PROSPECT AND BEACON FALLS
REGIONAL HIGH SCHOOL SITES
PROSPECT AND BEACON FALLS, CONNECTICUT

KING'S MARK
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT

on the

PROSPECT AND BEACON FALLS
REGIONAL HIGH SCHOOL SITES
PROSPECT AND BEACON FALLS, CONNECTICUT
APRIL 1976

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King's Mark Resource Conservation
and Development Project (RC&D)
Environmental Review Team
P. O. Box 30
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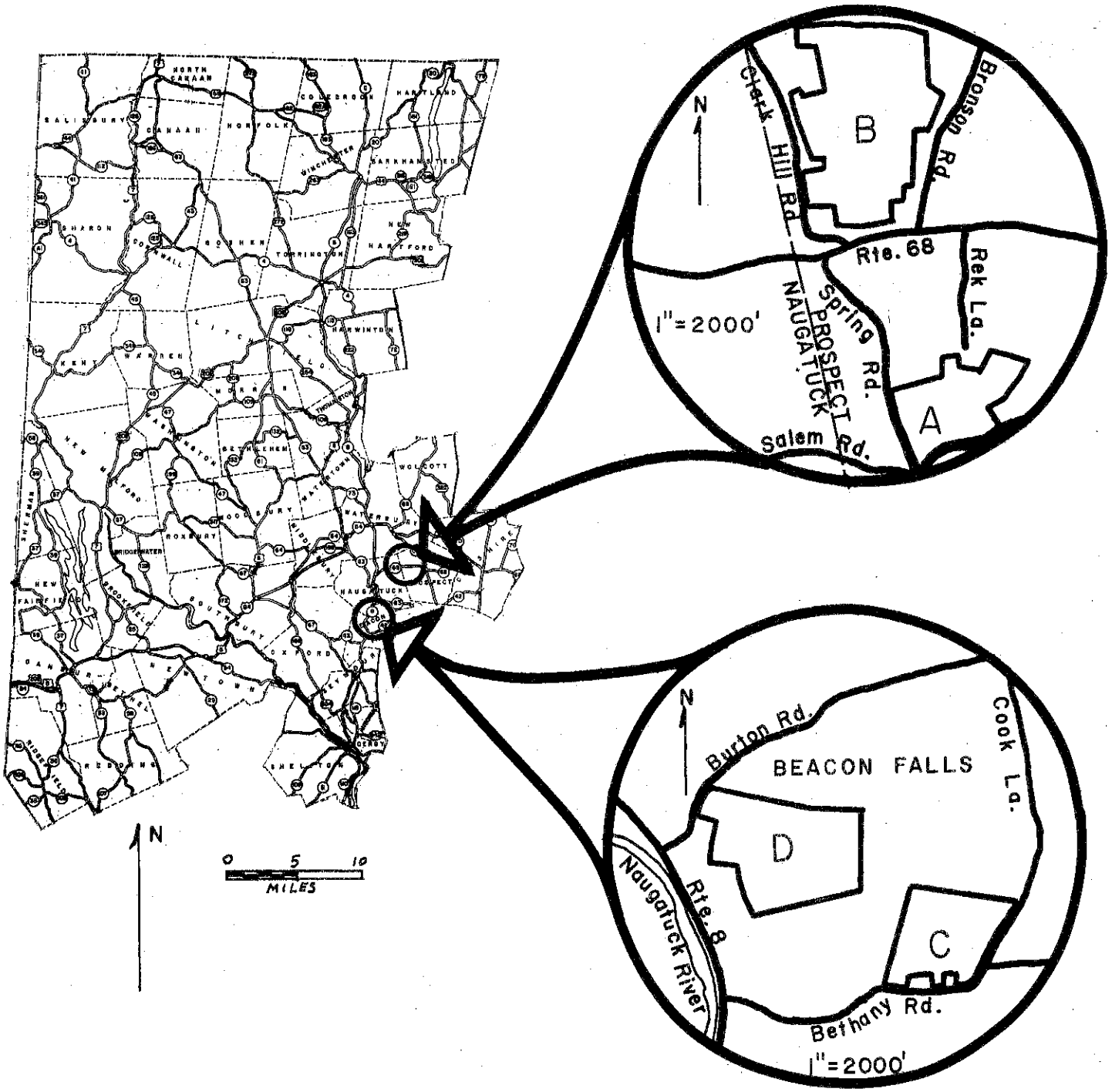
LOCATION OF STUDY SITES

REGIONAL SCHOOL
BEACON FALLS AND PROSPECT



ENVIRONMENTAL REVIEW TEAM REPORT
ON THE
PROSPECT AND BEACON FALLS PROPOSED
REGIONAL HIGH SCHOOL SITES
PROSPECT AND BEACON FALLS, CONNECTICUT

This report is an outgrowth of a request from the Regional School District No. 16 Board of Education which includes the towns of Prospect and Beacon Falls, Connecticut to the New Haven County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the King's Mark Resource Conservation and Development (RC&D) Project Executive Committee for their consideration and approval as a project measure. The request was approved and the measure reviewed by the Environmental Review Team (ERT).

The Environmental Review Team draws together a range of professionals in the fields of natural resources, engineering and planning, who, based upon existing available data and field investigation, formulate an analysis of a proposed land use activity.

The soils of the sites were mapped by a soil scientist of the United States Department of Agriculture (USDA) Soil Conservation Service (SCS). Reproductions of the soil surveys, a table of soils limitations for certain land uses, and topography maps showing property boundaries were made available to the Team on the day of the review.

The members of the Environmental Review Team consisted of the following: Frank Indorf, Jr., District Conservationist, SCS; Charles Reynolds, Soil Scientist, SCS; Timothy Dodge, Biologist, SCS; Leon Gardner, Civil Engineer, SCS; Richard Hyde, Geologist, Connecticut Department of Environmental Protection (DEP); Howard Gates, Forester, DEP; Edward Rizzotto, Recreation Resource Specialist, DEP; Virginia Mason, Regional Planner, Central Naugatuck Valley Regional Planning Agency; Michael Dengenis, Transportation Planning Manager-Highways, Bureau of Planning and Research, Connecticut Department of Transportation; Carl Paternostro, Unit Head, School Buildings Unit, State Department of Education; Carol Youell, Environmental Review Team Coordinator, King's Mark RC&D Project.

The Team met and field reviewed the sites on Thursday, January 22, 1976. Reports from each Team member were sent to the ERT Coordinator for review and summarization for this 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 a potential developer and the towns involved. 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 King's Mark RC&D Executive Committee hopes this report will be of value and assistance in making decisions on these particular sites.

If any additional information is required, please contact: Carol Youell (868-7342), Environmental Review Team Coordinator, King's Mark Resource Conservation and Development Project, P. O. Box 30, Warren, Connecticut, 06754.

INTRODUCTION

The Regional School District No. 16, comprising Prospect and Beacon Falls, is seeking a site for a high school facility to serve 1,000 students. Presently, Prospect High School students go to Waterbury and Beacon Falls students go to Naugatuck. Beacon Falls is a community of 3,900 persons (1975) located on the Naugatuck River and Connecticut Route 8. The town shows evidence of the industrial heritage of the river valley and has developed in the valley on the banks of Naugatuck. Prospect is a town of 6,600 persons (1975) located on the southeast border of Waterbury. Connecticut Routes 68 and 69 intersect in Prospect. Much of the town's residential population live in the northwest quadrant formed by the intersection of these two routes. Prospect and Beacon Falls are not contiguous and at their closest point are about two miles distant.

The King's Mark Resource Conservation and Development Project's Environmental Review Team visited four sites in these towns for the purpose of evaluating the potential of each for use as the location of the proposed regional high school. The proposed complex will consist of classrooms for approximately 1,000 pupils, athletic fields and parking lots. The minimum acreage requirement for a complex of this nature, which includes a school building, parking lots, access roads and athletic fields, amounts to approximately 35 acres of land. The following gives a brief description of the four sites visited (A, B, C, and D):

Site A - (Prospect) is a 35 acre parcel of undeveloped land, located south of Route 68, at the junction of Spring Road and north of Salem Road. Portions of the property contain gravel excavation areas. Surrounding land uses are vacant, farming, and single family residential. A gravel operation is located opposite this parcel, south of Salem Road.

Site B - (Prospect) is a 95 acre parcel located north of Route 68 and east of Clark Hill Road about two miles from Route 8 in Naugatuck. The parcel is currently in agricultural uses with portions undeveloped. Surrounding land uses are primarily single family residential with some agricultural or vacant acreage.

Site C - (Beacon Falls) is a 38 acre parcel located just north of Connecticut Route 42 (Bethany Road) and west of Cook Lane, less than one mile east of Route 8 and the Naugatuck River. The site is undeveloped, with portions still in agricultural use. The surrounding property is in single family uses or is undeveloped.

Site D - (Beacon Falls) is a 50 acre parcel located within a eighth of a mile east of Route 8 on Burton Road. The property is undeveloped with single family residential, institutional, government and industrial uses nearby. The Laurel Ledge School is located farther east on Burton Road.

These sites were selected based on soil suitability from a total of fourteen parcels available for sale, according to information given the Environmental Review Team.

The Team evaluated the sites in terms of their ability to support the proposed complex, pointing out limitations, concerns and opportunities for site development. The evaluation was based primarily on on-site environmental concerns and capabilities. Aspects of the proposal discussed by the Team include soils limitations associated with site development, and transportation considerations.

This report will present a general description of the geology, topography, soils, wildlife, and other natural characteristics of the four parcels, followed by an evaluation of the different aspects of the development as they relate to the natural resources. Hopefully, this report will be of assistance in choosing the most desirable site for a regional high school. Comments or recommendations made within the report are presented for consideration by all parties, and should not be construed as mandatory or regulatory in nature.

* * * * * * *

SITE DESCRIPTION

Surficial Geology* and Topography

Site A. Geologically the site falls entirely within the stream valley of Mill Brook (see Surficial Geology Map). The principal unconsolidated overburden in this area is stratified sands and gravels (stratified drift) deposited by the retreat of glacial ice thousands of years ago. As the ice melted, streams created by the melting carried tremendous quantities of suspended particles released from the ice. As these streams flowed away from the ice, deposition of suspended particles took place in general with the heavier particles being deposited closest to the ice and the lightest particles being carried farther away. Because ice-melt varied according to the daily temperature and season of the year, the deposited materials exhibit an irregular alternation of layers with large ranges in texture between layers over relatively short lateral distances. It is not uncommon to find boulders in close proximity to layers of sand or even silt. In site A, it would appear the abandoned sand and gravel pit is the location of such a glacial deposit. Moving toward the two small drainage brooks, the land levels off and probably is the result of much more recent flooding of these two water courses. The unconsolidated deposits of these areas are probably finer grained consisting primarily of silt and fine sand sized particles.

Site A encompasses a relatively low-lying area along the northern half with the southern and southwestern margin consisting of a quite irregular topography (see Topography Map), the result of the sand and gravel extraction. To prepare the property for construction of buildings and the layout of athletic fields, extensive modification of the land surface will be necessary.

Thickness of sand and gravel lying on top of the solid bedrock range on the average from about 10 feet to in excess of 40 feet just south of the northwestern boundary (see Surficial Geology Map). Such thicknesses of course are primarily below the water table.

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* The task of the surficial geologist is to map the distribution of unconsolidated overburden materials lying between the solid bedrock and the soil zone of the land surface. These materials are called primary overburden and in Connecticut they were deposited by the glacier approximately 10,000 years ago. The soil zone which is mapped by the soil scientist is that uppermost portion of primary overburden which has been altered by biologic as well as natural, mechanical, and chemical weathering processes.

Site B. Site B borders both sides of a tributary flowing north to south into a small pond on the south side of Route 68. All except for a tiny portion of its southern margin, the property is entirely covered by glacial till (see Surficial Geology Map). Till is the major unconsolidated overburden material found in Connecticut averaging 10 to 15 feet in thickness above the solid bedrock. The term till refers to that heterogeneous mass of earth materials that remained after all glacial ice had melted which was relatively unaffected by meltwaters. Such deposits generally consist of various mixtures of boulders, gravel, sand, silt and clay particles, none of which have been significantly sorted or stratified according to grain size.

The topography of site B may be described as a hillside sloping to the south and toward the nearly central southerly flowing tributary. The western half of the property contains a large area with slopes in excess of 15 percent with several small inclusions of 10 percent to 15 percent slope (see Topography Map).

East of the tributary, the property takes on a much gentler character although there are two strips of property where the land slope exceeds 10 percent. In those areas where the general land slope is less than 10 percent, there are still well developed seasonal drainage patterns that produce a more gentle but still somewhat irregular land surface.

Overburden thicknesses vary throughout the site with the thickest till sections being located west of the small brook. Moving south to north along Clark Hill Road the logs of house wells indicate an increase from 50 feet to over 100 feet of till lying on top of the bedrock. East of the brook thicknesses are less than 40 feet in most places with an occasional bedrock outcrop appearing in the brook bottom and to the northeast.

Site C. Site C, located along the intersection of two roads, consists of a large flat area along the front 50 to 60 percent (see Topography Map). The back (northern) portion of this property slopes upward at an average rate of 10 percent. In fact, this slope break marks the point of till-stratified drift contact (see Surficial Geology Map). North of this line the overburden material is till while to the south the material is ice-contact stratified drift. (Both materials are described for sites A and B).

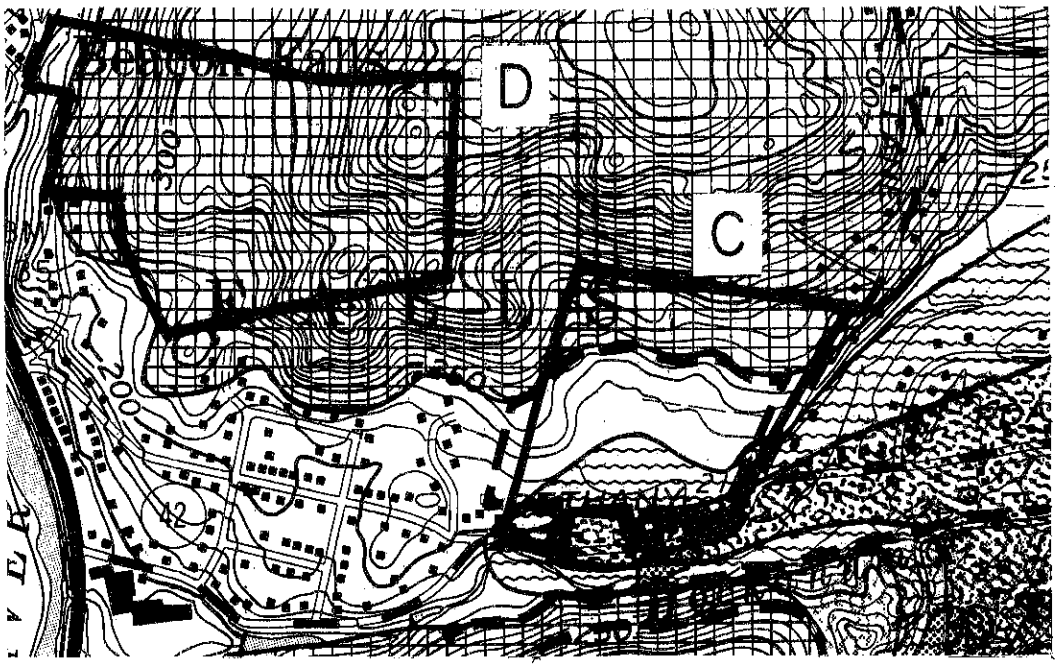
The sand and gravel deposit has been defined by the Connecticut Transportation Department as having potential for commercial extraction. The site is estimated to contain 225 acre-feet of extractable sand and gravel within the area delineated on the Surficial Geology Map.

The till material is probably quite thin, particularly in the steepest areas along the northern border.

Site D. Site D is located within the area where glacial till is the predominant overburden material (see Surficial Geology Map). The thickness of till grades from very thin, zero, to an average of 4 or 5 feet over the entire eastern half. Numerous bedrock exposures are visible as knobs and low ridges throughout this area. The western half of the property appears to contain a somewhat thicker overburden layer but even here the materials probably do not exceed 10 feet in very many places. Again, the till thins out as the steeper areas are encountered along the western boundaries.

Slope is a very critical problem at this site with probably 70 percent of the property having a surface slope in excess of 10 percent and much of that is

SURFICIAL GEOLOGY



KEY

Type	Saturated Thickness
Stratified Drift	0-10ft.
Stratified Drift	10-40ft.
Stratified Drift	More than 40ft.
Till	
Area of Previous Extraction	
Area of Good Extraction Potential	
Site Boundaries	

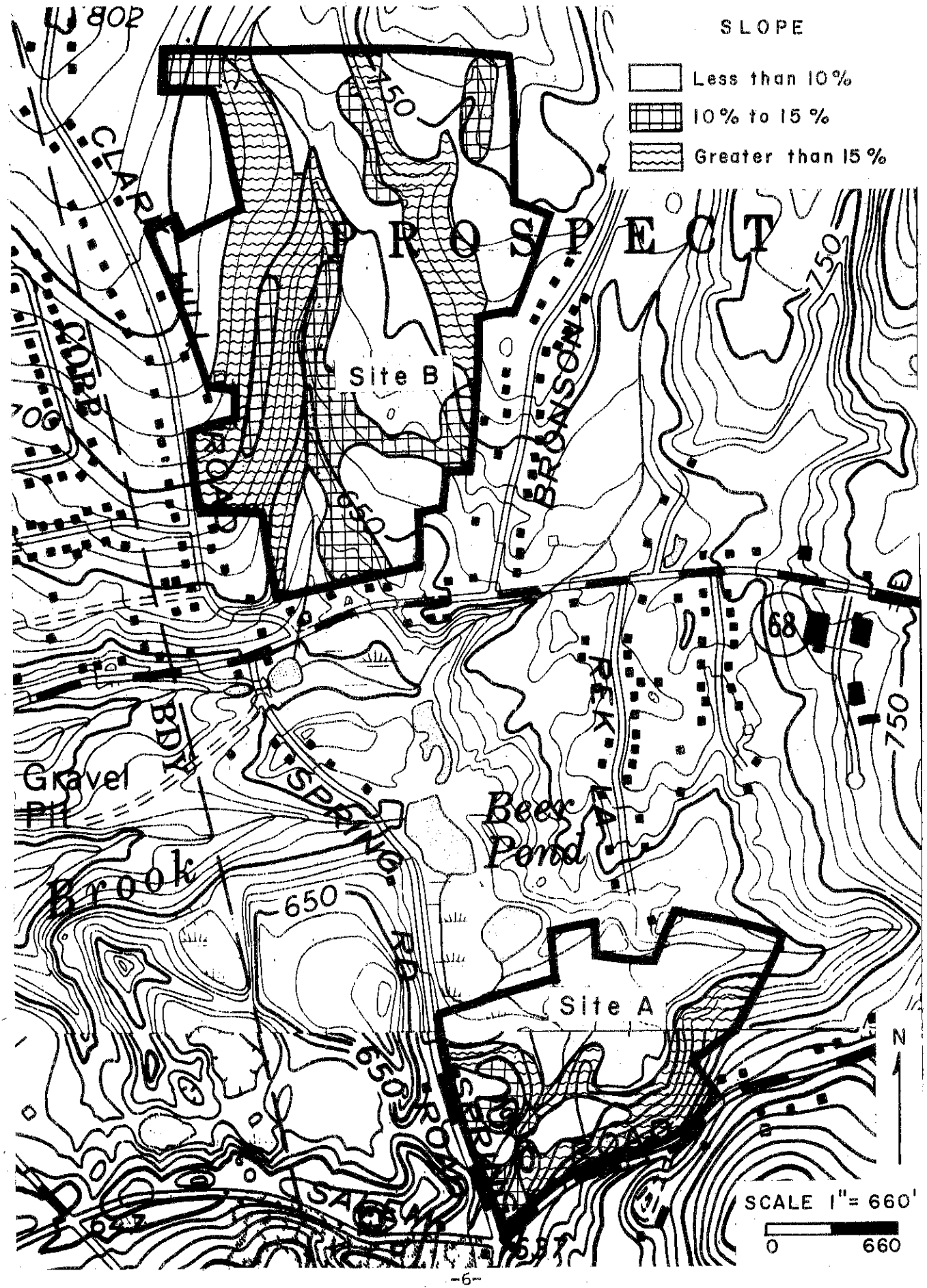
N

0 1000 2000 ft.

SCALE 1"=1000'

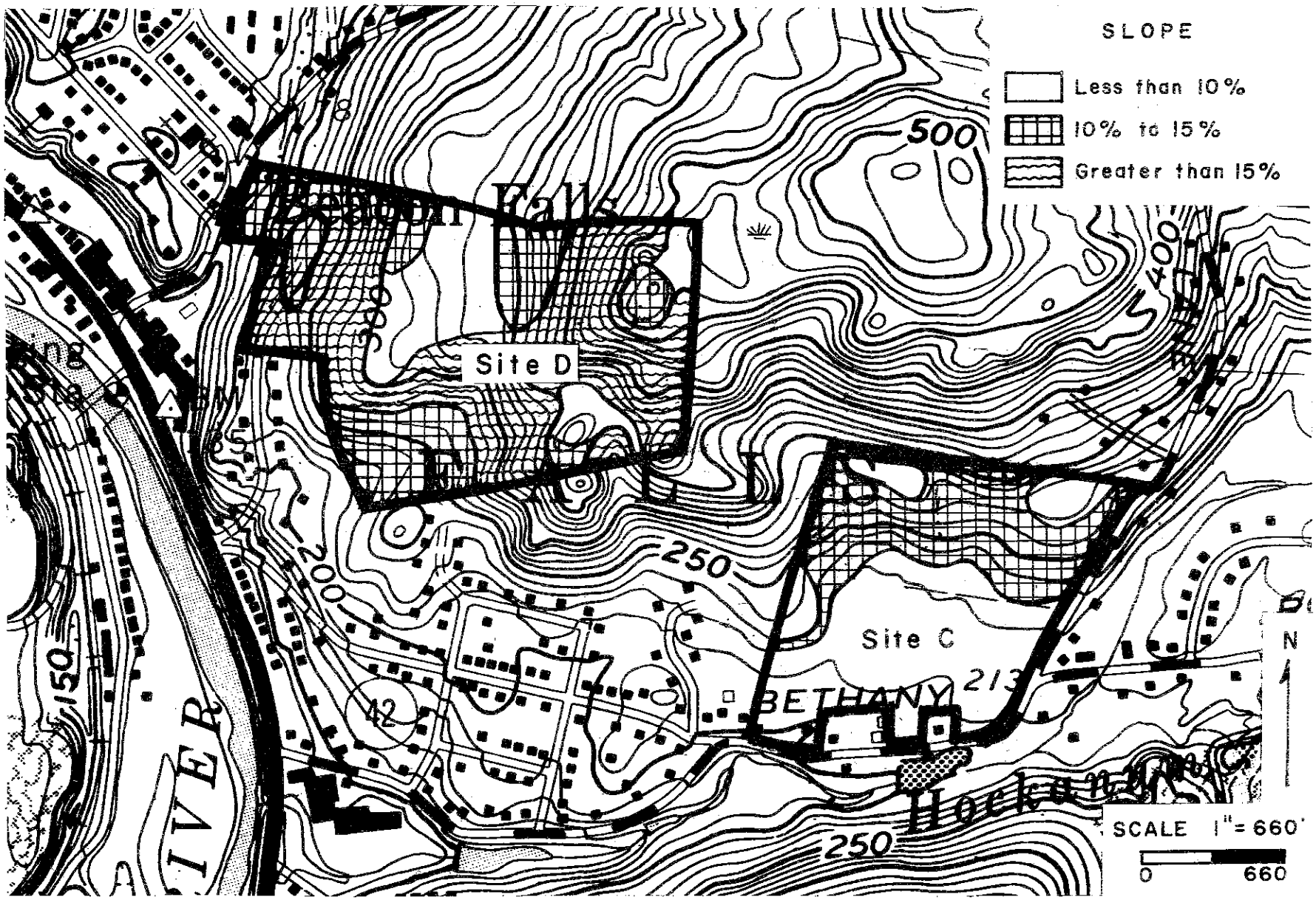
TOPOGRAPHY MAP

REGIONAL SCHOOL PROSPECT SITES



TOPOGRAPHY MAP

REGIONAL SCHOOL BEACON FALLS SITES



greater than 15 percent (see Topography Map). There is no area where the slope is relatively flat over significant acreage.

Soils

Detailed soils maps of the properties are given in the appendix to this report. As the maps are enlargements from the original 1320'/inch scale to 660'/inch, the soil boundary lines should not be viewed as precise boundaries, but rather as guidelines to the distribution of soil types on the properties. The Soils Limitations Chart, also found in the appendix, indicates the probable limitations for each of the soils for various urban uses including: on-site sewage disposal, buildings with basements, landscaping, streets and parking lots, and athletic fields. (See Soil Interpretations for Urban Uses in the appendix for an explanation of the limitation ratings.) Limitations, even when severe, do not always preclude the use of the land for development. If economics permit greater 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.

With the examination of the soils maps and accompanying chart, a correlation between the soils and surficial geology can be seen. Soils in Natural Soil Group A (see first column of chart) are terrace soils underlain by water deposited beds of sand and gravel (stratified drift). Groups B, C, and D are all upland soils that were formed in areas of till. Group B soils are generally found in thicker deposits of till occurring on hillsides. Group C soils occur mostly on the tops and sloping sides of hills or drumlins and have a hardpan 16 to 36 inches below the soil surface. Group D soils are found mostly on steep side slopes and narrow ridge tops and are characterized by stoniness and shallow depths to bedrock. Group E soils occur on nearly level flood plains in stream valleys, and are formed in loamy deposits overlying sand and gravel layers. These soils are subject to flooding with the lower lying poorer drained soils being flooded most often.

Vegetation, Wildlife, Aesthetics

Site A. Present land use consists of a mixture of small fields, wooded areas, stream and adjacent wetlands, as well as the remains of gravel mining operations. Woody vegetation consists of trees, shrubs and vines including oaks, maples and birches. Tree growth is generally poor to fair with most trees sapling to pole size.* Understory growth is sparce.

This area is not high quality wildlife habitat. Droughty soils on much of the area limit productivity resulting in sparce understory plants to serve as food and cover. However, the area does have a desirable combination of open land and woodland habitat, and may provide for such species as songbirds, ruffed grouse, cottontail rabbit, squirrels, and raccoon.

This area does not have high aesthetic appeal. The steep slopes of the filled area in the southerly portion of the site are a source of erosion and sediment. Old car bodies and gravel operations also lower these qualities. However, areas which are unusable for standard development (i.e., streams and associated wetlands) may have value for environmental education.

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* Sapling size - trees 1-5 inches in diameter at breast height.
Pole size - trees 5-11 inches in diameter at breast height (generally for hardwoods).

Site B. Most of this site is wooded with the exception of open fields on the western portion adjacent to Clark Hill Road which are in grasses, with areas used for pasture. Other openings with a poor soil base and supporting scattered cedar are apparent, but the area is predominately immature (pole size) growth. Trees and shrubs include birches, maples, hickory, white ash and oaks, red cedar, occasional white pine, a small stand of mature hemlock, japenese barberry, sweet fern, and blueberry.

The area provides good wildlife habitat primarily to woodland type wildlife. Gray squirrel habitat is excellent with numerous mast producing trees and presently used den trees visible. There is evidence of use by woodpeckers and songbirds. Understory is sparce where grazing has been allowed, however, numerous fruiting shrubs are present. Old fields and woodlands combined provide a high quality habitat for a variety of animals including cottontail rabbit, ruffed grouse, red fox, skunk, and raccoon. Evergreen cover is available from hemlock, white pine, and juniper.

Aesthetically, Site B is probably the most desirable. It has good exposure to the south, which is a desirable feature, and it has a high quality perennial stream. The site has the size and appearance to allow for an environmental education study area without being interrupted by other school activities.

Site C. Better than 75 percent of the site is open land either in grasses or crops with the remaining land in brushy cover having some trees, mostly red cedar. Wildlife habitat is available primarily to open land species such as quail, cottontail rabbit, woodchuck, red fox, meadowlark, and field sparrow.

With regard to aesthetics, the site itself has a poor variety of natural characteristics and may be limited for environmental education experience. Although, it does have exposure to the south and the view from the site is quite scenic. Planting of an evergreen plantation would lend itself nicely after the school complex is built, and would add some variety to the area.

Site D. This area is heavily covered with woody vegetation of various ages. There are many stages of forest succession present. Habitat is provided for woodland game and nongame species of wildlife in the form of trees, shrubs and vines. These include white pine, hickory, maples, gray birch, japenese barberry, oaks, wild cherry, brambles, and blueberry. Cottontail rabbit cover and food sources are very good as is habitat for ruffed grouse and gray squirrels.

The site is aesthetically diverse and has good potential for outdoor education study.

WATER SUPPLY

All sites have the future possibility of being served by public water supply systems from the surrounding areas. For example, there is the possibility that sites A and B in Prospect could receive water at some expense from Naugatuck, but perhaps on-site wells would be a more reasonable solution. Sites C and D in Beacon Falls are located near an existing system. According to the Bridgeport Hydrolic Company, a 12 inch water supply line

serves Burton Road to Highland Avenue. A 6 inch line serves Bethany Road to Edgewood, approximately 500 feet from site C. Residences on Cook Lane use on-site wells.

Should it prove infeasible to tie into an existing supply line, on-site water sources would have to be located. In general, sites B and D, because they are both located in areas of till overburden, can only successfully tap the bedrock aquifer. Bedrock in these two areas is a relatively hard and dense material with tightly interlocking mineral grains. For this reason, water supplies are completely dependent on the fluids which flow through the joints, cracks and fissures of the rock and therefore bedrock wells are only as good as the number and size of the openings below the water table. The larger and more numerous the fractures and openings, the more water a well will be capable of receiving in the shortest possible time and thus be capable of yielding to the user. Except for fault zones, which may extend deep into the earth, the major amount of rock openings are primarily found within the 200 feet below the bedrock surface. As a general rule then, the capacity for rock to yield water declines with depth. Based on statistics published in the "Water Resources Inventory of Connecticut, Part 5, Lower Housatonic River Basin", Connecticut Water Resources Bulletin No. 19, the distribution of yields of a 294 bedrock well sampling indicate the median yield to be 5-6 gallons per minute. Seventy-five percent of these wells yielding at least 3 gallons per minute while less than 10 percent produced 20 gallons per minute or more. Providing surface water storage capacity is installed, a single well yielding 3 gallons per minute can provide 4,320 gallons of water per day. If additional wells are drilled, even more water can be produced.

On-site water supplies for sites A and C could be a much simpler matter if gravel packed wells can be located within the unconsolidated sand and gravel overburden materials above the solid bedrock providing conditions are conducive for such wells. That is, a relatively thick sand and gravel deposit must be present below the water table. This condition, however, may not be the case for site C, based on three test holes drilled for the Seymour Water Company by the S. B. Church Company. For each of the three exploratory wells along the main road (Route 42), the logs indicate 10 to 20 feet of fairly fine grained sand underlain by another 15 to 30 feet of till.

Site A appears to have a slightly better condition in terms of water supply, but even this is not optimum. The northwestern corner contains an area where the possibility of more coarse-grained materials may exist with thicknesses somewhere between 10 and 30 feet. Only exploratory test drilling can confirm the possible existence of favorable conditions (see Surficial Geology Map).

WASTE DISPOSAL

Both sites in Beacon Falls have sewer service availability, according to the First Selectman in Beacon Falls. Lines in place on Burton Road are 8 inches and on Bethany Road are 10 inches. As of December, 1973 average daily flow was estimated at 0.14 million gallons daily with design capacity of 0.5 million gallons daily at the town's secondary treatment plant. Prospect has no sewer services at this time, but there may be a possibility that the sites (A and B) could be included in the Naugatuck system.

If off-site waste disposal proves infeasible at this time, on-site facilities must be developed. The Soils Limitations Chart in the appendix

gives an indication of the suitability of the soils of each site for on-site sewage disposal. The limitations denote problems in location, construction, design and performance, because of such factors as: steep slopes, stoniness, high water table, fragipan, and shallow depths to bedrock.

In summarizing the chart, site B has the largest area (26 acres) with soils suitable for on-site sewage disposal with moderate limitations. (Note, none of the sites have significant acreage available with slight or no limitations for on-site sewage disposal.) Site C has 18 acres available for on-site sewage disposal with moderate limitations, followed by site A with 14 acres, and lastly site D with only 5 acres (2 of which are rated as slight).

FOUNDATION DEVELOPMENT

The feasibility of installing a structure on these sites can be evaluated on the basis of soil compatibility. In general, the principal limiting factors for foundation development on the sites include steep slopes, stoniness, shallow depths to bedrock, wetness and frost action.

The Soils Limitations Chart indicates that in general none of the sites have significant acreage with slight or no limitations for buildings with basements. Site B has the largest area (43 acres) for buildings with basements with moderate limitations. Site C has 18 acres, and site A, 15 acres with moderate limitations. Site D has 2 acres with slight limitations and 3 acres with moderate limitations. Site D would be the least desirable for buildings.

TRANSPORTATION

On-Site Road Construction

The practicability of road and parking lot construction on the sites can be summarized by referring to the Soils Limitations Chart. According to the soils information, sites B and C have the greatest potential for roads and parking, with 43 acres and 23 acres respectively having moderate limitations. Sites A and D would be less desirable, having (respectively) 15 acres with moderate limitations and 5 acres with moderate or better limitations.

Existing Road Network

Route 68 in Prospect, east of Clark Hill Road and north of Spring Road has an estimated 4,300 average daily trips (ADT) in 1972. Route 68 is classified as a minor arterial in the Federal Highway Administration (FHWA) urban area. Route 68 would serve as a major transportation route for both Prospect parcels. It is a two-lane road with adequate shoulders. Clark Hill Road and Salem Road are narrow two-lane local roads. Clark Hill has a moderately steep grade.

In Beacon Falls, Route 8 is classed as a principal arterial under Urban Systems; Route 42 as a minor arterial, and Burton Road as a collector road. Burton Road serves Laurel Ledge School and the Town Hall at the present time. It intersects with Route 8 at a traffic control signal and underpass formed by a Uniroyal Warehouse. Route 42 intersects with Route 8 at a point also with a traffic control device. Both Burton Road and Route 42 are narrow two-land roads. Burton Road has difficult horizontal and vertical alignments.

Proposed Improvements for Existing Roads

Route 42 from Route 8 in Beacon Falls east to the vicinity of Burton Road (east of sites C and D) is proposed in the 1975 Connecticut Transportation Plan for reconstruction of 1.5 miles, between the years 1978 and 1985. Route 8 through Beacon Falls and Naugatuck is planned for upgrading beginning in 1976-1978.

Projected School-Oriented Traffic Volume

A regional high school of 1,000 students would generate 1,800 average daily trips and 400 peak-hour trips in one direction. From a transportation point of view, sites A and B in Prospect would be preferable. Based on 1970 population and population projects to the year 2000, nearly two-thirds of the students would be coming from Prospect. This would result in lower vehicle miles of travel if sites A or B were selected.

Site Accessibility, General Traffic Operations, Safety

Site A provides poor access with regard to a school bus route. Spring Road provides the best access potential, but would require extensive improvements to accomodate school bus traffic. Even if the necessary improvements are made, an undesirable condition would remain, in that the school buses and other school traffic would be sharing Spring Road with heavy dump truck traffic going to and from a construction company and gravel bank located on Salem Road opposite Spring Road. Furthermore, Spring Road intersects Route 68 on a moderate ascending grade and the sightline to the east is restricted to approximately 250 feet by a couple of small cedar trees. Rek Lane may, with improvements, make for an alternate entrance.

Site B offers good possibilities for adequate access, with some qualifications. While the most obvious access is from Clark Hill Road, school buses could encounter some difficulty in maneuvering the reverse curve and moderate descending grade approaching the intersection of Route 68. Also, the sight distance to the west on Route 68 from Clark Hill Road is restricted to ±435 feet, by a bank and the curvature of Route 68. Based on the 85th percentile speeds of approximately 50 mph recorded in this area and a 6 second gap, this sight distance is marginal particularly where buses full of children are involved. If possible, a school bus access should be provided directly onto Route 68 or onto Bronson Road within 750 feet of Route 68. Keeping this access within 750 feet of Route 68 would reduce the amount of minor improvements needed with regard to road width and tree clearances both horizontal and vertical. (Note: If access is made available to Route 68, a permit from the Connecticut Department of Transportation would be required.)

Site C is capable of providing multiple access points directly onto Route 42 and also from Cook Lane to Route 42. Multiple access points would provide better dispersal of anticipated traffic. However, Route 42 is a somewhat narrow, winding road, approximately 0.75 of a mile in length, from Cook Road to Route 8. Feldspar Avenue offers an alternative bus route but is limited to one-way traffic between Route 8 and Avenue "E". If this site is selected, it is suggested that some consideration be given to reversing the one-way operation of Feldspar Avenue to provide better school bus operations to northbound Route 8. School buses going to southbound Route 8 should use Route 42 since the intersection of Route 8 and Route 42 is already signalized and there should be no problem with the buses crossing the northbound lanes of Route 8. (Note: A permit would be required if access to the site is located on Route 42.)

Site D is accessible only from a short section of Burton Road. While Burton Road is in fairly good condition and the possible access point is good in relation to its distance from Route 8, there is a question whether one access to a facility

of this type is adequate. Also, an entrance off Burton Road may require a bridge and the construction of roads on steep slopes approaching 20 percent. The only other possible access is to Fairfield Place, but because of the extremely steep gradient, any consideration for an access to Fairfield Place is highly discouraged.

In summary, sites B and C appear to have the greatest potential for accessibility and general traffic operations and safety, while keeping in mind these observations are made without any information regarding projected traffic volumes.

It may also be necessary to provide signalization for one or more of the access points for whichever site is selected. Regardless of which site is selected, it should be understood that the best school bus route between the towns of Beacon Falls and Prospect is via Route 8 and Route 68. Route 42 from Route 69 to Route 8 is narrow, winding and hilly and is not considered a good school bus route.

SERVICES TO SUPPORT DEVELOPMENT

The major services involved in the proposal would appear to be transportation or utility related (as previously discussed). Recreation facilities would be supplied as part of the development.

COMPATIBILITY OF SURROUNDING LAND USES

The proposed high school sites appear to be compatible with surrounding land uses, and are not inconsistent with the present zoning regulations of the two towns. In all cases, schools are permitted uses of the lands.

GENERAL CONSIDERATIONS FOR SITE DEVELOPMENT

Site A has some very steep land, and when this is graded and stabilized it will take up several acres of already limited area. There is some question whether there will be sufficient space for constructing playfields. There are also two streams running through the site thus breaking up the area.

Site B is divided nearly in half lengthwise by a perennial stream. Land between this stream and Clark Hill Road to the west is probably too steep for buildings or roads. However, the site does have some relatively flat areas east of the stream which appear to be developable and would allow for recreation land at the same time.

Site C has sands and gravels that will be droughty, making the establishment of good vegetation more difficult. However, the site does appear to have sufficient area for recreation fields.

Site D has the smallest area of suitable soils of the four sites for on-site sewage disposal, foundations, and roads (5 acres). Site preparation expenses would probably be high, due to the lack of suitable soils and level land. There does not appear to be any usable area for playfields if the flattest areas present were used for the school.

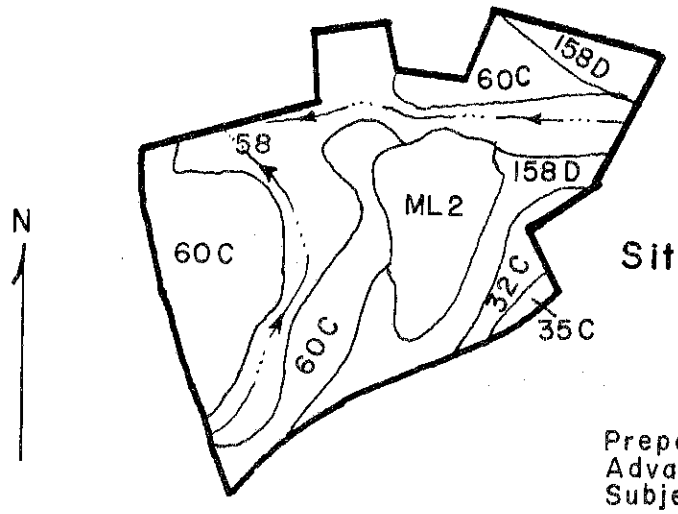
ADDITIONAL COMMENTS

All of the currently proposed sites present problems for the location of a regional high school because of limitations imposed by such factors as topography, soils, geography and transportation considerations. In general, sites A, B and C appear to have potential, while site D is probably too restrictive. The ultimate cost will probably influence the selection of a site.

These four sites may not be the best available to serve the two towns and the Board may want to reconsider its method of site selection. By limiting sites to those available for sale, the Board may be omitting some more suitable sites which could be acquired if approached. All sites of at least 35 acres with good traffic and population access, and with water and waste disposal availability should be considered. Minimal travel time and transportation costs should also be considered. The booklet, School Sites - Selection and Acquisition, published by the Connecticut State Department of Education (1970) is available to help guide in the selection and acquisition of a school site.

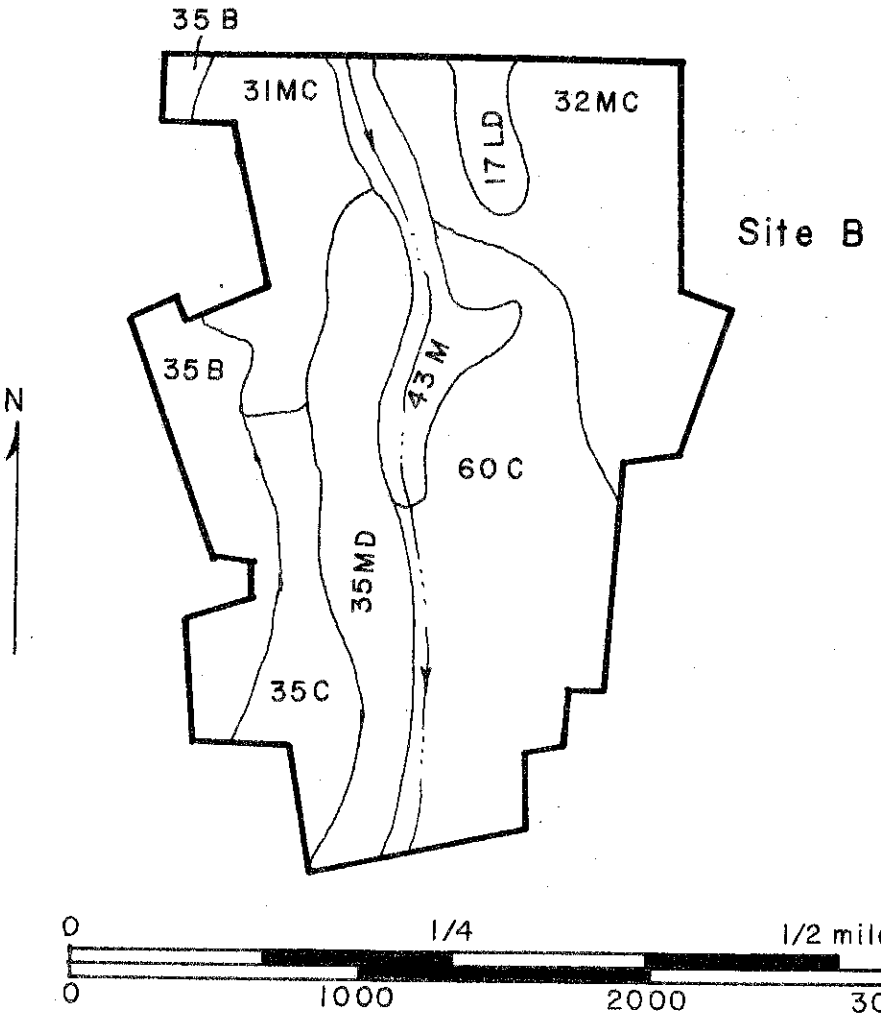
APPENDIX

SOIL MAP
REGIONAL SCHOOL
PROSPECT SITES



Site A

Prepared by: USDA SCS 1975
Advance copy
Subject to change



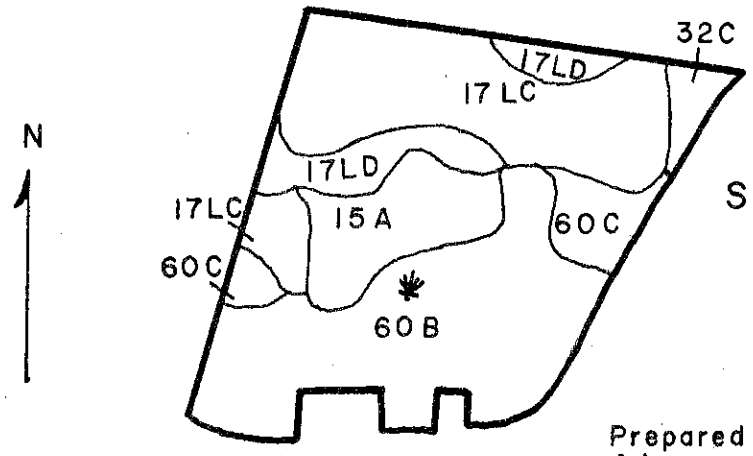
Site B

SCALE 1"= 660'

SOIL MAP

REGIONAL SCHOOL

BEACON FALLS SITES



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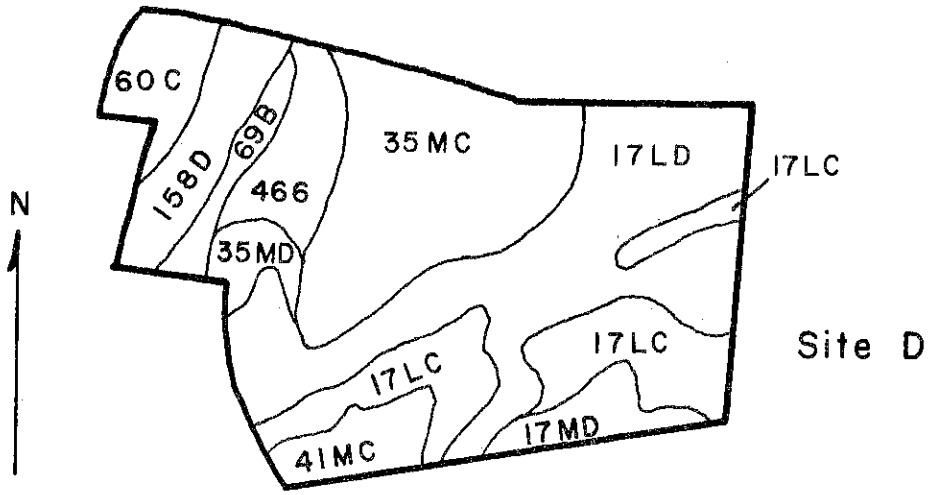

SCALE 1"=660'

PROSPECT-BEACON FALLS PROPOSED SCHOOL SITES
Soils Limitations Chart

Natural Soil Group*	Mapping Symbol	Slope %	Approx. Acres	Percent of Total Acres	Limitations Ratings** and Principal Limiting Factors For: On-site Sewage	Buildings with Basements	Land-scaping	Streets and Parking Lots	Athletic Fields
Site A									
A-1b	60C	8-15	13	37.1	2; slope	2; slope	2; droughty	2; slope	2; slope
A-1c	158D	15-35	6	17.1	3; slope	3; slope	3; slope, droughty	3; slope	3; slope
B-1b	32C	8-15	1	2.9	2; slope	2; slope	2; slope	2; slope	3; slope
C-1b	35C	8-15	1	2.9	3; percs slowly	2; slope, frost action	2; slope	2; slope, frost action	3; slope
E-3a	58	-	9	25.7	3; floods, wetness	3; floods, wetness	3; wetness, floods	3; floods, wetness	3; floods, wetness
U	ML2	-	5	14.3	variable	variable	variable	variable	variable
Total			35	100.0					
Site B									
A-1b	60C	8-15	26	27.4	2; slope	2; slope	2; droughty	2; slope	2; slope
B-1c	32MC	3-15	17	17.9	3; slope, large stones	3; slope, large stones	3; slope, large stones	3; slope, large stones	3; slope, large stones
B-3b	43M	0- 5	6	6.3	3; wetness, percs slowly	3; wetness, percs slowly	3; wetness, percs slowly	3; wetness, percs slowly	3; wetness, percs slowly
C-1a	35B	3- 8	9	9.5	3; percs slowly	2; frost action	1	2; frost action	2; slope, percs slowly
C-1b	35C	8-15	8	8.4	3; percs slowly	2; slope, frost action	2; slope	2; slope, frost action	3; slope
C-1d	35MD	15-35	13	13.7	3; slope, percs slowly, large stones	3; slope, percs slowly large stones	3; slope, percs slowly, large stones	3; slope, percs slowly, large stones	3; slope, percs slowly, large stones
C-2b	31MC	3-15	14	14.7	3; percs slowly, wetness, large stones	3; wetness, large stones	3; large stones	3; large stones, frost action	3; slope, large stones
D-2	17LD	15-35	2	2.1	3; slope, depth to rock	3; slope, depth to rock	3; depth to rock	3; slope, depth to rock	3; slope, depth to rock
Total			95	100.0					
Site C									
A-1b	60B	3- 8	14	36.8	2; slope	2; slope	2; droughty	2; slope	3; slope, esc. fragments
A-1b	60C	8-15	3	7.9	2; slope	2; slope	2; droughty	2; slope	3; slope, esc. fragments
A-2	15A	0- 3	5	13.2	3; wetness	3; wetness	1	2; frost action	1
B-1b	32C	8-15	1	2.6	2; slope	2; slope	2; slope	2; slope	3; slope
D-1	17LC	3-15	12	31.6	3; depth to rock	3; depth to rock	3; depth to rock	3; depth to rock	3; slope, depth to rock
D-2	17LD	15-35	3	7.9	3; slope, depth to rock	3; slope, depth to rock	3; depth to rock	3; slope, depth to rock	3; slope, depth to rock
Total			38	100.0					
Site D									
A-1b	60C	8-15	3	6.0	2; slope	2; slope	2; droughty	2; slope	3; slope, esc. fragments
A-1c	158D	15-35	3	6.0	3; slope	3; slope	3; slope, droughty	3; slope	3; slope
A-1d	69B	3- 8	2	4.0	1	1	1	1	1
A-3a	466	0- 3	4	8.0	3; wetness	3; wetness	3; wetness	3; wetness	3; wetness, frost action
B-2b	41MC	3-15	3	6.0	3; percs slowly, wetness, large stones	3; wetness, large stones	3; large stones	3; large stones, frost action	3; large stones
C-1c	35MC	3-15	12	24.0	3; percs slowly, large stones	3; large stones	3; large stones	3; large stones	3; slope, large stones
C-1d	35MD	15-35	1	2.0	3; slope, large stones, percs slowly	3; slope, large stones	3; slope, large stones	3; slope, large stones	3; slope, large stones
D-1	17LC	3-15	7	14.0	3; depth to rock	3; depth to rock	3; depth to rock	3; depth to rock	3; slope, depth to rock
D-2	17LD	15-35	13	26.0	3; slope, depth to rock	3; slope, depth to rock	3; depth to rock	3; depth to rock	3; depth to rock, slope
D-2	17MD	15-35	2	4.0	3; slope, depth to rock	3; slope, depth to rock	3; depth to rock	3; depth to rock	3; depth to rock
Total			50	100.0					

* Refer to Know Your Land, Natural Soil Groups for Connecticut, Soil Conservation Service, USDA Connecticut Cooperative Extension Service, for further explanation of the Natural soil groups.

** Limitation Ratings: 1-slight; 2-moderate; 3-severe.

SOIL INTERPRETATIONS FOR URBAN USES*

The rating of the soils for elements of urban 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.

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 soils for certain uses than for soils rated as having higher than average outlay when such areas are compared with areas 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 to overcome natural soil limitations. The soil may have more than one limiting characteristic, thus causing it to be rated as severe.

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* Source: Special Soils Report, New Haven County, Connecticut, USDA, SCS.

** The three degrees of limitations is based on the National SCS rating system.