Mr. Charles R. Longsworth  
Vice President  
Hampshire College  
Amherst, Massachusetts  

Re: Hampshire College  

Dear Mr. Longsworth:  

Please find enclosed, "Master Plan Studies - Hampshire College Site Evaluation."

This report summarizes our analysis of the College's existing holdings and evaluates their potential for economic campus development. Major issues of college-community relationships and a preliminary schematic plan for the South Amherst area are also discussed.

As a progress report, the study presents the best information and evaluation available at this time. Some of the material is incomplete, however, and will be refined as the Master Plan Studies continue.

In our opinion, the site is very well suited to the development of Hampshire College. The site offers a handsome setting, prime building sites for economic development, good accessibility and an opportunity to plan rewarding community relationships.

Sincerely,

Sasaki, Dawson, DeMay Associates, Inc.

Richard F. Galehouse

RFG:cs
Enclosure
I. HAMPShIRE COLLEGE SITE: DESCRIPTION & ANALYSIS

A. Regional Location

Hampshire College is centrally located in the Connecticut River Valley, five miles south of the town of Amherst Massachusetts. The site is within seven miles or fifteen minutes driving time of its sponsoring institutions: Smith, Mt. Holyoke, Amherst and the University of Massachusetts. Frequent interchange between these institutions and the bountiful educational, cultural and recreational resources of the Valley is one premise on which the Hampshire College program is based. The College's strategic location will afford this accessibility.

B. Size, Topography, Vegetation

The Hampshire College property covers 434 acres in the southern parts of Amherst and Hadley. The land varies from gently rolling farmland and orchards to the precipitous slope of the Holyoke Mountain Range. Bay Road separates the farmland to the north from the mountains to the south. The site is further divided under two political jurisdictions; the western portion lies in Hadley, the eastern in Amherst.

SUMMARY OF LAND HOLDINGS AND SLOPE CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>Land in Amherst</th>
<th>Land in Hadley</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of Bay Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open land - land under 8% slope *</td>
<td>120</td>
<td>34</td>
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<tr>
<td>Wooded land - land over 8% slope</td>
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<tr>
<td>South of Bay Road</td>
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<td>32</td>
</tr>
<tr>
<td>Wooded land - land over 8% slope</td>
<td></td>
<td>114</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>146</td>
</tr>
<tr>
<td>TOTAL ACRES (July 1966)</td>
<td></td>
<td>434</td>
</tr>
</tbody>
</table>

*Land of 0-8% slope is most suited to economic building and open space development. Wooded land which requires clearing and land which requires extensive grading places a premium cost upon campus development.
The prime developable area on the site is presently considered to be 120 acres of open land north of Bay Road in Amherst. There are practically no limitations imposed by slope except where the land rises from Bay Road on the east side.

A pocket of poorly drained land exists on the northeast portion of the Amherst parcel. Other sluggish drainage areas have been noted in the scrub woods, near the Amherst-Hadley line north of Bay Road. These pockets of poorly drained land are not considered prime building sites.

The tree cover on the campus north of Bay Road is generally not of significant value. There are, however, individual specimen trees and twenty acres of apple orchards which are a distinctive and positive asset. At present, the orchards are leased and maintained by a fruit grower. Continuation of this arrangement might be considered after the campus is developed.

Most of the land south of Bay Road above 300' elevation (approximately 90 acres) is not suited to economic building and open space development because of steepness and forests. The scenic value and recreation potential of this land is important to the College. The mountain is an important part of the visual background to the main campus north of Bay Road. Adjacent properties on the mountain side owned by Amherst College, the Federal Government and the town of Hadley will probably remain undeveloped for the foreseeable future.

The general orientation of the site is north toward Amherst. From the mountainside south of Bay Road one sees the magnificent Valley of the Connecticut River. Lower, on prime building land north of Bay Road, the view is less far reaching but sweeps a full 360° to surrounding hills and mountains.

C. Soil and Subsoil Conditions

An investigation of subsurface soil conditions was made by a soils engineer to determine the feasibility of economic building development. The detailed findings of the geological reconnaissance, based on 7 to 12 foot test pit excavations, are found in Appendix B.

The Hampshire College site falls in an area once covered by a glacial lake which stretched from southern Connecticut to northern Vermont. A beach line marking one edge of the lake has been found on the property south of Bay Road. As it receded, the lake left extensive deposits of clays and plastic silts in the Valley. The reconnaissance confirmed that though these unstable soils occur beneath the site, they are confined to a very small portion to the west and northwest below 220' elevation. The majority of the site is covered by glacial till or till with outwash deposits consisting of stratified sands and gravels. To quote from the engineer's report:
"The site from the standpoint of soils and foundations is excellent. Buildings could be supported on economical shallow spread footings throughout the site. In small areas at the lower elevations along the western border and at the northwest corner of the site cohesive lake deposits underlie alluvial sands. If buildings of more than two stories were to be constructed in these areas additional explorations should be made to determine thickness, extent and consolidation characteristics of the clay soils. In all other areas the soil at the site could support high rise structures on shallow footings after stripping organic materials.

"It is our opinion that bedrock will not be a problem at this site for shallow excavations in the order of 10 feet or less. If deeper excavations are planned, then the possibility of encountering bedrock in the cuts must be considered.

"The earthwork required for site grading and road construction will be economical as it is not expected that rock excavation will be required. Also there are sands and gravel deposits on the site to utilize as fill and even for base courses under paved areas."

D. Existing Structures, Rights of Way

At present, there are four farms and a single house existing on the site. One farmhouse on West Street is being converted into temporary headquarters for the College administration. Two other houses and three acres surrounding each are held in life tenancy. The remaining structures which border West Street and Bay Road are old, in poor repair and do not appear to be of any significant historic or architectural value.

There are three rights of way crossing the site; The Hadley Water Supply District, Western Massachusetts Electric Company, and American Telephone and Telegraph Company. A pipeline to the Hadley Reservoir is located south of Bay Road. A power line easement crosses Bay Road one-third of a mile from the corner of West Street and angles northwest. AT&T's buried cable cuts the southeast corner of the property.

None of the rights of way are expected to limit development opportunities, but all must be considered in future site planning.
E. **Utilities**

A small water line along West Street is the only utility presently serving the Hampshire College site.

In anticipation of future requirements, the Town of Amherst has undertaken a program to enlarge most of its water mains to twelve inches and extend sewer facilities into South Amherst from the pumping station on West Street. Both water and sewer facilities will be placed east of the campus in or near West Street. A new million gallon storage tank, with a twelve inch connecting line is planned for a site south of Bay Road east of the College.

This planned distribution system for sewerage and water will provide the capacity necessary to serve Hampshire College.

F. **Program**

A preliminary program of space requirements for the College has been compiled and tested against the amount of readily developable land on the campus. (See Appendix C) There seems to be adequate land of suitable quality for the accommodation of 1,440 students, the faculty and supporting staff.

Lacking a definitive program at this time, it was assumed for the purposes of testing site size that structures would be no more than three stories high. At a two-story average approximately 310,000 square feet or 7 acres of ground are covered by buildings.

In the program, parking and playfields are the most extensive users of space. Daily parking requirement for 760 cars can be accommodated on 9 acres. The capacity may need to be increased for special occasions. Field parking offers a convenient simple solution to the overflow problem except in mud or snow seasons.

The playfield requirements for tennis, outdoor game courts and large playfields for general use require 18 acres.

G. **Land Acquisition**

Acquisition of additional land should be considered in light of the following questions: First, does the college have sufficient
developable land for its future space-requirements; second, are certain select parcels needed for optimum campus development?

There is sufficient buildable land on the Amherst parcel to accommodate the requirements of 1,440 students. However, institutions are long-lived and some consideration will have to be given now to the probable growth and objectives of the College in the decades ahead. Development pressures in Amherst continue to mount, and open land now surrounding Hampshire College will be completely developed in the near future.

The most desirable direction for additional acquisition of acreage would be to the north and northwest of the Amherst parcel. This land is contiguous and has very good development potential.

At this time we strongly recommend the acquisition of the Warner, Ives and Kielbasz properties on Bay Road and West Street. (See Appendix D), These properties comprise only 30 acres and do not, therefore, increase the total aggregate of developable land significantly. They are, however, visually prominent and strategically located along the principal approaches to the campus and are critical to the control of these approaches.

II. RELATIONSHIP OF HAMPShIRE COLLEGE TO THE COMMUNITY

A Master Plan is being prepared now for the Town of Amherst, and Hampshire College has an unusual opportunity to contribute to its development. The land of South Amherst between Fort River and the Holyoke Mt. Range is still open. By articulating its ideas to the town and the Planning Board, the College can be instrumental in the planning and development of the area. Continuing interest in new development which will supply housing and service-commercial facilities is consistent with the College's concern to be a part of a vital and beautiful community.

A. Existing Development in South Amherst

At the present time South Amherst is largely rural, but it is developing rapidly. There are a total of thirteen subdivisions in South Amherst, most of which have been started in the last few years. Major new trunk lines for sewer and water are being planned. The growth of the University and the presence of Hampshire College will increase all development pressures on remaining open lands.
The South Amherst community is marked by natural boundaries to the north, east and south: Fort River, Lawrence Swamp and the wall of the Holyoke Mountain Range. More intensive older development in South Amherst occurred along South East Street and South Pleasant Street, with a natural locus of activity at South Amherst center. Newer development is moving southward along the roads and penetrating the open agricultural land.

The entire area is zoned for low density residential use with one small commercial center at the intersection of Pomeroy Lane and West Street. Some non-conforming light industrial and commercial uses are scattered through the area.

B. Principal Development Problems

In addition to the overall need for comprehensive planning for the entire South Amherst community, certain key development problems have emerged. The most important development considerations are: first, the location of Route 9 through South Amherst; second, the location of additional service commercial centers in South Amherst; third, the disposition of major areas of land with great conservation and recreation potential; fourth, of more concern to the College, the control of the foreground and approaches to the College along Bay Road and West Street.

1. Proposed Route 9

The proposed Route 9 will be a four lane, limited access divided highway passing through South Amherst.

The major objective of the highway is the provision of high volume - high speed access to generators in Amherst: the University, Amherst College and the community itself. A secondary objective is the provision of improved access for through traffic.

The highway will have a major impact on traffic flow through Amherst and will significantly influence patterns of land use in Amherst and Hadley.

Two alternative alignments for Route 9 have been advanced by state and local officials. A northern alignment (Alternate A) generally follows the course of the Fort River from east to west across Amherst; a southern alignment (Alternate B)
ROUTE 9 ALTERNATE ALIGNMENTS

HAMPshire COLLEGE
AMHERST, MASSACHUSETTS
runs between Lawrence Swamp and Bay Road and crosses West Street near the northeast corner of the campus.

Appendix E contains a detailed evaluation of these two alignments. On most counts, the northern alignment would most effectively serve the community. However, it splits the extensive land holdings of Amherst College. Should this alignment seriously inhibit the long range development of the College, another alignment would have to be found.

Hampshire College's concerns lie in three major areas: first, safe and convenient access into the college and to its sister institutions in the Valley; second, the impact of the highway on the development of the campus and surrounding land use; and third, the impact of Route 9 on the landscape.

From a transportation standpoint either the northern or southern alignment would serve Hampshire College equally well. On several counts, however, the southern alignment would have a negative impact on the college. It is uncomfortably close to the northern boundary of the campus passing through lands which might be considered for future expansion. The southern alignment of Route 9 coupled with the extended Route 116 would tend to limit access into the college from the north and west and create a barrier to close integration with the surrounding community. Finally, the road would be both audible and visible form the campus, detracting from the quality of the present landscape.

Two additional alignments are suggested in an attempt to minimize the limitations of the alignments already proposed. Both skirt the south side of Lawrence Swamp, circumvent Mt. Pollux (Alternate C to the north, Alternate D to the south) and generally follow the south bank of the Fort River to Route 116 extended. An extension of East Street is shown as a by-pass to South Amherst Center. Interchanges indicated at the East Street extension, West Street and Route 116 would provide good accessibility to Hampshire College.

Either Alternate C or D offer multiple advantages: less disruption to existing development than Alternate A; better alignment in relation to Hampshire College than Alternate B; good alignment in the east of South Amherst.
in a belt of low lying land less desirable for residential development, and in the west in a valley formed by Fort River.

2. Location of Additional Service-Commercial Centers in South Amherst.

At the present time the only commercial zone in South Amherst is at the junction of West Street and Pomeroy Lane. A test of developable land in South Amherst shows that a population of 15,000 persons could be accommodated if all land is residentially developed as presently zoned. Clearly, additional service-commercial facilities will be required. The present business zone is centrally located and its controlled expansion seems warranted. Activity in this business zone would be reinforced by the nearby interchange of Route 9 as shown on the schematic plan for South Amherst.

Additional service-commercial facilities might also be located at Bay Road and West Street. At this corner the facilities could provide more immediate support to Hampshire College. Their controlled development in this latter location is critically important.

Under current Amherst zoning, additional service-commercial facilities can be introduced as part of an integrated higher density development plan by permit from the Zoning Board of Appeals.

3. Conservation and Recreation Areas

Lawrence Swamp, Fort River and the Holyoke Mountain Range have unusual potential for development in conservation and recreation uses in the Amherst community. Fortunately, the town is slowly assembling large portions of Lawrence Swamp to conserve it and to protect Amherst's water supply.


The recommended alignment of Route 9 along the Fort River
could aid in the development of the river for conservation and recreation purposes. For example, damming the Fort River just north of the College could create a small chain of lakes.

All three areas contribute positively to the quality of the environment of Hampshire College. The Holyoke Mountain Range is a dominant element in the visual background of the College and offers potential ground for skiing, rock climbing and hiking. Lawrence Swamp and Fort River are prominent on approach to the campus from the north and east. Depending on their development as recreation or conservation areas they may be enjoyed and used by members of the College.

Any assistance the College can lend to insure the development of these areas for recreation or conservation will be in their own and the community's best interests.

4. Control of Approaches to Hampshire College

Consideration of the immediate edge of the college to the community is a concern to most institutions. Many institutions with frontages on public streets have seen the opposite side of the road develop in an uncontrolled manner. Hampshire College should look to the control of its foreground and approaches along West Street from the north, and Bay Road from both the east and west.

On the north side of Bay Road the college owns .6 miles of frontage from West Street west towards Hadley. Approximately .4 miles of frontage on the south are in direct college control. Mr. Atkins, the owner of the largest remaining frontage on the south side of Bay Road, has apparently expressed willingness to develop his lands in cooperation with the College.

The west side of West Street is in College ownership except for the Warner and Ives properties. Their purchase by the College is recommended. A subdivision has already been started on the east side of West Street. Control of the remaining frontage poses a real problem. Ultimate control over the land use would be achieved by ownership. Barring this Hampshire College might extend its influence by one or
more of the following methods: traditional zoning controls; realignment of local roads; incorporation or association with property owners.

Planning, zoning and building controls are already being exercised in the town of Amherst, and have been effective in setting the standard of general orderliness. However, these are less effective in guiding the pace and quality of new development. A master plan for the whole community is being prepared but, in the meanwhile, the street frontage may be developed in uses incompatible to the College.

The intersection of Bay Road and West Street is badly aligned with poor sight distances. It will undoubtedly become more dangerous over time as the volume of traffic increases. Preliminary appraisal, which can be verified in the detailed design period ahead, suggests that redesign of the intersection could create a Common in the tradition of the New England community. The Common would fall on College property, thereby insuring direct control over the intersection and immediately surrounding uses.

The College may find it feasible to participate in a land corporation which would have among its power the purchase and improvement of land. (See Appendix F). Another alternative might be an association of property owners in the given area. This relatively new concept, permissible under zoning ordinances, allows local authorities with limited eminent domain powers to plan and implement neighborhood plans.

By taking the initiative at an early stage, Hampshire College can better insure the satisfactory development of its environs.
APPENDIX A

WORK ORDER #1
HAMPShIRE COLLEGE
PHASE 1 - PLANNING STUDIES
April 15, 1966

WORK ORDER #1
HAMPSHIRE COLLEGE
PHASE I - PLANNING STUDIES

PROJECT:
A. Evaluation of Hampshire College's present landholdings.
B. Preparation of a schematic plan for the South Amherst-Hampshire College community.

TERMS:

SCOPE OF WORK:
A. Evaluation of Hampshire College's present landholdings. The Consultants will:

1. Conduct a site reconnaissance of the present landholdings and evaluate the capabilities of the land to support economic building and open space development based upon significant site characteristics.

2. Consult with a geologist in collaboration with a soils engineer to determine significant subsurface conditions. (No borings or engineering verifications will be made at this time.)

3. Test the size of developable portions of the site with the College's gross building and open space requirements.

4. Summarize the above studies in a brief mimeographed report accompanied by whatever explanatory maps or drawings are necessary.

The summary documents will outline:

a. developable areas and areas which are unsuited to development.
b. any natural peculiarities of the land which would restrict development of the land.

c. potential points of access onto the site for vehicular movement and utilities.

d. a summary of recommendations as to general suitabilities of the land for development of the College plant, including any recommendation for further land acquisition.

B. Preparation of a schematic plan for the South Amherst-Hampshire College community. The Consultants will:

1. Conduct a reconnaissance of the South Amherst area, map and evaluate existing conditions of land use, circulation, zoning and overall design character.

2. Consult with local, town and state officials regarding proposed transportation elements, including new roads and mass transit, proposed major new land uses and anticipated changes in land controls.

3. Consult with a traffic planner on major aspects of regional and local circulation.

4. Prepare a schematic plan for the South Amherst-Hampshire College community showing:

a. a mutually compatible land use and circulation plan.

b. the alternative land use, circulation and conceptualized design arrangements possible at the immediate point(s) of contact between the College and the community.

5. Summarize the above studies in a brief mimeographed illustrated report, including recommendations as to major land use and circulation and design elements and the areas of direct and indirect controls for achieving a mutually compatible relationship to the community.
APPENDIX B

LETTER FROM SOILS ENGINEER
CONCERNING HAMPSHIRE COLLEGE SITE
Sasaki, Dawson, DeMay Associates, Inc.
23 Main Street
Watertown, Massachusetts 02172

Attention: Mr. Richard Galehouse

Subject: Site Investigation
Proposed Hampshire College

Gentlemen:

At your request we have made a geological reconnaissance of the proposed Hampshire College site. The reconnaissance was performed on 8 and 9 July 1966.

The site appears to be underlain predominantly by glacial till with some minor amounts of sands and gravels scattered throughout the site in ice contact deposits. No rock was observed north of Bay Road but outcrops do occur in the higher elevations to the south.

The surface evidence, however, is not conclusive. Soil exposures are rare and superficial. The land forms are subdued and boundaries indefinite. In addition, most of the site is below the level of the glacial lake which formerly occupied the Connecticut River valley in this area. As varved clay and other fine grained cohesive soils which require expensive foundation treatment are found within the bounds of this former lake it is important to know if any such materials occur at the present site.

Deltas, wave cut benches and ancient beaches and bars indicate that the level of the former lake was about 305 MSL in the vicinity of Mt. Toby and about 290 in North Amherst. A wave cut bench and beach was observed at elevation 274 south of Bay Road during this reconnaissance. The variation in these levels is due to post glacial uplift.
We do not believe that fine grained lake deposits occur at the college site but we are not certain. We strongly feel that knowledge of the presence of these materials is sufficiently important at this preliminary stage to warrant the making of some subsurface explorations. We recommend that a backhoe be utilized for this work. Two days of test pitting will be sufficient. We estimate the cost of the additional work including backhoe rental and inspection at $400. This is an economical method of obtaining subsurface data and when coupled with the geological reconnaissance already performed will allow us to evaluate the soils conditions with considerable more confidence than is possible with the geological reconnaissance alone at this site.

Very truly yours,

Haley & Aldrich, Inc.

Donald E. Reed
Engineering-Geologist

DER:mp
5 August 1966
File No. 66-1580

Sasaki, Dawson, DeMay Associates
23 Main Street
Watertown, Massachusetts

Attention: Mr. Richard F. Galehouse

Subject: Proposed Hampshire College
Amherst - Hadley, Massachusetts

Gentlemen:

This letter presents the results of our soils and foundation investigation of the site of the proposed Hampshire College in Amherst-Hadley, Massachusetts. The study was undertaken at the request of Mr. Richard Galehouse. A brief report on the geological reconnaissance of the site, performed on 8 and 9 June 1966, was sent to you on 13 June 1966. The test pit program, recommended at that time, was approved by you in your letter of 19 July 1966 and the test pits were excavated on 28 and 29 July 1966 as soon as a backhoe became available.

The soil and rock conditions at the site and the locations of test pits are shown on the enclosed map. Logs of test pits are also enclosed. A total of twenty one test pits were excavated, examined and logged during the two days of field investigations.

The test pits confirmed the general conclusions reported in our letter of 13 June 1966. They also disclosed that while glacial lake clays and plastic silts do in fact occur beneath the site they are confined to a very small portion of the overall site area. This was the major uncertainty remaining after completion of the geological reconnaissance.
The principal subsurface units are as shown on the legend on the enclosed Soil and Rock Map. In order of deposition from bottom to top they are as follows:

1. Bedrock
2. Glacial till
3. Ice contact deposits (sand)
4. Outwash over glacial till
5. Alluvial sands and gravels over cohesive lake deposits
6. Post glacial shallow pond deposits

Bedrock outcrops are rare and were only observed south of Bay Road. A small linear zone of diabase breccia outcrops at the locations shown on the Soil and Rock Map between TP19 and TP20. A red-brown arkosic sandstone outcrop was observed at the crest of the ski-slope hill and of course a portion of the massive basalt scarp of Mt. Hitchcock is included within the bounds of the site at the extreme southern limit. No bedrock was encountered in any of the test pits with the exception of TP21 and at this location it is not certain as to whether the excavation penetrated a highly weathered boulder in the till or the actual weathered upper surface of rock. It is our opinion that bedrock will not be a problem at this site for shallow excavations in the order of 10 feet or less. If deeper excavations are planned, then the possibility of encountering bedrock in the cuts must be considered.

The rock underlying the site north of Bay Road is believed to be part of the Triassic sedimentary rocks, sandstones, siltstones and shales which occupy the Connecticut basin in this area. South of Bay Road both diabase, basalt and sedimentary rocks occur.

The till at the site is conspicuous for its fine grain and general absence of cobbles and boulders. It is classified as a dark red-brown sandy silt with
a trace to little coarse sand and gravel. It is slightly plastic, very dense and relatively impermeable. The till is directly overlain throughout much of the site by outwash sands and gravels and by a few ice contact deposits.

The ice contact deposits consist of isolated kames, a kame terrace and an ice channel filling. In general, they are believed to consist primarily of fine sand although coarse to medium sands may occur in their upper layers.

The outwash deposits over till consist of stratified sands and gravels. The gravel strata are often coarse and contain many cobbles. The origin of this granular blanket over the till is obscure. It appears however, to have been laid down by a stream flowing generally east-west and whose course moved continually downslope keeping pace with the receding ice.

The alluvial sands and gravels over cohesive lake deposits are found at lower elevations along the western border and in the northwest corner of the site. From the test pit data and topographic considerations the upper limit of this deposit is taken at Elevation 220. Clay was actually encountered in only one test pit, TP18. Here the material was a uniform stiff gray clay. It was not varved, but rather a number of thin layers of silty fine sand were found scattered randomly throughout the stratum. It is believed that silt and clay occur as a wedge shaped deposit feathering out to zero thickness at El. 220 and increasing in thickness downslope i.e. to the north, northwest and west.

The small shallow pond deposit in northeast corner of the property consists of interbedded clayey silts and clayey sands. It is a thin post-glacial deposit formed by washing of fine materials from the adjacent slopes into a small undrained depression in the outwash. The 6.5 feet of plastic material noted in TP6, taken in the approximate center of the deposit is believed to represent about the maximum thickness of cohesive soils to be found in this unit. The clayey silt was relatively stiff.

A few areas of sluggish drainage were observed in which shallow organic soils have accumulated, possibly as thick as 3 feet. No significant deposit of organic soils however occur within the bounds of this site.
The site from the standpoint of soils and foundations is excellent. Buildings could be supported on economical shallow spread footings throughout the site. In small areas at the lower elevations along the western border and at the northwest corner of the site cohesive lake deposits underlie alluvial sands. If buildings of more than two stories were to be constructed in these areas additional explorations should be made to determine thickness, extent and consolidation characteristics of the clay soils. In all other areas the soil at the site could support high rise structures on shallow footings after stripping organic materials.

The earthwork required for site grading and road construction will be economical as it is not expected that rock excavation will be required. Also there are sands and gravel deposits on the site to utilize as fill and even for base courses under paved areas.

If you should desire additional or more detailed information, do not hesitate notifying us.

Very truly yours,
HALEY & ALDRICH, INC.

James F. Haley

JFH:mp
Enclosures

Donald E. Reed
APPENDIX C

PRELIMINARY ESTIMATE OF SPACE REQUIREMENTS FOR HAMPshire COLLefteG
The preliminary findings of the New College Plan, 1958 are the basis for a tentative statement of the types and amounts of space Hampshire College must provide for 1,000 students and 50 faculty members. The space standards have been derived from a combination of nation wide statistics and known examples of other institutions. Square footage requirements are computed on a net to gross factor of 1.50 and the cost analysis is based on the gross s.f. figure.

I. CLASSROOMS

A. Standards

The program is based on the "New College Plan" and assumes a 40 hour week. The experience of other institutions is that 75% utilization of classroom space is the best obtainable because of scheduling problems. Therefore, space can be used at most 30 hours in a week.

B. Space Required

265  Freshmen
735  Upperclassmen
1,000 Total Students

Freshmen

11  groups of approximately 24 each
x 3  courses/semester

33  course spaces required
x 4.5  hours/week average
149.  space hours equivalent to 5 seminar-classrooms

Upperclassmen

18  groups of 40-42 each
x 3  course/semester

54  course spaces required
x 4.5  hours/week average
243.  space hours equivalent to 8 classrooms
Classrooms could either be constructed with dividing partitions for seminar-section meetings or additional seminar size room for 20 - 24 people could be provided. It is suggested that 16 seminar spaces total, or double the number of classrooms, be provided. Therefore, 11 additional seminar rooms are needed. Of the total rooms, approximately 1/3 will be used for Science courses, 2/3 for Humanities and Social Sciences.

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<th>Classrooms / Labs</th>
<th>Net Space</th>
<th>Gross Space</th>
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<td>5 regular classrooms</td>
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<tr>
<td>3 science labs</td>
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<tr>
<td>11 regular seminar rooms</td>
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</tr>
<tr>
<td>5 science seminar (labs)</td>
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<tr>
<td></td>
<td><strong>23,500</strong></td>
<td><strong>35,250</strong></td>
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2. **LIBRARY**

A. **Sources**

Modules were derived from R. P. Dober "Campus Planning" Reinhold Publishing Co., 1963. Example was taken from Providence College Library.

B. **Space Required**

1. Stack space for 500,000 volumes, estimating 10 volumes/1 s.f. = 50,000

2. Reading - study space for c. 60% of students

   - 300 reading room at 18 s.f. = 5,400
   - 100 special uses at 22.5 s.f. = 2,250
   - 300 carrels-student or faculty or possibly space for seminars at 30 s.f. = 9,000

3. Service 20% of total stack and reading:

   - 66,650 x 20% = 13,300

Total Net Space = 79,980
Total Gross Space = 119,970
3. **FACULTY OFFICES**

A. **Assumptions and Sources**

Based on total 50 faculty members, 50 offices; University of Connecticut, Development Plan Summary Report, Sasaki, Dawson, DeMay Associates, July 1965; and Program for University of Rochester Science Complex, 1966.

B. **Space Required**

1. Humanities and Social Science  
   33 offices at 225 s.f.  
   = 6,425

2. Science  
   17 offices at 400 s.f.  
   = 6,800

3. Secretaries  
   50 s.f./faculty office space  
   = 2,500

   Net Space 15,725  
   Gross Space 23,588

4. **ADMINISTRATIVE USES**

A. **Sources and Standards**


B. **Space Required**

1,000 students at 6 s.f.  
= 6,000

   Net Space 6,000  
   Gross Space 9,000
5. **DORMITORY**

A. **Assumptions, Sources and Standards**

Based on 1,000 students living on campus; 500 women, 500 men; and 6 faculty family apartments and 12 graduate student or single faculty apartments. Minimum based on double economy rooms at University of Rhode Island, median on R. P. Dober "Campus Planning", op. cit., maximum on University of Rochester single rooms. Square footages include basement, utilities, multipurpose rooms, faculty quarters, exclude dining.

B. **Space Required**

1. 1,000 students at 220 s.f./student = 220,000
   
   Net Space 220,000
   Gross Space 330,000

2. 1,000 students at 233 s.f./student = 233,000
   
   Net Space 233,000
   Gross Space 359,500

3. 1,000 students at 280 s.f./student = 280,000
   
   Net Space 280,000
   Gross Space 420,000

6. **DINING**

A. **Assumptions, Sources and Standards**

Based on dining cafeteria style with maximum turn over 45 minutes for multiple sittings. Average 18 s.f./seat which includes space for serving area. Kitchen space required per meal served in inverse proportion to number of meals/hour. Standards from John W. Stokes; "Food Services in Industry and Institutions;, Dubuque, Iowa; William C. Brown Company, Publishers, 1960. Provision for private dining at 10 s.f./seat for maximum 80 persons.
B. Space Required

1. One sitting all members of college  max. 1,050 seats
2. One sitting students alone  max. 1,000 seats
3. Two sittings  max. 525 seats
4. Staggered sittings  max. 350 seats

<table>
<thead>
<tr>
<th># Seats</th>
<th>S.F. for Seats</th>
<th>Kitchen</th>
<th>Private</th>
<th>Net S.F.</th>
<th>Gross S.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,050</td>
<td>18,900</td>
<td>2,625</td>
<td>800</td>
<td>22,325</td>
<td>33,488</td>
</tr>
<tr>
<td>1,000</td>
<td>18,000</td>
<td>2,500</td>
<td>800</td>
<td>21,300</td>
<td>31,950</td>
</tr>
<tr>
<td>525</td>
<td>9,450</td>
<td>1,418</td>
<td>800</td>
<td>11,668</td>
<td>17,502</td>
</tr>
<tr>
<td>350</td>
<td>6,300</td>
<td>1,225</td>
<td>800</td>
<td>8,325</td>
<td>12,488</td>
</tr>
</tbody>
</table>

7. STUDENT ACTIVITIES CENTER

A. Sources and Standards

Facilities for men and women derived from "New College Plan" Standards from R.P. Dober, "Campus Planning" op. cit., Time Saver Standards; and comparison with University of Rochester, University of Virginia, and University of Rhode Island.

B. Space Requirements

- Auditorium for 500  8,200
- Stage and back stage 8,000
- Shops for woodworking, photography, etc.  3,000
- Music, Art Studios and exhibition 3,000
- Snack bar, vending machines 1,000
- Bookstore 600
- Multi-purpose game rooms 1,200
- Student organizations and offices 1,000
- Kitchen facilities and dining 1,000
- Lounge, reading rooms 1,000
- One basketball court - two teams size 5,000
- Handball or squash courts 1,200 @  7,200
- Two exercise rooms 2,000 @  4,000
- One swimming pool 42 x 75 3,150
- Lockers, Showers, Stock 5,000

Net Space  52,350
Gross Space 78,525
8. HEALTH SERVICES

A. Standards


B. Space Required

1,000 student 4 s.f./student 4,000
Offices, etc. 500

Net Space 4,500
Gross Space 6,700

9. PLANT, MAINTENANCE

A. Source

R.P. Dober, "Campus Planning", op. cit.

B. Space Required

1,000 students at 8 s.f./student 8,000

Net Space 8,000
Gross Space 12,000

10. PARKING

A. Assumptions, Standards and Alternates

Approximately 450 spaces to be provided at 350-400 s.f./car. Special occasions capacity should be at least double, 900 spaces, accommodated on large field parking area with some paved. Alternates are parking structures at $2000-$2500/car.

B. Space Required

50 faculty spaces, 100% parking
333 student spaces, 30% parking
75 visitor and staff

458 Total cars 350-400 s.f./car = 157,500
180,000
Special Parking Additional = 180,000
Total 360,000
11. PLAYFIELDS

A. **Space Required**

1. Extensive use
   a) 2 soccer size, multi-purpose fields 225 x 360 = 162,000
   b) 2 baseball 350 x 350 = 245,000

2. Intensive use
   a) 1 Basketball court 90 x 50 = 4,500
   b) 4 volley ball-badminton 60 x 30 = 7,200
   c) 10 tennis 60 x 110 = 66,000

   **Total:** 484,700
<table>
<thead>
<tr>
<th></th>
<th>Gross SF</th>
<th>$/sf. Costs Range</th>
<th>Total Costs Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classrooms</td>
<td>35,250</td>
<td>26-30</td>
<td>$916,500 - 1,057,500</td>
</tr>
<tr>
<td>2. Library</td>
<td>119,970</td>
<td>29-30</td>
<td>3,479,130 - 3,599,100</td>
</tr>
<tr>
<td>3. Faculty Office</td>
<td>23,588</td>
<td>26-28</td>
<td>613,288 - 660,464</td>
</tr>
<tr>
<td>4. Administration</td>
<td>9,000</td>
<td>26-28</td>
<td>234,000 - 252,000</td>
</tr>
<tr>
<td>5. Dormitory</td>
<td>330,000</td>
<td>4,500-6,000/bed</td>
<td>4,581,000 - 6,108,000</td>
</tr>
<tr>
<td>6. Dining</td>
<td>12,488</td>
<td>32</td>
<td>399,616 - 1,071,616</td>
</tr>
<tr>
<td>7. Student Act. Ctr.</td>
<td>78,525</td>
<td>30-35</td>
<td>2,355,750 - 2,748,375</td>
</tr>
<tr>
<td>8. Health Service</td>
<td>6,700</td>
<td>26-28</td>
<td>174,200 - 187,600</td>
</tr>
<tr>
<td>9. Plant, Maintenance</td>
<td>12,000</td>
<td>22-25</td>
<td>264,000 - 300,000</td>
</tr>
<tr>
<td></td>
<td>627,521</td>
<td></td>
<td>13,017,484 - 15,984,655</td>
</tr>
</tbody>
</table>

Site Preparation 10% (to cover 10. & 11.)
10. Playfields                                                   | 484,700     |                   | 1,301,748 - 1,598,465|
11. Parking                                                      | 180,000     |                   | 360,000 -            |

TOTAL

|$14,319,232 17,583,120

*For budget purposes it should be assumed that building costs will increase at the rate of 5% per year.
### FACILITIES FOR A TYPICAL COLLEGE

#### SUMMARY OF PROGRAM
BASED ON "HAMPShIRE COLLEGE CAMPUS DESIGN"

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>GROSS SF</th>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. unspecialized spaces</td>
<td>C, H</td>
<td>31,050</td>
</tr>
<tr>
<td>2. specialized spaces</td>
<td>C</td>
<td>36,000</td>
</tr>
<tr>
<td>3. auditoriums</td>
<td>H</td>
<td>16,800</td>
</tr>
<tr>
<td>4. faculty offices</td>
<td>C, H</td>
<td>16,200-18,000</td>
</tr>
<tr>
<td>B. LIBRARY</td>
<td>C</td>
<td>54,660</td>
</tr>
<tr>
<td>C. ADMINISTRATION</td>
<td>C, H</td>
<td>16,050</td>
</tr>
<tr>
<td>D. STUDENT ACTIVITIES</td>
<td>C</td>
<td>27,300</td>
</tr>
<tr>
<td>E. DORMITORY</td>
<td>H</td>
<td>360,000</td>
</tr>
<tr>
<td>1. living study accommodation</td>
<td>H</td>
<td>49,020</td>
</tr>
<tr>
<td>2. dining</td>
<td>H</td>
<td>18,000</td>
</tr>
<tr>
<td>3. additional faculty housing</td>
<td>not defined</td>
<td>3,000 (estimated)</td>
</tr>
<tr>
<td>F. HEALTH SERVICE</td>
<td>not defined</td>
<td>(estimated)</td>
</tr>
<tr>
<td>G. PLANT AND MAINTENANCE</td>
<td>not defined</td>
<td>9,000 (estimated)</td>
</tr>
</tbody>
</table>

* - as outlined in "Hampshire College Campus Design"

C - college center
### FACILITIES FOR A TYPICAL COLLEGE (continued)

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>GROSS SF</th>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ATHLETIC FACILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. indoor</td>
<td>not defined</td>
<td>24,000</td>
</tr>
<tr>
<td></td>
<td>in program</td>
<td></td>
</tr>
<tr>
<td>2. playfields</td>
<td>not defined</td>
<td>796,600=</td>
</tr>
<tr>
<td></td>
<td>in program</td>
<td>c. 18 acres</td>
</tr>
<tr>
<td><strong>PARKING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>342,000-</td>
<td>daily requirements for 760 cars,</td>
</tr>
<tr>
<td></td>
<td>8 acres</td>
<td>450 sf @; 180 faculty, staff, 480</td>
</tr>
<tr>
<td></td>
<td>342,000</td>
<td>students; 100 visitor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>overflow parking for 760 cars</td>
</tr>
</tbody>
</table>

**TOTAL BUILDING SPACE REQUIREMENTS**: 628,800
SUMMARY EVALUATION

A. INSTRUCTIONAL SPACE

The total instructional space in the preliminary program by President Patterson appears high. This preliminary program estimates a total need of 83,850 sf of space. The theoretical program outlined in Appendix 5 estimates a requirement of 54,000 sf. Faculty office space requirements are reasonable.

B. LIBRARY

The Library program is sound. Most colleges of Hampshire College’s size plan to seat 40% to 60% of the student body at any one time. Hampshire will realize some space savings with its 30% seating capacity. INTRAN could probably occupy space in the library until the planned book capacity is reached.

C. ADMINISTRATION

The administration space requirement is reasonable.

D. STUDENT ACTIVITIES

Approximately half of the estimated requirement outlined in the preliminary program is for a college wide auditorium. The auditorium could be considered an expensive luxury considering the facilities that are available at the University of Massachusetts. The feasibility of combining this space need with the indoor athletic facility might be explored.

E. DORMITORY

The student living requirement is reasonable. The dining requirement is high because of the duplication of kitchen facilities. The feasibility of a central kitchen with warming facilities at each dining area should be explored. The additional faculty housing is over and above that found in the typical dormitory complex.

<table>
<thead>
<tr>
<th>SUMMARY OF PROPOSED ESTIMATED SPACE REQUIREMENTS (rounded to nearest 500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Space</td>
</tr>
<tr>
<td>Total instructional (teaching) space                                   54,000</td>
</tr>
<tr>
<td>Faculty office                                                          18,000</td>
</tr>
<tr>
<td>Library                                                                 54,500</td>
</tr>
<tr>
<td>Administration                                                          16,000</td>
</tr>
<tr>
<td>Student Activities (if college wide auditorium is included)            12,500 (27,500)</td>
</tr>
<tr>
<td>Dormitory                                                               360,000</td>
</tr>
<tr>
<td>1. Living                                                               47,000</td>
</tr>
<tr>
<td>2. Dining (1 central kitchen)                                           18,000</td>
</tr>
<tr>
<td>3. Additional faculty living                                           305,000</td>
</tr>
</tbody>
</table>
SUMMARY EVALUATION (continued)

Page 2.

F. HEALTH SERVICE
Most colleges are confining health services to an outpatient clinic with minimal infirmary facilities, if backup hospital facilities are available.

G. PLANT AND MAINTENANCE
The plant and maintenance requirement is reasonable. This facility could be a simple industrial building.

H. ATHLETIC FACILITIES
See comment in D. above exploring the feasibility of combining the college wide auditorium with the indoor athletic space. Playfields extensive use of space could be combined with some overflow parking.

<table>
<thead>
<tr>
<th></th>
<th>SUMMARY OF PROPOSED ESTIMATED SPACE REQUIREMENTS (rounded to nearest 500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Service</td>
<td>3,000</td>
</tr>
<tr>
<td>Plant and Maintenance</td>
<td>9,000</td>
</tr>
<tr>
<td>Athletic Facilities</td>
<td>24,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL BUILDING SPACE REQUIREMENTS</td>
</tr>
<tr>
<td></td>
<td>616,000</td>
</tr>
</tbody>
</table>
APPENDIX D

LETTER FROM SASAKI, DAWSON, DEMAY ASSOCIATES
CONCERNING LAND ACQUISITION
MR. CHARLES R. LONGSWORTH
Hampshire College
Amherst, Massachusetts 01002

Re: Hampshire College

May 26, 1966

Dear Mr. Longsworth:

At your request we have made a preliminary evaluation of the College's present landholdings for their general suitability to development and for the need, if any, of additional land acquisition. While our studies are not yet complete, we have noted the following facts and have made the following observations about the College's existing holdings in Amherst and Hadley.

a) The College's present holdings total 434.6 acres. 248 acres of the total lies in the Town of Amherst and the remaining 186 acres in the Town of Hadley. In considering the development potential of the site in relationship to overall size, it is important to note that 146 acres of land in Hadley is separated from the main body of land in Amherst by Bay Road and that an existing tenant on the other 40 acre parcel in Hadley north of Bay Road has life tenancy on the land.

While the total acreage is large, it is probable that development of the College will start on the 248 acre parcel in Amherst.

b) Of the 248 acres of land in Amherst, we estimate that 138 acres are easily developed and 110 acres are difficult to develop. Land classified as easily developed is open, well drained land that has a slope of 8% or less. Playfields are easily developed on slopes of 0 - 3% and buildings on slopes of 0 - 8%.

c) The natural form of the land in relationship to the configuration of the landholdings and approaches to the campus along West Street and Bay Road, places the campus into five general planning areas. (1) the central plateau-like portions of the Amherst parcel, which is high and relatively level. (2) the east slope of the Amherst...
Mr. Charles R. Longsworth

May 26, 1966

Page Two.

parcel which relates visually to West Street and the valley beyond. Visually, the Warner, Ives and Kielbaso properties are a part of the east slope. (3) the west slope of the Amherst parcel which visually relates toward Hadley and includes the Hadley parcel north of Bay Road. (4) the Bay Road frontage. (5) the Hitchcock mountain parcel south of Bay Road.

The central plateau-like portion of the Amherst parcel contains the largest portion of easily developed land and it is here that the first stages of development will most likely occur. The east slope and the Bay Road frontage control the approaches to the easily developed central portion of the site. Major access into the campus will probably occur from either West Street or Bay Road. In considering the acquisition of additional land, we ask first, does the College have enough easily-developed land for its building, playfield and parking space requirements? Second, are certain select parcels needed to permit optimum campus development?

At the present time it appears that there is sufficient buildable land on the Amherst parcel to accommodate the requirements of 1,000 students. However, institutions are long-lived and some consideration will have to be given now to the probable direction of the College in the decades ahead. Development pressures in Amherst continue to mount, and open land now surrounding Hampshire College will be completely developed in an estimated three to six years. The most desirable direction for additional acquisition of large acreage would be abutting property to the north of the Amherst parcel. This land is contiguous and has the same good development characteristics as the Amherst parcel.

We do recommend at this time the acquisition of the Kielbasa, Ives and Warner properties at Bay Road and West Street. While these properties total only 30 acres and are not critical to increase the aggregate total of developable land, they are critical to the control of the approaches to the campus on Bay Road and West Street, as well as to possible gateways into the campus from these roads. These three properties are visually prominent in the foreground when approaching the campus from the north or south on West Street and from the east on Bay Road.

Also, the sight distances and geometrics of the existing intersection of Bay Road and West Street are very poor. The intersection will become increasingly hazardous as the volume of traffic increases. Examination
of this area suggests that the intersection could be redesigned by shifting West Street north of the intersection, east to meet Bay Road in a simple crossroad at right angles. As a by-product of this shift of West Street a common, in the tradition of the town, could be created as a visual terminus to West Street and as an introduction to the Amherst approach to Hampshire College. This suggested realignment of West Street would occur on the Warner and Ives properties.

College ownership of the Kielbasa, Warner and Ives properties would permit the College to control its foreground on three critical approaches, permit direct participation in reconstruction of a dangerous intersection and could lead to the development of an appropriate visual introduction to the campus from Amherst.

Sincerely,

Richard F. Galehouse
Sasaki, Dawson, DeMay Associates, Inc.

RFG:dd
APPENDIX E

PRELIMINARY EVALUATION OF THE ALTERNATIVE ALIGNMENTS FOR THE PROPOSED ROUTE 9 IN AMHERST
July 26, 1966

Mr. Charles R. Longworth  
Vice President  
Hampshire College  
Amherst, Massachusetts

Re: Hampshire College

Dear Mr. Longworth:

At your request we have summarized our preliminary evaluation of the alternative alignment for the proposed Route 9 so that this information could be made available to the community.

The primary objective of our evaluation has been to order and weigh the principal criteria for judging the alternative alignments. No recommendation is made for either alignment.

We hope that this preliminary evaluation will help to clarify some of the issues involved and stimulate more detailed study of those elements which are critical to a final determination.

Sincerely,

SASAKI, DAWSON, DeMAY ASSOCIATES

Richard F. Galehouse

RFG:ms
PRELIMINARY EVALUATION OF THE ALTERNATIVE ALIGNMENTS FOR THE PROPOSED ROUTE 9 IN AMHERST

Two alternative alignments have been proposed for the new State Route 9 through Amherst. A northern alignment would depart from the existing Route 9 in east Amherst, follow the Fort River to North Pleasant Street and continue west to a connection with Route 116 in west Amherst near the existing Route 9 - Route 116 interchange. A southern alignment would depart from the existing Route 9 in Belchertown and generally follow a course west-northwest between Lawrence Swamp and Bay Road, cross West Street immediately north of Hampshire College, connect with the Route 116 extension about 1.6 miles south of the existing Route 9 - 116 interchange. The proposed Route 9 will be a 4 lane divided highway with access at only a few major north-south streets in Amherst.

The three main objectives for constructing the new highway appear to be:

1. Provision of high volume - high speed access to generators in Amherst: the University, Amherst College and the community itself.

2. Provision of a high volume - high speed road for traffic passing through Amherst to destinations east and west.

3. Provision of improved east - west inter-community access.

As part of planning studies for Hampshire College, preliminary evaluation has been made of the alternative alignments at the community level and college level. The proposed Route 9 will have a major impact on traffic flow through Amherst, and will significantly influence future patterns of land use, in Amherst and Hadley. In addition, the proposed Route 9 will exert direct and immediate influence on the development of Hampshire College.

Considerations of the various criteria at both levels are presented for consideration.

The Amherst Community

The concerns of the Amherst community should include: first, the functional effectiveness of the road; second, the impact on land use and the local economy; third, the impact on the landscape; fourth, the impact on the "sense of community"; and fifth, construction feasibility.
1. **Functional Effectiveness**

If the primary objective of Route 9 is to provide improved regional access to the generators of traffic in the Amherst community, the northern alignment would be preferable. It is adjacent to Amherst College, the most densely developed portion of the community and the central business district, and it would provide the closest access to the principal traffic generator - the University.

If Route 9 is intended primarily as a bypass for through-traffic, the southern alignment would be preferable. Were this the case, a route south of the Mt. Holyoke range might even be more desirable.

The Massachusetts Department of Public Works' current study should provide fairly conclusive evidence on the functional effectiveness of the alternative alignments.

2. **Impact on Land Use and the Economy**

A northern alignment of Route 9 appears to have more negative impact on existing land use than a southern alignment. More homes and developed land would be immediately affected. Amherst College's holdings would be divided with a possible deleterious effect on future development of the College.

On the other hand, a northern alignment of Route 9 would probably serve the area's economy better, by supporting existing business in Amherst Center, and the newly developing commercial interests in Amherst and Hadley at the present Route 9 - Route 116 interchange. Detailed cost benefit analysis could be made of the alternative alignments to give correct emphasis to the highway's economic impact.

In the long run perhaps, the effect of the highway on Amherst College may be the most important single factor in considering the impact on land use because the educational institutions in Amherst are the basic source of the community's livelihood. High priorities should be given to the plans and interests of Amherst College.
3. **Impact on the Landscape**

The northern alignment in the Fort River Valley is shorter in length than the southern alignment and for a certain distance follows a natural cleft in the physiographic features of the community. The road might be more easily fitted into the landscape in the river bottom than on side slopes at the foot of Holyoke Range in south Amherst.

The southern alignment crosses rolling and poorly drained land in Lawrence Swamp and consequently, the road bed would have to be elevated or diked. Following no topographic line of cleavage impact on the landscape might be unduly obtrusive.

The community would be well advised when a general course for the highway has been chosen, to seek the services of a landscape architect in the review of the State's design of alignments and interchanges.

4. **Impact on the Sense of Community**

The Fort River Valley is a natural boundary and a recognized division between Amherst and the south Amherst communities. A northern alignment would not appear to inhibit easy interchange within the south Amherst community or access to Amherst Center.

The southern alignment visually and physically splits the south Amherst community. As a limited access road, there would be no cross access between the point of departure from the existing Route 9 to West Street. The southern alignment tends, therefore, to isolate a long wedge of the community along Bay Road.

5. **Construction Feasibility**

Overall construction costs for the northern route may be less than the southern route. The shorter length of the northern route should be weighed against probable higher land acquisition costs, some poor soils conditions in the Fort River Valley and difficult intersections.
The northern alignment will have much greater immediate relief to traffic congestion on community roads since the new Route 9 can be tied to the community's principal north-south road, Route 116, with only a short extension of 116.

A southern alignment will depend for the foreseeable future on the utilization of existing N. Pleasant Street for access to Route 9 from Amherst Center.

Hampshire College

Hampshire College's concerns lie in three major areas: first, access to the college and its sister institutions; second, the impact of the highway on the use of the college's land and the impact on land use in the immediate community; third, the impact of Route 9 on the landscape.

1. **Access**

   Because of its unique program of sharing facilities with Mt. Holyoke, Smith, Amherst and the University of Massachusetts, safe and convenient access to these institutions is of prime importance to Hampshire College.

   Either route provides equally good access to the other colleges, as well as the regional transportation system and Amherst. Were the northern route chosen, a complete interchange would be built at Route 116 and in the future an interchange at the intersection of Bay Road and Route 116. This, in all probability, would unload more traffic on Bay Road than if the southern route were chosen. With a southern alignment, traffic to and from the college would travel West Street, from a ramped intersection at Route 9 and a complete interchange at 116 and 9.

2. **Impact on Land Use**

   The alignment of Route 9 will influence the location of the main entrance(s) to the college and the development of the community in the immediate environs of the college.
A northern alignment for Route 9 makes all sides of the campus accessible, with a possible future east-west extension to Potwine Lane north of the present holdings. The southern route tends to limit potential entrances to the east, from West Street, or to the south, from Bay Road.

A southern alignment of the road with Route 116 to the west could be viewed as creating a "buffer" to the north and west of the college or a real and psychological wall preventing close integration to the community. It would place increasing pressure for non-residential development along West Street in the vicinity of the college.

3. Impact on the Landscape

A southern alignment of Route 9 will be both visible and audible to Hampshire College. These considerations, when combined with those previously stated concerning the road's impact on the landscape of south Amherst, would make the road seem a negative presence in the vicinity.
APPENDIX F

LAND CORPORATIONS IN MASSACHUSETTS
APPENDIX F

LAND CORPORATIONS IN MASSACHUSETTS

The formation of a land corporation falls under legal regulations governing the formation of any business corporation in the Commonwealth of Massachusetts. Pre-incorporation actions involve the execution of a written agreement of association defining rights, provisions and purpose of the corporation. In the case of a land corporation, whose intent is to purchase, improve, subdivide land and develop housing, the delineation of the location and area of land prior to corporation would probably be mandatory. The advance commitments of investors in an undertaking which depends on a large initial investment would practically necessitate this. Otherwise, the procedure follows precisely defined steps and must comply to all the regulations of the normal business corporation. A final note: the advantages of forming a corporation with centralized management and limited liability should be carefully thought out for the disadvantages, including administration and taxes, might eventually predominate.

Control over land and development exists in other guises, but none is as powerful as ownership. Governmental control by police power tends too often to set minimum standards or rigidly conventional rules. Planning zoning and density controls are the accepted means of insuring general orderliness and protecting the neighborhood environment. However, these have seldom been used effectively to guide the pace and quality of new development. Taxation, with its incidence on land and improvements, can be carefully adjusted to insure control to some extent, but benefits to some are detriments to others. Public ownership whether complete, partial or temporary would be applicable in highway and flood control areas or land reserved for open space and might be used in conjunction with other methods for the directed development of the area surrounding Hampshire College.