Prepared in August of 1969, the master plan for a recreation-education facility is the application of principles established in the prototype study, volume 2 (RC 004 157) of the 4-volume report. The present volume coordinates these principles with the objectives of the State University Agricultural and Technical College at Delhi, New York. Factors having the greatest effects on development of the master plan are examined. The master plan, serving as a fundamental guide in development of the study area, is to be reevaluated and updated to reflect changing attitudes and objectives. Drawings are presented with the (1) area analysis, (2) site analysis, (3) program analysis, and (4) design applications. Related documents are RC 004 156, RC 004 157, and RC 004 158. (AN)
masterplan

delhi recreation education project report
VOLUME FOUR:
A FOUR VOLUME REPORT

DELHI RECREATION-EDUCATION PROJECT REPORT

VALLEY CAMPUS MASTER PLAN
STATE UNIVERSITY OF NEW YORK AT DELHI

SCHOOL OF LANDSCAPE ARCHITECTURE-STATE UNIVERSITY COLLEGE OF FORESTRY
AT SYRACUSE UNIVERSITY
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INTRODUCTION

The "Prototype" study, Volume 2 of this Report, established certain design variables and objectives for a recreational-educational facility. The application of these principles requires a sensitive evaluation of the various conditions which affect any site chosen for such a facility.

The purpose of this plan, therefore, is to coordinate these established principles with the objectives of the State University Agricultural and Technical College at Delhi as set forth in their reports, "Preliminary Plan for the Valley Campus Complex", of July 1967, and "Valley Campus Conference Center at Delhi Tech", of 1968.

Factors which have the greatest effect in the development of a Master Plan for the Valley Campus at Delhi are examined. The conclusions reached are expressed in the chapter entitled "Master Plan of Development." It should be noted that a master plan is intended to serve only as a fundamental guide in the development of the study area. As criteria or objectives change or become modified, the Master Plan should be re-evaluated and up-dated accordingly to reflect current attitudes and objectives.
Establishment of a recreational-educational facility at Delhi should recognize the significance of its regional setting. Its location within a region of dramatic topographic display contrasts clearly with sloping plains just to the west. Woodland forest cover and a low density of development combine to establish a picture of "unique landscape character", as outlined in Volume 1. Furthermore, its climate of cool, wet summers and cold, snowy winters establishes a condition ideal to the region's present desirability as a vacation outlet to the high-density areas of New York City, Albany, and adjacent portions of Pennsylvania. Outdoor recreation standards designate the travel time to a facility into three categories: a) day-use area = 2 hrs. b) weekend use = 5 hrs. c) vacation use = 10 hrs. Delaware County is barely on the fringe of the "day-use" isochron from New York City and is easily within a weekend-use distance. This is further supported in the fact that fully one-third of the land ownership is represented by non-residents. Located within the Catskill Mountain area, the vacation and recreation pattern is a long-established use of this region.

Highway systems within the 14 county New York Appalachian Study Area are presently insufficient for
other than localized traffic movements. Currently, New York State has proposals to construct 601 miles of additional development corridor highways within this area. Most important regionally, the Appalachian Regional Development Act has designated funding for the construction of a "Southern Tier Expressway". This east-west facility will provide needed transportation directly through the heart of the region and will connect the western extremities with Binghamton on the east. Additional proposals will construct north-south links to the New York State Thruway system and a strategic connection between Binghamton and the tri-city area of Albany, Schenectady and Troy. This last route will provide the most significant increase in efficient connection between the major population centers and Delhi. This is especially important since 90% of the student population at Delhi College comes from homes outside Delaware County.

Higher education opportunities within this region are represented by the extensive State University of New York system and more locally, the Catskill Consortium of Colleges. Delhi Agricultural and Technical College is a member of both groups. As such, it offers
education and training in regular classes and continuing education facilities to meet an educational need such as when, in 1968, it was found that there were as many as 4,500 young adults in Delaware County between 13 and 24 years of age with no saleable skills. In addition, the Catskill Mountain region has experienced an out-migration of young adults at a 26% rate of decline. With the recent regional emphasis on jobs requiring service skills and the decrease in agriculture, it is clear to see the need for additional educational facilities to meet this situation.

Drawings adapted from: Phase III - Appalachia Recreation and Cultural Resources Study
COUNTY CONSIDERATIONS

Delaware County is typified, visually, by rounded mountain forms, predominantly wooded with "northern hardwood" and "oak northern-hardwood" forests. The forests, which cover nearly half of the total county land area occur mostly on the hillsides, the more fertile valley floors having been cleared for their agricultural potential. Water resources are represented by the West Branch Delaware River and the East Branch Delaware River. The Cannonsville Reservoir on the West Branch and the Pepacton Reservoir on the East, both serve as water supply for New York City. As such, their recreational use is restricted to public use, except non-powered boat fishing. Most water recreation occurs at East Sidney Dam, located in the northwest corner of the county. Recreation needs appear most scarce in the summer sports such as swimming, water-skiing, camping, picnicking, and boating.

Highway facilities to connect with these recreational facilities mostly follow the topography patterns. The mountainous terrain has limited traffic facilities at the "state" level with no "Federal" or "Interstate" routes. Most connections to Delhi for north-south traffic use Route 28, which is currently proposed as...
a scenic route. East-west traffic uses Route 10 for local trips and go north to Route 7 for extended movements. While these traffic connections have served to maintain the intimate character of the county, they have also prevented its growth. With no immediate highway construction proposed, it would appear that the county traffic movements will remain essentially the same as at present, at least until the major corridor routes are constructed.
COMMUNITY CONSIDERATIONS

Delhi is a quiet town which is proud of its early beginnings. Well-kept homes of the late 18th and early 19th century still line its shaded streets. The fine patina which comes from careful attention over a period of years is seen in the manicured lawns and freshly-painted porches which look onto the streets. At the center, the County Courthouse terminates its green with Victorian charm, and was the subject of a Saturday Evening Post cover painted by Steven Dohanos.

History remains present throughout Delhi. The Frisbee House serves as headquarters for the Delaware County Historical Society. One of the three remaining covered bridges in the county is located here. Other places such as the Country Church and General Leavenworth Monument at Delhi Cemetery continue the tradition which preserves the charm of this small community.

There is close association between "Delhi Tech" and the community. The projected student enrollment of approximately 3,000 by 1974 will nearly equal the population of the town. Many of the fraternal houses and faculty homes are intermixed with homes of community citizens along the streets. This relationship should be preserved in both future expansion of the town and of the college.
Current expansion of residential areas appears to be mostly northward. A small industrial section located just east of the Delhi academic campus could present unfavorable views if allowed to grow. Even at its present size, this area should be given special concern for appearance since it is the "front door" entrance to the community from the southeast on Route 10. Additional concern should be given to the appearance of the high-voltage power trunk-lines which slash through the southern portions of the community and continue across the Valley Campus to the south. The visual confusion which these lines create are coupled with a difficult traffic pattern which links the Valley Campus to the community. This connection may be improved to some degree with construction of a proposed highway section joining Routes 10 and 28 just southeast of the Delhi Academic Campus.
The Valley Campus is a striking piece of topography. The surrounding hillsides accentuate the importance of the valley floor. While the view as one enters is rewarding, the methods of approach need improvement. Entering from Route 10, one encounters a confusion of sharp curves and overhead transmission power lines. The approach from Route 28 winds quite ungracefully down to resolve at the maintenance garage. The other approaches are undistinguishable and offer no awareness of entrance or exit.

Most of the area is visually occupied by two elements: the golf course and the agricultural fields. Both are neatly presented and well-kept. Their clean image is marred, however, by the overhead transmission lines which march across the valley floor and slash through the forests up the hillsides.

The Old Scotch Cemetery located immediately southeast of the golf clubhouse occupies an inconspicuous area and its continued existence would appear to offer no great problem. In addition, it is quite well shaded by mature trees and evergreens.

The naturally forested hillsides contain deciduous species almost exclusively. Red and sugar maples, red
and white oak, and ash seem to predominate. Introduced
trees line the road along the golf course. A signifi-
cant stand of evergreens occupies near geographic
center of the property. Immediately to the east, the
former location of the County Home represents an area
which needs attention.
SOILS

There are two general types of soils formed within the Valley Campus: lowlands association and uplands association. The lowland areas are located along the rivers and at the base of the steeply rising hillsides. These soils are reddish-brown in color, medium-textured, and underlain with deep sand and gravel deposits, which give it a well-drained character. Because of their low lying location and their gentle slopes, they are flooded annually. Otherwise these soils are well-suited for farmland, recreation and residential use, woodland areas, and as wildlife habitat. Vegetation species to preserve include sugar maple, black cherry, white ash, and basswood.

The upland areas consist of soils generally reddish to grayish-brown in color, medium-textured to stoney with slowly permeable fragipan at average depths of 18-24 inches, and undulating bedrock at approximately 2½ feet. Being moderate to poorly-drained and sloping, these areas have limitations for farmland, residential, and recreational use, and more favorable for woodland.
establishment and woodland wildlife habitat. Vegetation species to plant include pines, larch, and spruce. Natural species to favor include maples, beach, black cherry, oaks, basswood and hemlock.
SUMMARY OF SITE CONCLUSIONS

Certain existing factors within the Valley Campus offer guidelines to whatever development occurs here. Those areas of application, will determine a design plan that properly recognizes the conditions of this site. The following conclusions, therefore, should be considered fundamental to the formation of a design plan for this area:

1. Anticipated development should provide adequate protection from flooding.

2. The visual effect of the transmission lines should be minimized whereas possible.

3. Development patterns should be used which preserve and strengthen the tie in continuity between the Academic Campus and the Valley Campus.

4. Design concepts should seek to preserve the valley floor and its visual freedom from building development.

5. Panoramic views which overlook the valley floor from the hillsides should be encouraged and utilized in any potential design scheme.

6. The vehicular approaches to the valley campus should be simplified, identified, and made visually attractive.

7. Additional land should be purchased which, if ever privately developed, could be visually obtrusive to the Valley Campus, also to ensure development of a comprehensive recreation-education facility.
A knowledgeable understanding of the proposed program and its objectives is necessary to intelligent development and evaluation of any design scheme.

The recent emphasis on expansion of recreation facilities is still growing. The Bureau of Outdoor Recreation has charted an increase in recreation demand which has quadrupled since 1966. Those pressures have highlighted the need for education and training of additional recreation management administrators who can responsibly meet this challenge through the establishment of additional recreational facilities.

The colleges have responded with educational programs now fully recognized by the National Recreation and Park Association. A recent analysis of the recreation-educational programs now offered by two-year colleges across the nation indicates that most curriculums are community or program oriented. Those which offer a resources-oriented program are generally maintenance-oriented. An in-depth analysis of these curriculum objectives was undertaken and presented earlier in this series. This analysis outlined the desirability of the establishment, at Delhi, of a program centering on a resources-oriented base with emphasis on management, administration,
and maintenance. This would provide for the greatest possible range of student interests while offering the invaluable exponent of practical "in-the-field" application to fundamentals learned in the classroom.

A detailed analysis of the Outdoor Recreation Management Program reveals four basic objectives:

1. a two-year technical curriculum to educate associate professionals in recreation resource management, and composite recreation management to meet specific career goals.
2. a two-year transfer curriculum providing the first two years of education toward a baccalaureate degree in some phase of recreation studies.
3. a continuing education program of conferences, workshops, short courses, extension and home study courses, and associate degree programs.
4. professional-technical courses such as recreation leadership, outdoor recreation management, maintenance skills, arts and crafts, campfire activities, and the like.
A complete itemization of the credit hours, curriculum content, and individual course objectives is presented in the Curriculum volume. The concern of this report, however, is a presentation of the resultant requisites to carry out this series of objectives as outlined above. These are further explained and examined on the following pages.
PROGRAM REQUIREMENTS

In order to express the curriculum fundamentals as outlined on the previous pages, the Valley Campus can be used as an outdoor laboratory. The following outline establishes use areas necessary to meet this curriculum:

1. Technical Curriculum
   a. natural science: field biology, ecology
   b. physical science: introduction to maps, landforms, soils, climate
   c. introduction to outdoor recreation
   d. conservation
   e. grounds maintenance
   f. on-the-job training

2. Transfer Curriculum
   a. natural science: botany, biology, zoology
   b. physical science: geology
   c. introduction to outdoor recreation

3. Continuing Education
   a. conferences
   b. workshops: family camping, park administration, recreation skills, winter sports, etc.
   c. short courses: park maintenance, park management, campground owners short course, etc.
   d. training sessions: camp counselors, aquatic leaders, pre-work sessions for State Parks employees, etc.
The location of design elements within the proposed "Master Plan of Development" is based on an analysis of two fundamental fact areas:

1. an examination of existing and potential conditions of the site.
2. an examination of proposed program inter-relationships and requirements.

The conclusions of the two areas have been presented in the earlier sections of this report. Their combination and ultimate formulation as a pattern of site design is the subject of this section. The Schematic Site Design, therefore, is presented to illustrate the following conclusions:

1. The Farm Group buildings now under construction will remain in their present location and with their associated agricultural fields. Any contemplated future expansion should occur toward the southeast.

2. The existing nine-hole golf course is a definite visual and functional asset. Construction plans for an additional nine holes have been completed for the area shown on the plan. This element provides an extremely
important basis to the desirability of preserving the valley floor in low-density development.

3. Active interest on the part of the students and faculty, and an emphasis within the curriculum establishes the need for a stables and horseback riding area. A location in the general area of the former County Home would provide additional space for buildings such as indoor-arena, outdoor paddock and ring.

4. A conference center should be established as the "field laboratory" of the various curriculum requirements for conference space hotel and restaurant administration, recreation facilities, and faculty use. Its location on the hillsides provides a sweeping panorama of the valley floor with views across and back to the Academic Campus and community.

5. Curriculum emphasis on plant materials and ecology defines the desirability of establishment of an arboretum. Present plans locate it on the hillsides in the southeast of the
Valley Campus. This location can have direct tie-in with the adjacent conference center. In addition, a maple syrup laboratory and Sugar Bush could be an integral part of this area.

6. A ski area located on the slopes of the southwest portion of the Valley Campus would be a desirable addition to the winter sports portion of the curriculum. Of modest size, it can serve the school and community quite handsomely.

7. A noticeable lack of swimming facilities within this area could be offset with establishment of such a facility in conjunction with the impoundment of the Little Delaware River. In addition to this, a camping facility could further complete the curriculum requirements in this area.

8. The main vehicular approach to the Valley Campus should occur in conjunction with a proposed connection between Routes 10 and 28 just north of the Valley. This will provide safer and more aesthetic access to the site by
eliminating difficult maneuvers and providing attractive scenery.

9. Purchase of additional land should be accomplished in the following locations:
   a. northern section; protects from potential development.
   b. western section; ski area and agricultural expansion.
   c. eastern section; sugar bush and arboretum expansion.
   d. adjacent plateau farm land south of Valley Campus for campsite complex.
   e. water impoundment on Little Delaware and adjacent lands for recreation development.
DESIGN OF COMPONENTS

GOLF COURSE. Nine additional holes are designed to give Delhi a complete 18-hole course. Such a course can handle 500-550 persons per day. The proposed parking lot expansion and new clubhouse would be a necessity with a full course. As a multiple use, tapping of the maple trees on the course seems quite compatible. In more remote areas near the river, the arboretum could use areas for lowland and aquatic plant displays. The existing and planned course takes maximum advantage of the topography and river. The course could also serve as a laboratory for the turf management curriculum.

FARM GROUP. Expansion of the College Farm is presently under construction. When completed, this facility will house the Dairy and Beef Herds, the Meat Processing Facility and the Horticulture-Plant Science Facility. The facility is surrounded by 160 acres of agricultural land for crops, grazing and turf management use. Since some of the agricultural land will be taken for other uses, future expansion could occur on the higher ground to the west.
CONFERENCE CENTER. Located on 25 acres of the south slope off Leal Road, this facility will provide student training facilities in recreation, hotel and restaurant management, local to statewide social services, a center for the college's Continuing Education Program and serve as a prototype recreational project for the 14-county Appalachia Region. Its placement within the Arboretum will provide ready access to plant and sugar bush operations while providing a casual setting for relaxation. Besides the views this will offer, the location away from the stables and barns should be a positive factor. Parking will occur on plateaus cut into the slopes.

ARBORETUM. This proposal would provide educational training for the college and a recreation use for the Catskill Region. The three major areas of display would be Ecological Groups, Special Use Plant Groups and Botanical Groups. It is suggested that the arboretum be extended down to the river to include aquatic and lowland plant groups. Access trails with marked plant material are planned. An outdoor amphitheater would offer a teaching facility which could also function for conference center or main campus functions. The slopes vary from 2% and 1400 feet elevation in the valley to 5% and 2220 feet elevation at the ridge top.
SKI AREA. With a vertical drop of 760 feet and slopes from 12 to 60%, a ski facility could accommodate novice, intermediate, and advanced skiers. A ski lodge, T-bar lift, warming hut, and parking area is also proposed. One acre of parking should be provided for every 10 acres of usable slope. Minimum width for slopes is 100-250 feet. Skating facilities might also be proposed in conjunction with the ski lodge. Expansion to the west would offer excellent slopes in the more difficult range. It is projected this facility would cost $500,000.

LAKE & WATER-BASED RECREATION. This facility is proposed in conjunction with the impoundment of the Little Delaware River. The proposed 35 acre lake would provide a population of approximately 14,000 with swimming and picnic facilities for 500 and 100 campsites. Three supporting acres are needed for every acre of beach. Picnic areas should allow 20 people per acre and 8-10 picnic tables per acre. The parking/table ratio should be 1:1. This area could also be a source for winter activities.
CAMPSITE. There is insufficient land within present boundaries for this facility. Camping can be provided in conjunction with the lake and water-based recreation and on the plateau land to the south of the Valley Campus. Campsites should allow 15 people or three sites per acre. This area could also be a source for winter activities in conjunction with the site facility.

STABLES. In the vicinity of the old County Home and existing pine grove a structure housing stables and an indoor arena is proposed. Built into the slope would be an outdoor paddock and ring with facilities for seating. Trails of two and four miles are proposed with each having a ½ mile cutback. Accommodations for trails would occur in the arboretum to the east and ski area to the west. Single file trails run $750 per mile.
MASTER PLAN

This represents the culmination of the preceding pages of analysis and research. Many of the general areas presently in use or proposed for use by other studies have been retained. Some would be unreasonably costly to move. Almost all are in the best area for their use. This plan shows their interrelation in greater detail and attempts to coordinate their outer edges. As the Valley Campus develops, traffic circulation and parking will increase proportionally. It should be dealt with strongly so that the integrity of the valley is not destroyed.
## CONSTRUCTION PHASING AND COST ESTIMATES

### A. Conference Center
- Conference Center: $5,100,000
- Site Development: 1,200,000
- Golf Course Completion: 200,000
- Second 9-Holes (Initial): 50,000
- Scotch Mountain/Leal Road: 150,000
- **Total**: $6,700,000

### B. Golf Course Club House
- Golf Course Site Development: $400,000
- Main Entrance Road: 80,000
- Stables & Indoor Arena: 450,000
- Paddock & Parking: 100,000
- Arboretum Development (Phase II): 50,000
- Amphitheater: 10,000
- **Total**: $1,294,000

### C. Ski Lodge
- Ski Lodge: $150,000
- Ski Lodge Site Development: 30,000
- Ski Slope Development: 220,000
- T-bar Lift: 50,000
- Warming Hut: 20,000
- Construction Technology Lab: 100,000
- West Entrance Road: 200,000
- Bridge: 80,000
- **Total**: $850,000

### D. Excavated Lake
- Excavated Lake: $700,000
- Bathhouse/Snack Bar Facility: 50,000
- Parking: 120,000
- Picnic Area: 75,000
- Camping Area: 80,000
- **Total**: $1,025,000

### TOTAL
- **Total**: $9,869,000
BIBLIOGRAPHY

Appalachian Regional Commission, New York Sta-
Appalachia Program-A Development Plan. Albany: State
of New York, 1968.

College Foundation at Delhi, Inc., Valley Campus Confer-
ence Center at Delhi Tech. Delhi: College Foundation,
1969.

Delaware County Chamber of Commerce, Four Seasons
Vacationland-Delaware County. Laurens: The Village
Printer, 1969.

Delaware County Soil and Water Conservation District,
Preliminary Plan for Valley Campus Complex. Prepared as
a part of the South Central New York Resource Conserva-
tion and Development Project. Delhi: SUNY Agricultural

Kruger, Seldon M., A Profile of Delaware County. Delhi:
SUNY Agricultural and Technical College, 1968.

New York State Employment Service, Smaller Communities
Program, Delaware County Manpower Survey. Albany: N.Y.
Department of Labor, 1967.

Otsego-Delaware Expressway Association in cooperation
with counties of Delaware, Herkimer, Otsego, Sullivan,
Otsego-Delaware Expressway Association. Recent undated
publication.

Sargent, Webster, Crenshaw and Folley, Town and Village
of Delhi, New York-Comprehensive Plan. Albany: Office
of Planning Coordination, 1966.


State University College of Forestry at Syracuse University, School of Landscape Architecture, Appalachia Recreation and Cultural Resources Study. Syracuse: S.U.C.F., 1969.

SUNY Agricultural and Technical College at Delhi, College in the Catskills-Delhi Tech. Delhi: SUNY Agricultural and Technical College, recent publication undated.


