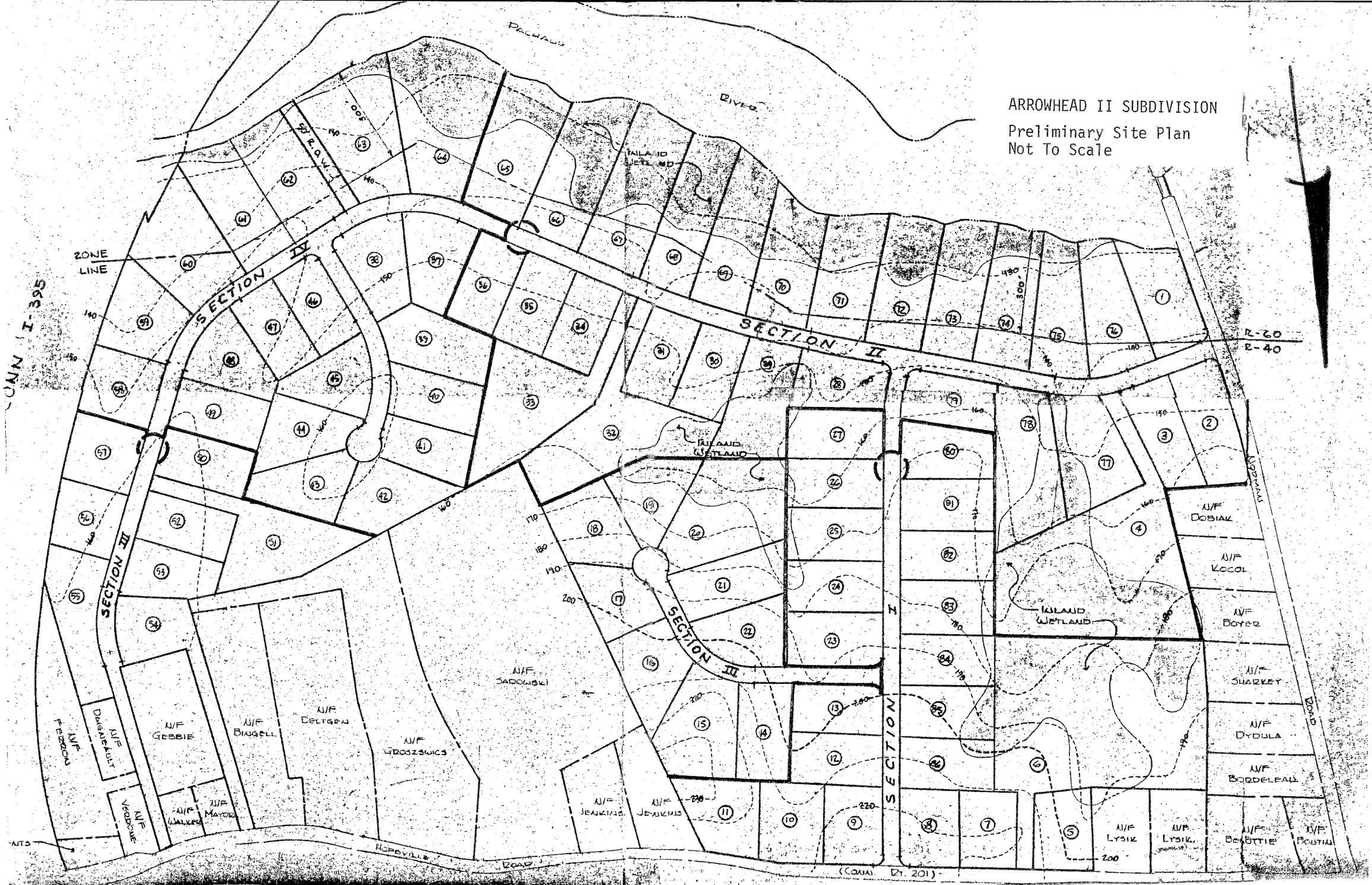
Elaine A. Sych
ERT Coordinator
Eastern Connecticut RC&D Area
P.O. Box 198
Brooklyn, CT 06234
(203) 773-1253

TABLE OF CONTENTS

TABLE OF MAPS AND CHARTS

TABLE OF MAPS AND CHARTS (Continued)


GEER
150
200
TURNPIKE
Trailer
Park
Geer
Cem
NORMA
PACHAUG
CONNECTICUT
150
TOPOGRAPHY
SITE
10
5
2.5
acres
1"=660'


ARROWHEAD II SUBDIVISION
Preliminary Site Plan
Not To Scale
PACUNAS
RIVER
ZONE LINE
SECTION IV
SECTION II
SECTION III
SECTION I
R-60
R-40
WETLAND
N/F DOBIAK
N/F KOCOL
N/F BOYER
N/F SHARKEY
N/F DYDULA
N/F BORDELEAU
N/F LYSIK
N/F BOUTIN
N/F SADOWSKI
N/F GEBBIE
N/F BIAGELL
N/F DELTGEN
N/F GROSZSWICS
N/F JENKINS
N/F MAYOR
N/F WALKER
N/F VERDONE
N/F FERRON
HOPEVILLE ROAD
NORMAN ROAD

I. INTRODUCTION

The Griswold Planning and Zoning Commission asked for Environmental Review Team assistance in reviewing a proposed subdivision. It is understood the farm property has approximately 125 acres of mostly open fields and is located on the south side of Route 201 between Connecticut I-395 and Norman Road. The Pachaug River borders the property along its southern boundary. The farmstead buildings are located off Route 201, which is also the highest part of the property. Properties east of the farm site along Route 201 to the I-395 on-ramp are owned by others and consist of single family and several multi-family dwellings which are located before the on-ramp on a dirt roadway which goes off Route 201 into the property in question. There is a limited amount of commercially zoned land between I-395 and this roadway. Also, there are a number of single family houses located on Norman Road with a limited number of dwellings (lots) extending easterly along Route 201 meeting the proposed development. The area is zoned for 40,000 and 60,000 square foot lots.

The main features of the property being considered are: A number of open fields utilized for corn growing, hay, livestock grazing; a gravel excavation located at the eastern side; a power line above the gravel excavation area which crosses a portion of the property in an east/west direction; wetlands along the Pachaug River, a wetland area near the central part with a larger area near the western boundary; several drainage courses or swales associated with the wetlands which drain in a north to south direction; a manmade drainage ditch near the lower southeast corner; some rock outcrops in the upper central portion.

The Team had a number of concerns which are addressed in this report. The following sections include information, comments and recommendations concerning geology, hydrology, sewage disposal, soils, fisheries, traffic and open space facilities. A brief summary is included which highlights certain aspects of the report. An appendix contains further soils information.

II. TOPOGRAPHY

The proposed subdivision site is approximately 125 acres in size. It is located south of Route 201 (Hopeville Road) between I-395 and Norman Road. The Pachaug River forms its southern boundary.

Topographic relief of the tract varies from relatively flat to moderate slopes. Moderate slopes predominate in the northern half of the parcel and are controlled largely by bedrock, which is at or near ground surface. Flatter and more gentle slopes characterize the open fields, pastures and cornfield in the southern half of the site.

No major streamcourses, other than the Pachaug River which forms the southern boundary, were visible on the site during the field review. Several topographic swales, which carry seasonal water traverse the site in a southerly direction enroute to the Pachaug River. These watercourses are parallelled by either inland-wetland or floodplain soils, which are regulated under Public Act No. 155.

Based on an air photo taken on April 17, 1980, a ±7 acre oval-shaped wetland area covers a cornfield in the southern parts of the site. This wetland was not delineated on the preliminary subdivision plans for Arrowhead II (dated July 1985) which was distributed to team members on the review day. A revised preliminary plan dated December 7, 1985 which was mailed to the Team's Geologist December 26, 1985 shows the wetland, but it does not appear to be as extensive as the wet area visible on the air photo mentioned earlier.

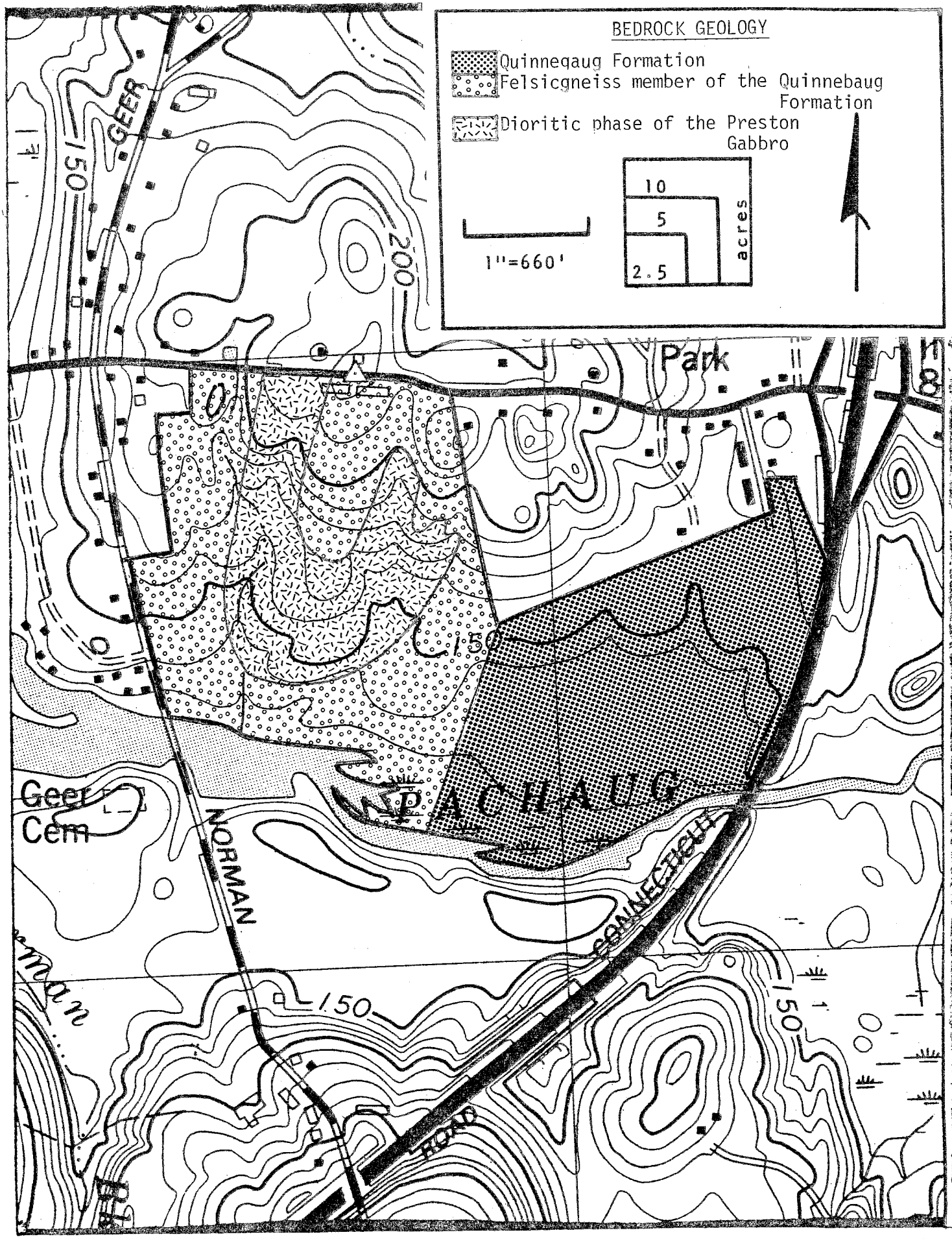
Maximum and minimum elevations on the site are ±220 feet and ±130 feet above mean sea level, respectively. The highest point is located at the former barnyard of the Miller Farm near Route 201. The lowest point is located along the high water mark of the Pachaug River.

There is an active sand and gravel pit in the eastern parts of the site. According to the applicant's surveyor, present plans are to grade the area of the gravel pit and to construct homes.

III. GEOLOGY

The site lies within the Jewett City topographic quadrangle. A surficial geologic map (GQ-1575, by Byron D. Stone) for the quadrangle has been published by the U.S. Geological Survey. A bedrock geologic map for the quadrangle is in publication at the present time. The Team's geologist was not able to acquire or review this map for the purpose of this report. It should be noted that John Rodgers' Bedrock Geological Map of Connecticut was referenced for this section of the report.

Bedrock or ledge is visible at the surface in the northern parts near Section I and Section II. John Rodgers has classified the rocks underlying the site into three groups; (1) Quinebaug Formation; (2) Felsic gneiss member of the Quinebaug Formation; and (3) dioritic phase of the Preston Gabbro. According to Rodgers (1985), these rocks are all very old (438-505 million years old) having been deposited during the Ordivician geologic period. The Quinebaug Formation and the Felsic gneiss member of the Quinebaug Formation mentioned above underlie the eastern and western parts of the site, respectively. Rodgers describes the Quinebaug Formation as dark gray to gray, medium grained gneiss, composed of the minerals hornblende, andesine, biotite, epidote, quartz or garnet and in some zones within the rock unit interlayered with amphibolites. The Felsic gneiss member of the Quinebaug Formation consists of a light to medium gray, fine to medium grained gneiss composed of the minerals plagioclase, quartz,


BEDROCK GEOLOGY
Quinnegaug Formation
Felsicgneiss member of the Quinnebaug Formation
Dioritic phase of the Preston Gabbro
1"=660'
10
5
2.5
acres
GEER
150
200
Park
Geer Cem
NORMAN
ACHAUG
CONNECTICUT
ROAD
150
150

biotite, muscovite and commonly potassium fledspar. "Gneisses" are crystalline, metamorphic rocks (rocks geologically deformed by great heat and pressure) which are recognizable by a streaked or banded appearance. This "banding" is a result of the mineral arrangement in the rocks.

The final rock type underlying the site in the northern parts is referred to as the dioritic phase of the Preston Gabbro. These rocks consist of a medium to dark gray diorite or quartz diorite composed mainly of dark-colored minerals, such as plagioclase, hornblende, biotite and relic pyroxene, but also, locally may contain the common light-colored mineral quartz. The term "diorite" refers to an igneous rock (rocks formed from molten magma formed beneath the earth's surface. Geologist believe these rocks are an outlier of the rocks comprising Preston Gabbro to the south. According to Rodgers, these rocks intruded the Quinebaug Formation and its Felsic member as a molten magma during the Ordivician geologic period and subsequently solidified as it is seen today on the subdivision site. Some geologists believe the dioritic phase of the Preston Gabbro may have intruded the Quinebaug Formation and its Felsic member during the Silurian geologic period (408-430 million years ago) making these rocks younger in age than the surrounding rocks. These rocks have been subjected to metamorphism, but not as much as the rocks comprising the Quinebaug Formation and its Felsic member. Numerous cobble-sized stones derived from the dioritic phase of the Preston Gabbro are visible in the gravel pit on the site.

Depth to bedrock is variable throughout the site.

The proposed subdivision site is covered by two types of glacial deposits: till and stratified drift.

The northern parts of the proposed subdivision site are covered by a relatively thin blanket of till. Till is an unsorted accumulation of rock fragments and particles that were plastered directly onto the ground by glacial ice. The till on the site is composed of boulders, pebbles, clays, and sand particles that were derived from nearby bedrock (i.e., gneisses, schists and diorite rocks). Becuase of differences in source areas for the particles and modes of deposition, the texture of the till is highly variable. It may vary from sandy, stony and relatively loose, to silty non-stony and compact. Based on the Soil Survey of New London County, Connecticut, the texture of the till on the site is the sandy, stony and relatively loose variety generally lacking a "hardpan" layer.

Overlying bedrock in the southern parts of the subdivision site are glacial sediments called stratified drift. Stratified drift is composed of rock materials that were washed by meltwater streams from a mass of wasting glacier ice. Because the materials were transported by glacier and deposited by water, they commonly are well sorted by grain size and are layered, hence stratified. The texture of the stratified drift within the site, based on visual observations (gravel pit and test pit remnants) appears to be cobble, gravel, and to a lesser extent sand. A test boring drilled near the intersection of Route 395 and the Pachaug River in the eastern parts, indicates that the thickness of the stratified drift is about 50 feet. (Water Resources Bulletin No. 8)

Based on visual observations made during the field review and review of an air photo (dated 4-17-80) of this area, a ±7 acre wet area, which appears

to be comprised of regulated inland-wetland soils overlying stratified drift deposits, is found in the cornfield in the eastern parts of the site. It should be noted that the Soil Survey for New London County delineates the soil comprising this area as Walpole (Wd), which is a regulated inland-wetland soil under Public Act 155.

Seasonally wet areas parallel the intermittent streamcourses on the site, and in some of the flatter and low-lying areas they spread out to form pockets of inland-wetlands. These soils are also protected under Public Act 155. Inland-wetland soils, which were deposited after the glacier disappeared from the region, consist of poorly to very poorly drained mineral soils comprised of fine sand, silt and clay, and may be interbedded with some organic material.

Any activity which involves modification, filling, removal of soils, etc., will require a permit and ultimate approval by the Town's Inland-Wetland Commission. It is recommended that a certified soil scientist closely investigate the ±7 acre wet area in the eastern parts. Based on the site plan presented to team members, development is proposed for this regulated area. Development in areas covered by regulated wetland soil types should be avoided if possible. (See Geologic Development Concerns and Hydrology Sections of the report.)

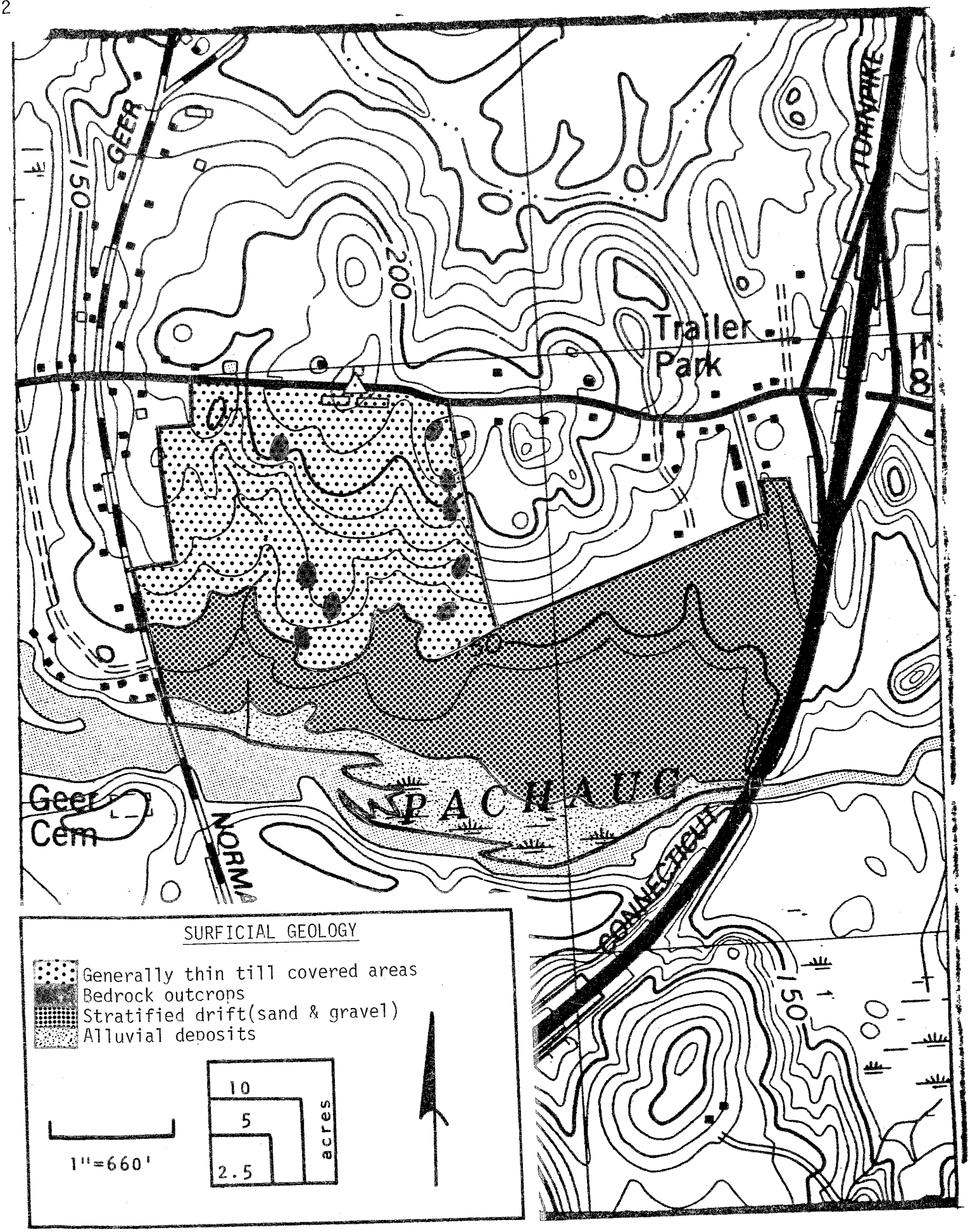
Alluvial or floodplain soils parallel the Pachaug River in the southern parts. Alluvial soils, which are also regulated under Public Act 155 consist of dark gray to buff sand, silt, and pebble-cobble gravel containing variable amounts of organic material. Generally speaking, the texture of the alluvial soils are coarser grain (gravel) at the base and become finer-grained upward from the base. Fine sand and silt cover these deposits on the present flood plain.

Because these soils are subject to inundation during certain storm events or during spring floods, these soils hold very little potential for development and should be left in their natural state.

IX. DEVELOPMENT CONCERNS FROM A GEOLOGIC PERSPECTIVE

Based on visual observations, geologic mapping (surficial and bedrock), and soil mapping, the major geological limitations which may pose constraints with respect to the proposed subdivision include: (1) bedrock at or near the ground surface in the northern parts of the site (see accompanying bedrock geologic map); (2) till or stratified drift deposits which may have a seasonally high groundwater condition; and (3) the presence of regulated inland-wetland and alluvial soils, both of which hold very little potential for development.

These geologic limitations will weigh heaviest in the potential for installation of on-site subsurface sewage disposal systems. These limitations may also pose constraints in terms of foundation placement and roads and driveways.


GEER
150
200
Trailer
Park
TOWN PIKE
Geer
Cem
NORM
PACHAUG
CONNECTICUT
150
SURFICIAL GEOLOGY
Generally thin till covered areas
Bedrock outcrops
Stratified drift(sand & gravel)
Alluvial deposits
1"=660'
10
5
2.5
acres

In terms of subsurface sewage disposal systems, properly engineered and installed septic systems may be able to surmount the abovementioned limitations in some instances (see Section VIII, Sewage Disposal). Careful planning and detailed testing is imperative on each lot, so that potential septic system problems can be avoided. In the northern sections where rock outcrops are extensive and/or shallow depths to bedrock are present, there is concern for having a sufficiently large, suitable area for on-site septic systems. In order to accurately assess that such an area would be available, a sufficient number of deep test pits are needed on each lot to establish a bedrock profile. Based on the Connecticut Public Health Code, ledge rock would need to be at least 4 feet below the bottom area of any leaching system. Because depth to bedrock is highly variable throughout most of the site, it is likely that leaching systems will need to be kept shallow and spread out over a comparatively wide area.

In areas where bedrock is at or near the ground surface, it may be necessary to blast in order to construct access roads, driveways or place house foundations. Since the steepest slopes on the site are associated with these areas, it is recommended that a detailed erosion and sediment control plan be formulated and followed very closely with implementation of the project.

Lots which have soils with a seasonal high groundwater table will need to be carefully planned also. Although soil testing has been conducted on the site, no deep test pit information was made available to team members on the review day. Leaching systems should be kept elevated and spread out when seasonally high groundwater tables are encountered. In some cases, it may be necessary to install a curtain drain and/or place proper fill material in the leaching system area in order to effectively overcome high groundwater table conditions. For example, a properly designed and constructed curtain drain installed in a till based soil which may have a seasonally high groundwater table will afford protection to a leaching system so that the seasonal water table does not rise up into the system and interfere with the normal functioning of the system. Curtain drain installation requires an outlet for draining and needs to conform with the Public Health Code. For the flat to gentle areas of the site, which are underlain by sand and gravel deposits, curtain drain installation would probably not be a practical engineering measure for protecting leaching systems from seasonally high water table. It seems likely that proper fill material would be needed in these areas. It should be pointed out that the stratified drift deposits covering the site are relatively poor filters for contaminated groundwater, i.e., domestic effluent. Because of the highly porous nature of the deposits, any pollutants that are disposed of directly, or otherwise, and make their way into the ground will have little opportunity to be renovated by the soil components. On the other hand, natural dilution by infiltrating rainfall will be increased. It should be pointed out that the availability of public water facilities to the site should help reduce the risk of contamination to on-site wells, which otherwise would have been required. When designing septic systems for homes in the proposed subdivision, the project engineer and Town engineer will need to survey adjacent properties to determine the type and locations of water supply well(s).

Because of the geologic limitations present and because of the relatively small lot sizes (acre to an acre and half), there may be a need to redesign the present preliminary lot layout, which may reduce the number of lots in the subdivision, once detailed lot-by-lot testing has been conducted on the site.

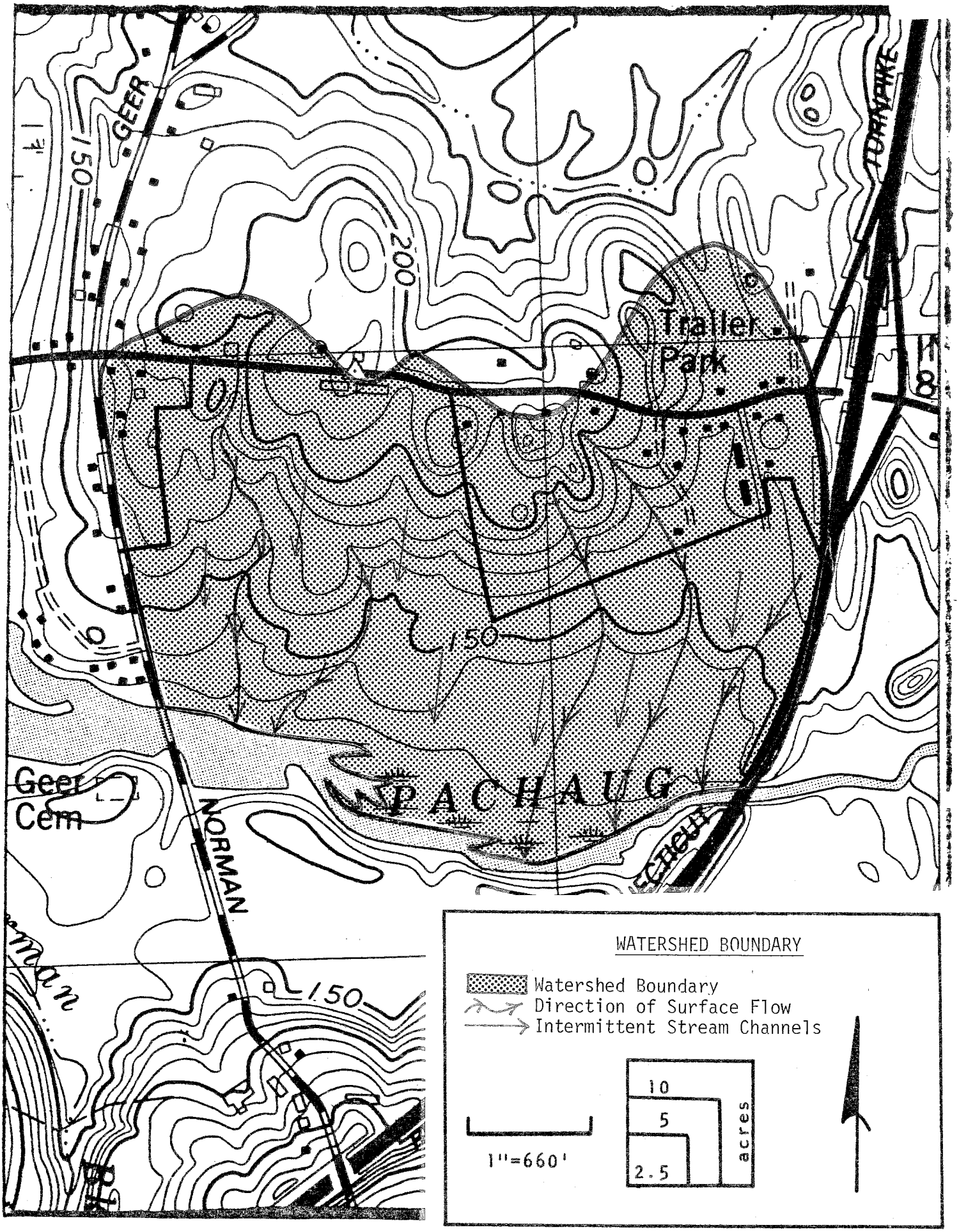
An area of particular concern to the Team's geologist is the ±7 acre wet area in the eastern parts. The applicant's surveyor noted on the review day that the area would be filled and subsequently developed. Before approval is given to develop this area, it is advised that detailed soil testing be conducted throughout this area to determine subsurface conditions, i.e., soils data, groundwater levels, direction of groundwater movement, etc. This testing should be monitored through the wet time of the year (springtime). An air photo taken on April 17, 1980 delineates shallow, standing water throughout this area. Only after conducting detailed testing in this area will the project engineer be able to accurately assess this area for septic systems, house foundations, roads and drives and the potential for engineering measures such as drains, placement of fill, etc., that may be needed to make a particular lot suitable for development. Once the plans are submitted they should be reviewed carefully by all appropriate town and state officials.

Based on the site plan submitted to team members on the review day, and the revised plan dated 12/7/85, inland-wetland soils on the site will need to be crossed in order to construct the proposed interior road system, and depending on desired house locations, driveways may need to cross wetland soils also. Although undesirable, wetland road crossings are feasible provided they are properly engineered. The road should be constructed adequately above the surface elevation of the wetlands. This will allow for better drainage of the road and also decrease the frost heaving potential of the road. Road construction through wetlands should preferably be done during the dry time of the year, and should include provisions for effective erosion and sediment control. Finally, culvert(s) should be properly sized and located so as not to alter the water levels in the wetland or cause flooding problems.

V. HYDROLOGY

Surface drainage within the proposed subdivision site flows downslope by sheet flow towards the Pachaug River or is intercepted by any of the topographic swales within the site, which route the surface water to the Pachaug River. The Pachaug River is a tributary to the Quinebaug River.

Subdivision of the property as planned, followed by the construction of new homes, driveways, interior road systems, etc., would be expected to lead to some increases in runoff from the property. However, because nearly one-third of the proposed site is bare soil (cultivated cornfields), runoff from these parts would already be expected to be moderately high. If the subdivision is approved and homes (with established lawns) are subsequently developed on the bare soils, there would probably be a reduction in the amount of runoff shed from this part of the site. Nevertheless, as a safeguard, it is recommended that the applicant prepare a stormwater management plan which includes pre and post development runoff calculations.


GEER
150
200
Trailer
Park
150
Geer
Cem
NORMAN
PACHAUG
150
WATERSHED BOUNDARY
Watershed Boundary
Direction of Surface Flow
Intermittent Stream Channels
1"=660'
10
5
2.5
acres

Of more concern is the possibility for erosion and siltation problems arising during construction phases, especially in the moderately sloping areas. Every effort should be made to prevent sediment from reaching water courses on the site or the Pachaug River. In this regard, it is strongly recommended that a comprehensive erosion and sediment control be developed for each stage of the proposed subdivision. Consideration should be given to establishing temporary and possibly permanent sediment detention basin(s). Disturbed areas on each lot should be kept to a minimum under the plan. The erosion and sediment control plan should be shown on the subdivision plan.

VI. WATER SUPPLY

The development of this proposed large subdivision would be served by public water from the Jewett City Water Company. At the present time, there is a 12 inch water main along Route 201. Assuming the water company has an adequate supply (quantity) of water in order to meet needs, this aspect of the development should be satisfactory and would seem to present no particular problems.

VII. FLOOD HAZARD AREAS

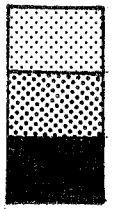
A Flood Boundary and Floodway Map for the Town of Griswold has been prepared by the Federal Emergency Management Agency. This study includes maps which identify areas throughout the Town that are subject to flooding during the 100 and 500 year storms. The map also shows the Pachaug River floodway fringe. A '100' year flood is a flood with a one chance in 100 or a 1 percent chance that it will happen in any year. A '500' year flood is a flood with a one chance in 500 or a 0.2 percent chance of occurring in any given year. It should be pointed out that this does not mean a flood of the magnitude mentioned above will occur only once in a 100 or 500 year period. The probability of occurrences remains the same each year regardless of what happened the year before.

According to the map, the '100' year flood boundary parallels the Pachaug River along the southern boundary of the property. The '500' year flood boundary fringes small areas along the outer limits of '100' year flood boundary on the east and west side of the site.

An accompanying Flood Hazard Map which was adapted from the FEMA map for Griswold identifies the floodprone areas within the site.

There may be swampy or topographic depressions within the site subject to wetness and perhaps flooding during periods of particularly heavy rain.

FLOOD HAZARD MAP*



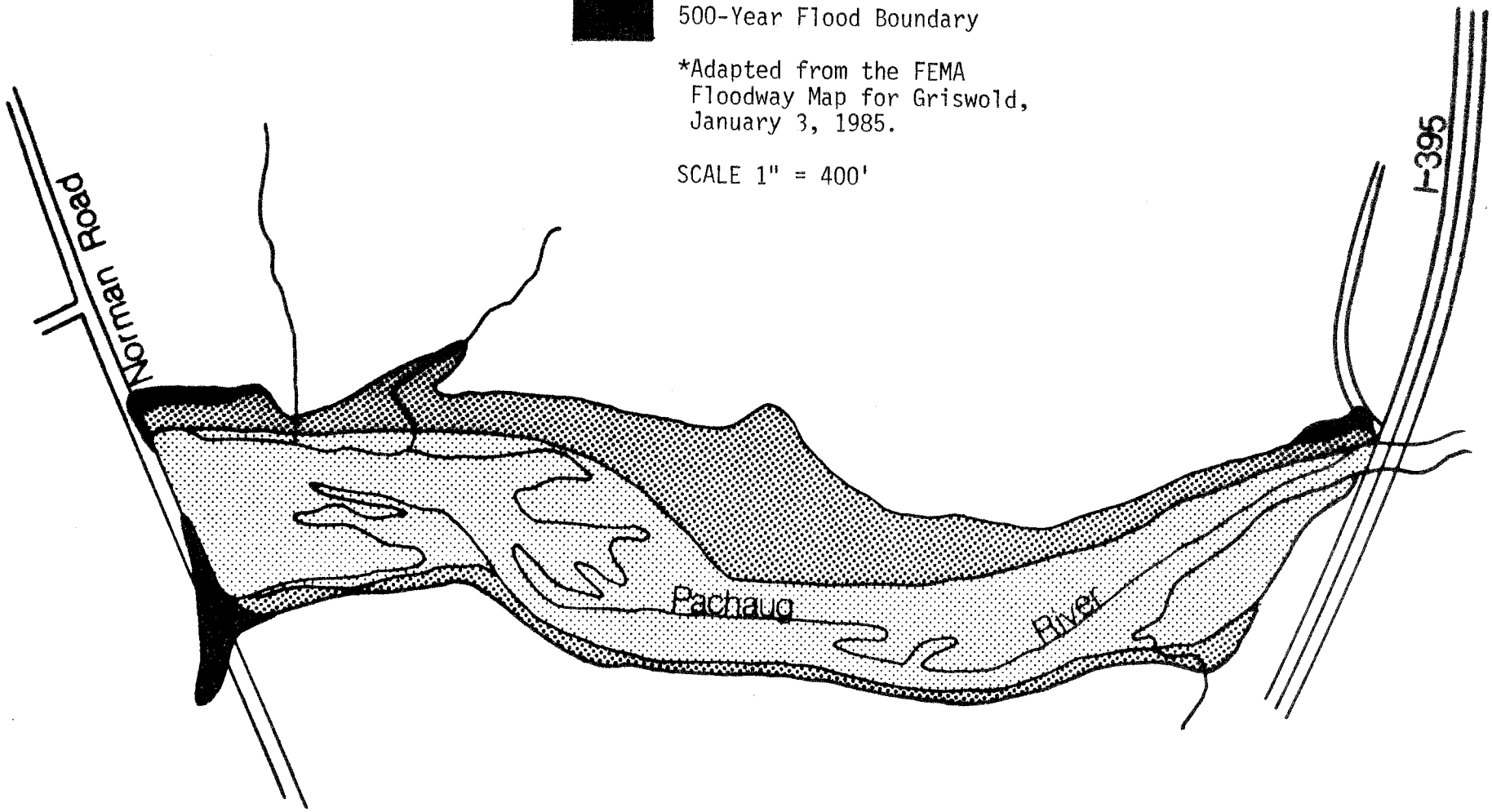
Floodway Fringe

100-Year Flood Boundary

500-Year Flood Boundary

*Adapted from the FEMA Floodway Map for Griswold, January 3, 1985.

SCALE 1" = 400'



One such area is the wetland area in the eastern parts of the site.

As mentioned earlier in the report, a detailed erosion and sediment control plan should be prepared as part of the project application in order to help protect the water quality of Pachaug River. In preparing the erosion and sediment control plan, the Inland-Wetland Commission should consider incorporating the streambelt concept for setback distances from the river as defined in the 1972 USDA Soil Conservation Service publication "A Guide for streambelts." This would, hopefully, help to safeguard the quality of Pachaug River. Setback distances from tributary watercourses on the site to the Pachaug River and remaining setbacks to Pachaug River are described in the USDA streambelt criteria.

For example, the Ro (Rippowam) soils paralleling the river, which are floodplain soils, would require a setback that includes all of these soils on the site. On the other hand, the HkC (Hinckley) soils paralleling the river in the western parts would require a 150 foot setback from the river based on the USDA streambelt criteria.

Within this setback distance, there should be restrictions for sewage disposal systems, building, and road/driveway development. These restrictions could be passed on with the deed to the lot or incorporated as part of a conservation easement. If the setback concept is of interest to the Town, commission members should contact the New London County Soil Conservation Service in Norwich for assistance.

VIII. SEWAGE DISPOSAL

At the present time, only the Borough of Jewett City in the Town of Griswold has the availability of municipal sewers. A sewer line terminates on Route 201 in the vicinity of Ashland Pond which lies east of the proposed development. Therefore, the subdivision would be served by individual on-site subsurface sewage disposal systems.

Although it was indicated that the firm working on a preliminary subdivision plan had made a considerable number of deep test pits and seepage tests, findings were not available at the time of the review. Based on visual observations and soil service mapping data, it appears that the soils and the terrain are a mixture as to their suitability for on-site sewage disposal. Towards the upper eastern side (area of gravel excavation), soils are well drained. The lower eastern area also has soils that drain well, but are much more influenced by high seasonal groundwater conditions. In this regard a ditch, apparently to drain surface/groundwater from what appeared to be a low pocket, running towards the river's embankment, was evident. The lower central area has several drainage or watercourses, associated wetlands and some well drained areas. The upper area seems to be dominated by more rocky terrain where the soils also tend to be well drained. However, as they consist of a complex, the major constraint for subsurface leaching systems would be shallow depth to underlying ledge rock.

In some cases, rock would probably be at a depth of 18 inches or less. In general, where there is less than 4 feet of naturally occurring soil over ledge rock, particularly where the land has yet to undergo subdividing, the area should be avoided for sewage disposal purposes. Certainly areas that tend to have shallow ledge should be extensively tested in order to possibly locate suitable sites within the area which could accommodate leaching systems. As you know, the Public Health Code requires the bottom area of leaching systems to be kept to a minimum of 4 feet above ledge rock. This means that 6-7 feet of soil over rock is needed in order to construct shallow type leaching systems. The upper westerly area is encumbered by a large wetland interspersed by more of the rocky terrain. The lower west side above the river apparently has well drained soil.

In addition to the shallow ledge rock concern, those areas having a high seasonal water level should be given special attention. Groundwater monitoring pipes or new observation pits should be placed on lots, preferably in the areas which could be used for leaching systems so that observations may be made for the maximum groundwater level during the springtime. It should be noted that areas with extremely high groundwater (levels less than 18 inches from the surface of the ground for a period of a month or more during the wettest season of the year), would be considered as having an unsuitable soil condition. Areas that receive long-term flooding or saturation should receive careful consideration. It may be possible to improve site consideration if groundwater can be lowered to allow a sufficient depth of natural soil to absorb and disperse the sewage discharge.

Although proposed lots for the subdivision would be quite large considering the use of public water, there are also a number of adverse or limiting factors which need to be recognized and taken fully into account. Most likely the overall number of proposed lots would or should be reduced in order to provide for a more assured, viable layout.

IX. SOILS

An Erosion and Sediment Control Plan was not submitted with the site plan. One should be included and consist of the following:

A. A narrative describing

1. the development

2. the schedule for grading and construction activities

   a. start and completion dates
   b. sequence of grading and construction activities
   c. sequence for installation and/or application of soil erosion and sediment control measures
   d. sequence for final stabilization of the project site

United States Department of Agriculture

Soil Conservation Service

New London County
562 New London Turnpike
Norwich, CT 06360
887-4163

Site Boundary

Scale 1"=1320'

ARROWHEAD II SUBDIVISION
Griswold, Ct.

Soils Descriptions & Soils Limitations

		BUILDING SITE DEVELOPMENT				SANITARY FACILITIES
Soil Symbol	Soil Name	Dwellings w/o Basements	Dwellings w/ Basements	Local Roads & Streets	Lawns and Landscaping	Septic Tank Absorption Fields
AfB	Agawam	Slight	Slight	Slight	Slight	Severe: poor filter.
CrC*	Charlton	Moderate: slope	Moderate: slope	Moderate: slope	Moderate: slope large stones	Moderate: slope
"	Hollis	Moderate: slope	Moderate: slope	Severe: depth to rock.	Severe: thin layer.	Severe: depth to rock.
HkC	Hinckley	Moderate: slope large stones.	Moderate: slope large stones.	Moderate: slope large stones.	Severe: small stones.	Severe: poor filter.
Nn	Ninigret	Moderate: wetness	Severe: wetness	Moderate: frost action, wetness.	Moderate: wetness	Severe: wetness, poor filter.
MyB	Merrimac	Slight	Slight	Slight	Slight	Severe: poor filter.
Rn*	Ridgebury	Severe: wetness	Severe: wetness	Severe: wetness frost action.	Severe: wetness	Severe: percs slowly, wetness.
"	Leicester	Severe: wetness	Severe: wetness	Severe: wetness frost action.	Severe: wetness	Severe: wetness
"	Whitman	Severe: ponding	Severe: ponding	Severe: frost action, ponding	Severe: ponding	Severe: percs slowly, ponding.
Ro	Rippowam	Severe: wetness, cutbanks cave.	Severe: flooding, wetness	Severe: flooding, wetness, frost action.	Severe: wetness, flooding.	Severe: flooding, wetness, poor filter.

*See footnote at end of table.

ARROWHEAD II SUBDIVISION
Griswold, Ct.

Soils Descriptions & Soils Limitations

		BUILDING SITE DEVELOPMENT				SANITARY FACILITIES
Soil Symbol	Soil Name	Dwellings w/o Basements	Dwellings w/ Basements	Local Roads & Streets	Lawns and Landscaping	Septic Tank Absorption Fields
Sg	Sudbury	Moderate: wetness	Severe: wetness	Moderate: wetness frost action.	Moderate: wetness	Severe: wetness, poor filter.
Ud:* Udorthents. Urban Land.						
Wd	Walpole	Severe: wetness	Severe: wetness	Severe: wetness frost action.	Severe: wetness.	Severe wetness, poor filter.

*See description of the map unit for composition and behavior characteristics of the map unit.

3. the design criteria for proposed soil erosion and sediment control measures and storm water management facilities

4. the construction details for proposed soil erosion and sediment control measures and storm water management facilities

5. the installation and/or application procedures for proposed soil erosion and sediment control measures and storm water management facilities

6. the operations maintenance program for proposed soil erosion and sediment control measures and storm water management facilities

7. the location of and design details for all proposed soil erosion and sediment control measures and storm water management facilities

8. the sequence of grading and construction activities

9. the sequence for installation and/or application of soil erosion and sediment control measures

10. the sequence for final stabilization of the development site

B. A site plan map at a sufficient scale to show

1. the location of the proposed development and adjacent properties

2. the existing and proposed topography including soil types, wetlands, watercourses and water bodies

3. the existing structures on the project site, if any

4. the proposed area alterations including cleared, excavated, filled or graded areas and proposed structures, utilities, roads and if applicable, new property lines.

At the request of the Town, the Soil Conservation Service working through the New London County Soil and Water Conservation District is available to review the Erosion and Sediment Control Plan. If you have any questions, please contact NEW LONDON USDA-SCS, EXTENSION SERVICE BUILDING, 562 NEW LONDON TURNPIKE, NORWICH, CT 06360, 887-4163.

X. FISHERIES RESOURCE

The proposed subdivision is bordered on the south side by the Pachaug River and Ashland Pond, a 101.7 acre artificial impoundment of the river. Water transparency is considerably reduced by a dark, tea-colored stain. Submerged and emergent vegetation is abundant in the pond. In the past, the pond has been

stocked with largemouth bass, smallmouth bass, chain pickerel, yellow perch, brown bullhead, calico bass (black crappie) and golden shiners. The pond was sampled in 1954 with gill nets by State fisheries personnel. Populations of largemouth bass, chain pickerel, calico bass, yellow perch, bluegill sunfish, common sunfish, borwn bullhead and golden shiners were found to exist then, and would be expected to exist now.

Access to the fish resources bordering the proposed subdivision is limited primarily to cottage owners. No public boat access is available but canoes and car-top boats are launched occasionally from road crossings and a town park. The river stretch adjoining the property can be navigated by canoe. The preliminary subdivision plans provide a 50 foot right of way; this would allow canoe access for anglers who desire to fish the river or pond.

Several measures should be implemented to minimize the proposed subdivision impact on the fish resources involved.

1. leave a buffer strip (open space) from the river/lake to the 134 foot elevation (100 year flood plain);

2. plan storm water drains to first empty into inland wetland areas rather than directly into the river to help regulate storm flows;

3. implement proper erosion and sedimentation control measures.

XI. TRAFFIC CONCERNS

A principle planning concern is the impact of the subdivision on traffic in the surrounding neighborhood, especially on Route 201.

The subdivision seems very well located with respect to intertown or regional traffic, in that it is directly adjacent to I-395. The proposed entrances to the subdivision are located on Route 201 but a short distance from the access ramps of the interchange between Route 201 and Route I-395. This latter route will greatly facilitate commuting to the major employment centers of southeastern Connecticut, as well as make possible convenient shopping and trips for other purposes.

The sight lines along Route 201 for both entrances to the subdivision are reasonably good. To obtain the necessary permits, the appropriate documents should be submitted to the Department of Transportation's District II office in Norwich in a timely manner. However, the state highway is very narrow at this point. It is recommended that sufficient land along the highway be deeded to the state so that the highway could be widened in the future if necessary. Although based on the analysis below, it should not be necessary to do any widening to accommodate traffic from this subdivision, widening may be needed at some time in the future if the area continues to develop. A reconstruction of Route 201

between Route 12 and I-395 is contained in the Concept Plan for Eastern Connecticut. Federal funds can conceivably be utilized from the "Trade-In" of I-84. Scheduling of the project is subject to the availability of these federal monies, there being insufficient funds to do all the projects contained in the plan, this may defer the project well into the future.

Connecticut Department of Transportation (CONNDOT) data give the 1982 Average Daily Traffic (ADT) for this section of Route 201 as 2,600 vehicles. CONNDOT 1977 data indicate the same ADT value and a volume to capacity ratio of 0.169 based on a capacity of 2,000 vehicles per hour and an assumed peak hour traffic volume of 13% of ADT or 338 vehicles.

In order to provide a worst case scenario, it is assumed for purposes of the analysis that all the traffic generated by the subdivision will employ Route 201. This may not be quite correct, since one access point to the subdivision is to be from Norman Road. However, the analysis provides a conservative estimate of potential traffic impact.

The subdivision is proposed to be constructed in four phases, see Columns 1 and 2 in the table below:

(1)	(2)	(3)	(4)	(5)
	Increase in No. of Houses	Cumulative Trips Per Day (ADT)	Peak Hour Trips	Volume/Capacity Ratio
Existing Conditions		2,600	338	0.169
Phase I	21	2,823	367	0.184
Phase II	28	3,120	406	0.203
Phase III	17	3,300	429	0.214
Phase IV	20	3,512	456	0.228

Column 3 gives the cumulative number of trips on this section of the highway or ADT as each phase is added to the subdivision. Based on CONNDOT data, a factor of 10.6 trips per day per house is used. A trip is defined as either a trip into or a trip out of the subdivision. For example, a journey to the grocery store from the subdivision and return, would be two trips. Column 4 gives the peak hour trips, or 13% of the ADT as described above. Column 5 then gives the resultant volume to capacity ratio. It can be seen that even after Phase IV is constructed, the volume to capacity ratio is still quite low. Therefore, the traffic impact of the subdivision should not be severe.

Phasing the development into four sections should not create use patterns from external traffic desiring a westerly direction on Route 201. There are no indications that traffic would by-pass the Norman Road and Route 201 intersection. The low traffic volumes on Route 201 would tend to reinforce this statement. The design and length of the development roads do not have the capability of attracting traffic to by-pass the Norman Road/Route 201 intersection.

XII. OPEN SPACE FACILITIES

Another planning concern is that of open space. The subdivision borders directly on the Pachaug River. The property's frontage along the river is about 3,000 feet. The major portion of that frontage consists of wetlands and floodplain, averaging about 150 feet in depth from the riverbank. This floodplain area is heavily wooded. The preliminary plan shows this area to be divided up and included in the area of some of the subdivision's lots, even though it is recognized by the developer that this land can never be built upon. The problem with this proposal would seem to be that the separation of this wooded wetland area into a series of separate ownerships will mean that the individual owners can do with it what they want, and there will be no coordinated effort to preserve the wetlands. For example, the potential will exist for illicit dumping of trash, and the cutting down of trees. The fact that the wetlands are wooded is a valuable aesthetic asset, as well as an ecological one. If property owners are permitted to cut down trees, the area could be destroyed. It would seem highly desirable from the point of view of the property owners in the subdivision, and the Town, to keep the wetland area in one ownership. It is suggested that it could possibly be deeded to a land trust, even though it appears to be unusable for hiking trails or other forms of recreation because of the potential for flooding. One member of the Board of Directors of the Mashantucket Land Trust indicated that this organization might consider acquiring it, if approached.

Another open space question that arises here is the provision of a boat launch area. The river at this point is suitable for canoeing. For the long-term future, such a facility might be very attractive, not only for the subdivision's residents, but the whole Town of Griswold. If the Town does not wish to manage the facility at this time, then it could possibly be done by a resident's association established for this purpose. Then, at some later time, it might be taken over by the Town if the need became evident. With boat launch areas open to the general public, the question always arises of traffic impact on the neighborhood. However, in this location, the canoeable area of the river is so small that it should not attract large numbers of vehicles in any case. It would seem that a desirable first step would be to have a boat launch facility managed by and limited in use to the subdivision's residents.

XIII. SUMMARY

NOTE: This is a brief summary of the major points, concerns and recommendations of the Team. You are strongly urged to read the entire report, and to refer back to the specific sections in order to obtain all the information about a certain topic.

TOPOGRAPHY -- The 124± acre site varies in topographic relief from relatively flat to moderately steep. The northern half of the site is characterized by bedrock at or near the surface. The southern half is flatter and is characterized by open fields, pasture and cornfields. The Pachaug River forms the southern boundary. A large oval-shaped wetland area covers a cornfield in the southern part. An active sand and gravel pit is found in the eastern parts of the site.

GEOLOGY -- Bedrock is visible at the surface in the northern parts near Section I and II (see Site Plan). The rocks underlying the site are classified into three groups: (1) Quinebaug Formation; (2) Felsic gneiss member of the Quinebaug Formation; and (3) dioritic phase of the Preston Gabbro.

The site is covered by two types of glacial deposits: till and stratified drift.

There is a 7± acre wet area found in a cornfield in the eastern parts of the site which appears to be comprised of regulated inland wetland soils overlying stratified drift. Seasonally wet areas parallel the intermittent streamcourses on the site and in some areas they spread out to form pockets of inland wetlands.

The 7± acre wetland mentioned above did not appear on the preliminary subdivision plans (July 1985), it does appear on a revised plan (December 1985), but it does not appear to be as extensive as the wet area visible on an air photo taken on April 17, 1980.

Any activity which involves modification, filling, removal of wetland soils, etc., will require a permit and ultimate approval from the Town's Inland Wetland Commission. It is recommended that a certified soil scientist closely investigate the 7± acre wet area in the eastern parts. Based on the site plans, development is proposed for this regulated area. Development in wetland soil types should be avoided if possible.

Floodplain soils parallel the Pachaug River. Because these soils are subject to flooding, they hold very little potential for development and should be left in their natural state.

DEVELOPMENT CONCERNS -- Based on visual observation, geologic mapping and soil mapping, the major geologic limitations to development are: (1) bedrock at or near the ground surface in the northern parts of the site; (2) till or stratified drift deposits which may have seasonally high groundwater conditions; and (3) the presence of regulated inland-wetland and alluvial soils, both of which hold very little potential for development. These geologic limitations will weigh heaviest in the potential for the installation of on-site subsurface sewage disposal systems. These limitations may also have an effect on foundation placement and roads and driveways.

Because of the geologic limitations present and the small lot size (one acre to an acre and a half), there may be a need to redesign the present preliminary lot layout, which may reduce the number of lots in the subdivision, once detailed lot-by-lot testing has been conducted.

When designing septic systems for the subdivision, the project engineer and Town engineer will need to survey adjacent properties to determine the type and locations of water supply wells.

The 7± acre wet area in the eastern part should have detailed soil testing conducted to determine subsurface conditions, i.e., soils data, groundwater levels, direction of groundwater movement, etc. This testing should be monitored during the wet time of the year (springtime).

Wetland crossings are undesirable but feasible provided that they are properly engineered. Roads or driveways should be constructed above the surface elevation of the wetland. Road construction should preferably be done during the dry time of year.

Culverts should be properly sized and located so as not to alter the water levels in the wetland or cause flooding problems.

HYDROLOGY -- If the subdivision is approved and homes with lawns are established, there would probably be a reduction in the amount of runoff shed from this part of the site. This is because presently nearly 1/3 of the parcel is bare soil (cultivated cornfield). As a safeguard, however, it is recommended that the applicant prepare a stormwater management plan which includes pre and post development runoff calculations.

Every effort should be made to prevent sediment from reaching watercourses on the site or the Pachaug River.

Consideration should be given to establishing temporary and possibly permanent sediment detention basins.

WATER SUPPLY -- The subdivision would be served by public water from the Jewett City Water Company. Assuming the water company has adequate supply of water in order to meet needs, this aspect of the development should be satisfactory and would seem to present no particular problems.

FLOOD HAZARD AREAS -- According to the FEMA map, the '100' year flood boundary parallels the Pachaug River along the southern boundary of the site. The '500' year flood boundary fringes small areas along outer limits of the '100' year flood boundary on the east and west side of the site.

A detailed erosion and sediment control plan should be prepared as part of the project application. In preparing the erosion and sediment control plan, the Inland Wetland Commission should consider incorporating the streambelt concept for setback distance from the river as defined in the 1972 USDA Soil Conservation Service publication, "A Guide for Streambelts." This would hopefully help to protect the quality of the Pachaug River. The New London County Soil Conservation Service should be contacted for assistance.

SEWAGE DISPOSAL -- Based on visual observations and soil service mapping data, it appears that the soils and terrain are a mixture as to their suitability for on-site sewage disposal.

In general, where there is less than 4 feet of naturally occurring soil over ledge rock, particularly where the land has yet to undergo subdividing, the area should be avoided for sewage disposal purposes.

Areas that tend to have shallow ledge should be extensively tested in order to possibly locate suitable sites within the area which could accommodate leaching systems.

Areas having a high seasonal water level should be given special attention. Groundwater monitoring pipes or new observation pits should be placed on lots so that observations may be made for the maximum groundwater level during the springtime. Areas that have extremely high groundwater would be considered as having an unsuitable soil condition. Areas that receive long-term flooding or saturation should receive careful consideration.

Most likely the overall number of proposed lots should be reduced in order to provide for more assured, viable layout.

SOILS -- An Erosion and Sediment Control Plan should be submitted with the plan consisting of a narrative and map showing what is to be done.

FISHERIES RESOURCE -- Populations of largemouth bass, chair pickerel, calico bass, yellow perch, bluegill sunfish, common sunfish, brown bullhead and golden shiners are expected to exist in Ashland Pond, an artificial impoundment of the Pachaug River.

Several measures should be implemented to minimize impact on the fish resources:

1. leave a buffer strip from the river/lake to the 134 foot elevation (100 year flood plain).

2. plan stormwater drains to first empty into inland wetland areas rather than directly into the river to help regulate storm flows.

3. implement proper erosion and sedimentation control measures.

TRAFFIC CONCERNS -- The site lines along Route 201 for both entrances to the subdivision are reasonably good.

It is recommended that sufficient land along the highway be deeded to the state so that the highway could be widened in the future if necessary. Although, based on an analysis of traffic increase, it should not be necessary to do any widening to accommodate traffic from this subdivision.

The traffic impact of the subdivision should not be severe even after all four (4) phases are complete.

There should not be a problem with people using the subdivision roads as an alternate route to bypass the intersection of Norman Road and Route 201.

OPEN SPACE FACILITIES -- The potential exists for individual owners to do what they want with the wetlands along the river. Problems may arise from illicit trash dumping and the cutting down of trees.

It seems highly desirable to keep the wetland area along the river in one (1) ownership. The Mashantucket Land Trust may be interested in acquiring it.

A boat launch area may be attractive to the Town and to the subdivision's residents.

Appendix

AfB - Agawam fine sandy loam, 3 to 8 percent slopes

This gently sloping, well drained soil is on stream terraces and outwash plains. Permiability of the Agawam soil is moderately rapid in the surface layer and subsoil and rapid in the substratum. The available water capacity is moderate. Runoff is medium. This soil warms up and dries out rapidly in the spring. Unless limed, the soil is strongly acid or medium acid. This soil is well suited to cultivated crops. This soil is in capability subclass IIe.

CrC-Charlton-Hollis fine sandy loams, very rocky, 3 to 15 percent slopes

This gently sloping to sloping complex consists of somewhat excessively drained and well drained soils on glacial till uplands. Rock outcrops cover up to 10 percent of the surface. Stones and boulders cover 1 to 8 percent of the surface. The soils of this complex are so intermingled on the landscape that it was not practical to separate them in mapping at the scale used. Permeability of the Charlton soil is moderate or moderately rapid. The available water capacity is moderate. Runoff is medium or rapid. Charlton soil warms up and dries out rapidly in the spring. It is strongly acid or medium acid.

Permeability of the Hollis soil is moderate or moderately rapid above the bedrock. The available water capacity is low. Runoff is medium or rapid. Hollis soil warms up and dries out rapidly in the spring. It is strongly acid or medium acid.

These soils are not suited to cultivated crops. Stoniness and rock outcrops generally make the use of farming equipment impractical. The Hollis soil has a shallow rooting depth and is droughtly. The hazard of erosion is moderate to severe. These soils are in capability subclass VIs.

HkC-Hinckley gravelly andy loam, 3 to 15 percent slopes

This gently sloping and sloping, excessively drained soil is on stream terraces, outwash plains, kames, and eskers. Permeability of the Hinckley soil is rapid in the surface layer and subsoil and very rapid in the substratum. The available water capacity is low. Runoff is medium or rapid. Hinckley soil warms up and dries out rapidly in the spring. Unless limed, it is strongly acid or medium acid. This soil is suited to cultivated crops. Hinckley soil is droughty, and irrigation is needed. The hazard of erosion is moderate or severe. This soil is in capability subclass IVs.

These nearly level, poorly drained and very poorly drained soils are in drainageways and depressions of glacial till upland hills, ridges, plains, and drumloidal landforms. Stones and boulders cover 8 to 25 percent of the surface. These soils were mapped together because there are no major differences in use and management. The Ridgebury soil has a seasonal high water table at a depth of about 6 inches. Permeability is moderate or moderately rapid in the surface layer and subsoil and slow or very slow in the substratum. The available water capacity is moderate. Runoff is very slow or slow. Ridgebury soil warms up and dries out slowly in the spring. It is strongly acid through slightly acid.

The Leicester soil has a seasonal high water table at a depth of about 6 inches. Permeability is moderate or moderately rapid. The available water capacity is moderate. Runoff is very slow or slow. Leicester

soil warms up and dries out slowly in the spring. It is very strongly acid through medium acid.

The Whitman soil has a high water table at or near the surface for most of the year. Permeability is moderate or moderately rapid in the surfacelayer and subsoil and slow or very slow in the substratum. The available water capacity is moderate. Runoff is very slow, or the soil is ponded. Whitman soil warms up and dries out very slowly. It is very strongly acid through slightly acid.

These soils are not suited to cultivated crops. Stoniness makes the use of farming equipment impractical. These soils are in capability subclass VIIs.

MyB-Merrimac sandy loam, 3 to 8 percent slopes

This gently sloping, somewhat excessively drained soil is on stream terraces, outwash plains, kames, and eskers. Permeability of the Merrimac soil is moderately rapid in the surface layer and subsoil and rapid in the substratum. The available water capacity is moderate. Runoff is medium. Merrimac soil warms up and dries out rapidly in the spring. Unless limed, it is strongly acid or medium acid. This soil is well suited to cultivated crops. It is droughty during the drier periods in summer. This soil is in capability subclass IIs.

Nn-Ninigret fine sandy loam

This nearly level to gently sloping, moderately well drained soil is on outwash plains and stream terraces. Slopes range from 0 to 5 percent.

The Ninigret soil has a seasonal high water table at a depth of about 20 inches. Permeability is moderately rapid in the surface layer and subsoil and rapid in the substratum. The available water capacity is high. Runoff is slow or medium. Ninigret soil warms up and dries out slowly in the spring. Unless limed, it is strongly acid or medium acid. This soil is well suited to cultivated crops. This soil is in capability subclass IIw.

Ro-Rippowam fine sandy loam

This nearly level, poorly drained soil is on flood plains of major streams, rivers, and their tributaries. The Rippowam soil has a seasonal high water table at a depth of about 6 inches. It is subject to frequent flooding. Permeability is moderate or moderately rapid in the surface layer and subsoil and rapid or very rapid in the substratum. The available water capacity is moderate. Runoff is slow. Rippowam soil warms up and dries out slowly in the spring. It is strongly acid or medium acid but has a medium acid layer within a depth of 40 inches. This soil is suited to cultivated crops. This soil is in capability subclass IIIw.

Sg-Sudbury sandy loam

This nearly level to gently sloping, moderately well drained soil is on outwash plains and stream terraces. Slopes range from 0 to 5 percent. The Sudbury soil has a seasonal high water table at a depth of about 18 inches. Permeability is moderately rapid in the surface layer and subsoil and rapid in the substratum. The available water capacity is moderate. Runoff is slow or medium. Sudbury soil warms up and dries out slowly in the spring. Unless limed, it is strongly acid or medium acid. This soil is well suited to cultivated crops. This soil is in capability subclass IIw.

Ud-Udorthents-Urban land complex

This complex consists of excessively drained to moderately well drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings or pavement. Slopes range from 0 to 15 perecent. The areas of Udorthents and Urban land are so intermingled that it was not practical to map them separately. Permeability of the Udorthents is slow to very rapid. The available water capacity and runoff are variable. This complex requires onsite investigation and evaluation for most uses. This complex is not assigned to a capability subclass.

Wd-Walpole fine sandy loam

This nearly level, poorly drained soil is on stream terraces and outwash plains. Slopes range from 0 to 3 percent. The Walpole soil has a seasonal high water table at a depth of about 6 inches. Permeability is moderately rapid in the surface layer and subsoil and rapid or very rapid in the substratum. The available water capacity is moderate. Runoff is slow. Walpole soil warms up and dries out slowly in the spring. It is strongly acid or medium acid. This soil is suited to cultivated crops. This soil is in capability subclass IIIw.

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--an 86 town 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, a statement identifying the specific areas of concern the Team should address, and the time available for completion of the ERT study. 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 Elaine A. Sych (774-1253), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, Brooklyn, Connecticut 06234.