1974 Comprehensive Site Plan Updating

State University of New York at Albany

July 1968

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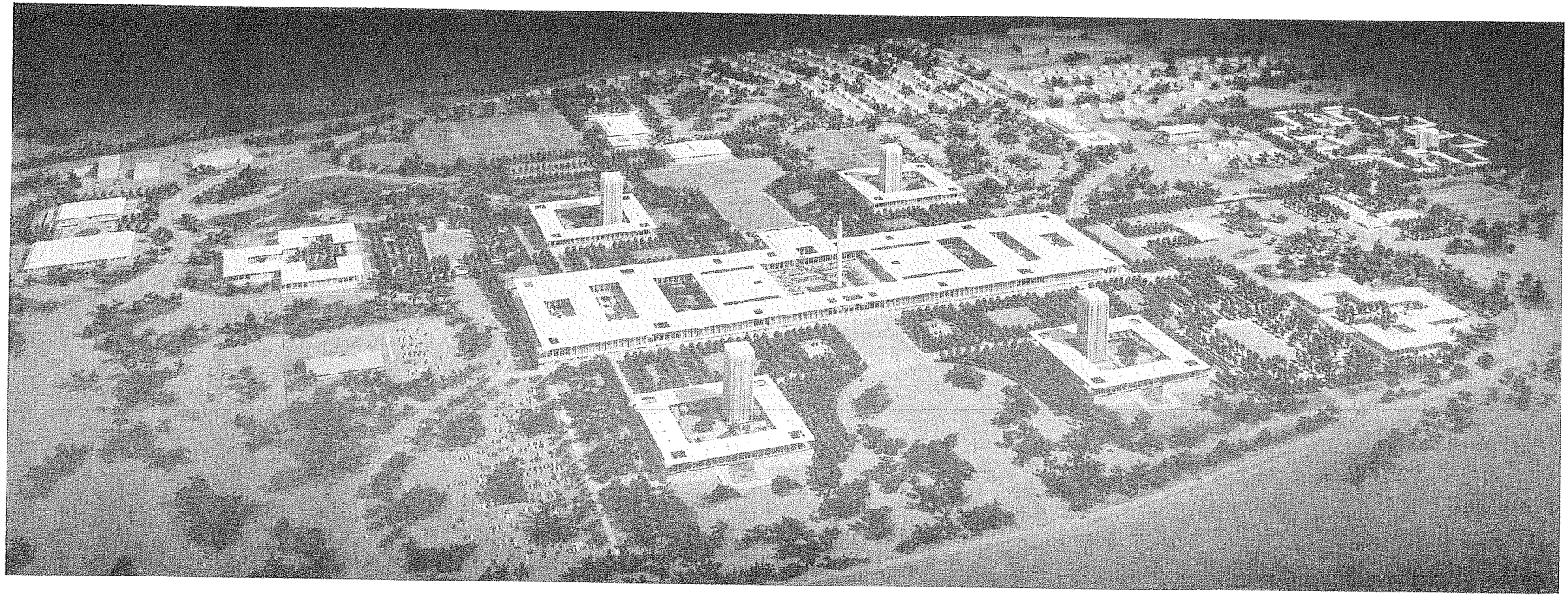

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505 PARK AVENUE NEW YORK, N. Y. 10022 PL 2-3215

October 19, 1968

State University Construction Fund
State of New York
194 Washington Avenue
Albany, New York 12210

Gentlemen:

This report documents the 1974 Comprehensive Site Plan Updating for the State University of New York at Albany.

We express our appreciation to the staff of the Construction Fund for their very able assistance.

Very truly yours,

EDWARD DURELL STONE & ASSOCIATES

INTRODUCTION

The University center at Albany, one of four, is a microcosm of the State University of New York. It is to be a comprehensive general campus offering the full spectrum of:

Traditional Arts and Sciences and Occupational Undergraduate Programs

Graduate and Professional Programs and Schools

Organized Research and Public Service Units

There has been a progressive expansion of education objectives, from the start of the school as a seminary for teachers in 1834, to its present period of most significant growth. Construction programs have been initiated that complete the design integrity of the concept envisioned by the Architects. The school -- a completed entity in full operation with 7,500 students and required ancillary facilities.

This completion of a viable University in less than a decade is in strong contrast to most universities whose physical expression occurred over long periods, even centuries.

The concept of an architectural statement reflecting a strong philosophy of educational objectives has been

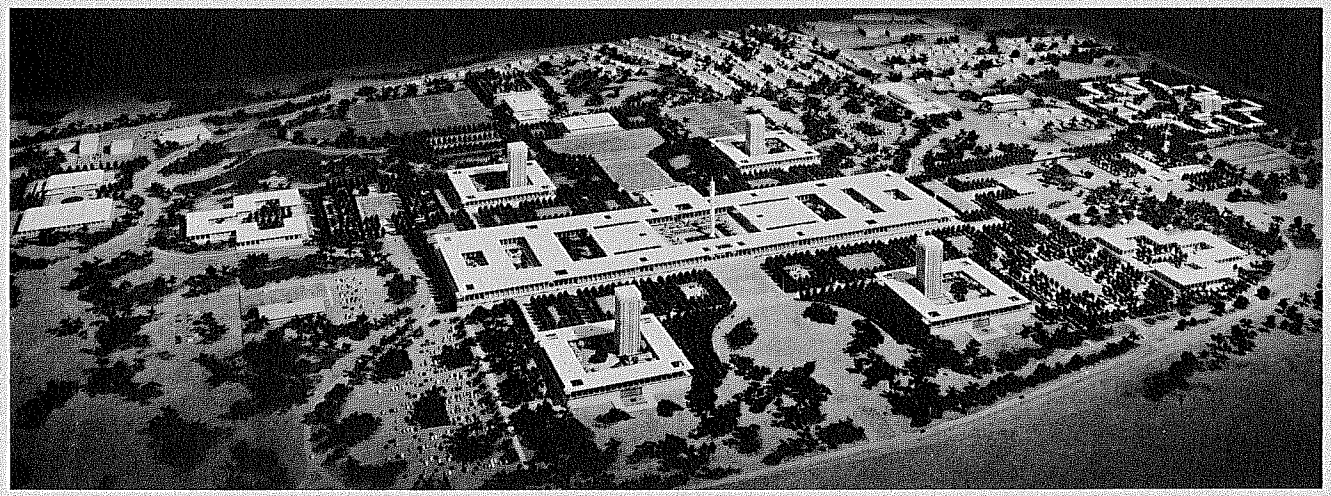
closely adhered to during the process of planning the growth of the campus to accommodate a student body of 15,000 in 1974.

The original precepts of arranging all academic facilities under one roof, isolated from the automobile, in a central core area readily accessible from all ancillary facilities, has been retained for the expansion of the campus.

Major factors in planning the growth of the campus were the S. U. N. Y. policy limiting land acquisition and removal of the finite limit of the student body. These are reflected in the dual use of land for certain elements and an intensive use of available space.

The comprehensive plan herein delineated has been evolved through orderly planning processes, including program evaluation, study of alternate concepts, and schematic plans, which led to the final master plan and action programs with phasing recommendations.

This translation of programs and planning concepts for development into specific recommended projects will permit an orderly growth of the University at Albany that can be coordinated with S. U. N. Y.'s construction program through 1974.



SECTION I - PROGRAM

EDUCATION PLAN

Translation of the University's educational objectives into physical dimensions results from analyzing the diverse elements which comprise a University Center, together with their relationships to human facets and a desirable learning environment.

The process of master planning synthesizes these relationships into principles, which guide the academic and physical evolution of the campus to assure achievement of the ultimate goal - the education of students.

OBJECTIVES FOR THE UNIVERSITY CENTER

--Provide advanced programs and curricula for transferees from two-year colleges.

--Expand capacities to meet the heavy demand for advanced programs at the masters level and above.

--Expand capacities for specialized professional attainment, including post-doctoral programs in highly sophisticated units of organized research and new professional schools.

--Form a comprehensive general campus offering the full spectrum of undergraduate, graduate, professional programs, organized research, and public service units.

The major academic units of the University are:

College of Arts & Sciences
Schools of Business, Education, Library Service, and Social Welfare
School of Criminal Justice
Graduate School of Public Affairs

While most departments have areas of substantial strength, there is some need for faculty who will attract the best graduate students.

A strong student counseling program is developing and adapting its role to the growing enrollment and scope of the university. This must be an integral part of a complete academic program.

Research and advanced scholarship will mature substantially with recent faculty appointments and the new adequately equipped campus.

Experimentation with greater emphasis on individualized instruction, fewer formal course requirements and exploration outside students' major concentration are in progress.

Regional Cooperative Programs

Chinese language study with Union College
Library service programs with the New Poly College
Free cross registration graduate program with Union and Rensselaer Polytechnical Institute

Programs with other S. U. N. Y. Colleges permit their students to work toward the doctorate at Albany
Supervised teaching apprenticeship at community colleges for Albany graduate students completing work of the two-stage Ph. D. program
Faculty exchange with other S. U. N. Y. campuses

Existing Research Programs

Atmospheric Sciences Research Center
Dudley Observatory
Albany Center for Learning Disabilities
Center for Executive Development
Center for Professional Development
Local Government Studies Center
Center for Field Research & Services
Center for Inter-American Studies
Northeastern New York Speech Center
University Reading Center

Proposed Research Programs

Surface Sciences Center
Institute of Urban & Regional Research
Center for Higher Education
Center for International Education

Regional & Statewide Programs

The University has been commended and urged to seek additional cooperative methods with other State campuses for research, instruction, public service or other appropriate activities.

Enlargement of the inter-institutional programs will occur. This involves sharing library facilities, research tools, and cross registration in special courses.

International Studies & World Affairs

Study-abroad programs at Würzburg jointly with the college at Oneonta.

Proposed study-abroad programs for Mexico, Nice, and Barcelona jointly with Stony Brook and Binghamton.

Area Study Program, i.e., proposed Ph.D. in Russian language and literature complementing a program of Eastern European Area Studies.

Major programs in Chinese, Italian, and Portuguese are under consideration.

Faculty and student exchange program with the University of the West Indies, and expansion of the exchange program with universities in France are being discussed.

The experimental summer program in International Librarianship will be offered.

Educational Communication

The University will be a key link in the proposed State University microwave and computer network. This will create opportunities to explore new communication media and create

a wide range of new programs such as interconnection of campus libraries. The computing facilities are unified to meet the administrative, instructional and research needs.

Continuing Education

Proposed programs are being developed in addition to the service functions now provided by several research units.

An evening program for the more mature student is being considered as part of a college of general studies.

The organizational structure required to serve the non-degree, institute and conference programs of an expanded community service will be developed.

The extension to other areas of the Rensselaerville Institute on "Man and Science" is being discussed.

The increased use of educational television and the S. U. N. Y. network will provide additional means for meeting the University's responsibilities to the community for a life-long learning program.

PROGRAMS OFFERED AND DEGREES AWARDED

Subject Field	Currently Offered (September 1966)	Proposed for Establishment
LIBERAL ARTS AND SCIENCES		
French	BA, MA, PhD	
German	BA, MA	PhD
Italian		MA, PhD
Russian	BA, MA	
Spanish	BA, MA, PhD	
Comparative Literature	MA	
Liberal Studies		MS
English	BA, MA	
Latin	BA, MA	
Philosophy	BA, MA	PhD
Speech	BA, MA	
Classics		PhD
Biology	BA, BS, MA, PhD	
Psychology	BA, MA, PhD	
Speech Correction & Audiology	MA	PhD
Dramatic Art	BA, MA	PhD
Art History		MA
Physical Science	BS	
Atmospheric Science	BS, MA	PhD
Chemistry	BS, MA, PhD	
Physics	BS, MA, PhD	
Mathematics	BA, BS, MA	PhD
Astronomy & Space Science	MA	PhD
Geology	BS, MA	PhD
Computer Science		MS, PhD
American Studies		MA

Subject Field	Currently Offered (September 1966)	Proposed for Establishment
History	BA, MA, PhD	
Social Studies	MA	
Political Economy	MA, PhD	
Political Science	BA, MA, PhD	
Public Affairs	MA	
Public Administration	MPA, DPA	
Economics	BA	MA, PhD
Inter-American Language & Area Studies	BA	MA
Sociology	BA, MA	PhD
Geography	BA	MA, PhD
Anthropology		BA, MA, PhD
Urban & Regional Affairs		MA
Urban & Regional Planning		MA
Liberal Studies		MA
PROFESSIONS		
Criminal Justice		MA
Business	MS	DBA
Business Administration	MS, MBA	
Accounting	BS	
Nursing		BS
Library Science-International Librarianship		MLS
Archival Administration		MLS
Social Welfare	MSW	MLS
Education (Var. Fields)	MA, MS, EdD	
Educational Psychology		MS, EdD
History & Philosophy of Education		PhD
Nursing Education		

ENROLLMENT PLAN

This Master plan delineates the growth of the University through 1974, when it is expected that 14,635 FTE students will be enrolled.

The FTE (full-time equivalent) is a statistical expression arrived at by dividing the total number of course load hours taken by all students by the normal course load of a full-time student. To use a head count would seriously distort the total requirements for facilities and make it difficult to account for part-time and special students.

For the 1974 enrollment level, we have constructed a profile of expectations regarding composition of campus population and the relationship of population to facilities. Included is the non-student population, since these persons have facility requirements of their own and may represent one-third of the people on campus during a peak period. Student population estimates have been treated in terms of levels of instruction and achievement, since the magnitude of space requirements varies in accordance with the level of instruction and research being pursued.

DISTRIBUTION OF ENROLLMENT BY SUBJECT FIELD

	Fall 1965						Fall 1974					
	Undergraduate		Graduate		Total		Undergraduate		Graduate		Total	
	%	No. FTE	%	No. FTE	%	No.	%	No. FTE	%	No. FTE	%	No. FTE
Languages & Literature	9	442	2	13	10	568	16	1890	23	652	10	1464
Humanities	20	992	5	31	19	1080	19	2244	7	198	16	2345
Fine Arts & Performing Arts	4	198	0		3	171	4	472	0		3	440
Biological Sciences	4	198	2	13	4	226	4	472	1	28	4	585
Psychology	3	149	3	19	3	171	4	472	2	56	3	440
Physical, Earth & Space Sciences	5	244	3	19	5	284	5	590	5	141	7	1028
Mathematics	7	348	1	6	7	398	8	945	2	56	6	880
Social Sciences	20	992	30	188	21	1198	16	1890	22	625	20	2927
Business Administration	10	496	5	31	7	398	12	1418	6	170	9	1320
Library Science	2	99	11	69	3	171	*		6	170	3	440
Education	13	645	32	200	14	796	10	1180	19	539	16	2345
Occupational Fields (Nursing)	0		0		0		1	118	0		*	
Social Welfare	1	50	6	38	1	57	*		7	198	2	293
General Science	2	99	0		2	114	2	236	0		1	146
TOTALS	100%	5058	100%	628	100%	5686	100%	11880	100%	2835	100%	14635

* Less than 0.5%

The Campus Population

The program for the physical plant is derived from a multiplication of people by a space development standard for each type of facility required to meet the institution's educational objectives. This

Campus population has been categorized as students, faculty, staff and visitors. Because more space per student is required for instructional purposes as the level of achievement advances, the student population has been further broken down into lower division, upper division, master's, doctor's, and post doctoral levels.

Graduate and research assistants and teaching fellows will share the instructional loads with the faculty, especially in the lower division classes where the large lecture hall/small seminar method of teaching will be used. However, graduate assistants are also students and have been counted as such in the FTE summaries.

One out of every six graduate students will be a graduate or research assistant, or teaching fellow. This is a FTE figure. For planning purposes these students should be listed also under faculty, since they will require office space to carry out some of their assignments.

All non-teaching personnel, including the President, Deans, librarians, clerical, technical, and custodial employees, are considered "staff".

Estimates of staff population for the new campus are not easily made because existing ratios of staff to students do not reflect the operation of a new campus, the expected surge of enrollment, nor the transition to a university center. SUNY has established a ratio of 1 staff member per 15 students.

DISTRIBUTION OF ENROLLMENT AND FACULTY (By Division)

	Fall 1965			Fall 1974			
	Students Headcount	FTE	Faculty	Students Headcount	FTE	Faculty	Ratio
Lower Division	2542	3597	173	4000	6600	440	(1:15)
Upper Division	1884	1461	122	7000	5200	433	(1:12)
Graduate (1st year)	1553	459	46	4000	1335	134	(1:10)
Graduate (advanced)	169	169	21	1500	1500	187	(1:8)
	6147	5686	362	16500	14635	1194	

The above chart indicates that in 1974 only 20 percent of the student body will be graduate students. The University at Albany has suggested the probability of a much higher percentage of graduate students (40 percent) with a desired 1:6 faculty ratio for advanced graduates. Previous studies have indicated that in order to sustain an effective academic program, the 1:6 ratio is more desirable.

The validity and application of the planning assumptions derived from this data should be tested and reviewed in the years ahead before translated into construction programs.

COMPOSITE CAMPUS POPULATION (S. U. N. Y.) 1974

Students (Headcount)	16,500
Faculty	1,189
Staff	1,036
Maintenance Personnel	1,891
Visitors	81
TOTAL	20,697

In estimating facility requirements, provisions must also be made for visitors to the campus. Studies of parking and circulation requirements for twenty representative universities indicate that 1 out of 100 people on campus is a visitor. At 15,000 student level, this would mean about 150 visitors.

FACILITY REQUIREMENTS

The campus has been designed to achieve high efficiency in space utilization, i.e., classrooms - 30 hours per week with 60% student station use; laboratories - 24 hours per week with 80% student station use.

By 1970, the academic area will be a completed entity with 667,000 gross square feet of academic space. The programmed expansion through 1974 will add 1,222,000 square feet to the podium academic area. This provides space for Humanities, Graduate Sciences, Professional schools, Student Activities and the library.

The institutional facilities include classrooms, teaching laboratories, seminar rooms, demonstration and practice rooms, studios and similar spaces. Also included are departmental and general instructional service space, and faculty and departmental office space.

The importance of adequate office space cannot be overemphasized. The need for personal communication between teacher and student is critical at a University Center.

The magnitude of space requirements has been determined by SUNY. The estimates reflect the distinction that higher levels of achievement require larger spaces per student and laboratory course requirements for space are much larger than classroom oriented courses.

PROGRAM FACILITIES TO 1974

The 1974 program for expansion of the University will add an additional 1,585,000 sq. ft. to existing facilities. The major portion of the academic expansion will be in the extensions to the gross area East and West of the Academic Podium. The expanded facilities of 1,220,000 sq. ft. include:

Humanities	325,000 sq. ft.
Sciences	325,000 sq. ft.
Professional Schools	265,000 sq. ft.
Student Activities	140,000 sq. ft.
Library Expansion	165,000 sq. ft.
	1,220,000 sq. ft.

Approximately 65,000 sq. ft. of the proposed Library expansion of 165,000 sq. ft. will be provided in finishing and reassigning existing space in the Library basement. Thus, the total Library expansion area required for expansion may be reduced to 100,000 sq. ft.

Programmed new space of 1,220,000 sq. ft. will actually be planned as 1,155,000 sq. ft. since 65,000 sq. ft. is converted existing space.

Additional Physical Education requirements of 300,000 sq. ft. and Service Facility of 65,000 sq. ft. result in a total Programmed Facilities to 1974 of 1,585,000 sq. ft.

PROGRAM FACILITIES TO 1974

PROJECT NO.				TOTAL
	a)	PHYSICAL EDUCATION		
0118		Health and Physical Educ. Gym #2	180,000 sq. ft.	
0126		Multipurpose Field House Auditorium	120,000 sq. ft.	
				300,000 sq. ft.
	b)	HUMANITIES		
0135		Social Sciences	100,000 sq. ft.	
0129		Humanities	125,000 sq. ft.	
0130		Add. Administration	60,000 sq. ft.	
0131		Nursing Arts	40,000 sq. ft.	
				325,000 sq. ft.
	c)	SCIENCES		
0132		Graduate Biology	125,000 sq. ft.	
0133		Graduate Chemistry	100,000 sq. ft.	
0184		Graduate Physics	100,000 sq. ft.	
				325,000 sq. ft.
	d)	PROFESSIONAL SCHOOLS		
0136		Social Welfare	125,000 sq. ft.	
0140		Criminal Justice	70,000 sq. ft.	
0141		Public Affairs	70,000 sq. ft.	
				265,000 sq. ft.
0187	e)	STUDENT ACTIVITIES	140,000 sq. ft.	
				140,000 sq. ft.
0142	f)	LIBRARY (New Space)	100,000 sq. ft.	
		(Converted Space)	65,000 sq. ft.	
				165,000 sq. ft.
0188	g)	ADD. SERVICE FACILITY	65,000 sq. ft.	
				65,000 sq. ft.
				1,585,000 sq. ft.

PROGRAM FACILITIES TO 1974 (cont'd)

PROJECT NO.		
	h)	HOUSING
0161		Married Housing (160 units)
0162		Married Housing (240 units)
0158		Stage XV Dorm (1000 beds)
0159		Stage XV Dining (500 seats)
	i)	MISCELLANEOUS
0125		Continuing Education (100,000 sq. ft.)
01183		Parking Structure #5 (1300 cars)
01148		Parking Structure #6 (1300 cars)
	j)	PROPOSED POST 1974
		Public Aquarium
		Museum
		Hockey Rink

LIBRARY FACILITIES

The importance of a centrally located library is given full recognition in the architectural design and plans for expansion. Approximately 200,000 square feet of finished space has been provided with 165,000 square feet to be constructed by 1974. This space will accommodate more than 1,000,000 volumes.

The size and service capacities of a library can be gauged by the number of volumes (i.e., printed, typed, or processed work which has been prepared for use) and the number of reader stations. The number of volumes, however, does not indicate the quality of a collection. Other factors must be considered. Although the students will have access to 3,000,000 volumes in the New York State Library, the assurance of a well represented collection on campus is imperative.

As the University Center matures, a higher percentage of student reader stations will be required, greater emphasis is placed on honor programs, research, and independent study. The faculty reader station needs will be greatly alleviated by the provision of adequate office space.

The required post-1974 expansion of facilities may be accommodated by:

Building up departmental and specialized libraries.

Construction of a graduate research library as part of a Graduate Center.

Reduced space requirements through technical devices, such as microcord readers.

MUSEUMS

Museums are similar to libraries in that they house collections frequently used as teaching aids. Also, the gathering, cataloging, preservation, and display of collections such as mineral and botanical specimens, artifacts and art are professional skills traditionally associated with universities in the United States.

Limited areas for museum and special display purposes are provided in the Fine Arts Department and Biological Sciences area. As the university matures, either a central museum containing 50,000 to 60,000 square feet of display space, or the same amount of space distributed among several buildings will be necessary.

RESEARCH

The phenomenal post-war surge in campus research programs is largely due to support from Federal funds. The statistics are impressive, and the full impact not yet fully realized in many instances.

Satellite research campuses with multi-million dollar installations occupying hundreds of acres are still being developed in sufficient number to suggest that they may well be a permanent part of the university of the future. Additional appropriations from foundations, corporations, and other Government and private sources suggest that research is a force which is reconstituting the physical form of the campus.

Research by individuals in pursuit of knowledge for its own sake will be accommodated informally in faculty offices, museums, libraries, and special-purpose laboratories. Research connected with teaching will be similarly accommodated in the various subject area buildings.

Research supported by grants and contracts will be accommodated in instructional buildings on the basis of availability of space. Surge space may be provided in the downtown campus. Success creates a problem for campus research programs. A project may begin in modest quarters, but if it proves successful, there is generally an immediate requirement for additional space. To begin a research program in an instructional building may be self-defeating, unless the equipment is portable.

There are hundreds of institutes, bureaus, and groups conducting research on campuses, sponsored by the institutions but having no direct connection with their educational programs. Many of these programs are set up on a permanent basis and occupy central sites on campus.

Because Albany is the seat of State Government and the center for statistics and appropriations, we expect this

type of research to be attracted to the University campus. Facilities for such programs need not be centrally located on campus, so long as there is good access to the academic community. It is possible that the State may vacate some of the office space in the State Office Campus as a result of the renewal efforts in downtown Albany, and this would be a good location for such research activities.

OTHER RESEARCH

Other types of research are University-sponsored or contract research which is conducted off-campus, such as field stations for oceanographic institutes or high-altitude research observatories and research which is attracted to the vicinity because the University is a natural generator of such activities.

Because of the desirability of sharing facilities and capital investments, the University may wish to participate with other institutions in the Mohawk Valley region in the development of joint research centers, especially in cases where the research is of an industrial nature, with associate "Nuisances" which must be controlled, such as odors and noise.

The Albany campus will probably be developed for "light" research programs. Except as it relates to institutional programs, the exact magnitudes of research development have not been measured. "Heavy" research would require a satellite campus, although limited heavy research may be accommodated on the campus outside of the academic podium area. The linear accelerator scheduled for construction in 1968 is of this type.

ACADEMIC

Applying the principle of contiguous expansion to the Academic Center, the 1974 Academic and related space needs are planned as an extension of the present podium. The three groups to be planned are Humanities, Sciences, and Professional Schools. The University has indicated a desire to allow the Professional Schools of Social Welfare, Criminal Justice and Public Affairs a separate identity on the Academic Podium. This may be achieved in grouping the Professional Schools into one single building.

In addition to the three groups mentioned, the Podium expansion will accommodate additional Library and Student Activities space.

Planning has been requested to accommodate 1000 $\pm$ cars in sub-basement areas. This would be reserved for faculty, staff and other high priority groups.

The Podium expansion is to be planned on both the east and west ends, the Science Extension, (east) and the Humanities Extension (west). Owing to the large size of these projects, one should be planned and executed prior to construction of the other. The Program is to be organized to allow continuous planning in order that buildings be completed as required.

The basic organization of the planned expansion is:

SCIENCE (East Extension)		
Graduate Sciences	325,000 sq. ft.	
Library	100,000 sq. ft.	
Student Activities	80,000 sq. ft.	
	* 505,000 sq. ft.	505,000 sq. ft.
HUMANITIES (West Extension)		
Humanities	325,000 sq. ft.	
Professional Schools	265,000 sq. ft.	
Student Activities	60,000 sq. ft.	
	* 650,000 sq. ft.	650,000 sq. ft.
LIBRARY (finish existing basement)		65,000 sq. ft.
		1,220,000 sq. ft.

* PLUS ADDITIONAL SPACE FOR PARKING AND SERVICE CIRCULATION

HOUSING

Housing will help create a University community in the shortest possible time. The University should construct housing for as many students as land and resources permit. Proximity to libraries, instructional areas, research and recreational facilities during all reasonable hours for a large percentage of the student body is a major educational objective.

Greater reliance on self-study is a philosophy which is now shaping the design of undergraduate housing.

The importance of such factors as adequate study spaces in dormitories and the introduction of instruction methods that give incentive to individual and group pursuits of knowledge within the housing area are all part of the new attitude in housing. Students in small groups teach each other when the environment for doing so is provided. In view of the increase in enrollments and the decline in numbers of qualified instructors, this aspect has special significance.

Because graduate students usually have a larger space requirement for individual study and smaller space requirements for communal facilities, and because they are more mature students and less interested in some aspects of the collegiate culture which are attractive to younger students, graduate housing should be separated from undergraduate housing.

The percentage of married students, both graduate and undergraduate, continues to rise. As the educational period is extended, the rate increases. A university center is likely to have a greater proportion of married students than a college.

Planning for married student housing is further complicated by the associated demands for community facilities. As the land available for married housing is limited, most married students will be accommodated in the nearby neighborhoods, which have the advantage of easy access to stores, schools and community services.

Fraternities are not allowed to have national ties. Their housing will not be a factor in the projected University housing program, therefore, students living in fraternity houses have been considered commuting students.

Faculty members will not be housed on campus. Their housing requirements will be satisfied in the community at large.

The design of the high density housing structures which have been planned for the Albany campus reflect the relationship between housing and educational objectives.

Graduate housing will also be provided on campus. The Stage XV Graduate Dormitory Complex of 1,000 beds is scheduled for construction in 1971.

COMPOSITE STUDENT DISTRIBUTION BY SEX (SUNY-1974)

Undergraduates	81%	=	11,800
Males	(45% of 11,800)	=	5,300
Females	(55% of 11,800)	=	6,500
Single Males	(70% of 5,300)	=	3,710
Married Males	(30% of 5,300)	=	1,590
Single Females	(90% of 6,500)	=	5,850
Married Females	(10% of 6,500)	=	650
Graduates	19%	=	2,835
Males	(60% of 2,835)	=	1,701
Females	(40% of 2,835)	=	1,134
Single Males	(35% of 1,701)	=	595
Married Males	(65% of 1,701)	=	1,106
Single Females	(90% of 1,134)	=	1,021
Married Females	(10% of 1,134)	=	113
Summary of Housing Distribution			
Total Single Students		=	11,176
Housed on Downtown Campus	9%	=	1,000
Housed on Campus	62%	=	6,966
Total Married Students		=	3,459
Housed on Campus	11.5%	=	400
Total Commuting Students (Includes Students Housed Downtown)	48%	=	7,267

PARKING

The storage of the automobile has been a major factor in the development of the master plan. The need for utilizing the remaining space in the campus core in an economical and qualitative manner forces a dual use of the remaining land.

The high priority parking requirements of faculty, staff and handicapped persons will be met by the 1,000 car spaces under the podium. Three-level open structures have been placed as close as possible to the academic complex to minimize travel time and provide recreation facilities near dormitories. The 1,300 car space provided by each structure in conjunction with the existing surface areas will meet the minimum requirements of 5,263 spaces. However, this minimum will not be sufficient to meet the University's needs unless the mass transportation media is greatly expanded and used by the campus population. The probability of this is rather remote and should not be relied upon.

The maximum parking space requirement of over 10,000 cars requested by S.U.N.Y. can only be accommodated on the campus by:

- Constructing structures under the playfield or other open spaces.
- Utilizing the upper deck of the proposed structures that have been assigned to recreation.

. Acquiring land off campus with shuttle-bus service.

As these alternates are all quite costly, they should be implemented only as a last resort.

The limited space available for parking areas near the main academic complex will require a highly efficient use of the programmed car spaces. The problem can be alleviated somewhat by the establishment of policy guidelines to reduce car space requirements.

1) Establish a priority system for spaces with high priority given to faculty, staff, visitors and handicapped persons.

2) Assign specific sections of parking areas to specific groups.

3) Adjust the instructional schedule to stretch the peak hour arrival (8:00 A. M. to 9:00 A. M.) over a longer period, perhaps 7:30 A. M. to 9:30 A. M.

4) Encourage the use of car pools.

5) Secure and encourage the use of public transporation.

6) Restrict residential students' storage of autos on campus.

7) Encourage the use of bicycles by providing sheltered storage and separate paths.

The car spaces assigned to the 1974 master plan as shown on the following chart are based on the following criteria:

1) Provision of as many spaces as possible for the various categories of campus population who have no other means of reaching the campus.

2) Provision of as many spaces as possible near the academic core for high priority needs, i.e., department heads, handicapped, etc.

3) Provision of as many "on grade" spaces as possible as dictated by the master plan concepts of the Albany campus and as space permits because of economic considerations.

4) Limiting the campus residential population to an adequate minimum number of car spaces.

PARKING REQUIREMENTS

		MINIMUM PLAN		MAXIMUM PLAN		ARCHITECTS 1974 PLAN	
		%	Car Spaces	%	Car Spaces	%	Car Spaces
Students (housed on campus)	7366	5.0	368	60.0	4361	10.0	737
Continuing Education	250	60.0	150	100.0	250	100.0	250
Students (commuting)	7269	30.5 ±	2225	55.0	3998	55.0	3998
Students (married and housed on campus)	400	5.0	20	100.0	400	100.0	400
Faculty	1189	70.0	832	70.0	835	70.0	835
Staff	1891	60.0	1135	70.0	1135	70.0	1135
Maintenance Personnel	1036	60.0	622	60.0	620	60.0	620
Visitors	81	75.0	61	75.0	60	75.0	60
			5413		11,650		8035

NOTES:

a) The students housed on the downtown campus are included as commuting students.

b) The minimum plan and the Architect's 1974 plan provide car spaces for only high priority, handicapped, etc., for the students housed on campus.

DINING

A large central plant for receiving and storing bulk orders of food and provisions is provided in the main Service Building. The plant is designed to allow fork-lift trucks to handle the bulk orders, and the storage area is large enough so that food can be bought at seasonal prices and stored for later use.

Also in the main Service Building are such facilities as a food preparation kitchen and bakery, where daily issues of food can be prepared and shipped to individual cooking kitchens in the dormitories and Student Faculty Building. The capacity of the preparation areas is adequate and can easily be increased to meet the 1974 needs by adding employees and increasing the number of work shifts. Additional space can be acquired, if necessary, as the Service Building expands. Somat machines will reduce the problems of garbage disposal.

The individual kitchens in each of the dormitories and the Student Faculty Building cook and serve the food. All service is cafeteria style except faculty dining in the Student Faculty Building and the Continuing Education Restaurant.

The peak use of dining facilities will occur during the lunch period when most of the campus population is present.

Based on a leisurely 45-minute period for cafeteria service with a maximum of three periods, approximately 2 hours (11:30 to 1:30) will provide a reasonable distribution of lunch hours for the campus population.

Off campus meals, the Continuing Education Restaurant, married housing on campus and the "hand carried" lunch will tend to relieve pressures on the campus dining facilities.

Existing and proposed dormitory cafeterias will each have 500 seat capacity. The Student Faculty Center may be increased as possible. However, additional dining facilities must be provided in the Academic Podium. Areas to be planned for dining are within the designated "Additional Student Activities" on both the East and West extensions. Initially, two 500 seat facilities are planned on Podium.

The Continuing Education Center will contain permanent dining facilities for 250 people, plus capacity for special function dining for various size groups.

ESTIMATED CAPACITY OF DINING FACILITIES AT THE 14,635 STUDENT ENROLLMENT

Student/Faculty Dining Facilities	
Student Faculty Building	
Cafeteria - 500 seats @ 3 servings each	1,500 meals
Snack Bar - 500 seats @ 3 servings each	1,500 meals
Academic Podium (Proposed)	
2 Cafeterias @ 500 seats = 1,000 seats @ 3 servings each	3,000 meals
Dormitories 1 thru 6	
6 dining halls @ 500 seats = 3,000 seats @ 2.5 servings each	7,500 meals
Married Housing: 400 units	400 meals
Continuing Education: 250 seats @ 2 servings each	500 meals
Faculty Dining Hall	50 meals
Downtown Campus	1,000 meals
Off-Campus	600 meals
	16,000 ± Students and Faculty

HEALTH, PHYSICAL EDUCATION, INTRAMURAL ATHLETICS, AND RECREATION

All candidates for the B.A. or B.S. degrees must successfully complete two semesters of physical education. At the present time the University offers the following courses:

PE 1 W and PE 2 W	(Lower division women)
PE 1 M and PE 2 M	(Lower division men)
PE 2 S	(Upper division students choosing additional athletic training)

The design criteria for physical education facilities are based on official rules for each activity. The playfields are located near the gymnasium, which contains locker rooms and showers.

A strong intramural program is projected for the University. Through organizations such as the Women's Athletic Association and the Association of Men's Intramural Athletics, students are encouraged to participate in a sports activity during each major sports season. Club and special team sports will be encouraged by the University as part of the general extra-curricular program.

Facilities provided for physical education and intramural athletics will also be used for recreation and informal play, as weather and class scheduling permit. In addition, areas

have been set aside for unsupervised, informal sports such as the inevitable "game of catch". These open spaces will also help provide the requirement of an acre of open space for every hundred students in the campus housing areas, and in conjunction with the landscaping will serve as the aesthetic setting for structures. This is extremely important on a site as intensively developed as this one. Paved play courts near housing areas are also provided.

A number of sports and/or extra-curricular activities, such as skiing, golf, and crew, cannot be accommodated on the campus. However, these activities have a logical position in any well-rounded program and should play an important role.

In addition to the basic health and physical education program, there is also need for facilities for inter-collegiate athletics. These highly competitive games contribute to student body morale and sustain alumni loyalty.

The following Special Requirements are also part of the total program:

Bleachers
Areas for equipment storage buildings
Irrigation
Lighting

A number of play fields may be combined or overlapped as space, seasonal use and topography permit, such as track and exhibition field; soccer and lacrosse; practice fields, field hockey and softball fields.

The following list of facilities are recommended as part of the State University of New York Program in Health and Physical Education.

INDOOR

Health and Physical Education Building No. 1
Health and Physical Education Building No. 2
Field House and Multi-purpose Auditorium
Student Center and Continuing Education
Gymnasium Stations
Combative Areas
Dance Studios
Swimming Pools
Squash Courts
Handball Courts
Bowling Alleys
Indoor Tracks
Recreation and Game Rooms (table tennis, pool, etc.)
Gymnastic Space
Body Mechanics Space
Ice Rink
Field Houses (multi-purpose auditorium)
Rifle Range

OUTDOOR ATHLETIC REQUIREMENT CHART

S.U.N.Y. HEALTH-PHYSICAL EDUCATION -- RECREATION -- ATHLETIC FACILITIES

	FACILITIES MEETING INTRAMURAL AND REC. STANDARDS													FACILITIES MEETING INTERCOLLEGIATE STANDARDS											MISC. RECREATION FACILITIES								
															FOOTBALL		SOCCER		LACROSSE *		BASEBALL							GOLF					
	ARCHERY (12 STATIONS)	TENNIS	BASKETBALL	VOLLEYBALL	HANDBALL	SHUFFLEBOARD	HORSESHOES	SOFTBALL *	FIELD HOCKEY *	MENS SOCCER	WOMENS SOCCER	TOUCH FOOTBALL *	GOLF DRIVING RANGE	TRACK (1/4 MILE) AND FIELD EVENTS	GAME FIELD	PRACTICE FIELD	GAME FIELD	PRACTICE FIELD	GAME FIELD	PRACTICE FIELD	GAME FIELD	PRACTICE FIELD	TENNIS COURTS - VARSITY	BOATING **	CROSS COUNTRY	GOLF COURSE	PRACTICE GREEN	HORSE BACK RIDING **	SKI SLOPE **	SWIMMING	ICE SKATING **	DANCING **
1974 PROPOSED TOTAL	3	30	3	3	18	3	9	9	3	3	3	9	1	1	1	2	1	2	1	2	1	2	9										
EXISTING FACILITIES	0	24	4	6	0	0	0	6	3	3	3	2	0	1	2	2	1	2	1	2	1	1	0										
(DIFFERENCE) PROPOSED 1974 PROGRAM	3	6	0	0	18	3	9	3	0	0	0	7	1	0	0	0	0	0	0	0	0	1	9										
(ARCH. 1974 PLANS) MODIFICATIONS	3	31	16	22	0	22	9	9	3	3	3	9	1	1	1	2	1	2	1	2	1	2	9	X	X	0	X	X	X	X	X	X
APPROVED 1974 (SUNY, SUCF & COLLEGE)																																	

* FIELDS OVERLAID OTHERS

** F.S.A. SITE ON NORTHWAY

LAND COVERAGE

The approximately 550 acres of land comprising the University appears to be adequate to meet the needs of the programmed facilities through 1974 and perhaps beyond.

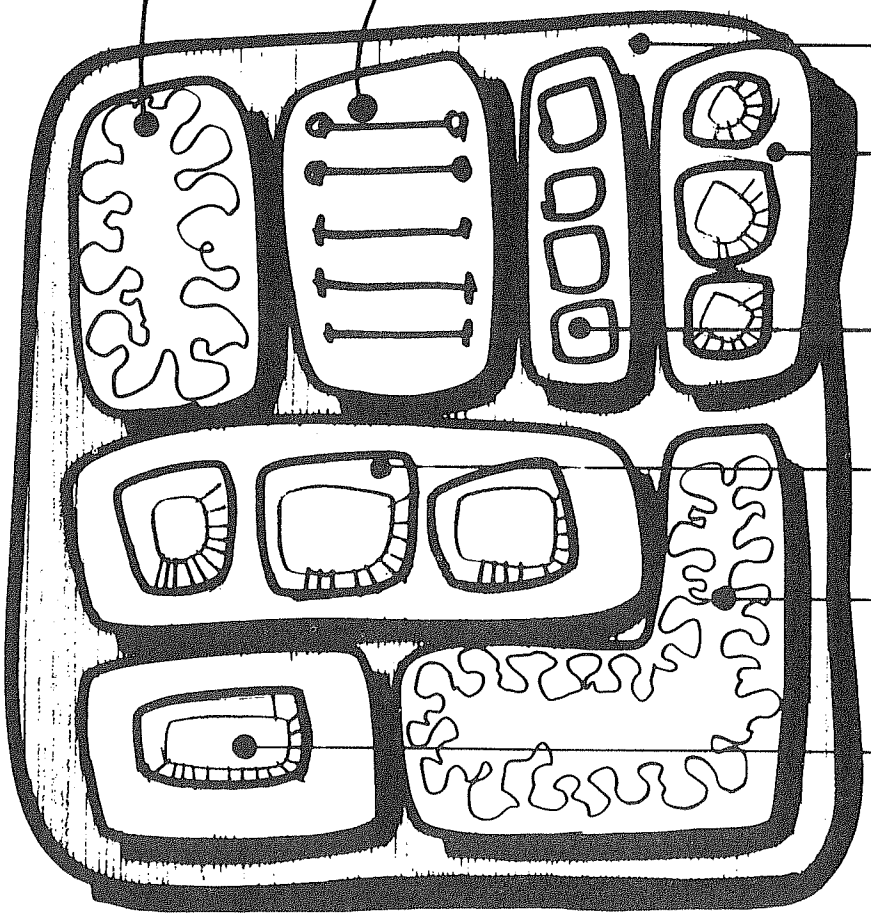
The dual use of land with multi-level parking structures permits the construction of ancillary facilities, i. e., parking, recreation areas, field house, without destroying the integrity of the campus form.

The modest married housing program of 400 units may easily be accommodated on available land. Some of the future requirements for additional units may be added on the site of the initial units, but long-range requirements will require additional land acquisition or housing provided by private industry.

No land acquisition is proposed through 1974 except for additional points of access to the campus loop road, i. e., Western and Washington Ave. left turn trumpets and the connection to I-541.

The recently acquired land at the interchange of I-87 and I-541 and north of Washington Avenue should be held in reserve to meet future needs for parking, play fields or housing.

There is ample space on the central campus as illustrated by the Post 1974 Plan for academic and some housing expansion. Expansion of athletic facilities will require land acquisition after 1974.



DOWNTOWN CAMPUS	30
NATURAL AREA passive recreation	40
PARKING	60
LANDSCAPE AREA screen, buffer, roads, etc.	50
MISCELLANEOUS service, infirmary, etc.	90
MARRIED HOUSING	70
ACADEMIC BUILDINGS	65
ATHLETIC FACILITIES	70
DORMITORY HOUSING	75
TOTAL AREA ACRES	550

LAND USE ANALYSIS

FUNCTIONAL RELATIONSHIPS

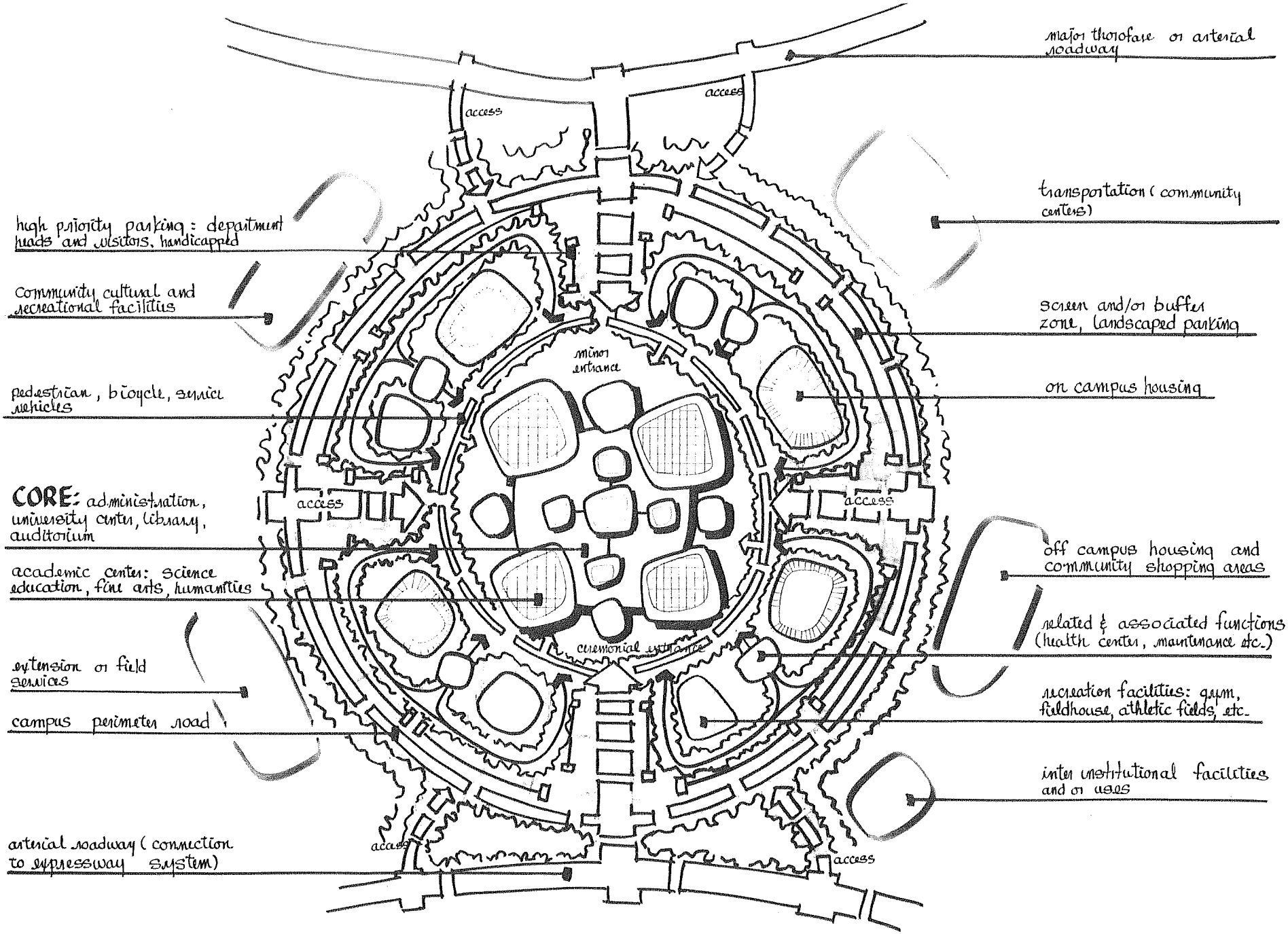
Educational philosophies and the enrollment plan have been exhaustively analyzed to create the list of programmed facilities. These guidelines have been closely adhered to in planning for the 100% expansion of facilities from 1968 to 1974.

Translating these programs to physical form during the conceptual phase of design required the establishment of priorities of relationships in regard to the functional aspects of the elements which composed into a university.

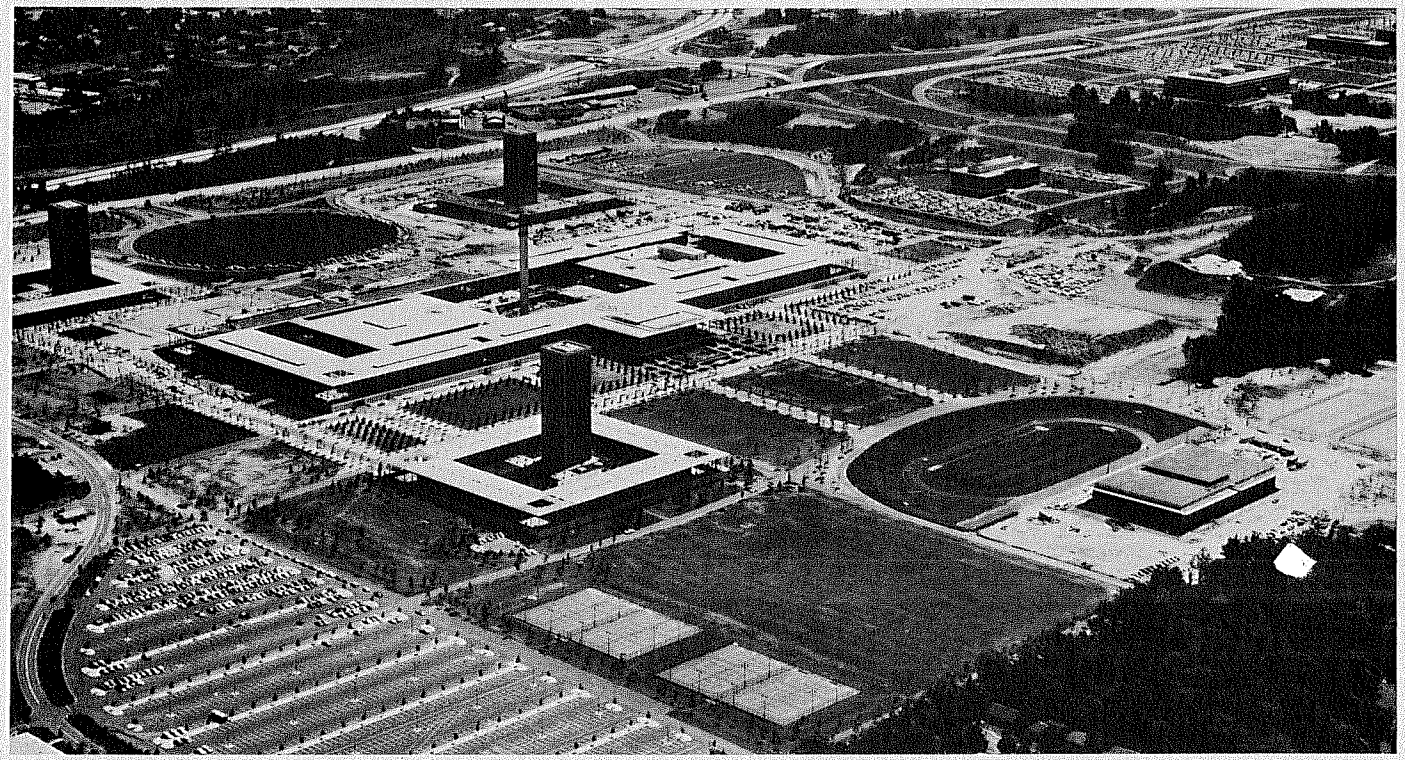
Order is the keynote of the campus and is expressed functionally as well as architecturally.

The inter-relationship of schools of study, the placement core elements, i.e., library, administration, University Center and auditorium express also the hierarchy of movement from the prime pedestrian central core space out to the transitional campus loop road, to the rapid vehicular movement of the community streets.

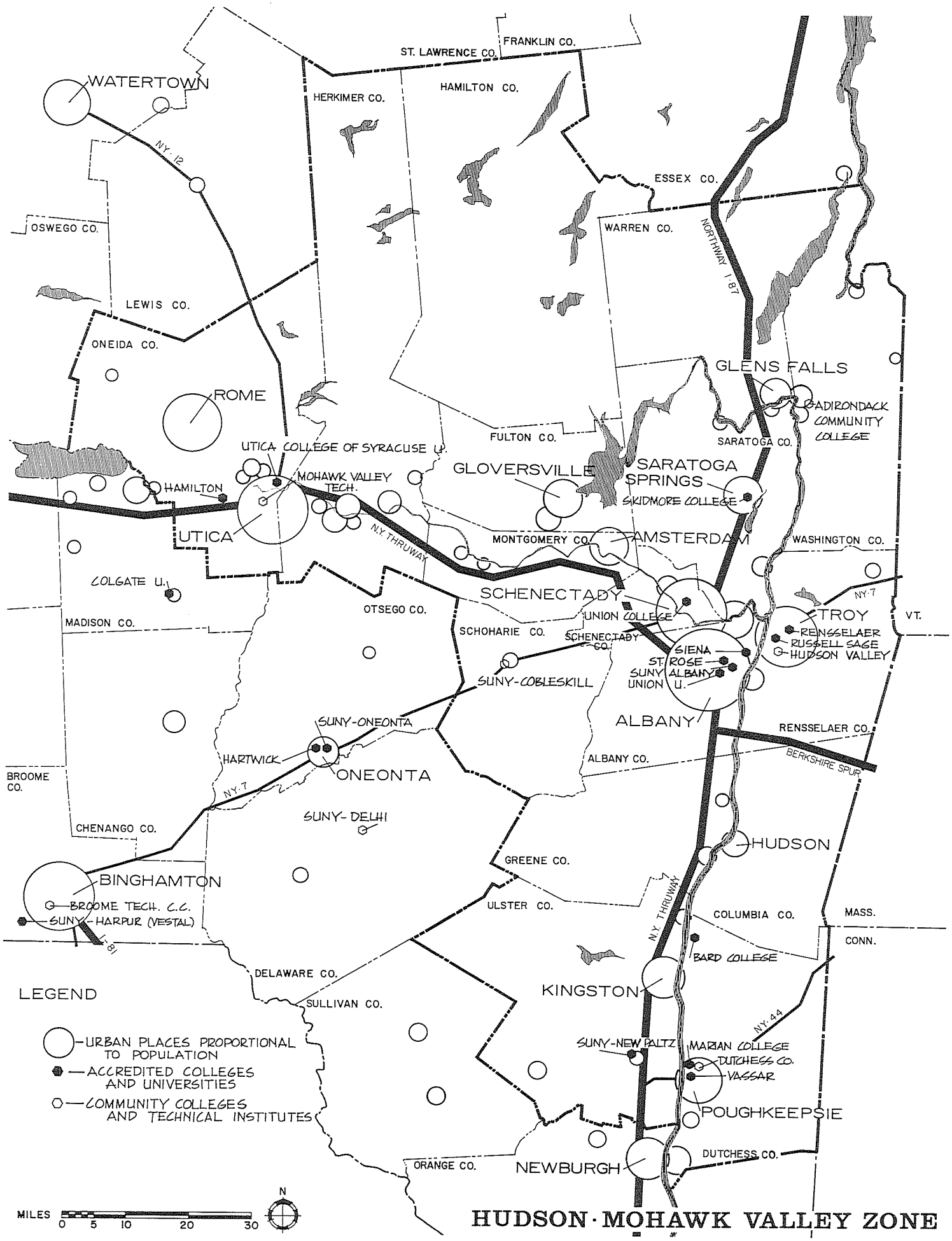
Ancillary elements are also carefully positioned to reflect their functional requirements, to be part of but separate from, the academic area in the transitional zone between vehicles and pedestrians. Proximity of housing to the core effectively expresses the objectives for a living-learning environment that enhances all facets of university life.



IDEAL FUNCTIONAL DIAGRAM



SECTION II - SITE ANALYSIS



HUDSON·MOHAWK VALLEY ZONE

SITE ANALYSIS

The Region - Hudson-Mohawk Valley Zone

The region lies within the physiographic area of the Hudson Mohawk lowlands. The Adirondack Highlands and Helderberg Escarpment which bound the Mohawk lowlands have directly affected the development of communities and land transport routes in the area.

The region's economy is historically based on manufacturing although government and recreation are now important sources of employment.

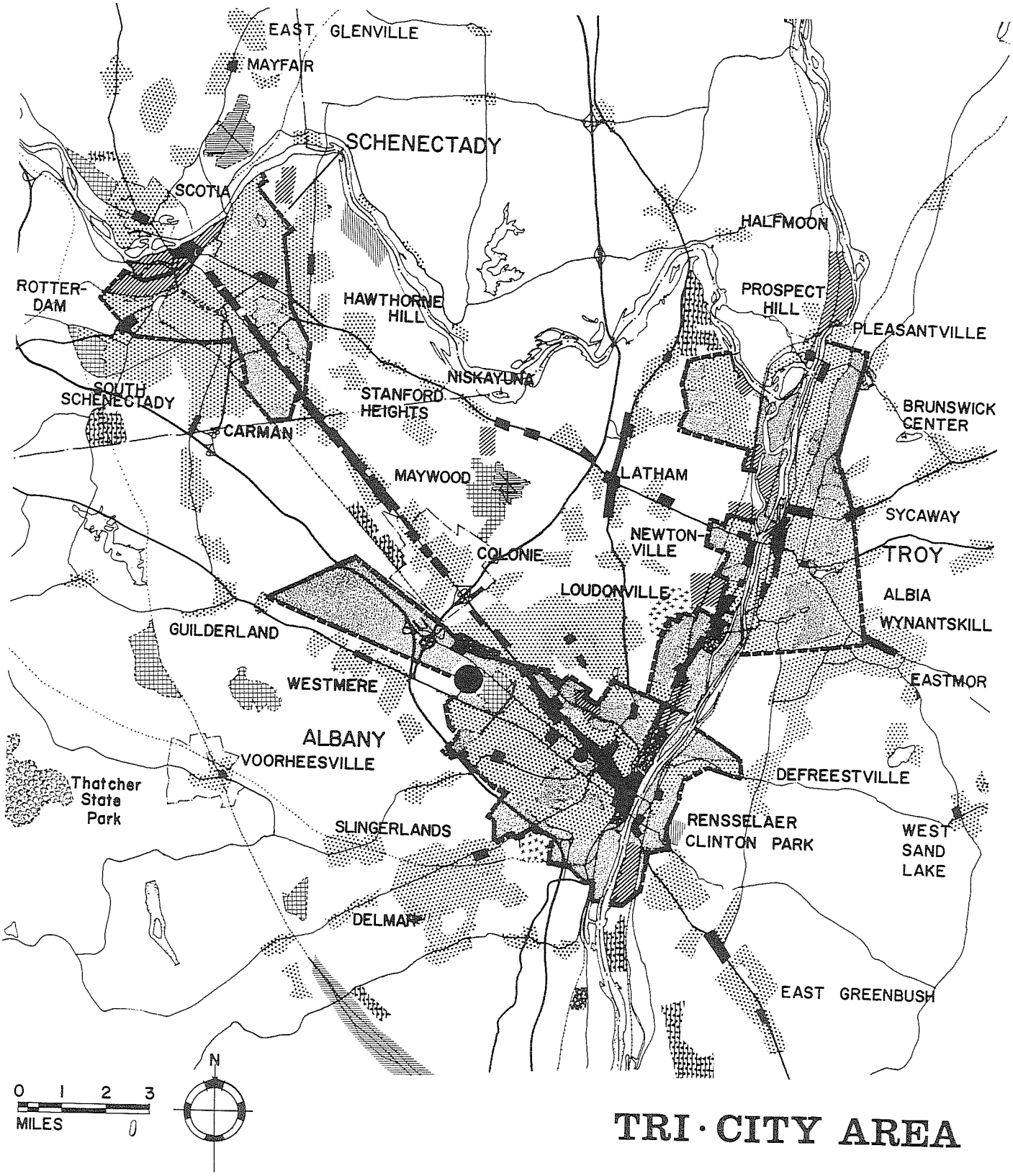
Eighteen institutions of higher education are located within the region. Population growth with expanded enrollments, higher percentages of high school graduates continuing on to college and the trend toward increased graduate level study will place a greater burden on these schools and particularly on S. U. N. Y. -Albany. As the University Center matures the cooperative regional program listed in the "Educational Plan" will be greatly expanded and new programs added. Cooperative use of graduate facilities will be one of the more important aspects of these alliances.

The Albany center will be greatly influenced by many programs other than those of the S. U. N. Y. system. The south mall project housing the growing branches of State Government will have a direct effect on the growth and University's

construction programs for the next several years. The importance of the Graduate School of Public Affairs will greatly increase with the need for experienced governmental personnel.

The Department of Commerce industrial development program within the region will be materially aided by the University's facilities.

As the University becomes a major economic and cultural influence within the region, regional planning programs and studies by governmental agencies will become extremely important in respect to the University's effect on the region or vice versa.



TRI·CITY AREA

RESIDENTIAL
WHOLESALE COMM.
RETAIL COMM.
INDUSTRIAL
TRANSPORTATION
RECREATION
CEMETERIES
GOVERNMENT
RESEARCH
INDUSTRIAL SITES (PROPOSED)
S.U.N.Y.-NEW
S.U.N.Y.-OLD

THE COMMUNITY

Albany-Schenectady-Troy

The three cities which comprise the University's community encompass 300 square miles about the confluence of the Mohawk and Hudson Rivers. This is the regional hub of land, water and air transport. The Adirondack Northway (I-87) and New York State Thruway (I-90) interchange adjacent to the campus and provide access to all parts of the region and State. This access will become increasingly important as cooperative regional graduate and research programs are developed.

The population growth in the Tri-City SMSA through 1960 was due primarily to natural causes with little in-migration. Projections for 1980 show a greater rate of growth with much of the increase due to in-migration because of the development of industry, government, etc. This population expansion will directly influence the need for additional higher educational facilities.

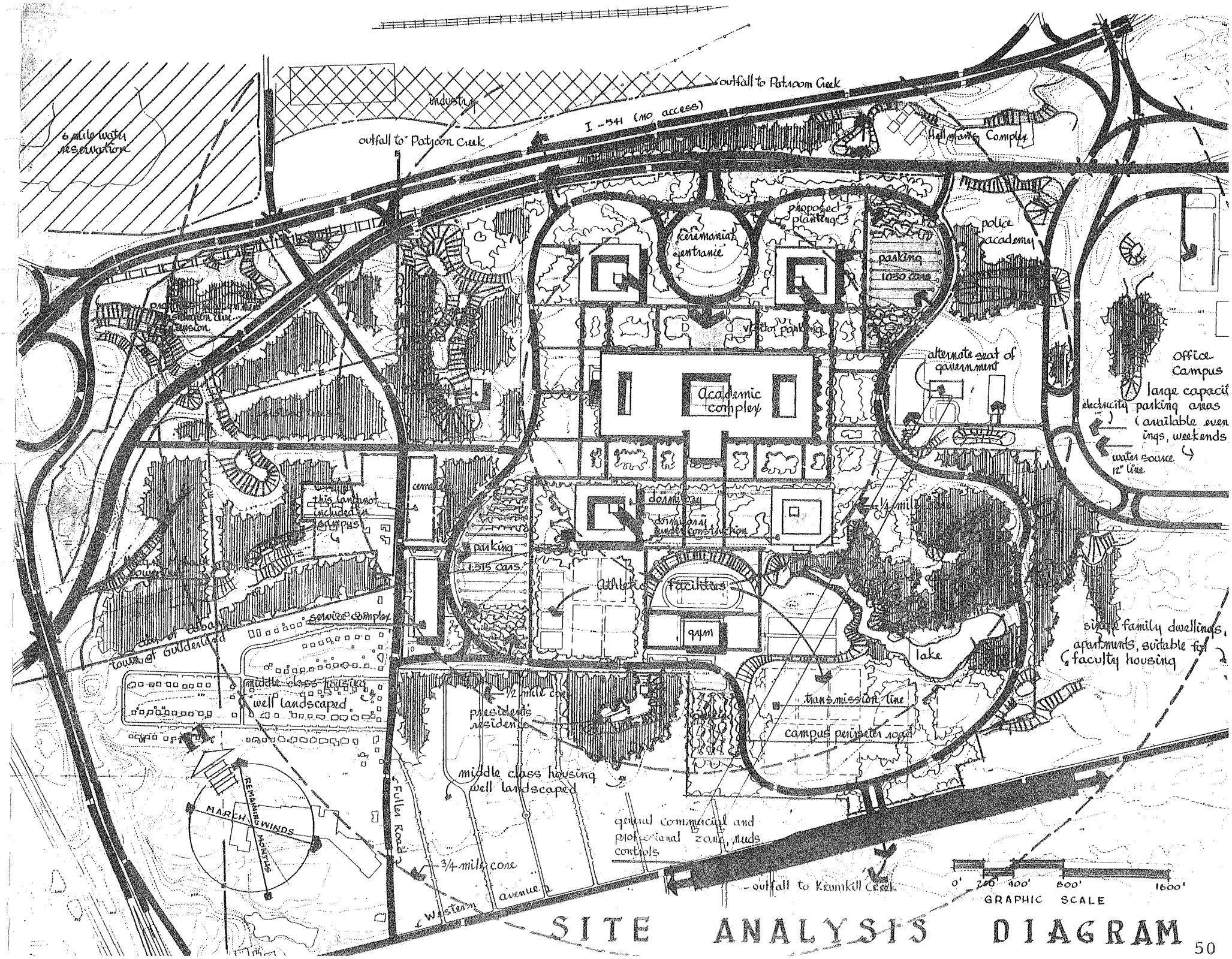
When the campus population reaches approximately 20,000 people in 1974 the economic impact of S. U. N. Y. at Albany will be felt throughout the Tri-City area; both directly and indirectly. The wholesale, retail and service trade expenditures with its attendant increased employment will be directly felt. The influence of research programs attracting industry and key personnel will be indirect influences.

The requirements for married students and faculty housing near the campus will have a great impact on the environs of the campus.

The single students will primarily live at home or be housed on the campus. As only 400 married students will be housed on the campus by 1974, there will be a need for several thousand low-cost apartments in easy commuting distance from the campus. Hopefully, private industry will meet these needs.

Quality housing is an important factor in attracting high-level faculty members. The present S. U. N. Y. policy of not providing faculty housing will be somewhat limiting in this regard.

The growth of S. U. N. Y. and other higher educational institutions will make education a major industry in the Tri-City area. The broad base of employment in government and education will tend to further stabilize the local economy and help create a better climate for attracting other industries.



SITE ANALYSIS DIAGRAM

THE CAMPUS AND ENVIRONS

The campus is located primarily in the City of Albany with the southern part in the Town of Guilderland.

The 550+ acre site's East boundary is contiguous to the State Office campus. The North and West boundaries formed by Washington Avenue and/or Interstate Highway right-of-way is completely protected from detrimental usage. These elements, however, effectively block any future campus expansion to the North, East or West. Fuller Road bisects the western portion of the campus with a small enclave of residences and a cemetery. It is imperative that this area eventually become part of the campus. The Faculty Student Association has already purchased some of these homes.

Generally the campus is situated in an area primarily used for single family residences. Northeast of the campus on Washington Avenue is a large motel complex, and a large community shopping center is located at the Fuller Road, Western Avenue intersection. The Southside of Western Avenue is a mixed commercial and residential usage, generally of a lower quality than the rest of the area.

The zoning ordinances of the City of Albany and the Town of Guilderland have been reasonably adequate for controlling development in the campus area. They have provided for most types of retail and service trade as well as industrial lands.

The University's primary concern will be maintenance of zoning regulations which will preserve and preferably upgrade the surrounding properties.

It is expected that over the years as the University develops, a campus centered community will also grow and a virtual university city created.

Topographic Features

The high square footage requirements for all facilities of the University complex, parking, and athletic facilities, dictate that a great deal of the existing features of the site have to be removed to meet the University's programmed needs. However, the significant topographic features are retained wherever possible.

The natural topography and character of the land west of the campus is of a rolling nature. The slopes average approximately 6 percent, with the steepest slopes rising approximately 30 to 35 percent. The average percentage of slope or gradient across the open land from Washington Avenue, southwest to Western Avenue, is 2 percent. There are no rock outcrops on the present site, and none are evident in the immediate campus environs.

The soil and foundation conditions for the expanded program will generally be the same as was encountered for the buildings constructed earlier, i.e., fine sand and silt to 60 feet, deposits of varved clay and silt for 100 feet, a small layer of glacial till and bed rock.

To avoid serious deflections caused by the varved clay, surcharges on building sites and adjacent fill areas were constructed at least 6 months before construction. These buildings with 800 pounds per square foot dead load are founded on simple spread footings with satisfactory results.

The high-rise towers were founded on "H" piles driven to bed rock 180 to 250 feet below the ground surface.

The same foundation design principles are recommended for the proposed new building.

To avoid adding pressures on the varved clay adjacent to the academic podium, sub-basements will be required under the proposed additions. The sub-basement should be held at least 20 feet from the existing walls to avoid the need for expensive underpinning of existing footings.

Heavy fills adjacent to these buildings should be avoided, if possible, to prevent uneven settlement. These embankments if unavoidable should be completed at least 6 months before construction commences.

Access

It is inevitable that traffic will increase significantly on roads and streets near the campus. While the Consultants have sought to disperse points of access and egress in order to minimize peak hour congestion, much of the task of alleviating congestion and providing for safe vehicular and pedestrian travel will fall upon the municipalities.

Major reconstruction and extension of Washington Avenue will do much to solve problems in that area. An improvement program is also badly needed for Western Avenue. Wider pavement, traffic control devices and sidewalks will be required to allow maximum safe utilization of the route.

Continued efforts by S. U. N. Y., the State University Construction Fund, and the municipalities involved will be necessary to provide for satisfactory circulation to and from and past the campus.

The completion of the Crosstown Arterial, Northside Interstate and Southside Arterial, along with the New York State Thruway and Adirondack Northway means that the campus area will be completely ringed by a system of four and six-lane limited access State arterial and Interstate routes. These routes will encompass the University in a general circular form and will bring persons bound for the campus to within one mile or less of the campus entrance drives. These highways will separate local traffic from through traffic.

Commuting bus service using vehicles which seat from 40 to 45 persons currently operates along Western and Washington Avenues to downtown Albany, and service is also available to Schenectady and Troy. The amount of bus service that would be provided to the S. U. N. Y. campus would depend on the demand for this service, unless subsidies are granted.

The existing campus bus system would be expanded to operate on new perimeter loop road. Additional stops would be added as required at planned facilities. The University has requested that at least one stop be added to the area west of Fuller Road to accommodate students from Married Housing and Continuing Education.

Campus Access Alternates

Seven access points link the external highways to the campus loop. Five more are suggested for construction by 1974.

The exact location of each additional drive will depend upon agreements between the various highway departments involved and S. U. N. Y. The concept plan shows the alternatives which should be considered in order of desirability.

Washington Avenue

(1) Utilizing the proposed office campus interchange and providing a link between the office and university loops.

(2) The interchange near Fuller Road could be altered to provide a direct connection to the campus.

(3) A direct connection between I-541 and the campus loop leading to the ceremonial entrance. However, interstate highway standards will not permit construction of an interchange at this location.

If none of the above are to be facilitated, the minimum accommodation would be to provide a left turn trumpet opposite the ceremonial entrance eliminating the hazard of opposed turns from Washington Avenue.

Office Campus

(1) If the office campus interchange is to be used as the main means of channeling university traffic from the interstate system, a connection must be provided between the office and university loops as shown on the plan.

Western Avenue

(1) A left turn trumpet should be provided opposite the Western Avenue entrance to facilitate movement and prevent congestion.

(2) Two additional access points are recommended.

Fuller Road

(1) The married student housing area to the east will be served from Fuller Road and a pedestrian overpass will be required by 1974.

Access to Parking Areas

Two basic relationships and their variations between parking areas and roads have been studied to determine the solution most suitable for the S. U. N. Y. campus. Parking lot locations are classified as being internal - inside the campus loop; or external - outside the campus loop. The variations reviewed are:

A. Internal - Remote

(1) Areas are inside the campus loop necessitating few pedestrian crossings.

(2) Access points are some distance away from the campus entrance resulting in heavy loading of segments of the loop at peak hours.

(3) Areas are close to classrooms and offices.

B. Internal - Direct

(1) Areas are inside the campus loop close to campus facilities.

(2) Direct access to external streets is available, relieving the loop of heavy loads.

(3) Dispersed access points are also available to provide flexibility.

(4) This scheme was employed in the design of the existing campus.

C. External - Multiple

(1) The primary parking areas for students are between the campus loop and the external roads.

(2) Access provided directly from the external system, from campus entrance roads, and the campus loop.

(3) Secondary parking areas located inside the loop would be used by faculty, staff, and visitors.

(4) Short cutting between loop and external roads via parking areas likely to create problems.

(5) Number of pedestrians crossing loop will be high, however, loop traffic will be close to minimum.

D. External - Controlled

(1) The lots are located between the loop and external roads.

(2) Access to lots is afforded by entrances on numerous connections between loop and external road.

(3) Loop traffic can enter or exit quickly keeping loads to minimum.

(4) Secondary lots provide parking close to facilities as in C-3.

(5) Pedestrian hazard will be lower than in C scheme.

(6) Maximum flexibility is provided with maximum of control.

Based on the above points, it appears that an expansion of the Internal-Direct system, (Scheme B), will best meet the situations which will occur as the many variables are brought into play. The variable aspects are:

(1) Campus population.

(2) Land on campus available for parking.

(3) Relationship of campus loop to external roads and arterials -- direct or indirect connections.

(4) Location and number of entrance roads.

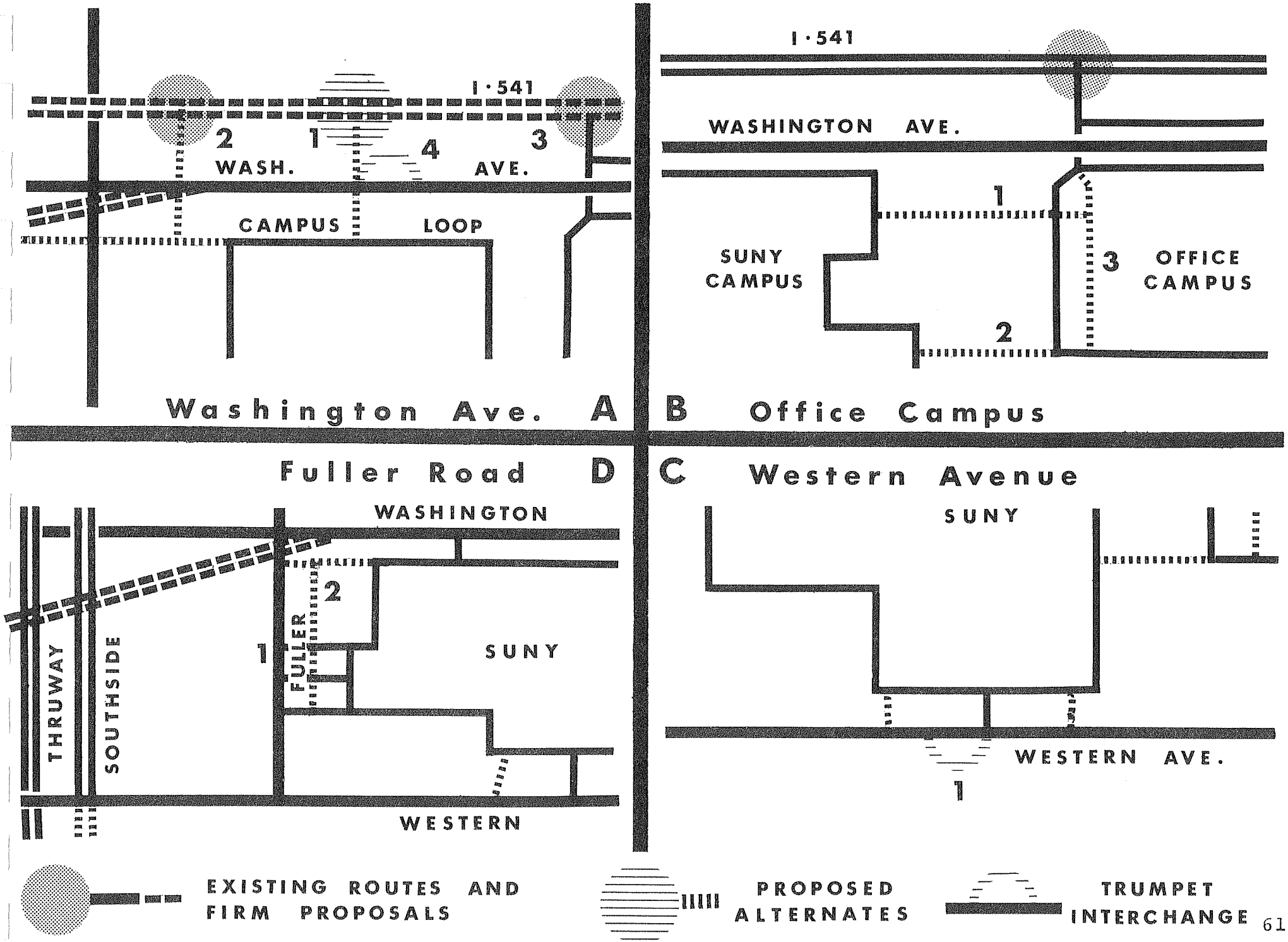
(5) Traffic capacity of campus loop. (It may eventually be necessary to 4-lane road.)

(6) Use of parking structures.

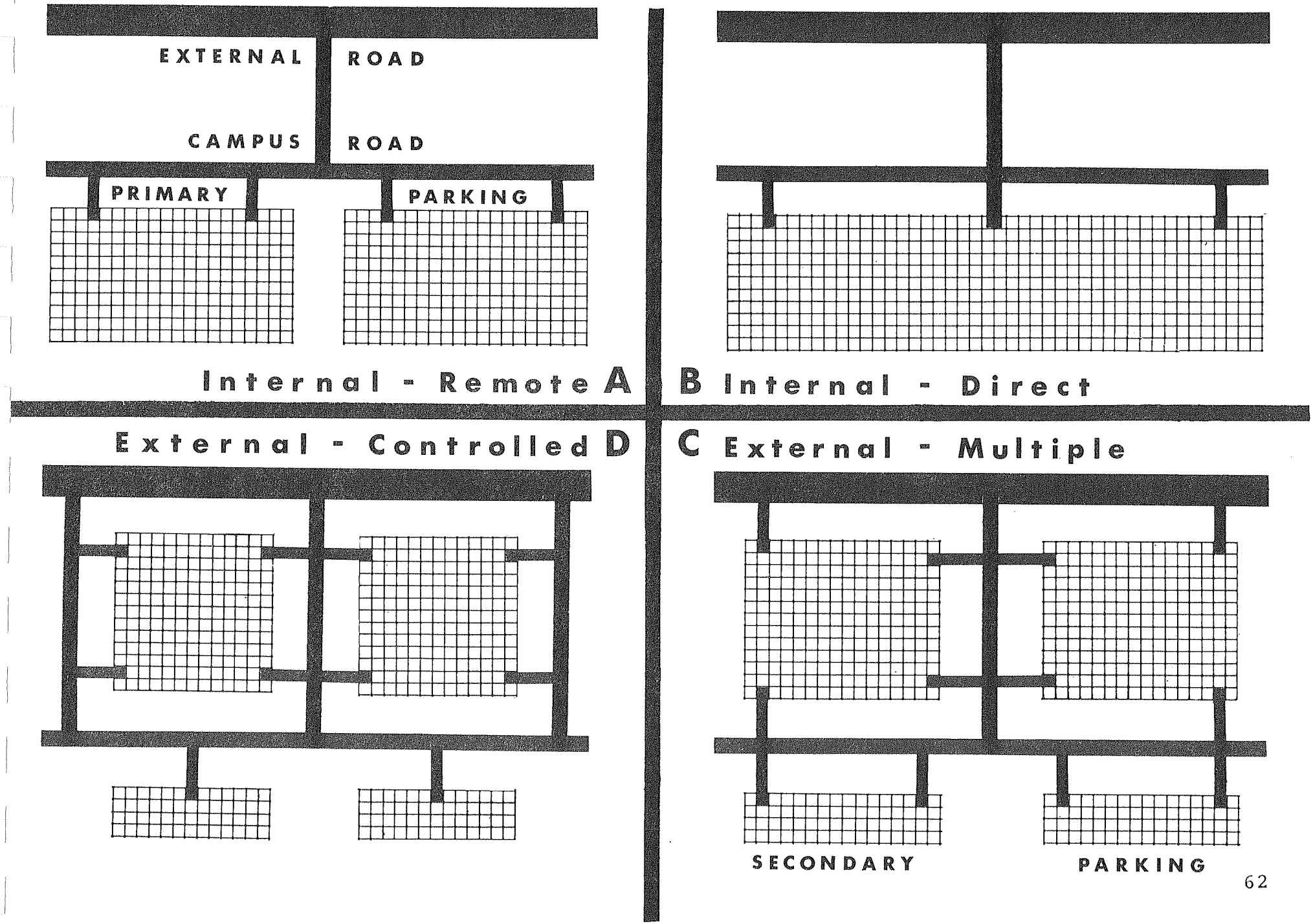
(7) Possible use of off-campus parking lots.

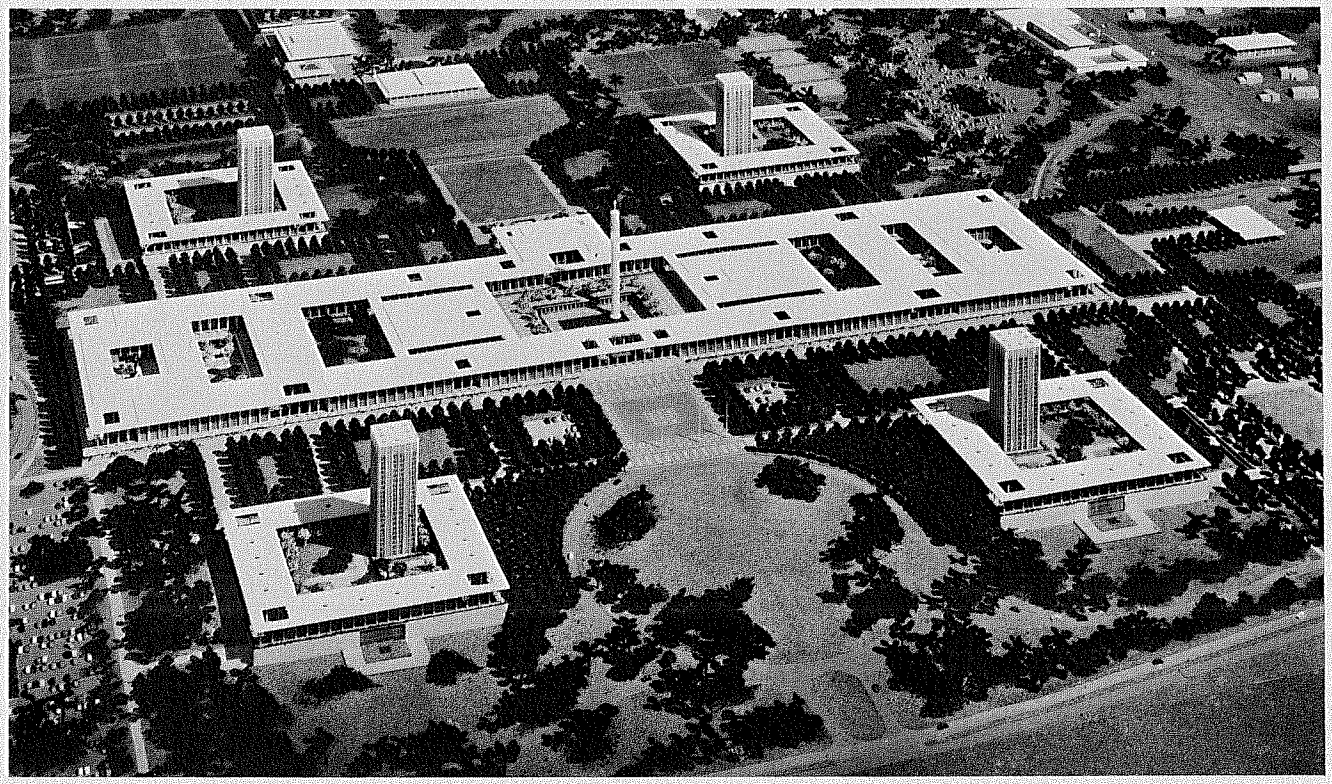
(8) Policy regarding users of parking facilities.

CAMPUS ACCESS ALTERNATES

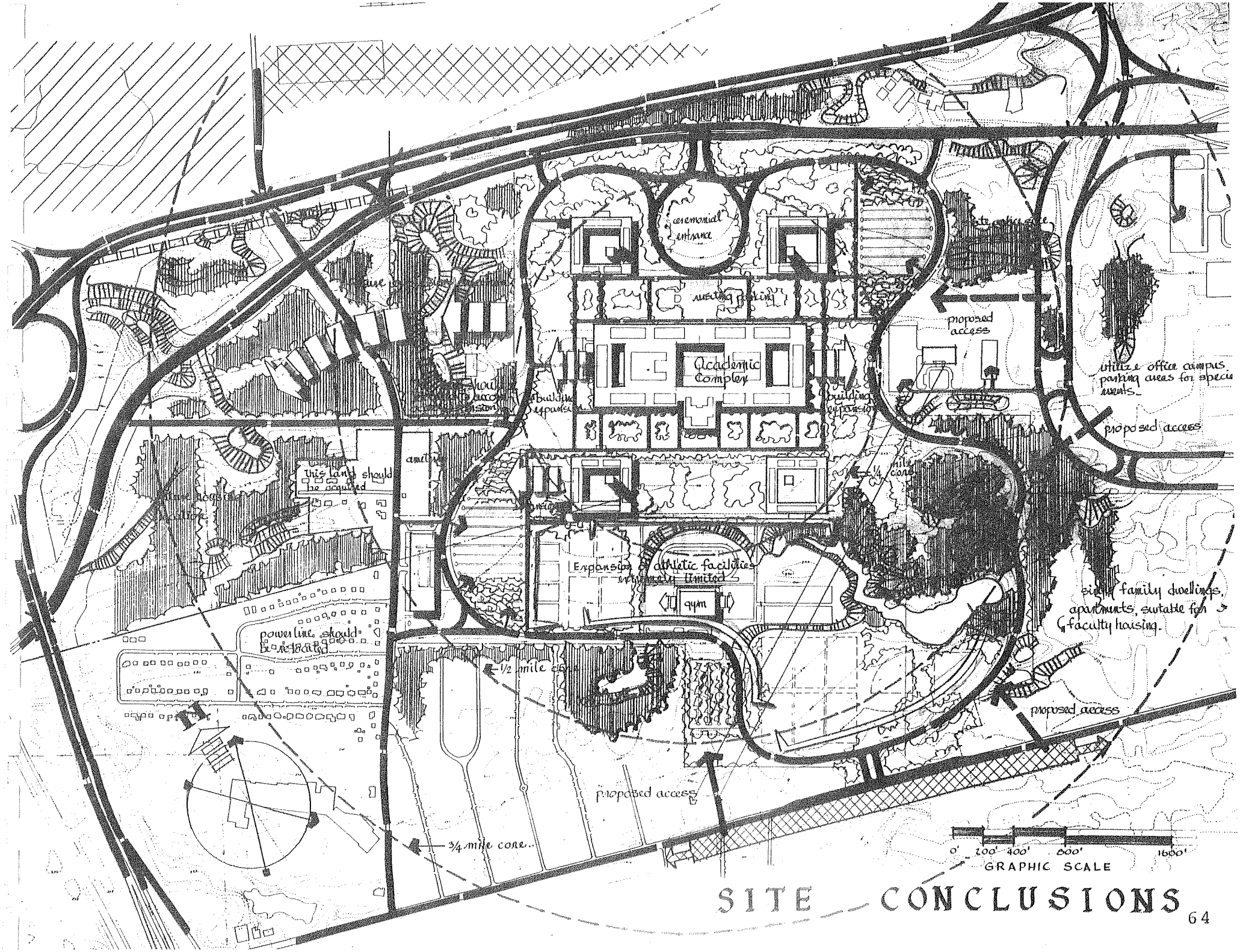


ACCESS ALTERNATES FOR PARKING





SECTION III - THE PLAN



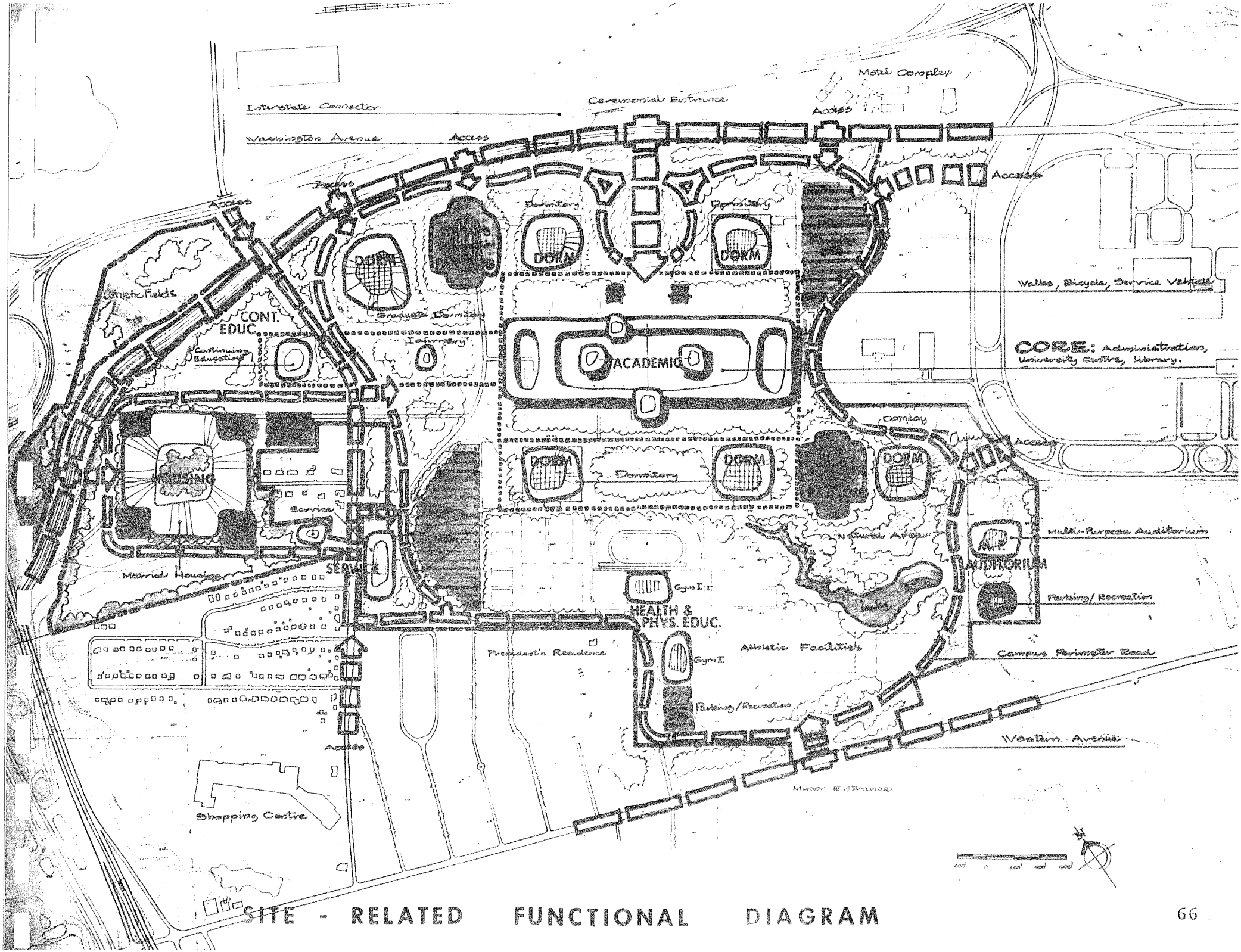
SITE CONCLUSIONS

SITE RELATED FUNCTIONAL RELATIONSHIPS

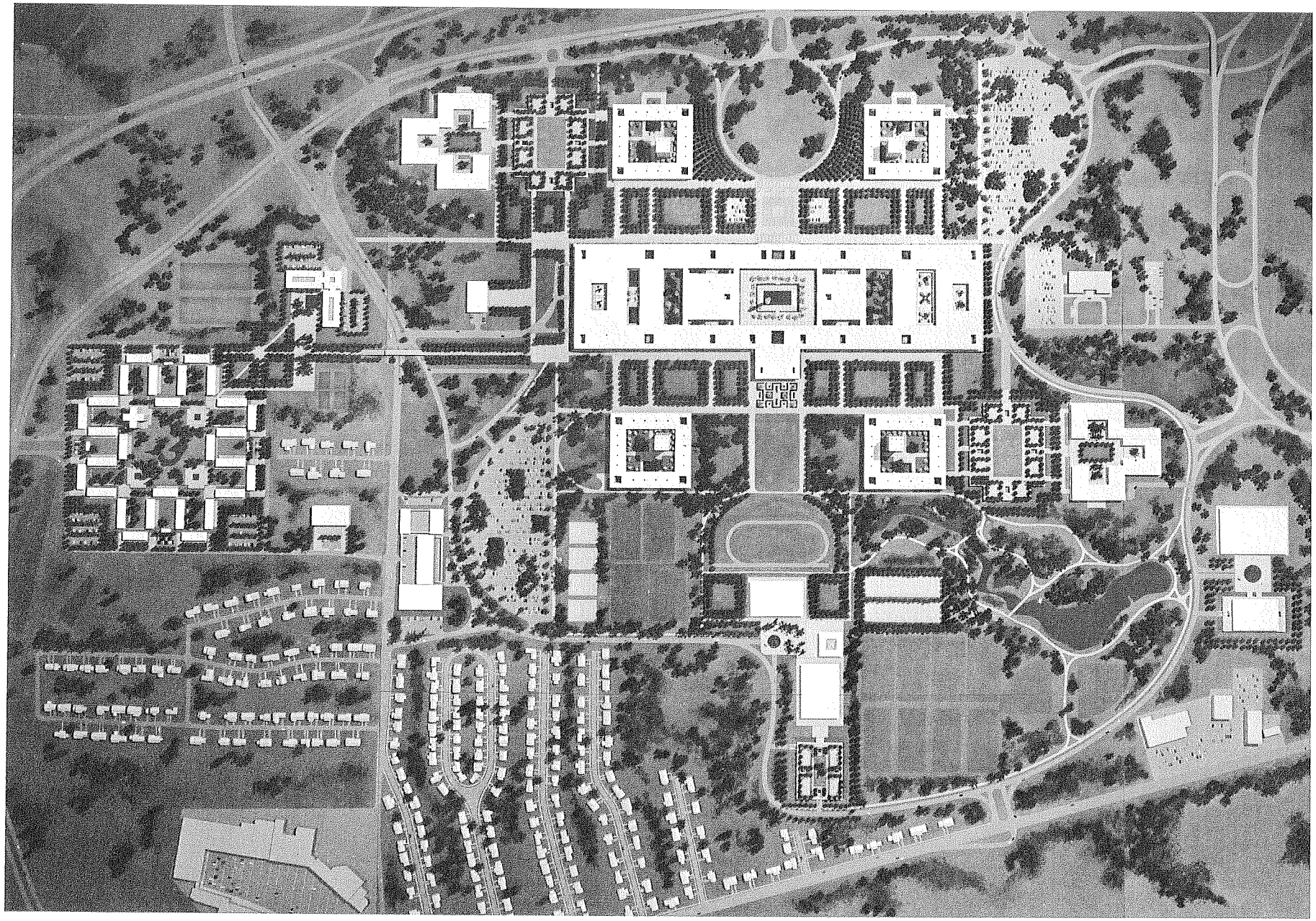
The ideal relationships of facilities delineated earlier are herewith expressed on the site.

The configuration of the site, always distorted from the ideal, leads to the need for establishing priorities of relationships for the juxtaposition of the various elements and ancillary facilities.

Although the boundary outline, topography, surrounding roads and natural features such as the lake were major limiting elements which determined the placement of facilities during the original concepts and their growth through 1974; other design criteria such as circulation, access, interaction of disciplines and facilities also played a prime role.



SITE - RELATED FUNCTIONAL DIAGRAM



Building Massing and Character

The University core has been conceived as groups of semi-independent elements rigidly integrated into a definable strong architectural statement.

The building massing and forms, expressed vertically by towers, and horizontally by the broad base low rise structures, reflect the unique planning concept of the Albany campus.

The unifying matrix of podium and colonnade has been retained for expanding the academic complex, presenting a completed entity for each module of growth.

The residential towers of the core form a balanced composition with the mass of the colonnaded three-story academic building. The natural perimeter through the low profile parking-recreation structures gracefully end the formality of the core.

Ancillary buildings and facilities, although reflecting the strong lines of the core, are carefully placed in natural settings, with low horizontal profiles to compliment rather than compete, resulting in the elegance and dignity essential to a learning environment.

Spatial Organization

The spatial organization of the campus relates directly to the building masses and circulation. The similar hierarchy

of spaces with their corridors and linkages radiate outward from the highly urban core to the natural tree-defined spaces of the perimeter.

The courtyards, plazas, and other open spaces defined by architectural elements are distinct in function, scale and character. The sequence of public-oriented space at the ceremonial entrance is an example. As one arrives at the large, formal circle, there are vistas of the academic complex and dormitories. These are complemented by park-like planting along the approach drive.

Next is the elegantly detailed motor court, where the transition from vehicular to pedestrian circulation takes place. Through the canopy, the arriving visitor has glimpses of the carillon, fountains, and other embellishments that add richness to the large plaza which serves the public-oriented facilities -- the theater, the library, lecture halls, Administrative and Fine Arts Buildings, and the Student Faculty Center. The sequence for arriving students and faculty is somewhat modified but still extremely varied.

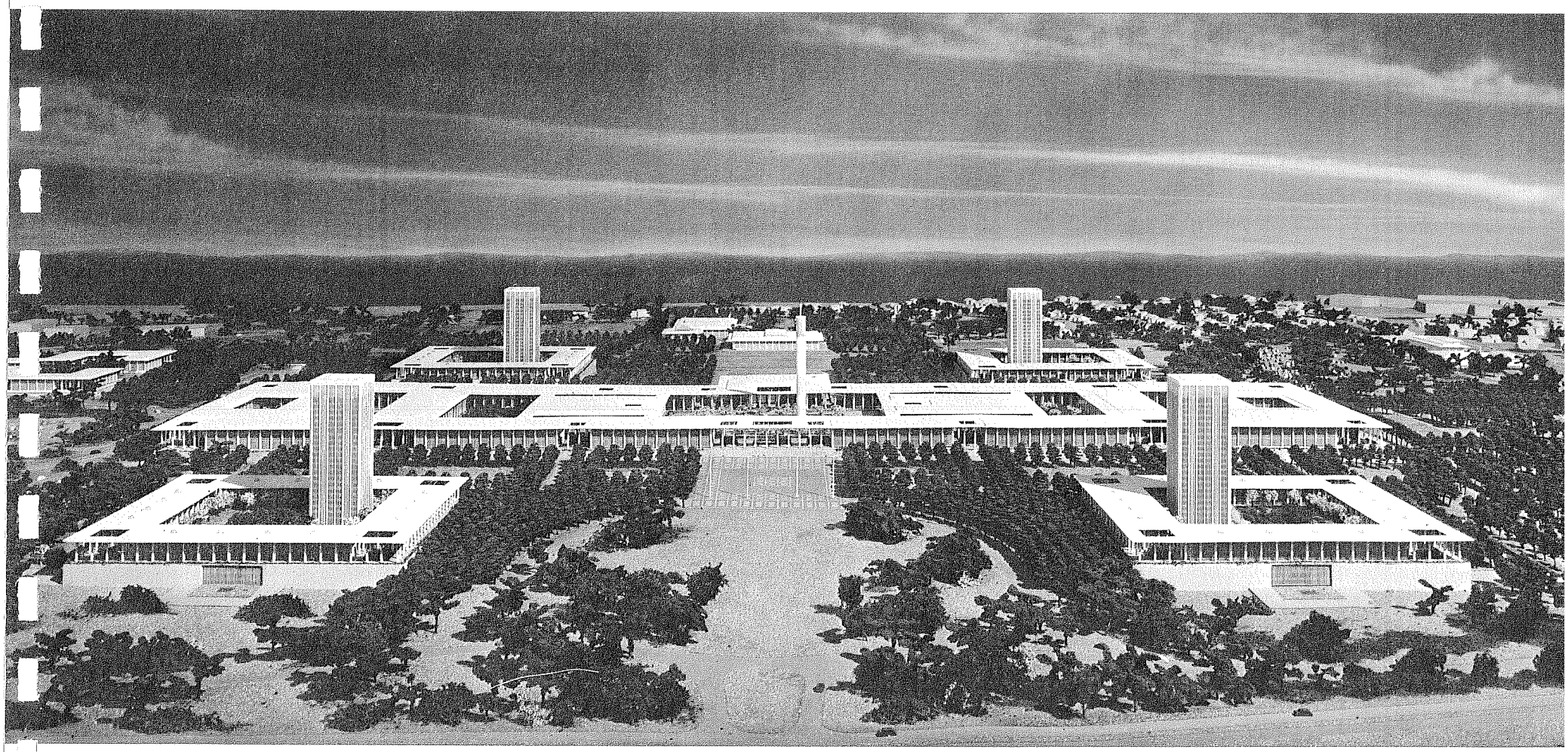
These outdoor spaces serve a variety of functions. They provide a foil for the architectural elements and visual enrichment of the open spaces. They provide outdoor gathering places for students, faculty, and visitors. Some of the smaller spaces, while primarily for circulation, will also serve as outdoor gathering areas and provide a series of handsome vistas across the campus to the hills to the south.

Educational Philosophies Expressed in Design

The campus of the State University of New York at Albany vividly expresses several important principles:

> An orderly place in which to live and work.
>
> The centrality of the library and the lecture hall facilities reflect their importance as teaching tools.
>
> The interrelationship between various schools and disciplines are expressed architecturally.
>
> The changing requirements of the educational processes are recognized in the expansion potential of the academic facilities.
>
> Despite the vast scope of the campus, effective miniaturization is expressed in the proximity of the dormitory complexes to the academic core, and the academic facilities to each other.

Perhaps more important is the recognition accorded in the design that classroom attendance is not the only yardstick for gauging a student's progress, nor the academic program the sole measure of a University's worth. Equally valuable is the creation of an environment for learning -- an environment that extends beyond the classroom to all facets of campus life. The entire campus is a statement of this principle.



ACADEMIC EXPANSION

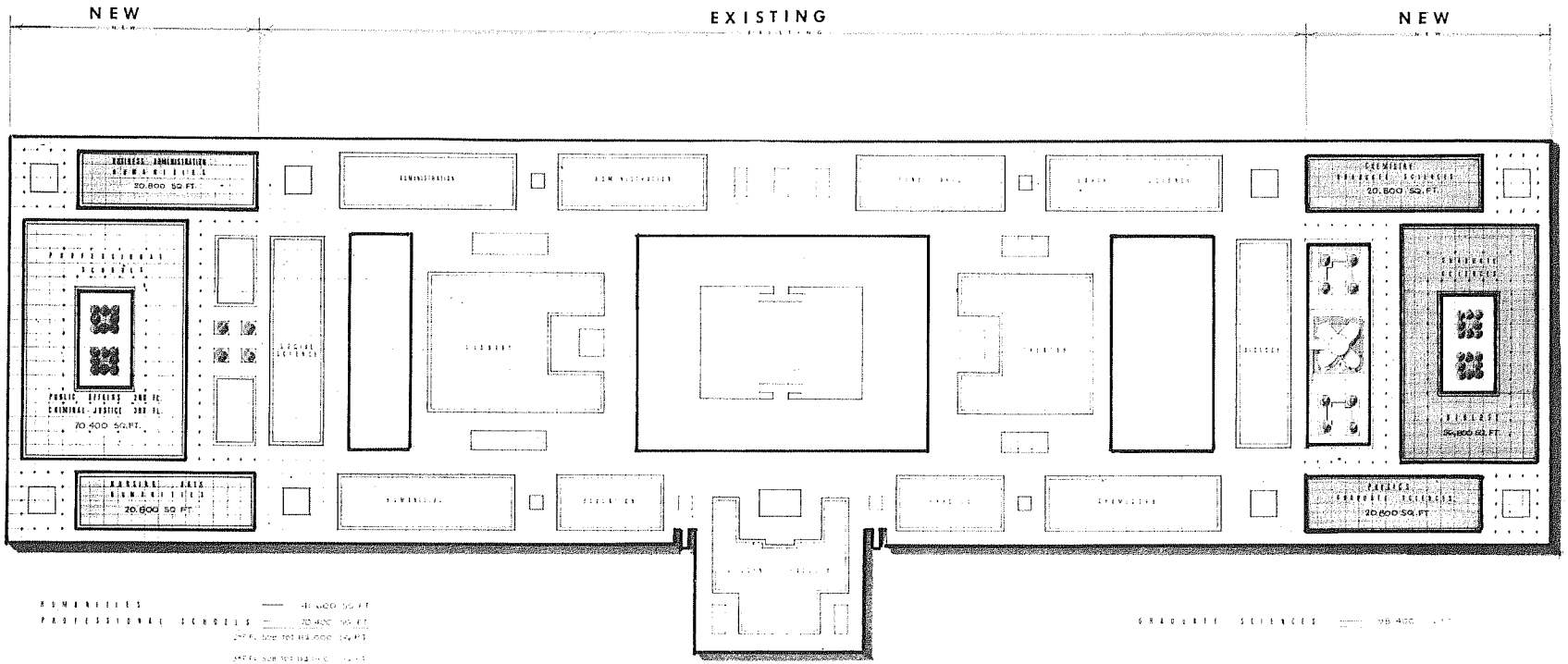
The expansion of the existing academic facilities is to be provided by extending the eastern and western portions of the Academic Complex by 360 feet each. Within this gross area the required academic space, service and parking area for 1000 cars can be accommodated. The existing basement under podium would be enlarged by 360 feet and sub-basements below grade are to be planned in order to accommodate space requirements and to avoid surcharging.

Academic III West (Humanities)

The buildings proposed at the podium level would be similar to the existing three floor structures. The new roof would be an extension of the existing roof line. The planned buildings include two "bar" buildings and a larger "court" building. The west extension would retain the existing service facility and provide one sub-basement below grade for parking.

Academic IV East (Sciences)

Buildings proposed are as noted for Academic III. In addition, a second sub-basement is planned to accommodate parking requirements.

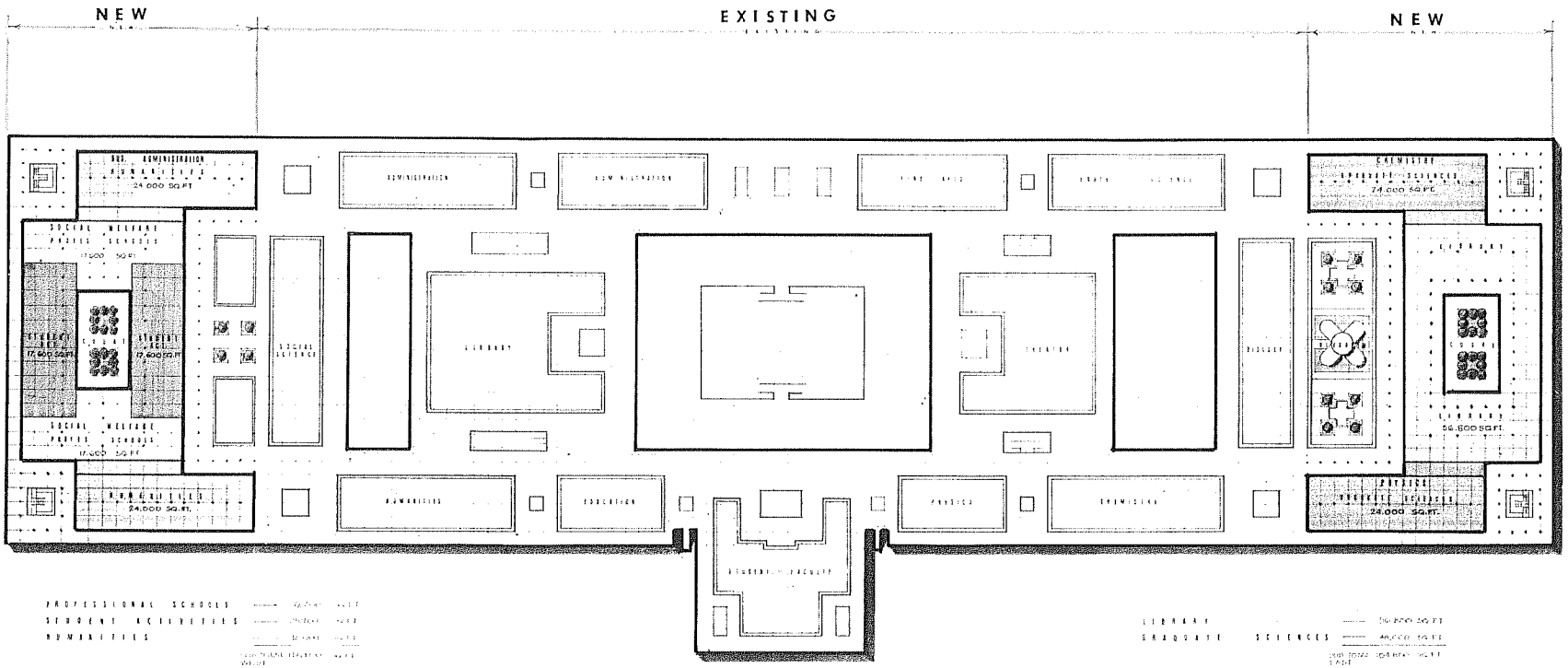


1974

SECOND & THIRD FL. PLAN

ACADEMIC COMPLEX
STATE UNIVERSITY ALBANY CAMPUS
PODIUM EXTENSION

EDWARD DURELL STONE ARCHITECT



PROFESSIONAL SCHOOLS
STUDENT ACTIVITIES
HUMANITIES

LIBRARY
GRADUATE SCIENCES

TOTAL PODIUM SQ.FT.

1974

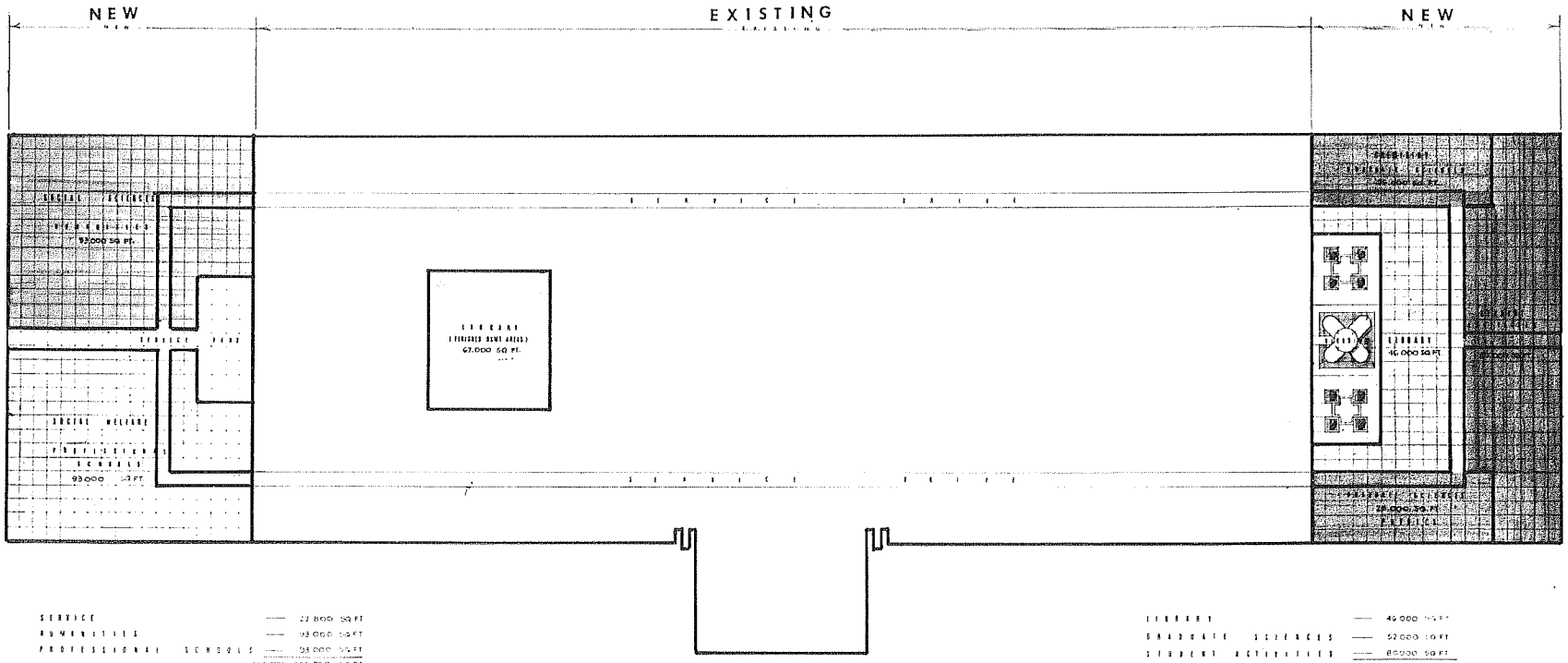
PODIUM LEVEL PLAN

SCALE

NORTH

ACADEMIC COMPLEX
STATE UNIVERSITY ALBANY CAMPUS
PODIUM EXTENSION

EDWARD DURELL STONE ARCHITECT



SERVICE	—	22 800 SQ FT
ROMERITIES	—	93 000 SQ FT
PROFESSIONAL SCHOOLS	—	93 000 SQ FT
SUBTOTAL 206 800 SQ FT		
LIBRARY (LIB BSMT AREAS)	—	67 000 SQ FT
SUB TOTAL 273 800 SQ FT		

LIBRARY	—	46 000 SQ FT
GRADUATE SCIENCES	—	52 000 SQ FT
STUDENT ACTIVITIES	—	80 000 SQ FT
SUB TOTAL 178 000 SQ FT		

TOTAL BASEMENT SQ FT	EAST	178 000 SQ FT
	WEST	260 000 SQ FT
	TOTAL	38 000 SQ FT
LIBRARY (LIB BSMT AREAS)		67 000 SQ FT.
TOTAL		451 800 SQ.FT.

1974

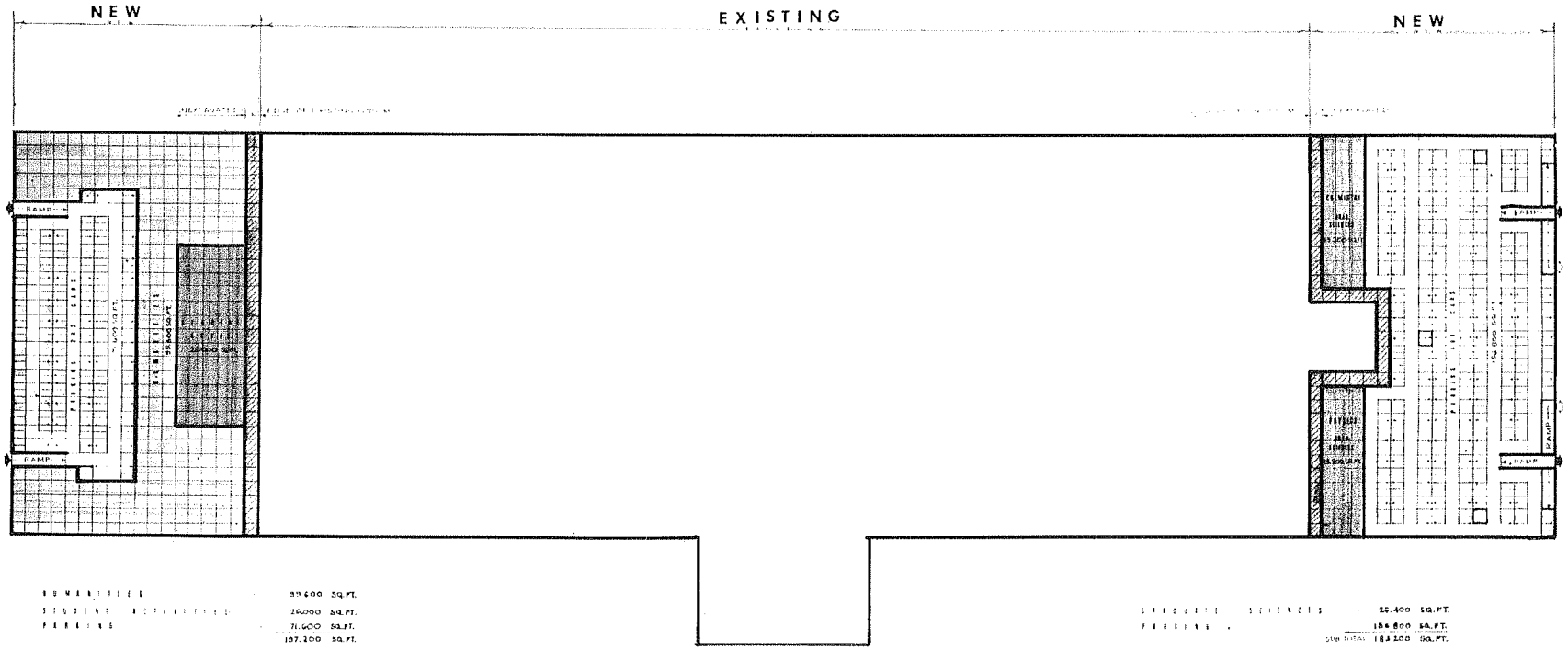
BASEMENT FL PLAN

SCALE

ACADEMIC COMPLEX
STATE UNIVERSITY ALBANY CAMPUS

PODIUM EXTENSION

TOWARD DURELL STONE ARCHITECT



HUMANITIES	39,600	SQ.FT.
STUDENT ACTIVITIES	26,000	SQ.FT.
PARKING	71,600	SQ.FT.
	197,200	SQ.FT.

GRADUATE SCIENCES	25,400	SQ.FT.
PARKING	158,800	SQ.FT.
SUB TOTAL	183,200	SQ.FT.

TOTAL SUB-BSMT. 50 ft.	EAST 197,200	SQ.FT.
	WEST 183,200	SQ.FT.
	TOTAL 380,400	SQ.FT.

1974

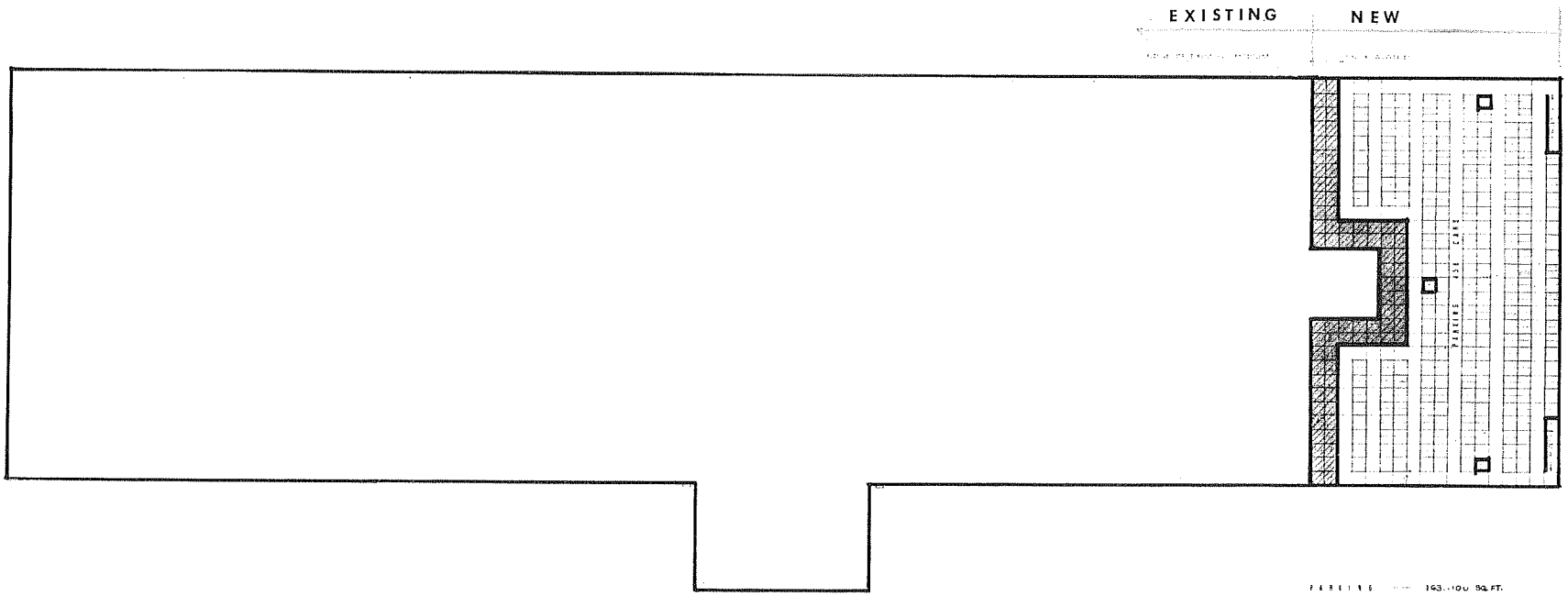
FIRST SUB BASEMENT FLOOR PLAN

ACADEMIC COMPLEX

STATE UNIVERSITY ALBANY CAMPUS

PODIUM EXTENSION

EDWARD DURELL STONE ARCHITECT

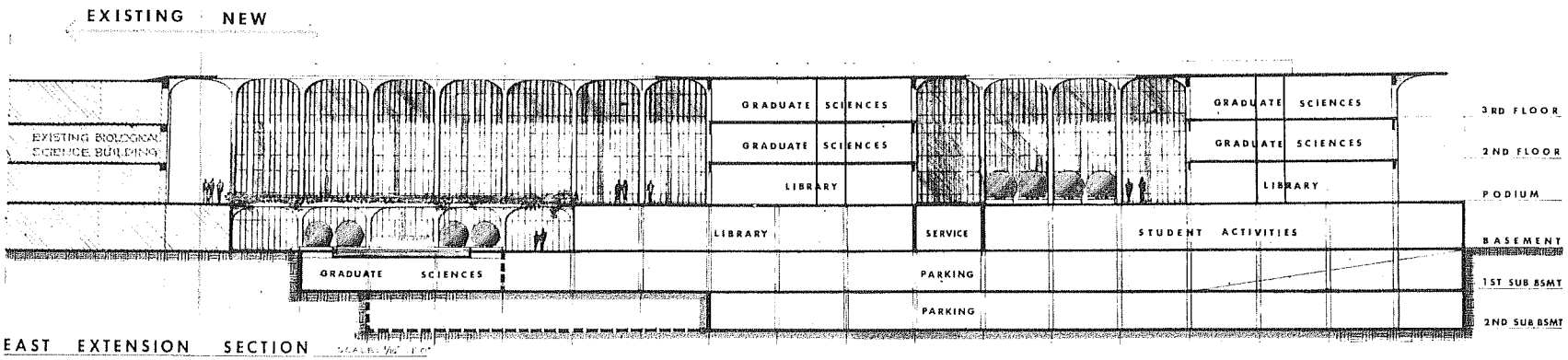


1974

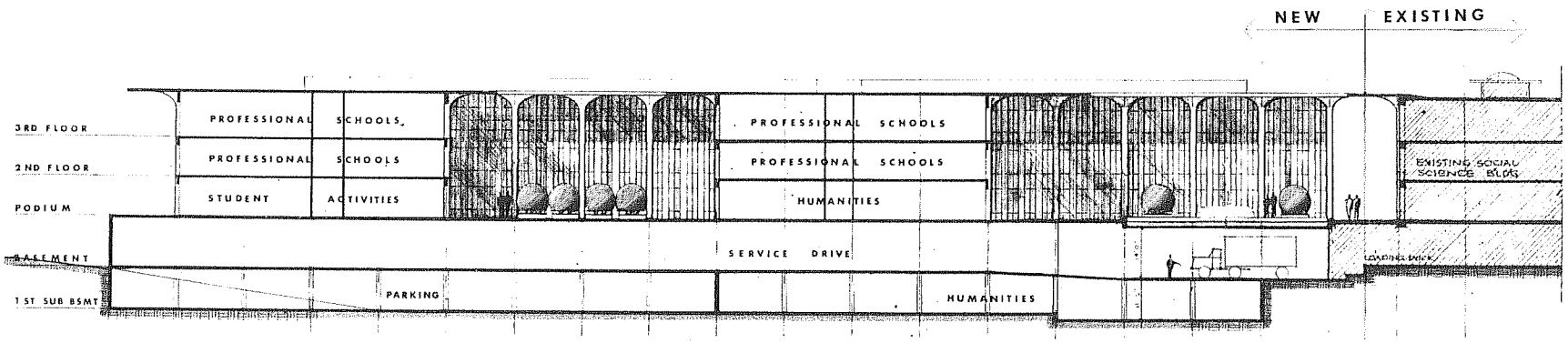
SECOND SUB-BASEMENT FLOOR PLAN

ACADEMIC COMPLEX
STATE UNIVERSITY ALBANY CAMPUS
PODIUM EXTENSION

EDWARD DURELL STONE ARCHITECT



EAST EXTENSION SECTION



WEST EXTENSION SECTION

ACADEMIC COMPLEX

STATE UNIVERSITY ALBANY CAMPUS

PODIUM EXTENSION

EDWARD DURELL STONE ARCHITECT

ACADEMIC PODIUM EXPANSION
1974

West Extension	Area Enclosed	Humanities	Prof. Schools	Stud. Act.	Parking	Service	Sub Totals
Sub-Basement	197,200	99,600		26,000	71,600		197,200
Basement	208,800	93,000	93,000			22,800	208,000
Podium	118,400	48,000	35,200	35,200			118,400
Second Floor	112,000	41,600	70,400				112,000
Third Floor	112,000	41,600	70,400				112,000
Actual Area	748,400	320,800	269,000	61,200	71,600	22,800	748,400
Programmed Area		325,000	265,000	60,000*			

*Total program requirement is 140,000 sq. ft. Balance is shown on east extension.

ACADEMIC PODIUM EXPANSION
1974

East Extension	Area Enclosed	Library	Stud. Act.	Grad. Science	Parking	Sub Totals
2nd sub-basement	163,000				163,000	163,000
1st sub-basement	183,200			26,400	156,800	183,200
Basement	178,000	46,000	80,000	52,000		178,000
Podium	104,800	56,800		48,000		104,800
Second Floor	98,400			98,400		98,400
Third Floor	98,400			98,400		98,400
Actual Area	825,800	102,800	80,000	323,200	319,800	825,800
Programmed Area		100,000*	80,000	325,000		

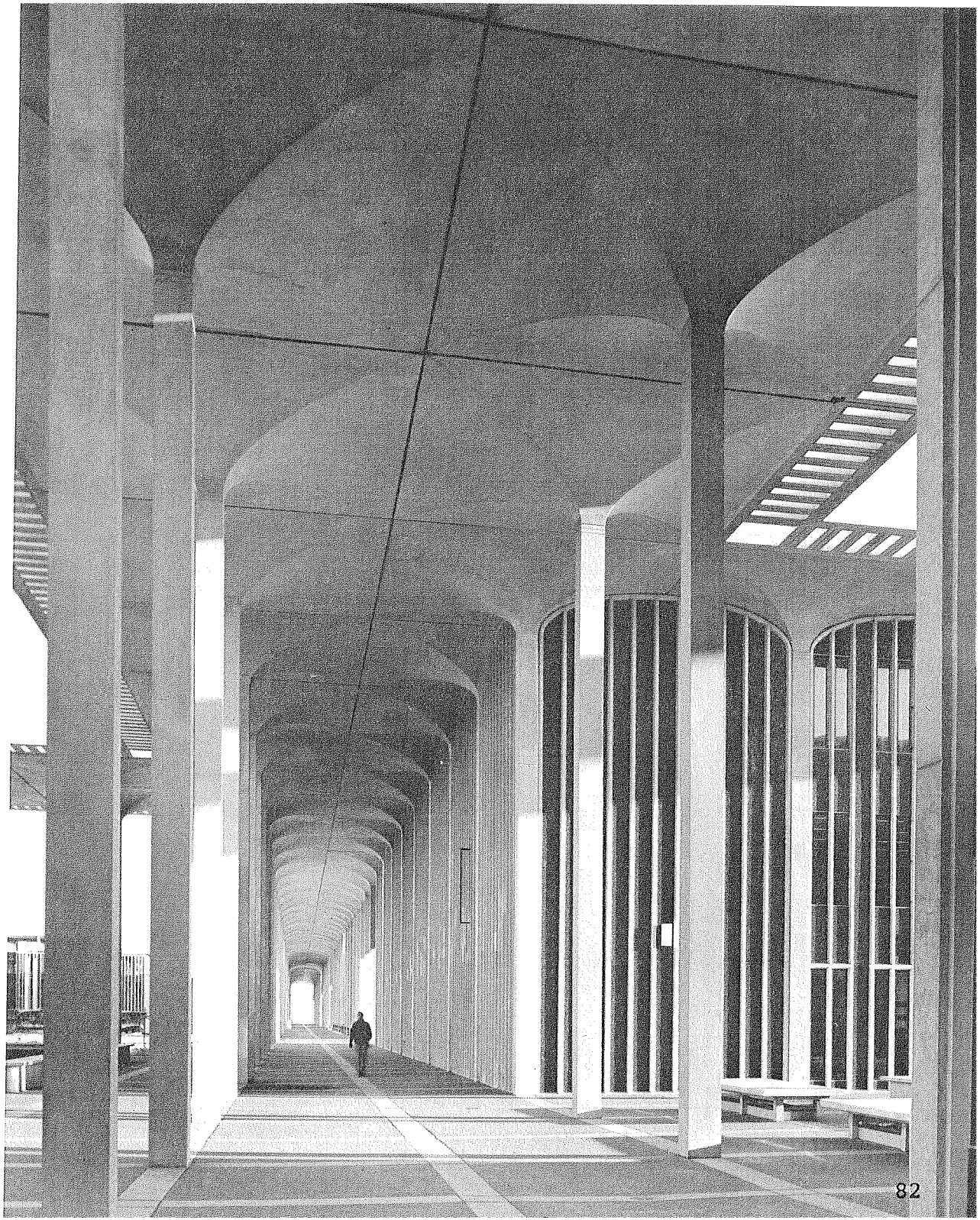
*Not including 65,000 sq. ft. finished basement in Library Building.

SUMMARY OF PODIUM EXPANSION

Facilities	Program Requirements	Actual Areas
Humanities	325,000 sq. ft.	320,800 sq. ft.
Professional School	265,000 sq. ft.	269,000 sq. ft.
Student Activities	140,000 sq. ft.	141,200 sq. ft.
Grad. Sciences	325,000 sq. ft.	323,200 sq. ft.
Library	165,000 sq. ft.	167,800 sq. ft. *
	1,220,000 sq. ft.	1,222,000 sq. ft. **

*Includes 65,000 sq. ft. finish basement in Library Building.

**Does not include 390,000 sq. ft. of parking and 23,000 sq. ft. of service.



HOUSING

Outside the academic core, but within convenient walking distance, are the living quarters for the students, designed as a series of dormitory complexes arranged to form and contain controlled outdoor spaces.

The dormitories have been grouped together in complexes rather than dispersed at random over the campus. Each complex consists of a series of low-rise structures surrounding a courtyard which houses a dormitory tower. The towers act as visual and functional elements within the courtyard as well as providing interesting vistas from without. The design of the dormitories provides the students with a workable combination of living and study areas within a high-density plan.

The high-density housing structures concentrate students within easy walking distance of the academic core, but visually apart from the core.

The dormitory complexes have been designed to house 60 percent of the single undergraduate students. Each complex provides living quarters for 1,268 students (with the exception of Dormitory No. 1, which is already under construction and will house 1,152 students). The tower in each complex will accommodate some 450 students, with an approximate 100 students in each low-rise building around the tower.

In addition to individual living units, consisting of two bedrooms and a common study area, each complex also provides

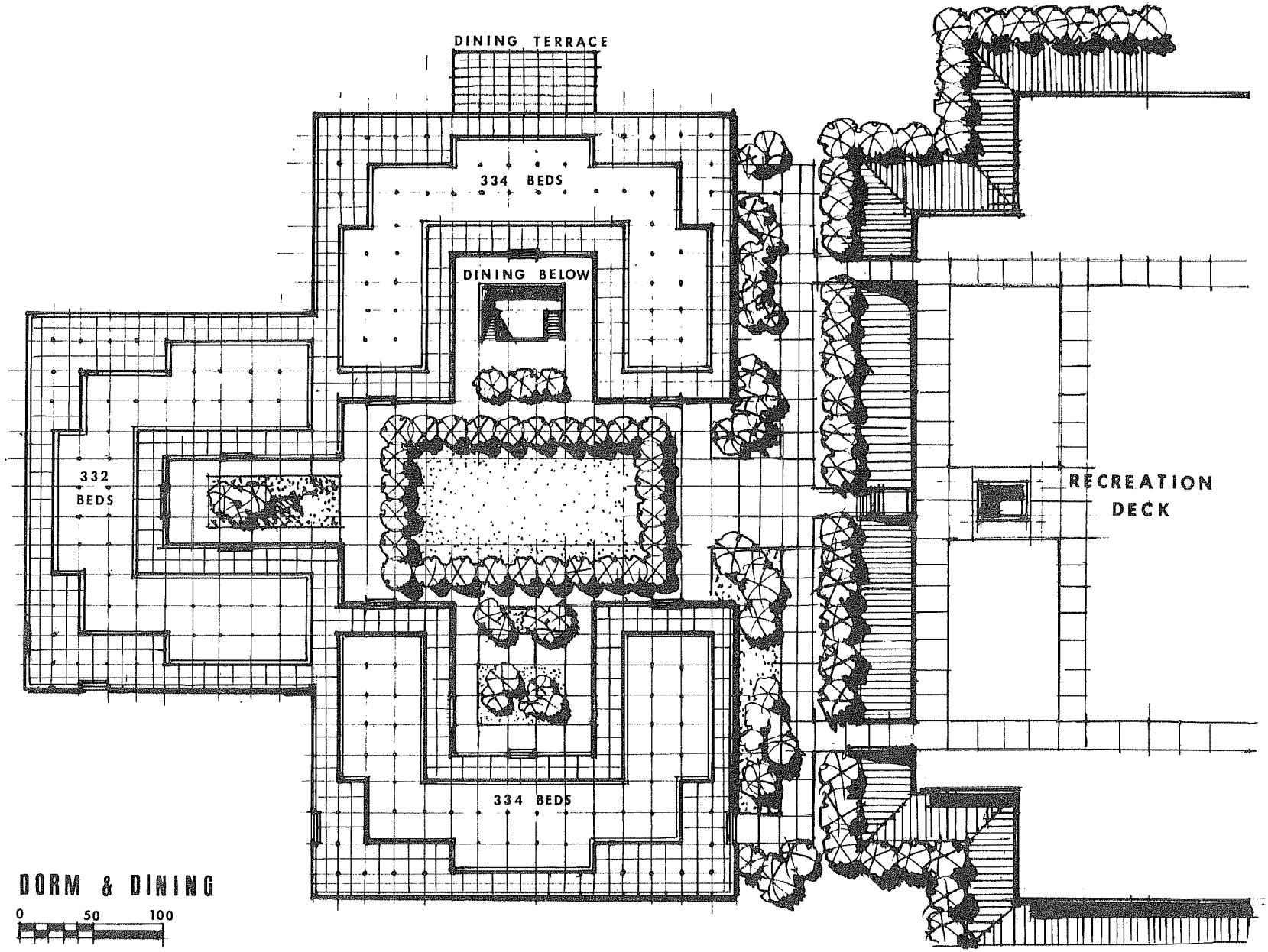
social and recreational areas and dining facilities. The complexes are situated to allow a maximum of green belts and open spaces for buffer zones and to meet parking and recreational requirements.

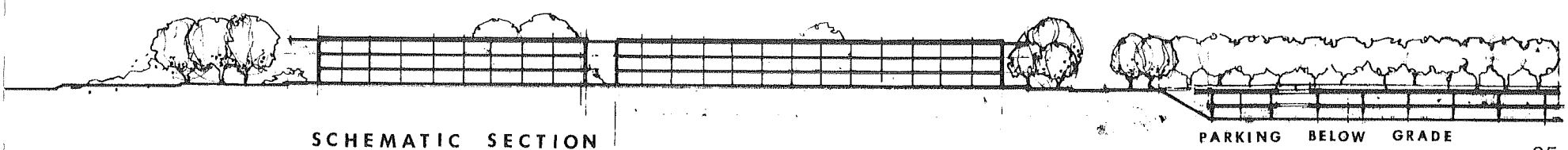
The 2000 dormitory units programmed for construction by 1974 are designed as two complexes of 1000 beds each. The complexes are placed in the southeast and northwest corners of the campus. The three-story buildings retain the large spatial character of the other campus buildings, but are modified to transition to the informal campus perimeter.

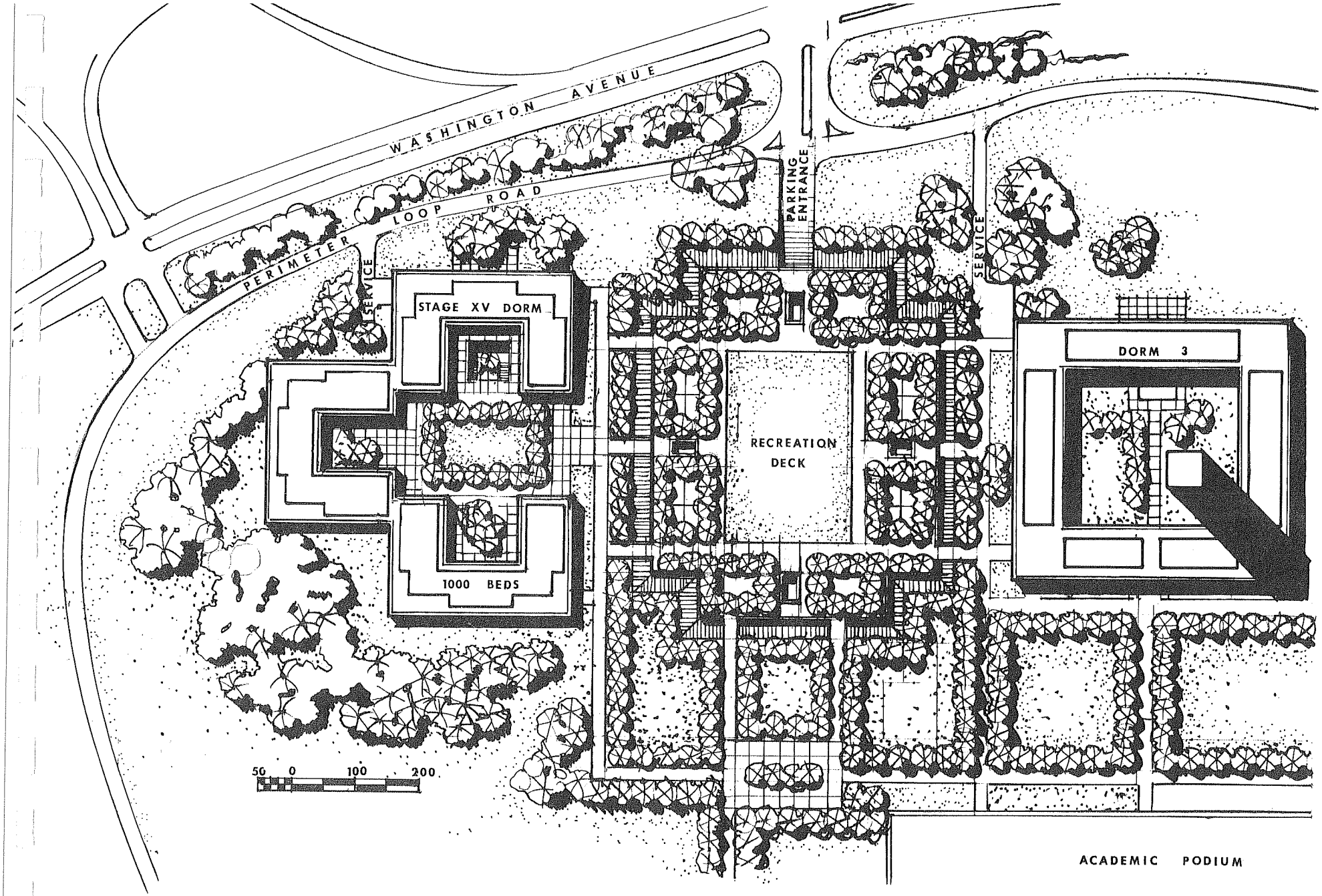
Because of its proximity to the continuing education center and married student housing area, the complex in the northwest corner at Fuller Road will be allocated to graduate students.

The 400 unit married student housing complex has been located west of Fuller Road adjacent to the Continuing Education Facility. There will be a strong interplay of use of recreation, dining and other facilities. A strong pedestrian link with roadway overpasses is provided to the central campus. The housing is designed to be visually integrated with the main campus while providing residential scale spaces. The apartment units are grouped about relatively small courtyard intimate spaces, all related to a large central space. The tower in this space will serve as a focal element giving identity to the area.

Expansion after 1974 may occur by the addition of 3 towers in the central space or 3-story buildings to the south and east.

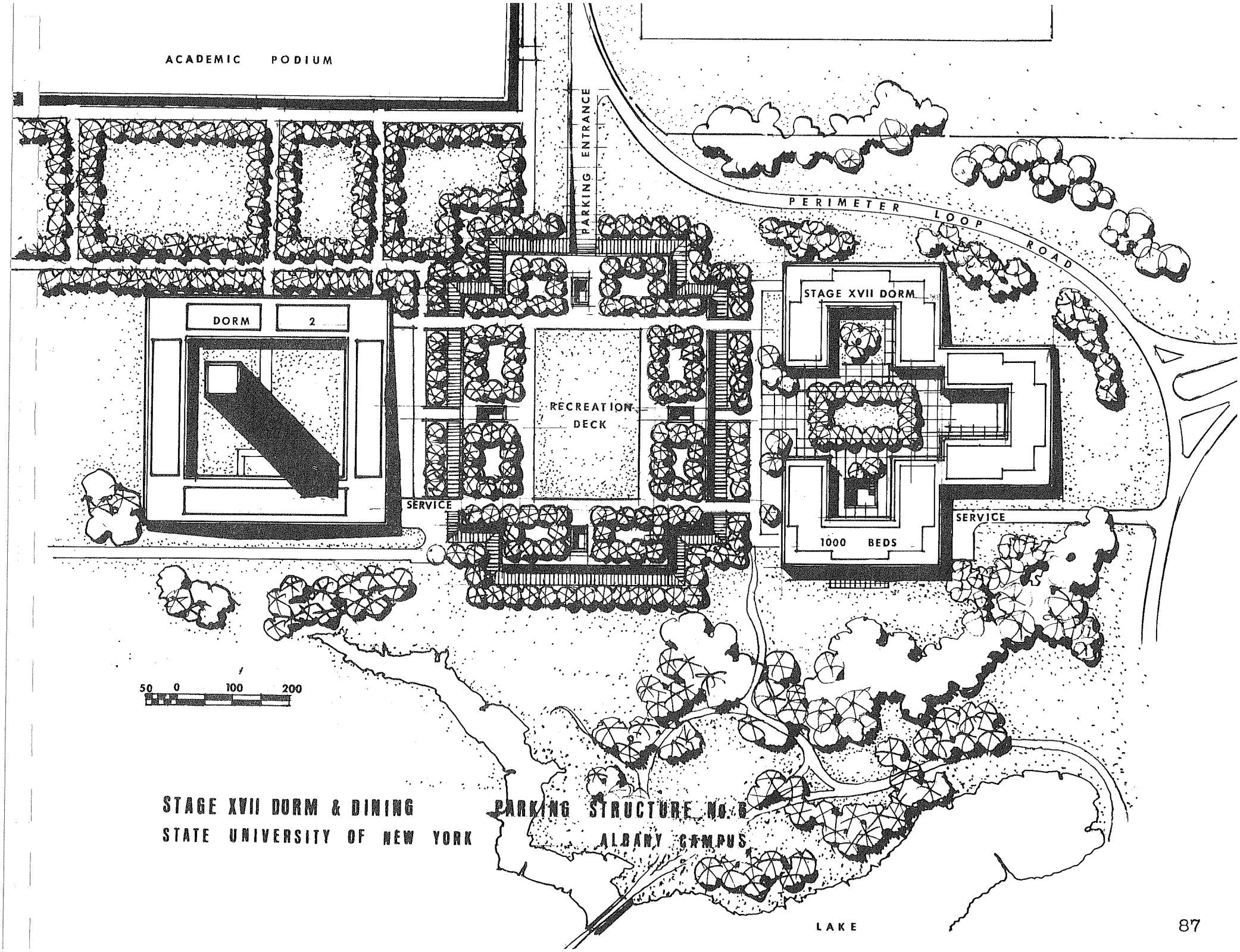

DINING TERRACE
334 BEDS
DINING BELOW
332 BEDS
RECREATION DECK
334 BEDS
DORM & DINING
0 50 100


SCHEMATIC SECTION
PARKING BELOW GRADE



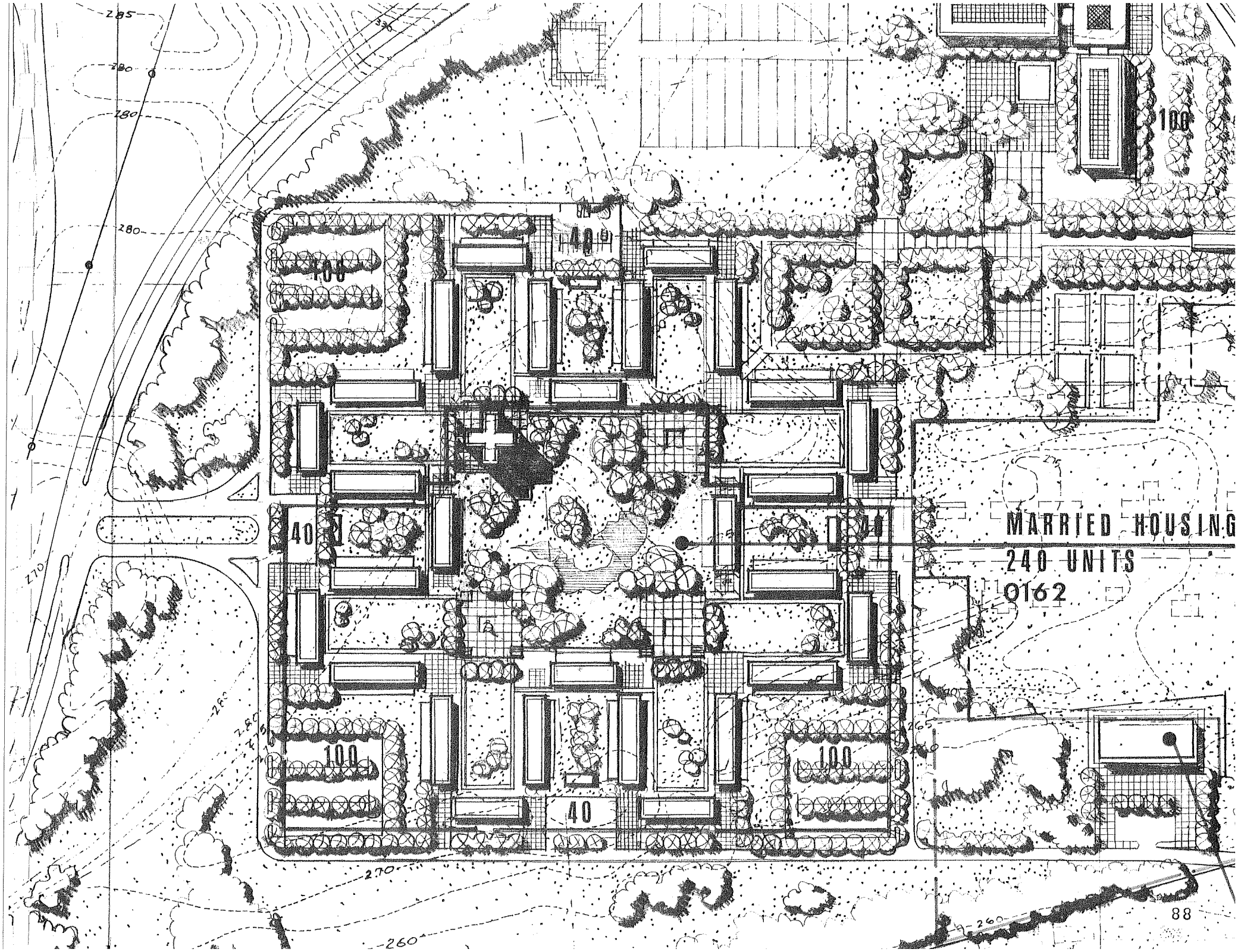
STAGE XV DORM & DINING PARKING STRUCTURE No. 5

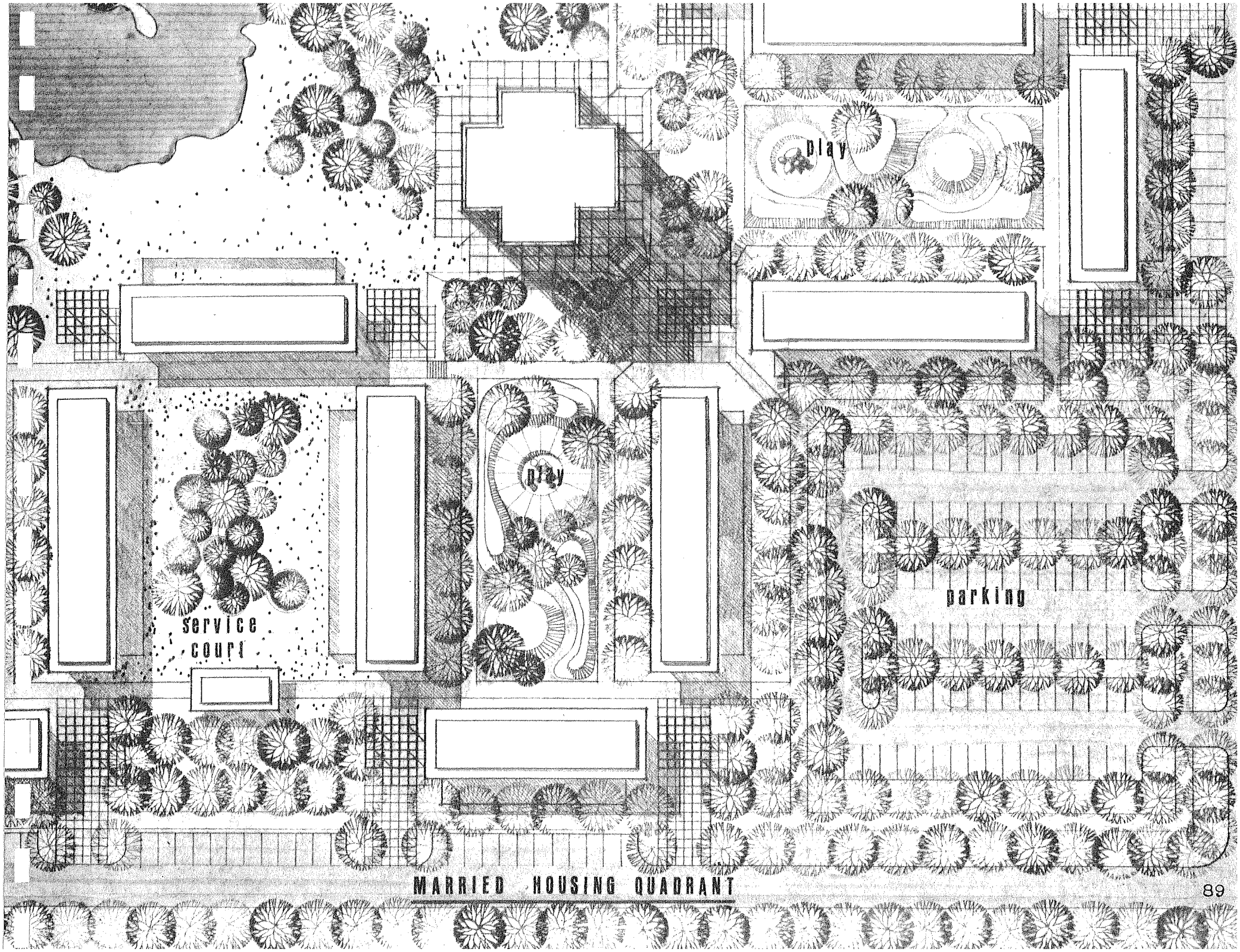
STATE UNIVERSITY OF NEW YORK ALBANY CAMPUS



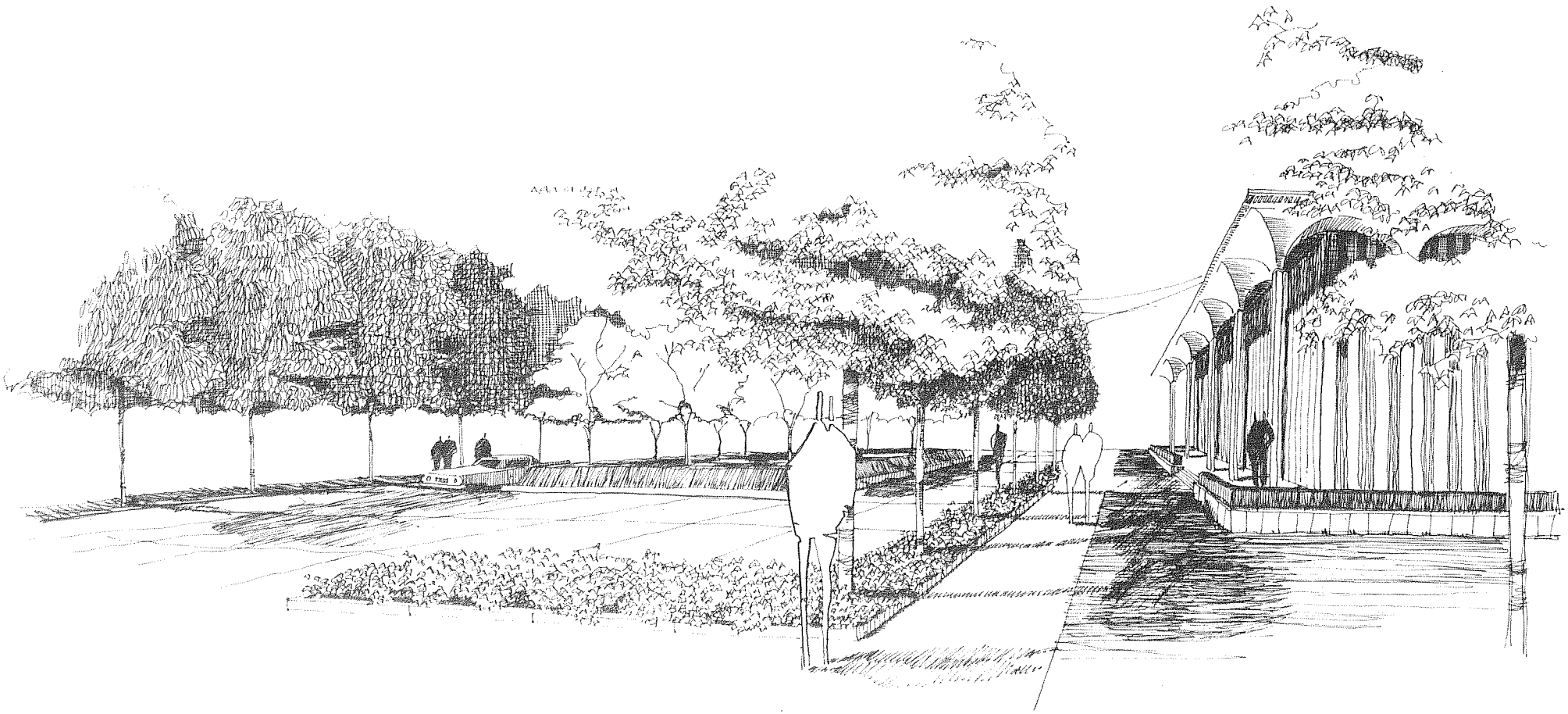
STAGE XVII DORM & DINING
STATE UNIVERSITY OF NEW YORK

PARKING STRUCTURE NO. 6
ALBANY CAMPUS

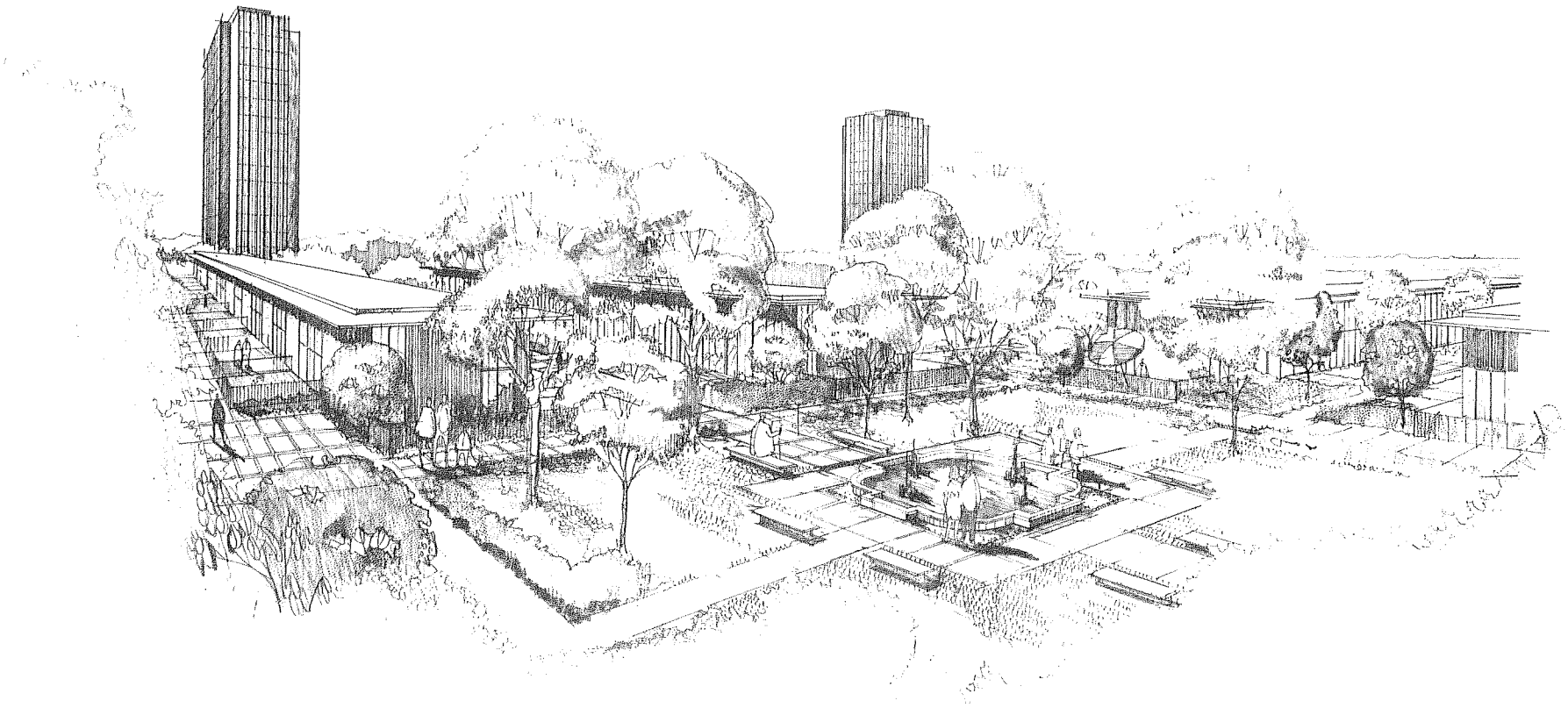

MARRIED HOUSING
240 UNITS
0162
100
40
100
40
100
100
40
285
280
280
280
270
270
260
260
265
260



MARRIED HOUSING QUADRANT



ENTRANCE TO MARRIED HOUSING



EXPANSION OF HIGH RISE MARRIED HOUSING

VEHICULAR CIRCULATION AND PEDESTRIAN MOVEMENT

The campus is surrounded by a perimeter loop for vehicular circulation. This system provides the greatest separation of pedestrian and vehicular traffic within the campus. Two major points of access onto the loop provide entrances to the campus. The main entrance occurs off Washington Avenue in the form of a formal circular drive which brings the visitor to the heart of the campus. A secondary entrance in the area of the gymnasium provides access from Western Avenue.

The perimeter loop makes as much use as possible of the existing road system. The high cost of relocation does not seem justified for low speed traffic at the moment. However, some realignment may be necessary when the additional dormitories are constructed.

All facilities will be served, where possible, by the perimeter loop road. When this is not possible, service to internal elements will be provided by dual use of the pedestrian walks. For areas where heavy service is required, service loops have been provided directly from the perimeter road.

The circulation system is predicated on an established hierarchy of concentric rings: the outermost ring the public high-speed arterials and thoroughfares; the second the inner vehicular loop, within which are large-scale bicycle and pedestrian paths; and finally a pedestrian oasis throughout the campus core area.

The campus is ringed by a system of limited access highways which bring vehicles within a mile of the University's

access drives. To alleviate congestion, the following recommendations have been made part of the plan for 1974:

(1) Additional access points with signalized controls.

(2) Left turn trumpets at the main entrances.

(3) Direct connection from the highways via I-541, shown "dotted in" on 1974 plan, and the office campus road to the University's loop road. This connection has several inherent dangers, and should be studied most carefully before implementation, as it will greatly increase the load on the office loop, and may unleash a flood of local traffic cutting through to Western Avenue.

(4) The extension of Washington Avenue should eliminate a great deal of traffic that is presently using this road to and from the Thruway and Northway. However, this may be offset to some degree by the increased University traffic and the expanded development of the Pine Bush area.

The critical peak traffic hour will occur in the morning. It is expected that 70 percent or approximately 5,000 cars will arrive on campus between 8:00 a.m. to 9:00 a.m. The campus plan has been developed to accommodate these quantities by dispersing sufficient multi-lane access roads with parking areas readily reached from these points.

The completion of major roads in this area will be far-reaching in effect. It is felt that meaningful traffic counts and survey of origin and destination cannot be accomplished until these roads are completed. For preliminary estimates,

volumes proportional to the population centers could be used:

From Northeast	40%	or 2,000 cars
From Northwest	25%	or 1,250 cars
From Southeast	25%	or 1,250 cars
From Southwest	10%	or 500 cars

Approximately 30 per cent of these cars would arrive via local streets. A direct connection from the highways to the campus road will greatly relieve congestion problems on Washington Avenue, particularly near Fuller Road.

Continued efforts by the University authorities in conjunction with local municipalities and other State agencies will be required to program and construct adequate traffic facilities.

A traffic flow study at S. U. C. F. based on a review of home addresses of autos registered on campus is included in the appendix. The study assumes only half of an 8,000 car base for 1974 arrives during the peak hour and is distributed equally at all six campus entrances. The resultant 670 per hour will completely choke the local streets and even back up into the arterials unless substantial improvements are made before 1974.

The master plan envisions retention of as much of the existing roads and parking areas as practical, while proceeding toward the ultimate post 1974 concept with four parking structures which complete the unified formal aspect of the campus.

The parking area is spread equally around the campus so that dispersed access points may distribute the peak auto

loads as expeditiously as possible onto the high capacity community streets.

Although the campus loop distributor road is a relatively low capacity facility, it is most desirable to retain the character of the pleasant campus drive. Space for possible future expansion to a 4-lane facility should be allocated, but will hopefully never be required. With adequate access points leading to the major thoroughfares, it may only be necessary to 4-lane portions of the road. As the parking areas and the surrounding community thoroughfares are developed, it will be important to re-evaluate the circulation system. This evaluation should be based on campus population, origin and destination studies, traffic counts, etc. The high capacity-free flow connections to the office campus loop, and interstate highway connections, will become extremely important as will additional access points to Western Avenue.

The following alternate parking methods and combinations were considered and evaluated to arrive at an economically tenable scheme reflecting the best use of available land, and retaining the character of the existing campus.

(1) <u>On-Grade Parking</u>

Although the most economical method of auto storage, this method is the most land consuming. Using all available open areas only 5,500 cars can be accommodated on campus. Expanding the facilities to meet future needs would require the rather costly removal of these facilities. The large fields of parking would also be unsightly and not in character with the campus.

(2) Two-Level Open Deck Below Grade

This method is the next most economical parking facility. However, it was determined that it does not fulfill the needs of dual land use, and does not meet the campus needs as well as the recommended scheme.

(3) Three-Level Open Deck Below Grade

It was felt that this method best fulfilled the needs of dual land use, design character in keeping with the campus, and economic feasibility. The upper deck which is assigned to recreational uses can also serve for parking expansion if these needs ever become more critical.

(4) Three-Level Above Grade Standard Structures

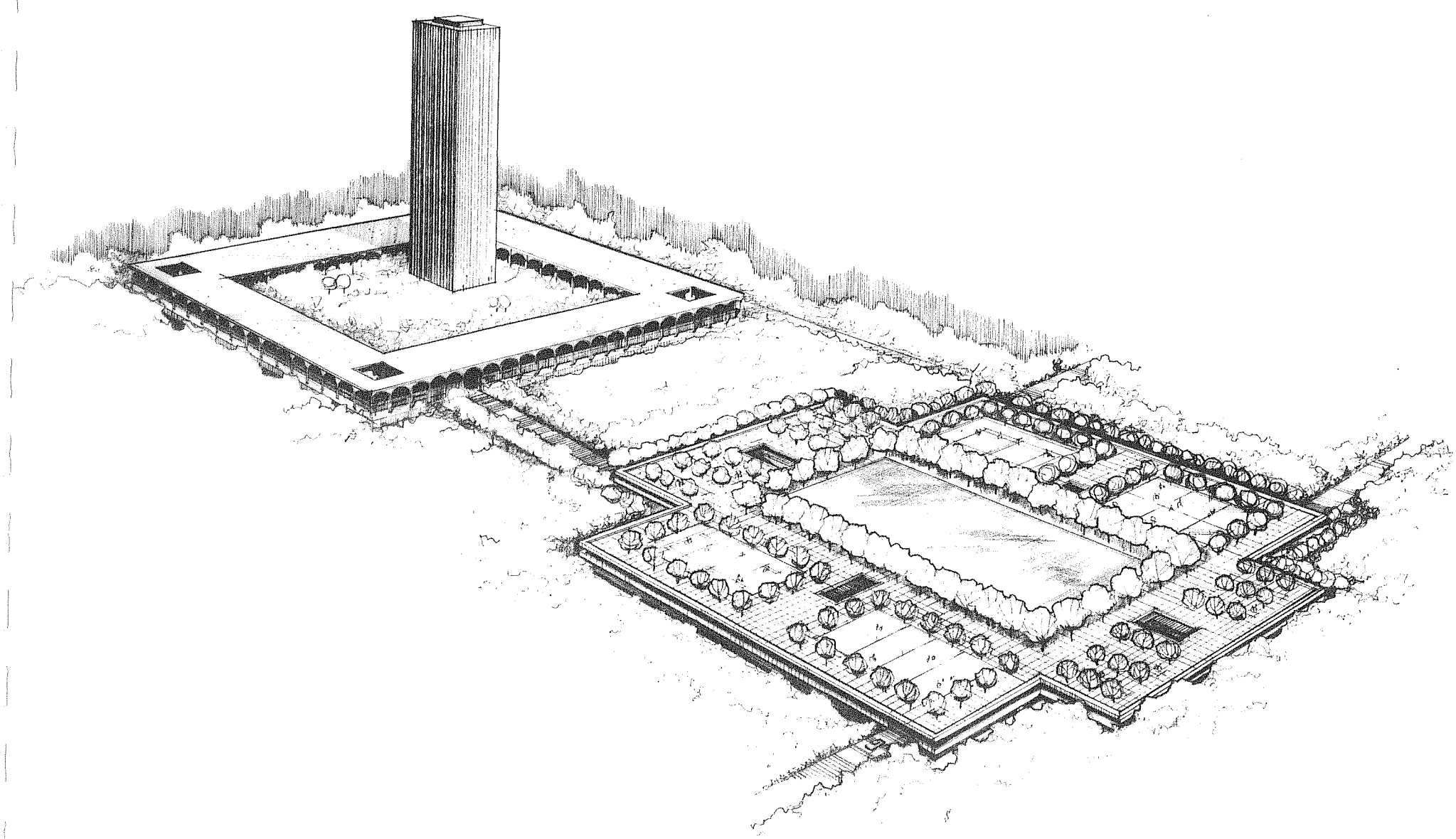
Space limitations for a desirable architectural relationship to the main complex precludes use of this method.

(5) Parking in the Podium

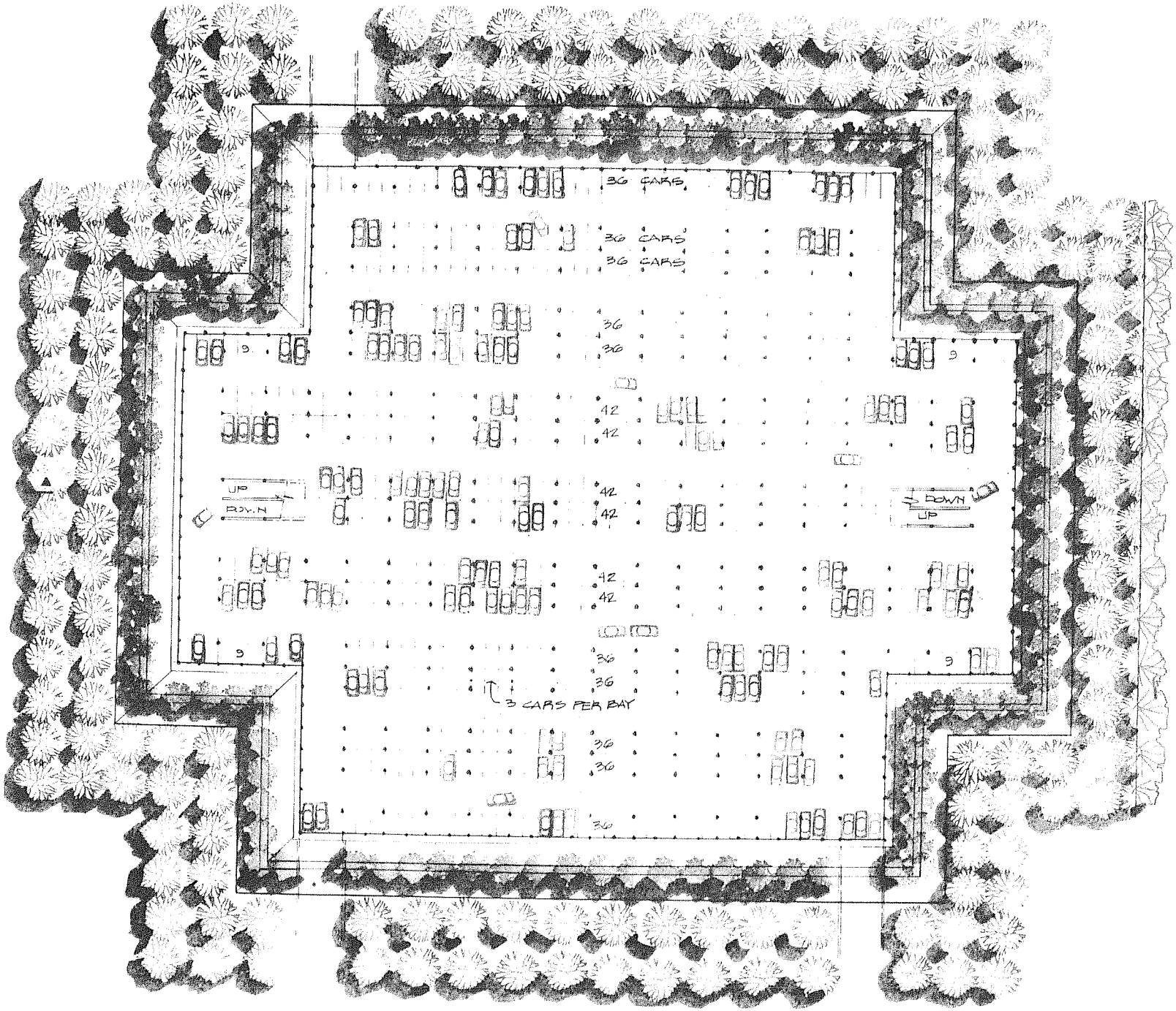
This type of facility best meets the requirements for a large number of high-priority parking spaces, sheltered and near the main complex. The cost, while relatively high, is offset by the multi-use of land, potential future expansion space and convenience. The cost can be relatively economical if the foundation and deck which would ordinarily be required by the podium are part of the building costs.

(6) Below Grade Structures

The high cost of construction can only be justified when the need for multi-use of the land, or excessive off-campus land costs, make this method economically feasible.



PARKING/RECREATION STRUCTURE



· PARKING LEVEL · PARKING STRUCTURE ·

Pedestrian Circulation

Major Walk with Bicycles and Service

This variation on the major arterial for pedestrians and bicycles includes the adaptation of a required service road. In addition, this section of walks must accommodate the major movement from the married housing community and bus drop-offs toward the academic core. The design, therefore, remains major in scale and projects the character of the transitional planting.

Major Pedestrian Walk with Bicycles

Provision for the highest concentration of pedestrian and bicycle traffic is represented by this section. It is located to serve the most dominant traffic flow around and between the academic core and the dormitories. With construction of the 15,000 student phase, it will join the podium and major ancillary facilities. Its width can also accommodate emergency service access to the podium and the dormitories.

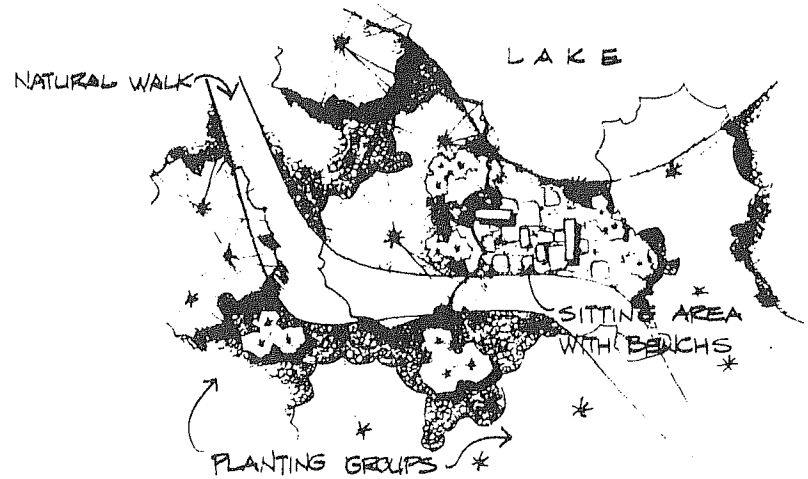
Design adaptation is shown in the projection of the 20 foot building module of the podium as carried to the tree spacing and width of walk. Two rows of formally planted trees arch over 6-foot wide bicycle paths on either side of the walk. These trees form the backbone of the transitional plantings.

Materials and detailing of the walkway, which set the theme for the other walks, are kept simple in design and bold in scale in keeping with large movements of student traffic.

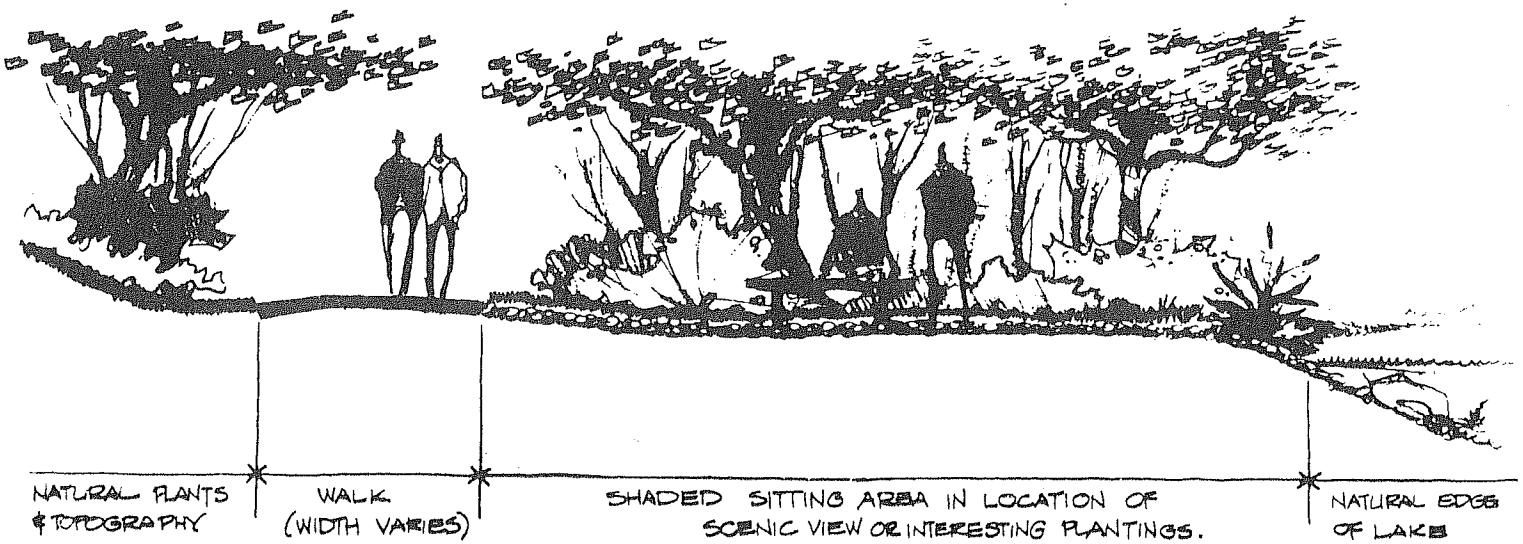
Informal Secondary Walks

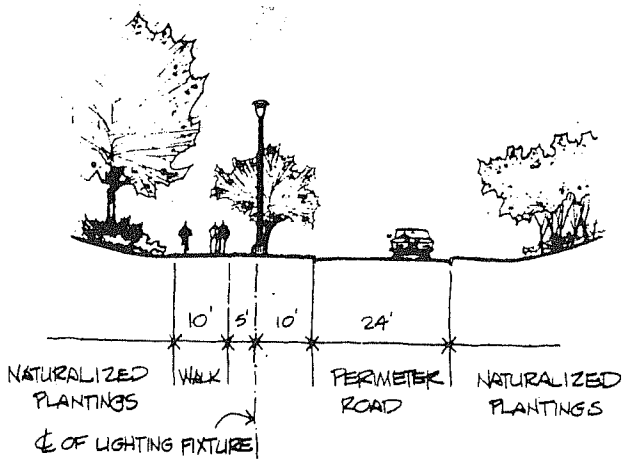
This classification is best typified by the walks around the lake. Kept informal in character, the width and alignment varies to avoid disturbing the existing terrain and plantings. In areas of particularly scenic views or interesting plantings, sitting areas will allow the pedestrian or cyclist to pause and contrast the natural character with the more architecturally ordered character of the academic core. This natural order will be further reflected and maintained by the use of a simple palette of paving materials.

The location of future additional walks will follow desired directions of travel as indicated by student paths.



PLAN OF WALK AND SITTING AREA

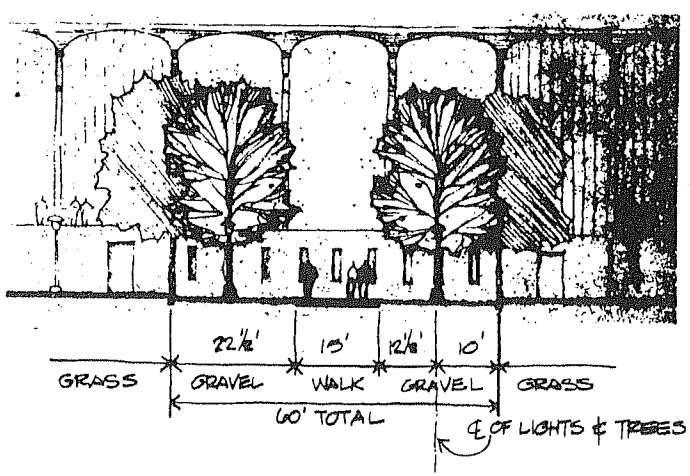




Secondary Pedestrian Walks and Bicycles

This system accommodates pedestrian and bicycle traffic along the perimeter road and to the extremities of the campus.

The park-like character of these outer-campus areas and the married student housing community is maintained in the 10-foot width. Additional plantings and/or selective clearing of existing plant grouping will direct and open distant views toward the academic center and the dormitory towers.



Intermediate Pedestrian Walks

Points of secondary entrance to the academic podium are connected to the major pedestrian arteries by this section of walks. A 15-foot width and the elimination of bicycles reflects a medium intensity pedestrian use.

The single row of trees tie into the module of the transitional planting and help to define the courts.

PARKING CAPACITIES - S.U.N.Y. at ALBANY

PHASE I - 1968 through 1969

1.	N.E. Surface Lot	1,050
2.	S.W. Surface Lot	1,350
3.	East of Podium (temporary)	400
4.	Miscellaneous:	
	Entrance	100
	Service Buildings	100
	Infirmary	20
	Dorms (20 each)	80
5.	Gym No. 1	360
6.	Temporary Parking (North of Infirmary)	200
	TOTAL	3,660

PHASE II - 1970 through 1971

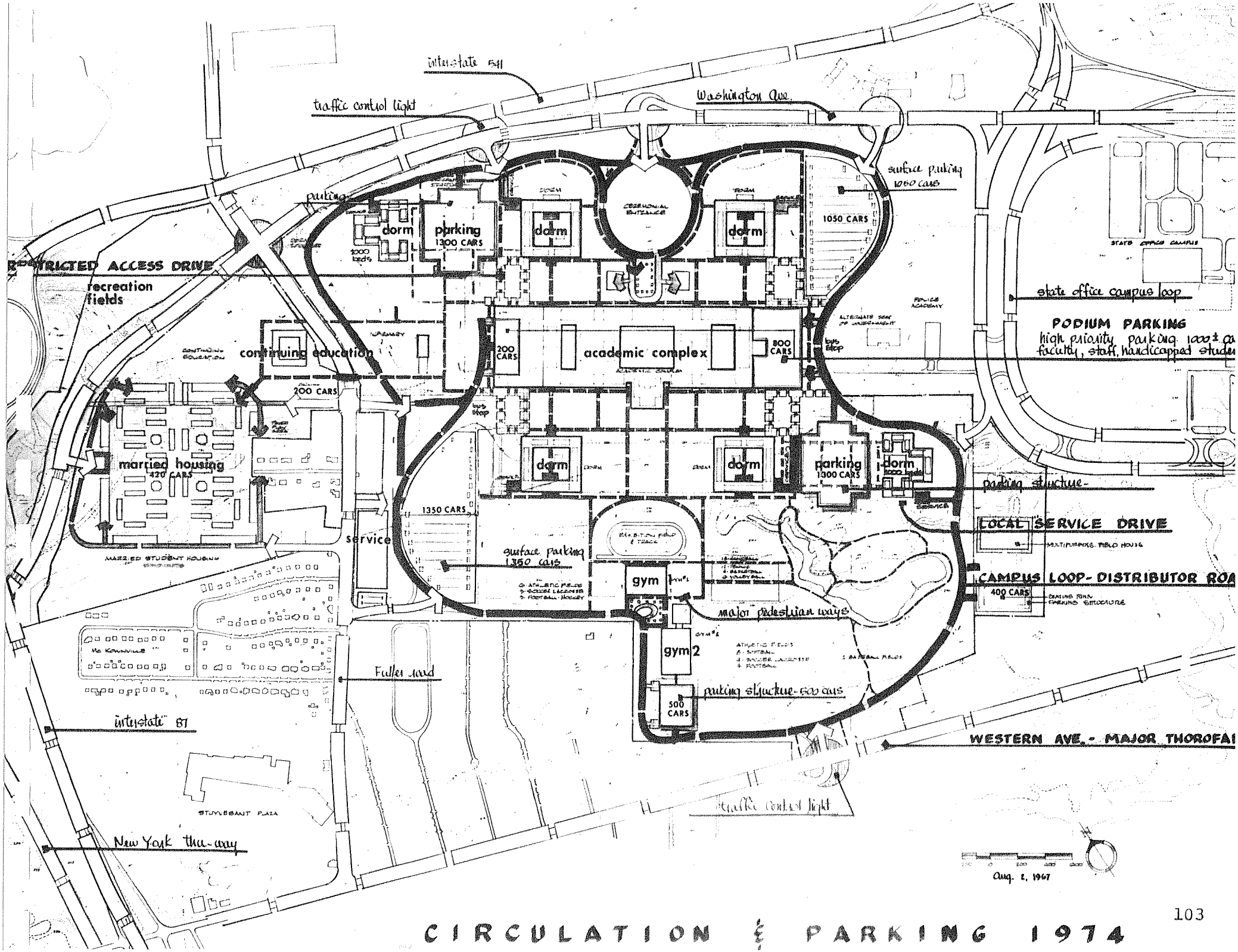
	3,660
Delete Gym No. 1 Parking & Temporary (North of Infirmary)	560
	3,100
Add Miscellaneous (Continuing Education, Dorms, etc.)	400
Add Structure No. 8	400
Add Married Housing	180
Add Structure No. 5	1,300
Add Podium (West)	200
	5,580

PHASE III - 1972 through 1974

	5,580
Delete Temporary Parking	400
	5,180
Add Podium	850
Add Structure No. 6	1,300
Add Multi-Purpose Structure No. 7	400
Add Married Housing	300
	8,030

EXPANSION

Add Underground (Play Fields)	2,500
TOTAL	10,530



CIRCULATION & PARKING 1974

STREET FURNITURE

The complexities of the University's functions dictate that site products be given an important role in the "design vocabulary" developed during comprehensive campus planning. Proper design, siting and careful restriction of street furniture, orientation and control devices, will greatly facilitate achievement of an environment that is compatible with the character of the architecture.

A negative attitude towards the placement of site products is essential for avoiding clutter and proliferation of unrelated objects about the campus. Only the most essential elements required for orientation, habitation, function and order should be applied.

The planning, design and installation of site products must be considered in context with the overall campus environment. The greatest generators of site products are the need for:

- Visual communications (orientation and guidance)
- Lighting and signals
- Control devices
- Amenities

In many cases the need for site products can be greatly reduced by following principles of good design, eliminating confusing intersections in the circulation system, and combining several products in one structural element.

The visual communication of orientation and guidance is greatly simplified by the orderly arrangement of campus functions, building forms and spatial relationships. The pedestrian circulation system's physical form expresses function related direction and intensity of use, while the vehicular system in the form of a simple perimeter loop will eliminate the need for many signs. However, a multitude of signs will be required for communication, identification, instruction, warning and control of vehicles and pedestrians.

A consistent visual system compatible with the campus design vocabulary must be planned and implemented to insure a continuity and harmony of all elements of the physical campus form.

To supplement the visual guidance systems, physical barriers are essential for the control of vehicles and pedestrians. The bollard and/or 6" curb is generally adequate for complete vehicular control. Where periodic control is necessary, movable devices, such as posts, chains or gates must be used.

Pedestrians are most difficult to control due to their great mobility. The most effective controls are those constructed into the campus as part of the environment, walls, steep slopes, and planting masses. Paved surfaces, which follow desired lines of circulation, will preclude the need for extraneous barriers.

Lighting delineates the nightscape of the campus. The simple form and spacing of fixtures has been related to the landscaping and architectural lines to further articulate the patterns and order of the environment.

The many types of spaces, forms and functions of the campus require many design approaches and different lighting fixtures.

The regularly spaced post lighting of the circulation is entirely inappropriate in the garden courtyards and natural spaces where indirect, soft light of lower intensity is necessary. Recessed lights in structures, such as benches, walls, planters, furnish enough light for safety and definition without adding another spatial element.

The miscellaneous site products, which add to the pleasures of the campus experience, are included in the amenities. The receptacle is not a major element. However, the absence of litter through the use of and proper siting of these receptacles can be extremely important.

Seating facilities are most effective when produced indirectly as part of other structures, such as planters, walls, wide steps, etc. In large plazas and/or courtyards, these built-in benches are not available. The fabricated benches should be designed to meet the design criteria of other site products for utility, simplicity and continuity with the intended space.

HEALTH, PHYSICAL EDUCATION, RECREATION, ETC.

The existing athletic facilities which have been programmed to accommodate 7500 students are expanded to the maximum potential the present campus will allow in the 1974 plan. (See chart, page 37.) This expansion should be adequate to meet all educational and recreational needs through the 15,000 FTE enrollment stage. Expansion beyond this enrollment level will necessitate use of the campus land for higher priority elements such as housing and/or parking. To meet the future needs for athletic facilities, land off campus will have to be acquired.

The educational, intramural and intercollegiate outdoor athletic facilities are closely associated with the Health and Physical Education Buildings in the southeast part of the campus.

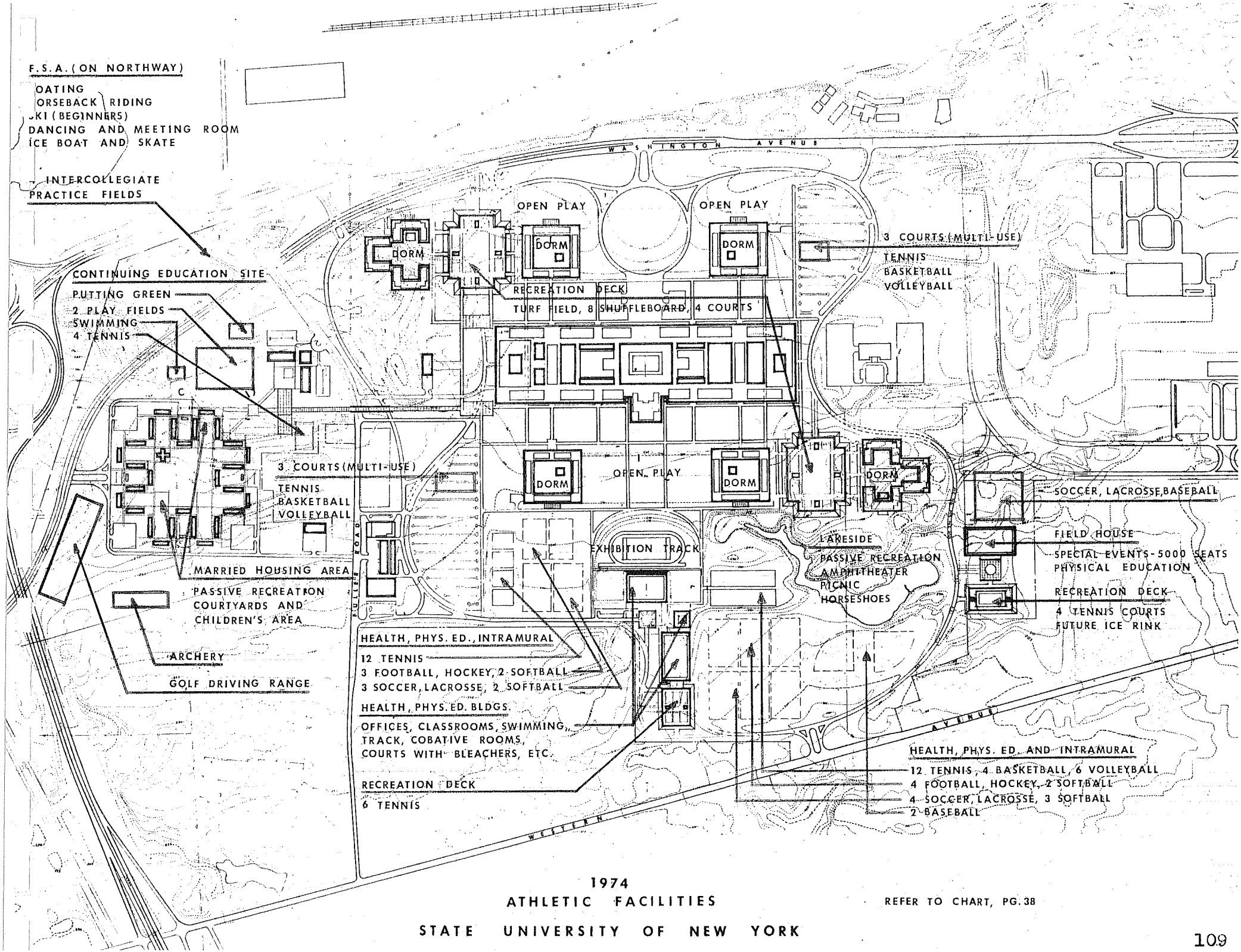
The buildings are grouped together in a complex surrounded by play areas for ease of administration, maintenance and use of showers and locker rooms.

The physical forms of facilities required for outdoor athletics are fortuitously a park-like environment. Thus, the functions of settings for buildings and open space for playfields are expressed by the section of campus adjacent to, and encompassing, the strong axial ties of the Student Center and Health and Physical Education Buildings. The activities core provides the full range of indoor and outdoor facilities for organized play.

The informal or general recreation facilities are closely allied to the residential building and maintain the peripheral park environment that is inherent to the campus concepts. Each dormitory will have, in close proximity, facilities for open play, tennis, basketball, volleyball, etc.

Those facilities which cannot be provided on campus are available on the Faculty-Student Association site, which is only a 10 minute drive on the Northway. This 400 acre site contains facilities for boating, picnicking, horseback riding, a barn for dancing and meetings, ski slope and ice skating.

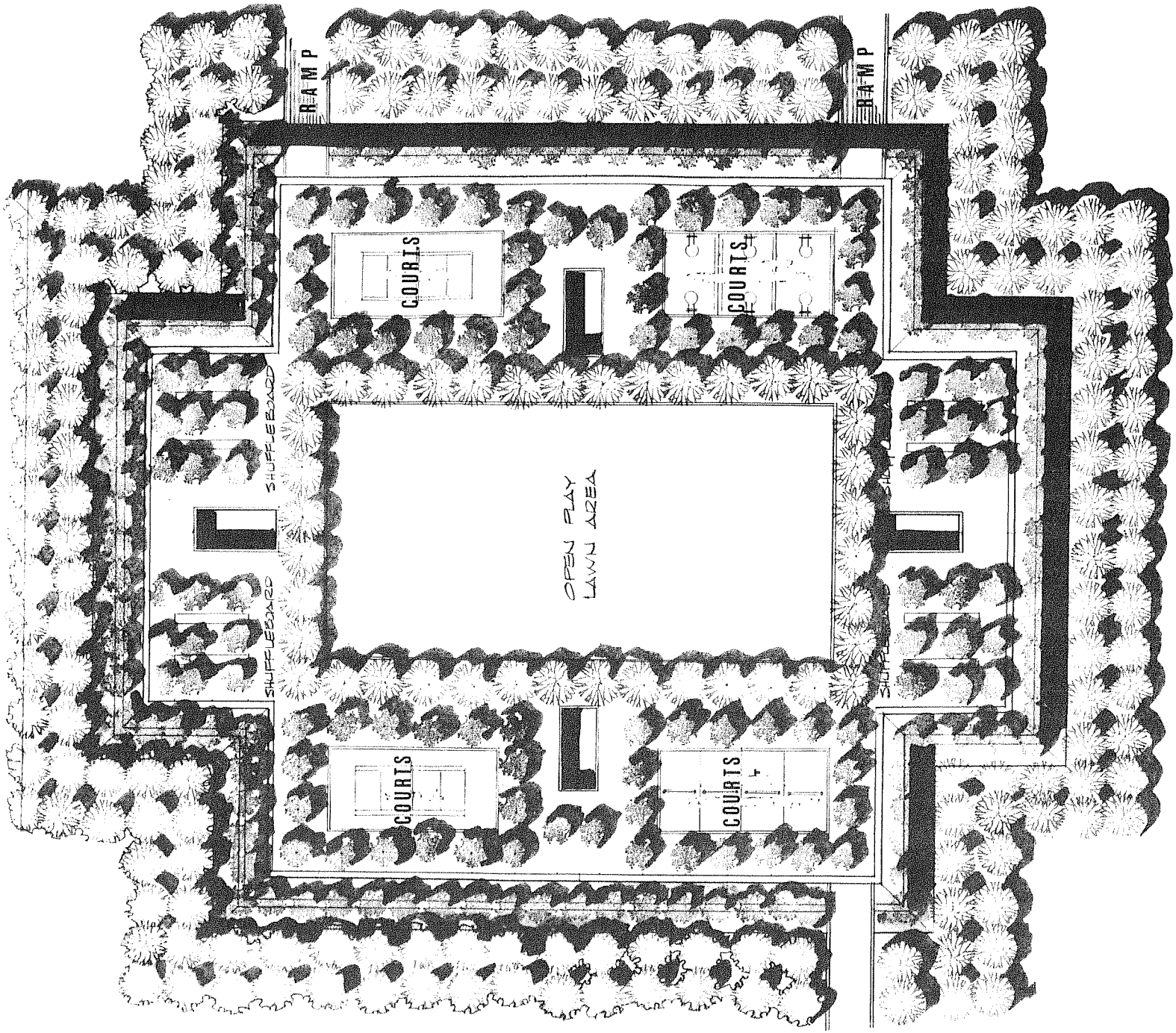
Intercollegiate and special events, with their attendant large crowds, will be provided for in the field house. A future ice skating-hockey rink will also be part of this complex. Parking needs will be met by the relatively close parking structures or by busses from the office complex parking areas which are available on weekends and evenings.



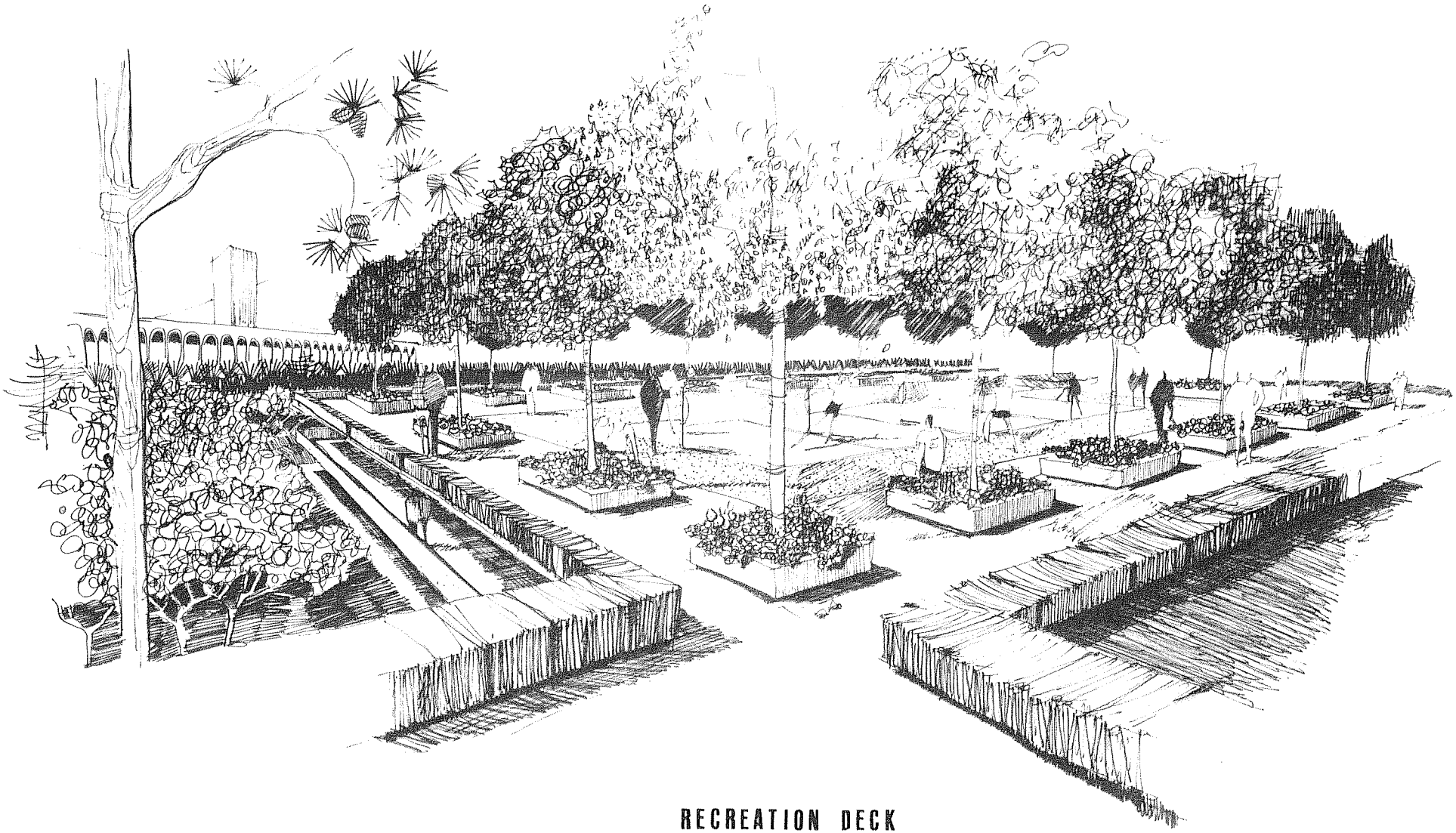
1974
ATHLETIC FACILITIES

STATE UNIVERSITY OF NEW YORK

REFER TO CHART, PG. 38



· RECREATION DECK · PARKING STRUCTURE ·



RECREATION DECK

UTILITIES

The existing utilities system has been intensively reviewed and recommendations made for additions, revisions and new lines and equipment required to meet the demands of the 1974 programmed facilities.

These reports are herein summarized with the full reports included in the appendix.

Cosentini Associates' report on electro-mechanical aspects.

Gas Utility

The gas distribution mains serving the University will accommodate the loads imposed by the master plan through 1974. Relocation of several lines will be required because of location conflicts with proposed buildings.

Mechanical

The high temperature hot water and chilled water systems including the central plant and piping distribution between buildings was studied. Individual buildings systems and special local equipment needs were beyond the scope of this study.

The estimated heating load for the 1974 campus will require two additional packaged high temperature hot water generators. These units will be dual-fuel units capable of burning both natural gas and No. 6 fuel oil. These will extend the capacity from the present 195 million B. T. U. to an estimated 395 million B. T. U. per hour.

The cooling loads based on S. U. N. Y. policy to air condition only certain areas such as libraries, dining halls, lecture halls, etc., will require the installation of 3,000 tons of refrigeration capacity above the present 2,000 ton plant.

The expansion of heating and cooling plants (to 5,000 tons) can be accomplished within the existing service building structures.

Expansion of the refrigeration plant to the capacity (10,000 tons) for air conditioning the entire campus will require the construction of an additional plant at the eastern end of the site.

Electrical

The electrical utilities studied include power, signal, and site lighting.

Power: The loads imposed by programmed construction through 1974 will greatly exceed the present 10,000 K. V. A. allocation from the Office of General Supply 115/13.2 K. V. substation. It is anticipated that the demand load will grow to 21,000 K. V. A. by 1974.

Three additional 13.2 K. V. feeders (one emergency) will be required. The existing ducts and manhole system cannot handle these feeders. New facilities paralleling the existing duct should be provided and spare duct capacity for post-1974 growth included.

In addition to bringing this power to the campus, on-site distribution facilities at 13.2 K. V. will be required for new buildings. Relocation of existing facilities will be a significant part of this work.

Signal: No additional off-site signal distribution facilities will be required. The on-site distribution will generally be adequate for extending service to new buildings and relocating existing facilities as required. This service will include telephone, central clock system, campus fire alarm loop, and central supervisory control.

Site Lighting: Lighting will be extended to all nearby developed areas. Extensive modification to the existing system will be required.

Clarke & Rapuano, Inc. Report on Water and Sewer

Water Supply

The pump station on the State Office Buildings site supplies water to the office buildings and the University at 80 ± p. s. i. Transmission to the University is through 12" cast iron pipe. The major lines on campus are also 12" with 8" minor lines. The podium tower provides 200,000 gallons of reserve storage.

The campus expansion through 1974 cannot be accommodated by this existing system, because daily peak levels would reduce pressures below recommended minimum levels.

It is recommended that the new dormitories, married housing, and Continuing Education building be connected to the proposed new water main in Washington Avenue.

The N. Y. State Office of General Services should be requested to evaluate the capacity of the existing pump house to

accommodate the University's demand loads to 1974. These are:

1,200,000 gallons daily consumption
1,250 g.p.m. (16 hours) average daytime flow
1,700 g.p.m. peak daily flow

Sanitary Sewer System

Sewage from buildings in the "Krumkill" watershed is carried by a 12" sewer through the State Office Buildings campus to a 36" City of Albany main. The existing gymnasium also uses this system by use of lift pumps.

The buildings in the Patroon Creek watershed are discharged into the east lateral of the Patroon Creek sewer north of Washington Avenue.

All of the 1974 expansion except for gymnasium No. 2 lies within the City of Albany limits. The major loads in the Patroon Creek watershed are mostly residential facilities.

The academic expansion and buildings to the south should be tied into the State Office Buildings outfall ("Krumkill" watershed) with permission of N. Y. State Office of General Services.

The 1974 loads will be:

To Patroon Creek sewer, 422,000 g.p.d. with a peak flow of 720,000 g.p.d.

To State Office Buildings outfall, 500,000 g.p.d. with a peak flow of 850,000 g.p.d.

It is recommended that the new dormitories, Continuing Education building and married housing be connected to the west lateral of the Patroon Creek sewer, and permission be obtained to increase the loads carried by the State Office Buildings outfall to accommodate the campus growth to 1974 in the "Krumkill" watershed.

Storm Drainage

There are two primary watersheds: the "Krumkill" receiving the south two-thirds, and Patroon Creek the north one-third. The present development east of Fuller Road contains five drainage subdivisions defined by the site grading and runoff to receiving facilities.

The campus growth to 1974 within these areas can be accommodated by the existing outfalls without causing overloads.

The expansion west of Fuller Road extends one drainage subdivision and adds a sixth which drains to a third watershed, McKownville Reservoir.

More detailed studies should be made at a later stage of development to determine the adequacy of existing culverts in the drainage areas serving the Continuing Education building, the new dormitories and married housing to carry the storm water runoff without damaging construction on adjacent property.

The water supply function of the McKownville Reservoir should be determined and its effect on the campus growth evaluated.

Irrigation

All primary lawns are irrigated with hose setups attached by quick-couplers. Athletic fields have pop-up sprinkler heads. The secondary lawn areas have no irrigation provided.

The campus lake is the source of irrigation water through a pump which delivers 1,500 g.p.m. to the mains. It is recommended:

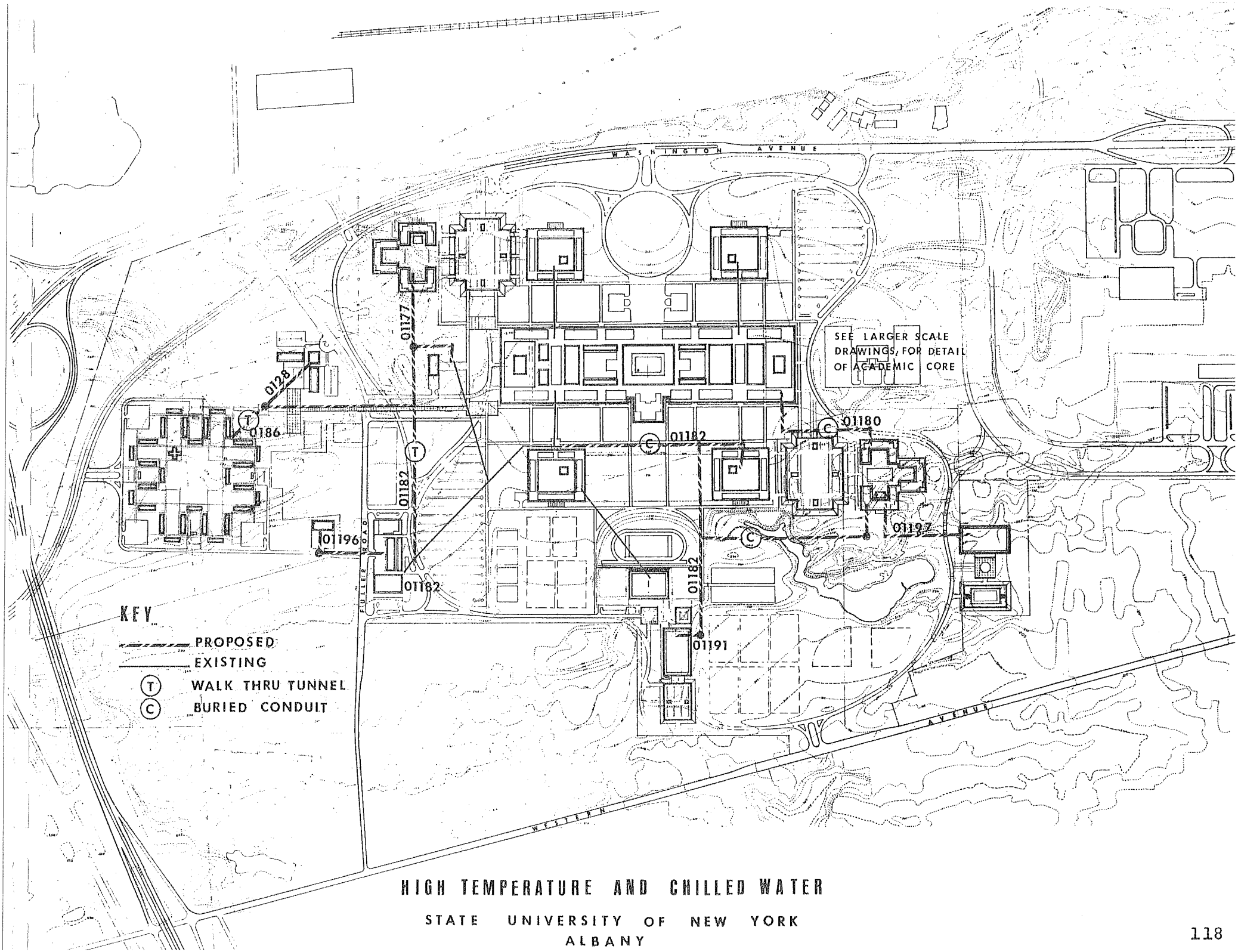
(1) The area west of Fuller Road not be tied into the present system.

(2) The capacity of the existing pump can be increased but is very undesirable as this will cause additional lake draw-down.

(3) The irrigation load be kept to a minimum or another source of water be found. (Perhaps wells or 6 mile reservoir.)

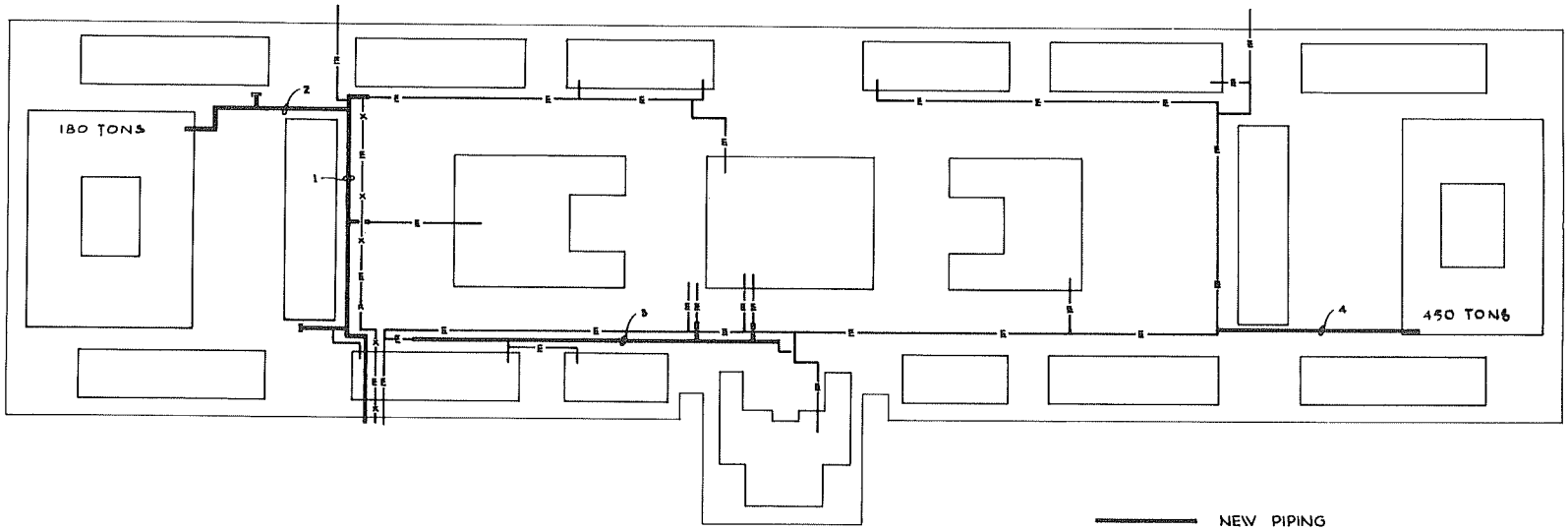
(4) Detailed studies be made to determine scope of needs and the proper solution.

Future irrigation costs may be assessed between $2,000 and $3,000 per acre, depending on source.



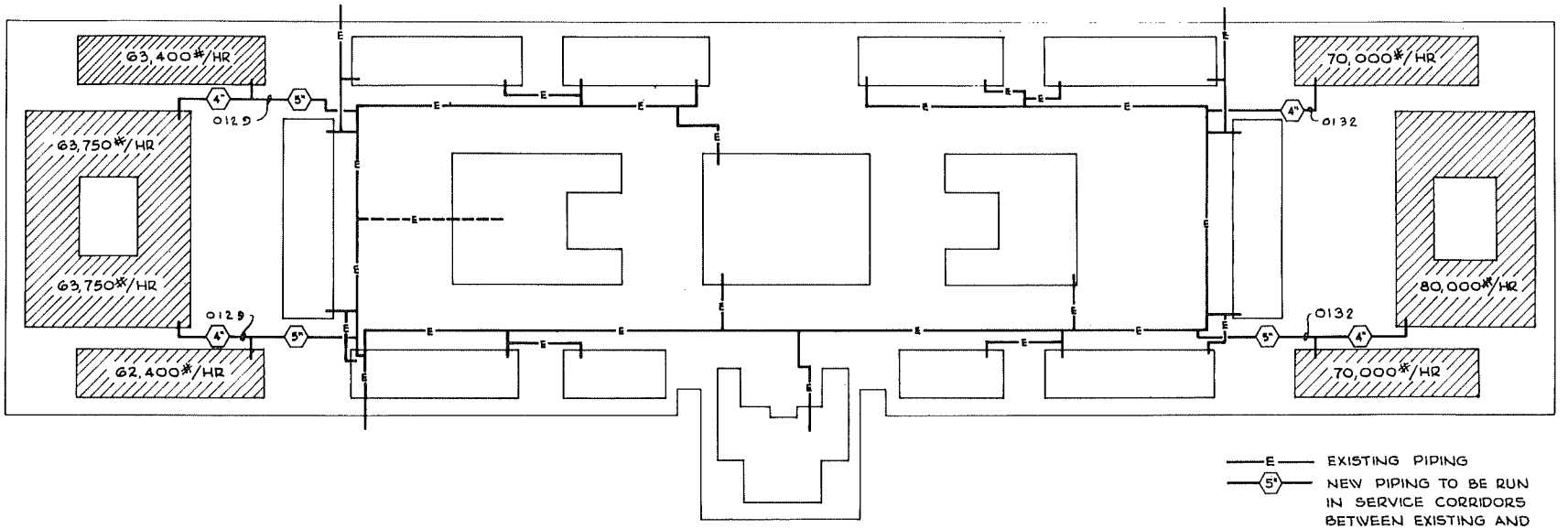
HIGH TEMPERATURE AND CHILLED WATER

STATE UNIVERSITY OF NEW YORK
ALBANY



═══	NEW PIPING
——E——	EXISTING PIPING
-X—E—X-	EXISTING PIPING TO BE REMOVED
1	NEW 16" CH.W.S. & CH.W.R. PIPING - SUCF 0129
2	NEW CH.W.S. & CH.W.R. PIPING - 820 TONS MAX. - SUCF 0129
3	NEW 10" CH.W.S. PIPING - SUCF 0132
4	NEW 8" CH.W.S. & CH.W.R. PIPING - SUCF 0132

MASTER PLAN 1974
ACADEMIC GROUP CHILLED WATER DISTRIBUTION PIPING



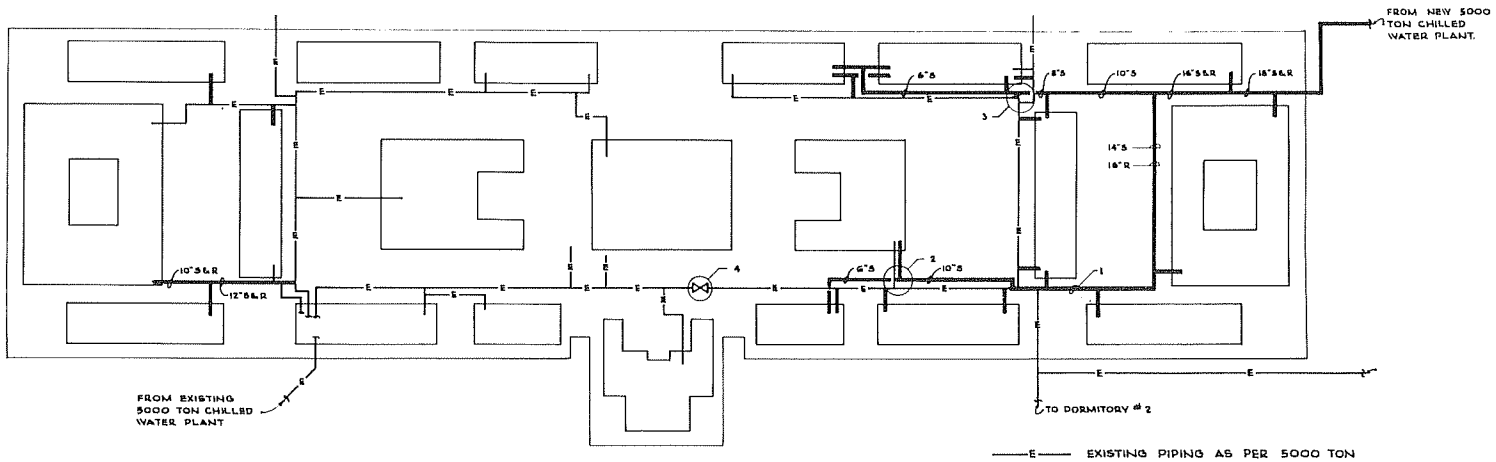
—E— EXISTING PIPING

—5"— NEW PIPING TO BE RUN IN SERVICE CORRIDORS BETWEEN EXISTING AND NEW BUILDINGS.

70,000#/HR ESTIMATED HIGH TEMP. HOT WATER REQUIREMENTS.

MASTER PLAN 1974

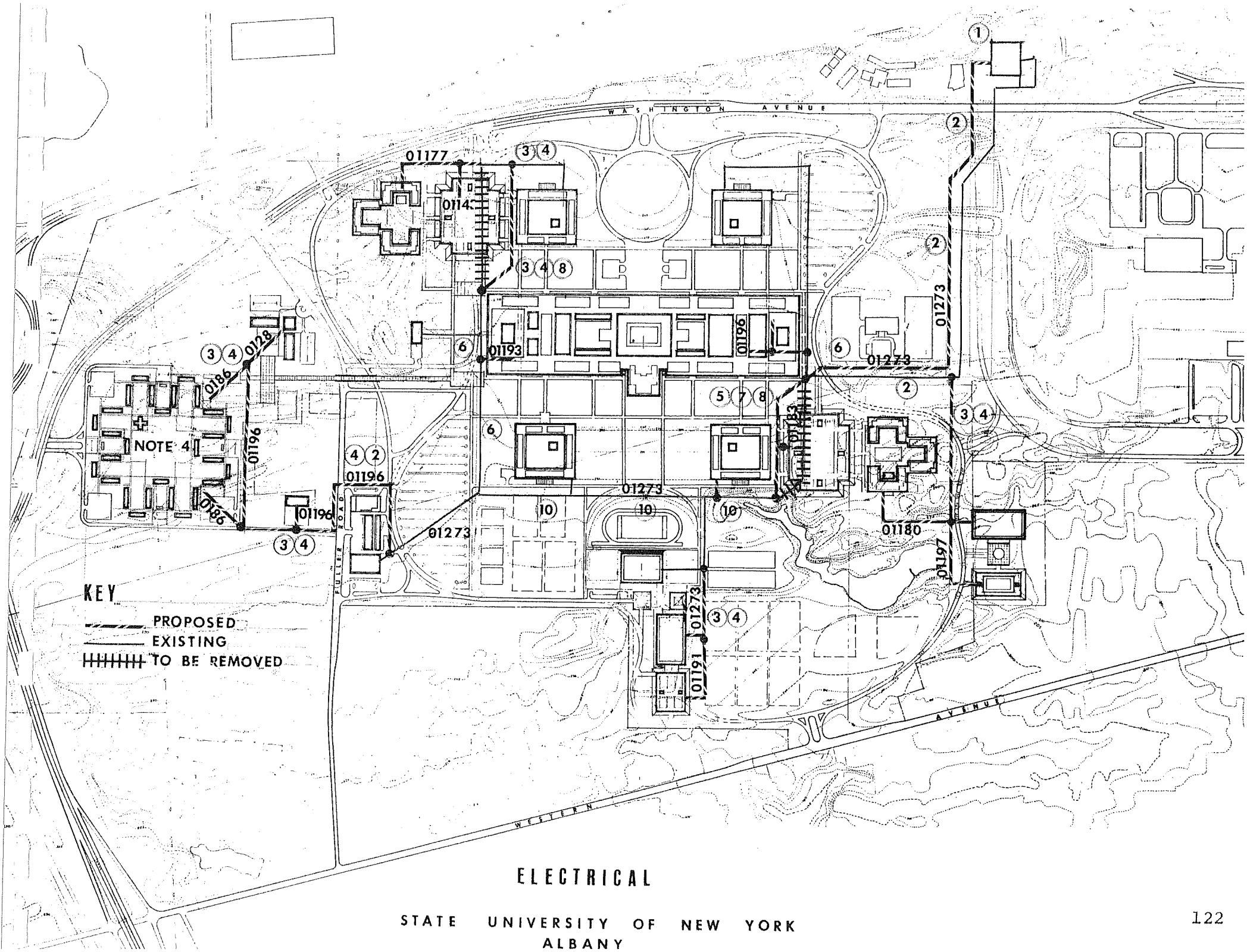
ACADEMIC GROUP HIGH TEMPERATURE HOT WATER DISTRIBUTION PIPING



——E——	EXISTING PIPING AS PER 5000 TON CHILLED WATER DISTRIBUTION SYSTEM
__"S	SUPPLY MAIN SIZE
__"R	RETURN MAIN SIZE
1	REMOVE EXISTING 8" CH.W.S. & CH.W.R. AND REPLACE W/12" CH.W.S. & 14" CH.W.R.
2	RECONNECT THEATRE CH.W.S. PIPING TO NEW 10" CH.W.S.
3	CONNECT EXISTING 4" SUPPLY TO NEW 8" CH.W.S.
4	NEW VALVES ON SUPPLY & RETURN.

MASTER PLAN —
ACADEMIC GROUP CHILLED WATER DISTRIBUTION PIPING - 10,000 TONS
POST 1974

PRELIMINARY
NOT FOR CONSTRUCTION
COSENTINI ASSOCIATES
DATE 9-11-67



ELECTRICAL

STATE UNIVERSITY OF NEW YORK
ALBANY

ELECTRICAL NOTES

GENERAL NOTES:

1. When new 13.2KV feeders are installed, re-splicing will be required in existing manholes in certain cases to permit shifting of existing loads to new feeders---this---by releasing existing feeder capacity to serve more remote loads, will minimize the length of the new feeders.

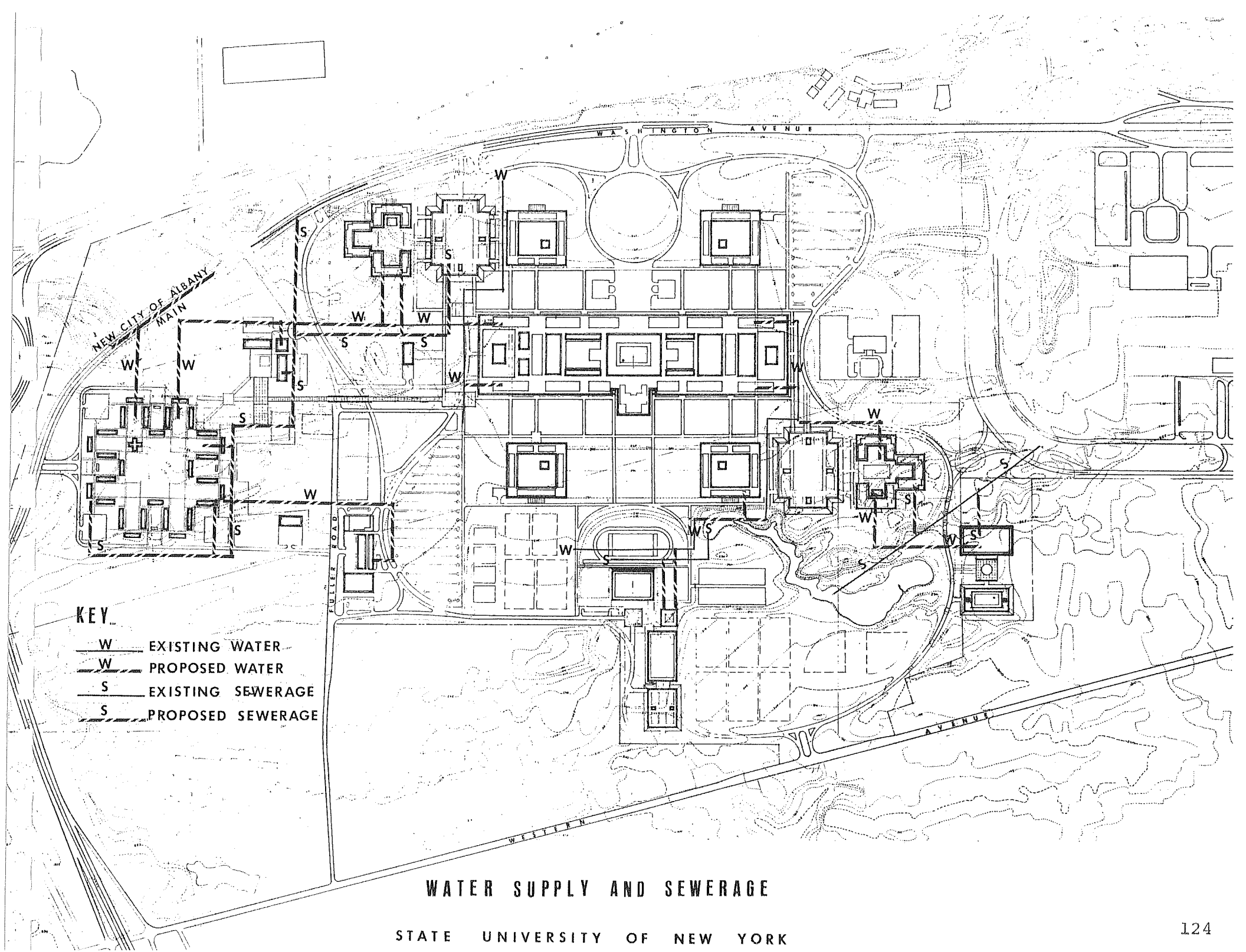
2. The term "signal cables" as used herein refers to the campus fire alarm loop conductors, clock system conductors, and supervisory control system conductors.

3. The final connection into each building facility will consist of a 2-way power duct bank with two (2) 13.2KV primary feeders and a 6-way signal duct bank with signal cables.

4. Details as to the local distribution within the housing or dormitory facility referred hereto will be developed as the geometry of these facilities develop, and is beyond the scope of this report.

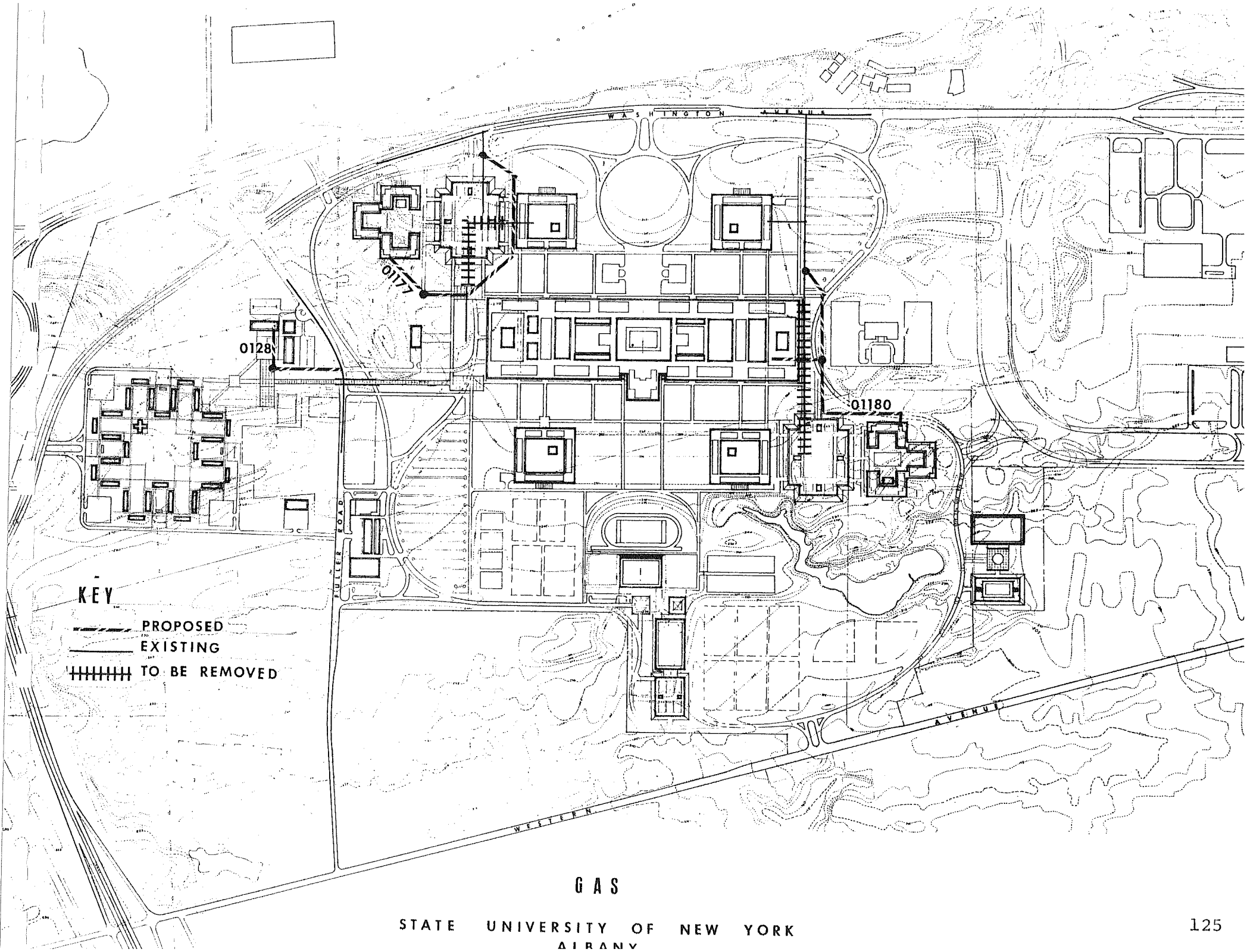
NOTES:

1. Existing 115/13.2KV substation---modification---by others as required.
2. New 6-way power duct bank with three (3) 13.2KV feeders.
3. New 4-way power duct bank with two (2) 13.2KV feeders.
4. New 6-way signal duct bank with signal cables.
5. New 12-way signal duct bank with signal cables.
6. Add one (1) 13.2KV feeder in existing power duct bank.
7. New 6-way power duct bank with four (4) 13.2KV feeders.
8. Provide temporary overhead bypass facilities while new duct bank is being constructed.
9. Add two (2) 13.2KV feeders in existing power duct bank.
10. Add three (3) 13.2KV feeders in existing power duct bank.



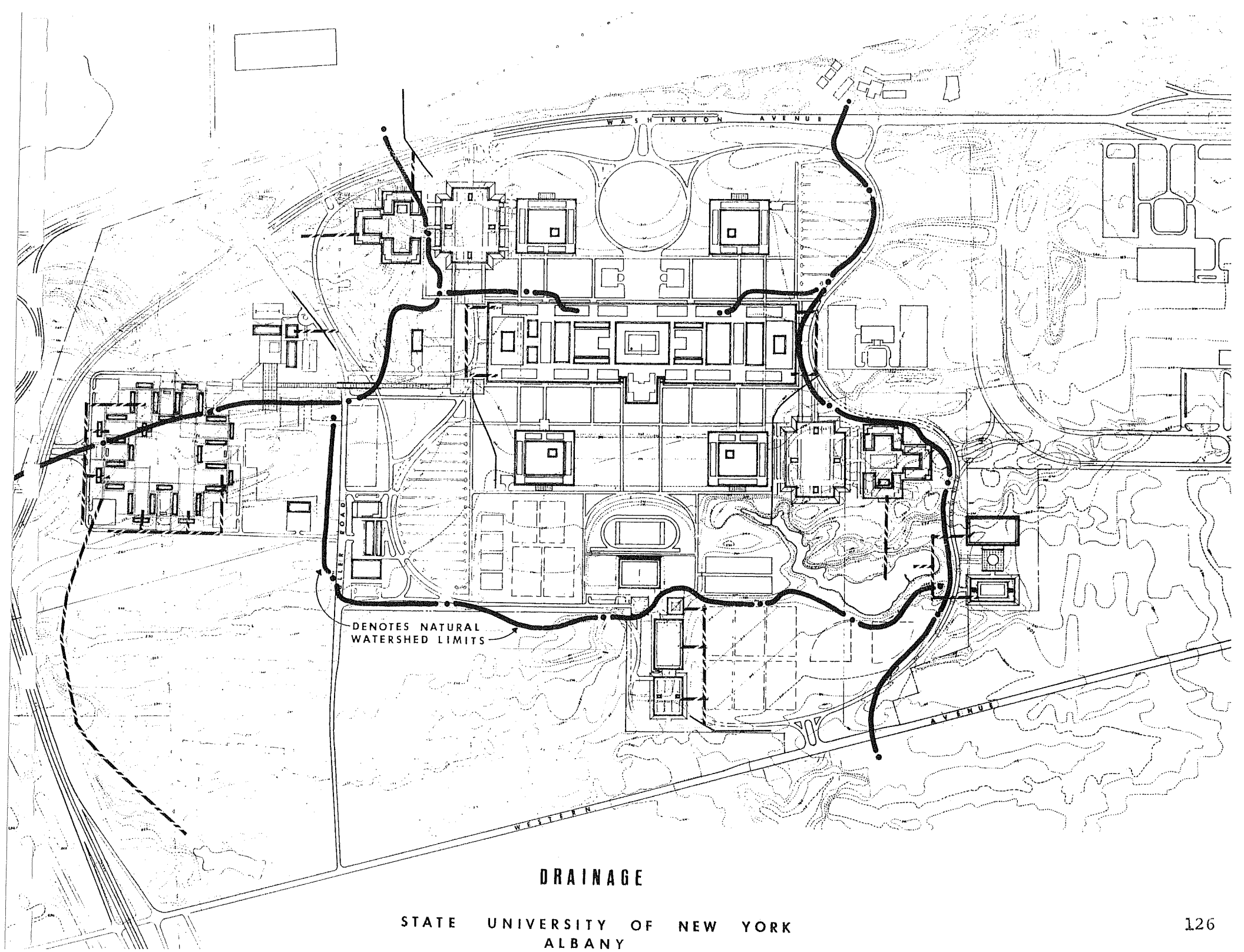
WATER SUPPLY AND SEWERAGE

STATE UNIVERSITY OF NEW YORK



GAS

STATE UNIVERSITY OF NEW YORK
ALBANY



DRAINAGE

STATE UNIVERSITY OF NEW YORK
ALBANY

LANDSCAPING

The concentricity of form-function, expressed by building massing, circulation, and spatial organization of the campus from the core outward to the periphery, is reinforced by the plant design.

In the central campus area, the landscaping is an extension of the architectural form and lines, enhancing and reinforcing the strong linear statement of the colonnaded podiums. Trees are used architecturally in direct relationship to building elements, expressing lines of movement and emphasizing spatial forms created by and within the buildings.

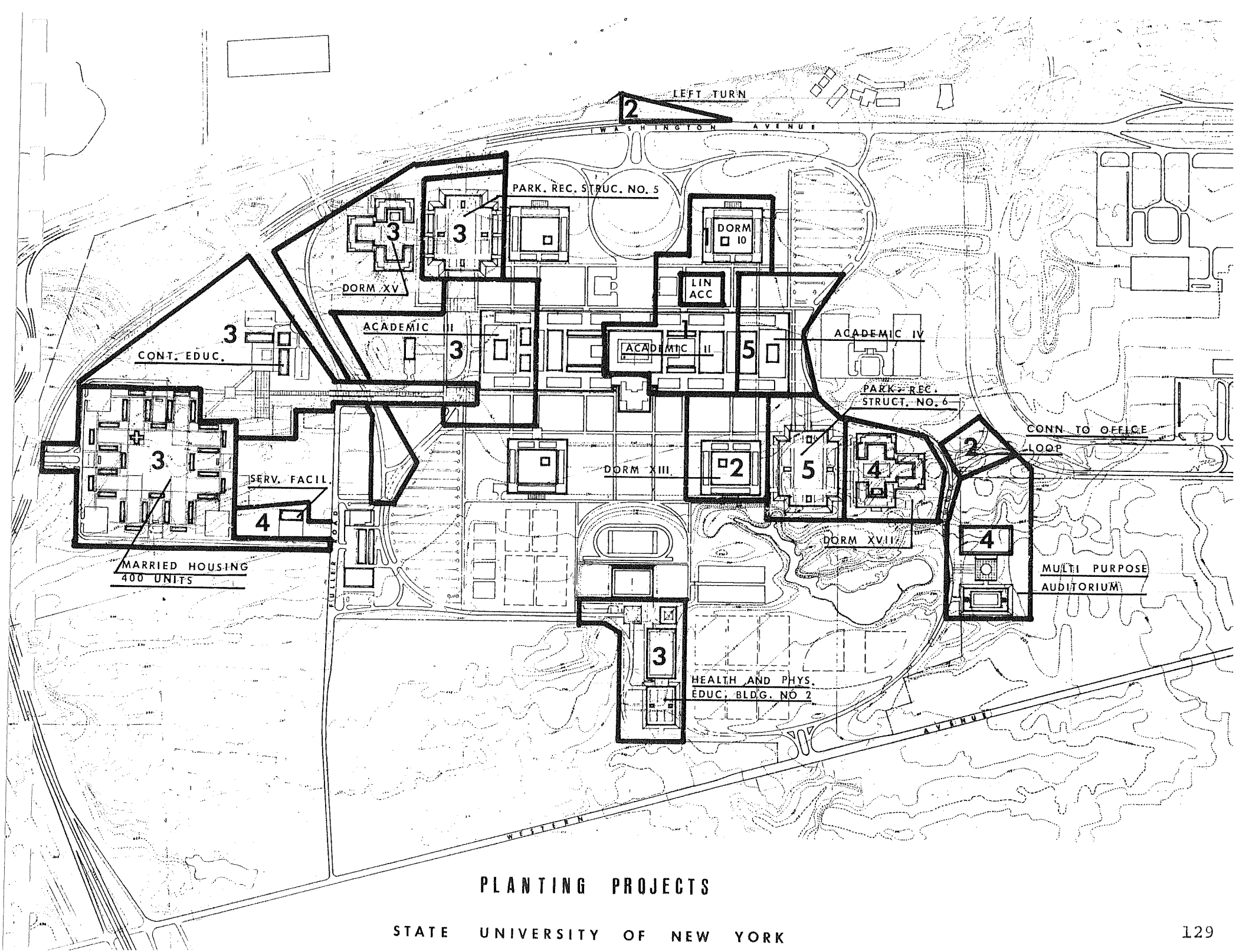
The result is a unified architectural and landscape composition, presenting a wide variety of experiences in a highly ordered manner.

Movement from this central area is accommodated by major walks, defined by tree masses forming great spaces, with variations of light and shade. This serves as a transition to the informal plantings which reflect the irregularity of the site's configuration.

Within the frame of the large, shade tree-lined spaces informal plantings, including accents of evergreen and small flowering trees, are placed to add interest and add scale to the human perspective.

The ground plane consists of mainly low maintenance lawn and ground cover areas, with shrubs used only in large masses, in planters, for screening, and pedestrian controls. In all cases, the planting is held back from pavement edges to facilitate snow removal.

The plant material, generally indigenous to the region, is carefully selected to readily adapt to local ecological conditions.



PLANTING PROJECTS

STATE UNIVERSITY OF NEW YORK

GRADING AND SURCHARGE

The major grading projects for the expansion of the University to 1974 will result from construction of the academic buildings and the parking structures. As these structures require mainly excavation, no surcharge will be needed.

To avoid movement of the same earth many times, the surcharge required for ancillary buildings has been coordinated with the earth movement and site work phasing. Generally a surcharge of 1.5 cubic feet per square foot for each story of building is required after completion of rough grading. Lowering of existing grades of a proposed building reduces the need for surcharge, and the volume of excavated earth may be deducted from the surcharge.

A full basement excavation of eight feet will offset the surcharge needs of a building with four stories and a basement.

There is no limit to the depth of fill that can be placed under a proposed building provided:

(1) The surcharge and fill are placed over the entire building site and out 50 to 100 feet from the perimeter.

(2) This fill and surcharge is in place at least six months before construction starts.

Fills greater than 3 feet below finished basement levels must be placed only under direct supervision of a soils engineer, so that 2 ton spread footings can safely be founded on the fill. This fill must be absolutely free of debris and organic matter. If this fill is not properly placed, it will have to be re-excavated or friction piles must be driven into the undisturbed earth below the fill.

Towers that are supported on end bearing piles only require fill that is sufficiently clean and compacted to support slabs and partitions bearing on same.

GRADING SUMMARY

Project	Starting Date	Earthwork	Completion Date	Surcharge	Remarks
Dormitory	6-68	Completed	6-70	90,000 c.y.	70,000 c.y. in ravine - 20,000 in mounds.
Washington Avenue access	6-68	1,000 c.y.	1-69	----------	Balance in project.
Connection to office loop	3-69	2,000 c.y.	1-70	----------	Balance in project.
Linear accelerator	1-69	2,500 c.y.	12-69	----------	2,500 c.y. to mounds
Married housing (160)	3-69	90,000 c.y.	9-70	5,000 c.y.	40,000 c.y. excess to continuing education.
Continuing Education	1-70	15,000 c.y. excavation 40,000 c.y. borrow	9-71	10,000 c.y.	Borrow from Stage XV Dormitory. Spoil surcharge in project.
Parking and recreation V	3-70	125,000 c.y.	3-71	----------	100,000 c.y. excess disposed of off campus.
Health and Physical Ed. #2 Parking and recreation #8	1-70	30,000 c.y.	9-71	4,000 c.y.	Balance in project (including surcharge).
Academic III	12-69	160,000 c.y.	3-72	----------	Dispose off campus - 160,000

GRADING SUMMARY (continued)

Project	Starting Date	Earthwork	Completion Date	Surcharge	Remarks
Married housing (240)	3-70	8,000 c.y.	6-71	----------	Finish grading and surcharge disposal in project.
Stage XV Dormitory	1-70	40,000 c.y.	9-71	6,000 c.y.	Balance in project. 40,000 borrowed for continuing education. Surcharge spoiled in project.
Multipurpose field house and parking/recreation #7	3-71	75,000 c.y.	3-73	3,000 c.y.	Dispose of 50,000 c.y. excess off campus surcharge to earth mound.
Stage XVII Dormitory	1-72	50,000 c.y.	9-73	10,000 c.y.	Dispose - 30,000 excess off campus surcharge in project.
Additional service	3-74	1,000 c.y.	6-75	----------	Balance in project.
Academic IV	3-72	240,000 c.y.	3-74	----------	Dispose off campus.
Parking and recreation VI	3-73	85,000 c.y.	3-74	----------	70,000 c.y. excess. Dispose off campus.

SUMMARY OF EARTHWORK

1968 thru 1969

	95,500 cu. yd.	Project excavations
	95,000 cu. yd.	Surcharges (including Dormitory XIII)
TOTAL	190,500 cu. yd.	
	53,000 cu. yd.	Used in project.
	137,500 cu. yd.	Disposed of on campus (mounds & other projects)
TOTAL	190,500 cu. yd.	

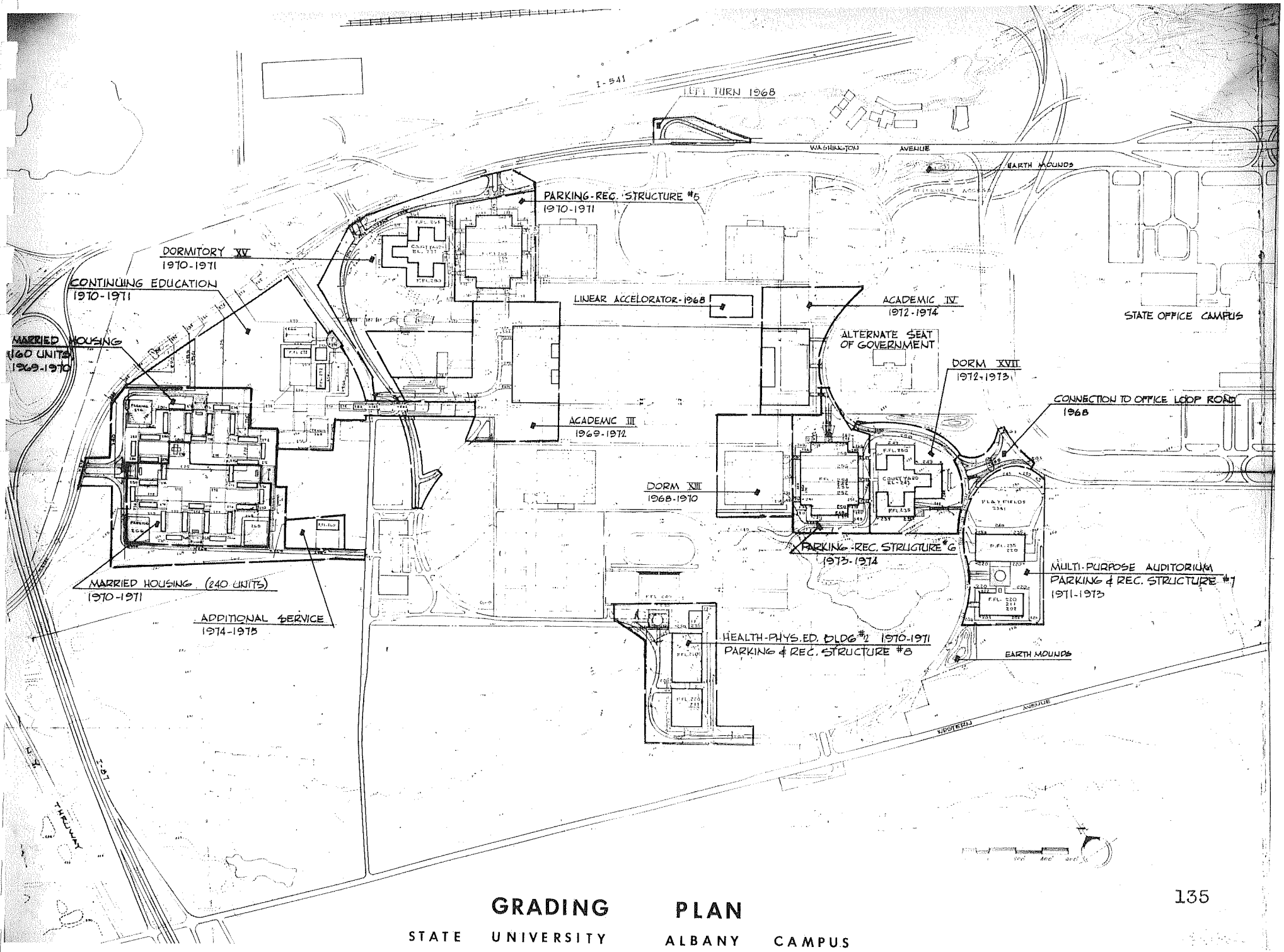
1970 thru 1971

	493,000 cu. yd.	Project excavations
	23,000 cu. yd.	Surcharges
TOTAL	516,000 cu. yd.	
	206,000 cu. yd.	Used in projects.
	310,000 cu. yd.	Disposed off campus.
TOTAL	516,000 cu. yd.	

1972 thru 1974

	376,000 cu. yd.	Project excavations
	10,000 cu. yd.	Surcharges
TOTAL	386,000 cu. yd.	
	46,000 cu. yd.	Used in project.
	340,000 cu. yd.	Disposed off campus.
TOTAL	386,000 cu. yd.	

	964,500 cu. yd.	Excavations
	128,000 cu. yd.	Surcharges
TOTAL	1092,500 cu. yd.	
	442,500 cu. yd.	Used on campus.
	650,000 cu. yd.	Disposed off campus.
TOTAL	1092,500 cu. yd.	



GRADING PLAN

STATE UNIVERSITY ALBANY CAMPUS

COST PLANNING PRINCIPLES

The fundamental design of the Albany campus is a basically simple architectural form which makes possible the unique opportunity of reducing both labor and materials costs through the use of repetitive architectural, structural, and mechanical details. The dormitory complexes and the academic center, though functionally different, incorporate many of the same details.

The individual buildings in the academic center are essentially "universal" spaces and are flexible enough in plan, structural and mechanical arrangement that future changes in educational space requirements can be accommodated without great involvement or cost. The air supply, which is distributed at each bay, need not be modified for future changes. The ventilating system has also been designed to accommodate future air conditioning.

Maintenance throughout the complex should be simplified by the ease of accessibility to the flexible, compact mechanical system and runs through the furred ceiling of the basement level, the vertical shafts servicing the remaining floors, or floor access panels to the pipe trench. The facilities in both the basement service area and the floors above can be repaired or modified without major expense.

The following conclusions and recommendations are from the Wolf and Company report evaluating the construction costs, labor and market conditions that may be expected in the Albany area during the growth of the campus to 1974. The complete report is included in the appendix.

The prospect for economical construction of the balance of the campus at Albany, in the environment which now seems imminent, is not bright. There seems little question that the cost of the work will be abnormally inflated.

There are no simple devices available for effectively resisting the inflation, although some recommendations will follow which are intended to diminish it in limited ways. Perhaps as important as treating with these forces architecturally is recognizing, at the outset, the nature of the problem and adjusting either program or budget to accommodate it.

Architectural and administrative devices for reducing the impact of this environment on the cost of the project, are as follows:

To reduce the impact of the severe labor shortage:

Modify the design wherever it is possible to substitute remote or shop fabrication for local or site fabrication. The present buildings are heavily weighted toward site fabrication. (Basic Construction spent almost 23% of their contract price on direct labor and supervision, although they subcontracted all but concrete and carpentry.) Structural steel frame, concrete decks on metal forms, acoustic ceilings in lieu of plaster, reduction of air distribution by duct in favor of unit ventilators and self-contained equipment, are all examples. Some additional precasting, like the column capitals, might be considered.

Phase the work to favor attracting the maximum competition from the local contractors. They are least sensitive to the labor shortage and will charge the least premium for it. Such phasing simply requires an orderly spreading out of jobs smaller than about $4,000,000.

State a clear policy against overtime work and join with other major owners (like the South Mall and Niagara Mohawk) in a firm agreement to resist it except in cases of urgent need. The use of overtime as a device to accelerate progress is almost always a delusion. Its use ordinarily sets off a wildly inflationary competition for labor, with little or no saving in time. The same volume of work just takes more hours and costs a great deal of money. Most serious from the owner's point of view is the impact of this threat on a prospective bidder.

To improve the extent and depth of competition:

Publicize the work well in advance of the bidding, with periodic follow-ups advising the up-dated status of the drawings and the scheduled bidding date. In the publicity, clarify the State's position on single contract bidding and (if it does adopt a policy on overtime) on overtime.

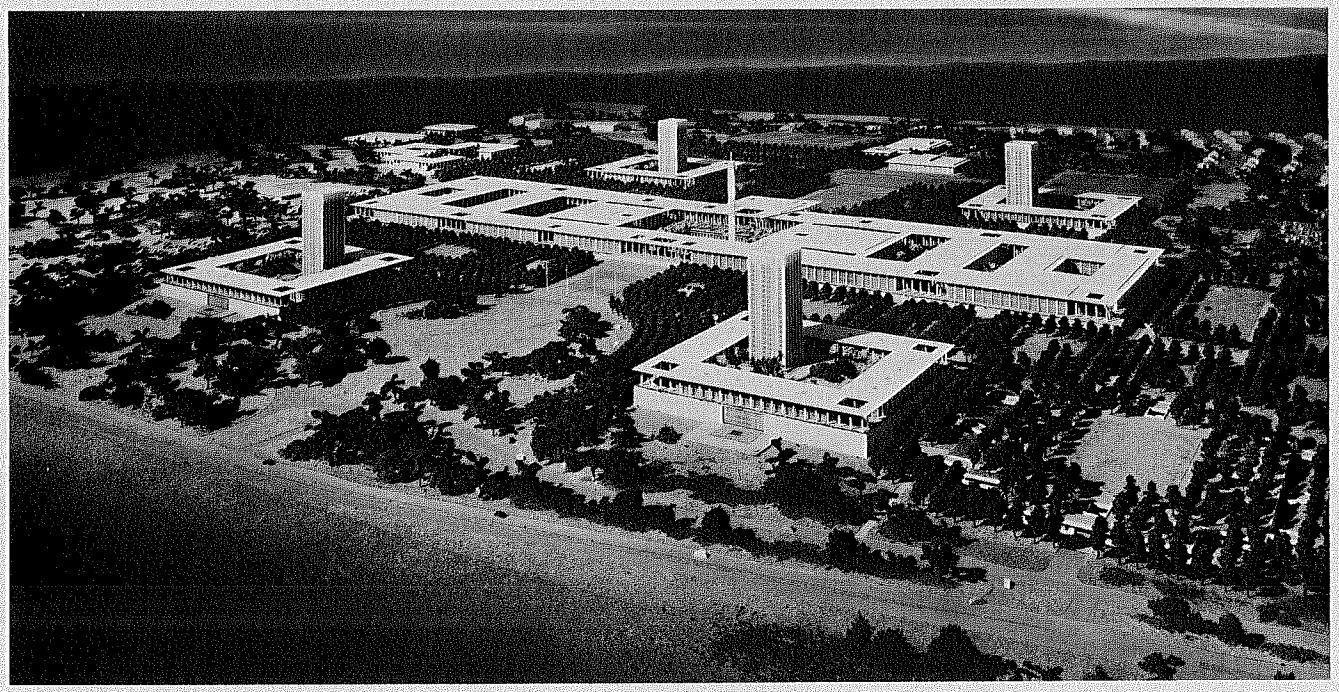
(Note that the aggressiveness of bidding will doubtless profit from the design modifications described above. The substitution of remote fabrication for site work has the corollary affect of reducing the high risk element in the work, an attractive feature in an area already fraught with risk.)

Phase the bidding of large jobs to avoid conflict with South Mall and other large agencies. The matter of phasing the actual construction of large work (or of influencing another agency to alter their plans) is admittedly difficult. Too many other factors are involved where a major facility is involved. But a minor adjustment in the bidding date, within limits of a month or two, should not be as difficult.

To strengthen competition among principal subcontractors:

Publicize the work among major subcontractors, well in advance of bidding. A major HVAC contractor may, in fact, induce a new general contractor to bid, or he may take his chances in a market which has been dominated by only one or two contractors.

Consider alternate bids for precast work of acceptable quality, to determine the extent (if any) of a premium being paid for Shockcrete.



SECTION IV - ACTION PROGRAM

A. Planting Project No. 1

The existing planting materials are carried through in specification and quality.

B. Dormitory XIII

Site improvements to be similar in quality and specification to existing dormitories. The temporary parking area of stabilized gravel is required for contractor's automobiles, etc.

C. Washington Avenue Left Turn

The first stage is a standard left turn and signal within the right-of-way of Washington Avenue. The trumpet shown on the plan should be constructed as soon as required by traffic volumes.

D. Major Utility Project

Several projects have been combined to form a single major project which will result in some cost savings and less interruption to campus activities during later periods of growth.

E. Connection to Office Loop

This project is most essential for improving access.

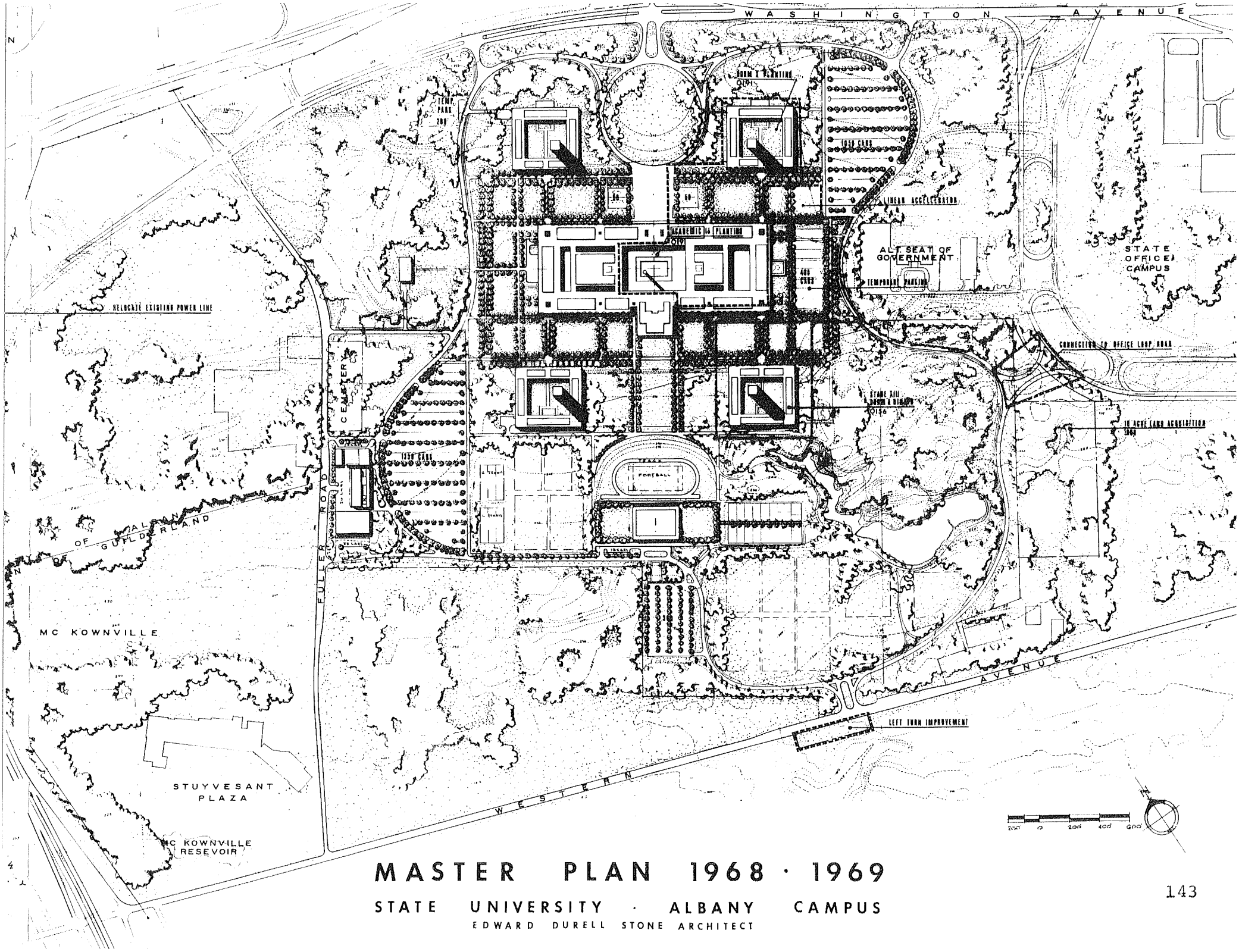
F. Planting Project No. 2

A number of small projects are combined to reduce administrative problems and reduce costs. The standards and specifications of the existing planting contracts will be followed.

G. Land Acquisition

Only the minimum land required to improve access is recommended. The relocation of the power line through the married housing area should be implemented as soon as possible.

H. Linear Accelerator - Subgrade Installation.



MASTER PLAN 1968 · 1969

STATE UNIVERSITY · ALBANY CAMPUS

EDWARD DURELL STONE ARCHITECT

A. Married Housing (14 units containing 12 apartments each)

The general site improvements, such as roads, walks, grading, etc., will follow the patterns of the existing campus. Some higher type paving, terraces, and children's play area have been allocated as being consistent with the practice of a commercial venture of this type.

B. Continuing Education

The area grades must be raised and it is assumed that fill material can be borrowed from future project sites. This will greatly reduce the cost of material and excavation costs of the future projects.

The paving and terraces have been assigned a slightly higher unit cost consistent with a facility of this nature.

C. Parking and Recreation Structure No. V

The possible future pedestrian tunnel to the podium and/or dormitories has not been included in the site work costs. No unusual site development costs or facilities are foreseen.

D. Health and Physical Education Building No. 2, and Parking and Recreation Structure No. VII

The plaza cost at $30 per square foot includes a higher type paving, site products, lighting, etc. No other unusual site improvements are projected.

E. Academic III

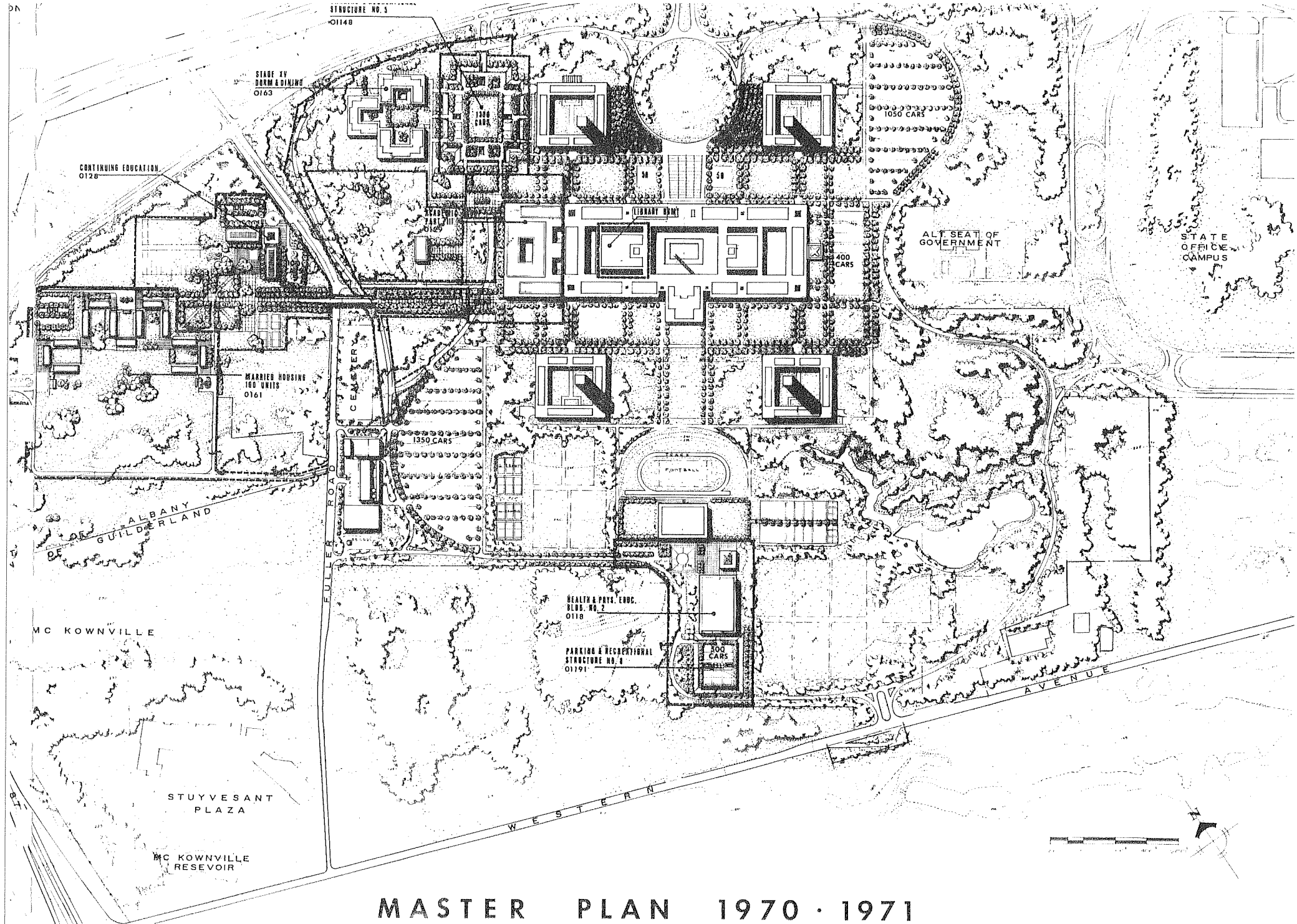
The existing podium treatment is projected into this project.

F. Stage XV Dormitory

The relocation of the campus loop road will occur during this project. The salvage and re-use of existing granite curb have been included and is reflected by a slightly lower unit cost.

G. Planting Project No. 3

The high unit costs of immediate effect plant material required for planting on structure with the special care and handling is reflected in the higher unit costs.



MASTER PLAN 1970 · 1971

STATE UNIVERSITY · ALBANY CAMPUS

EDWARD DURELL STONE ARCHITECT

A. Multi-Purpose Auditorium

The construction of an ice skating facility on the deck of parking structure No. VII will eliminate the $24,000 allocated for courts. The excess fill to be disposed of on campus would be used along the perimeter to screen the Motor Vehicle building, etc., on Western Avenue.

B. Stage XVII Dormitory

The site work will be similar to Stage XV Dormitory.

C. Additional Service Facilities

No particular site work problems are foreseen.

D. Academic IV

The site work will be similar to Academic III. The large earthwork disposal results from the basement being one floor lower.

E. Parking and Recreation Structure No. VI

The site work will be the same as for Structure No. V. The additional costs for carrying the main service tunnel through this structure have not been included.

F. Athletic Facilities

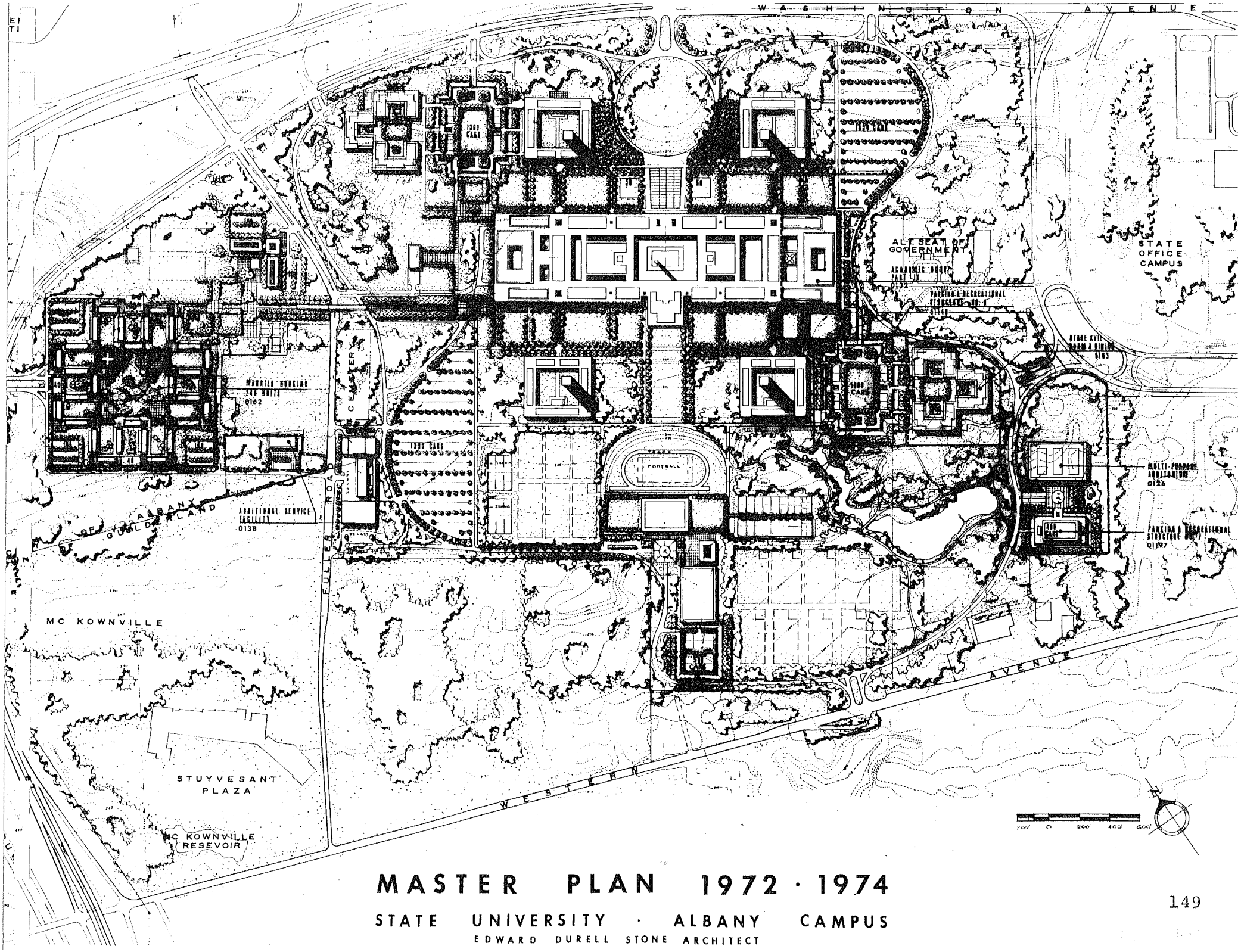
This will involve only the resodding of the existing stripe line, re-stripping and new goals.

G. Planting Projects Nos. 4 and 5

These are similar to Projects Nos. 2 and 3.

H. Married Housing 12 units of 14 apartments each; one 9-floor tower of 70 units

The earlier married housing area project site improvements are extended through this area. The archery and golf driving range costs are included as part of the normal site development, grading and landscaping, as they do not require special facilities.



MASTER PLAN 1972 · 1974

STATE UNIVERSITY · ALBANY CAMPUS

EDWARD DURELL STONE ARCHITECT

MASTER PLAN POST 1974

A. Married Housing

The expansion of this development would include three additional 9 floor towers of 72 apartments each and new low rise buildings east to Fuller Road.

B. Continuing Education

Expansion of this complex would allow more interim housing for the Continuing Education Program or commercial facilities.

C. Dormitories

An additional 2000 beds are shown as expansion of the campus housing facilities.

D. Parking

Two additional depressed Recreation & Parking structures are shown adjacent to Dorms I and IV.

E. Academic Complex

Future academic podium expansion is shown on the North and South sides of proposed complex.

F. Service Facilities

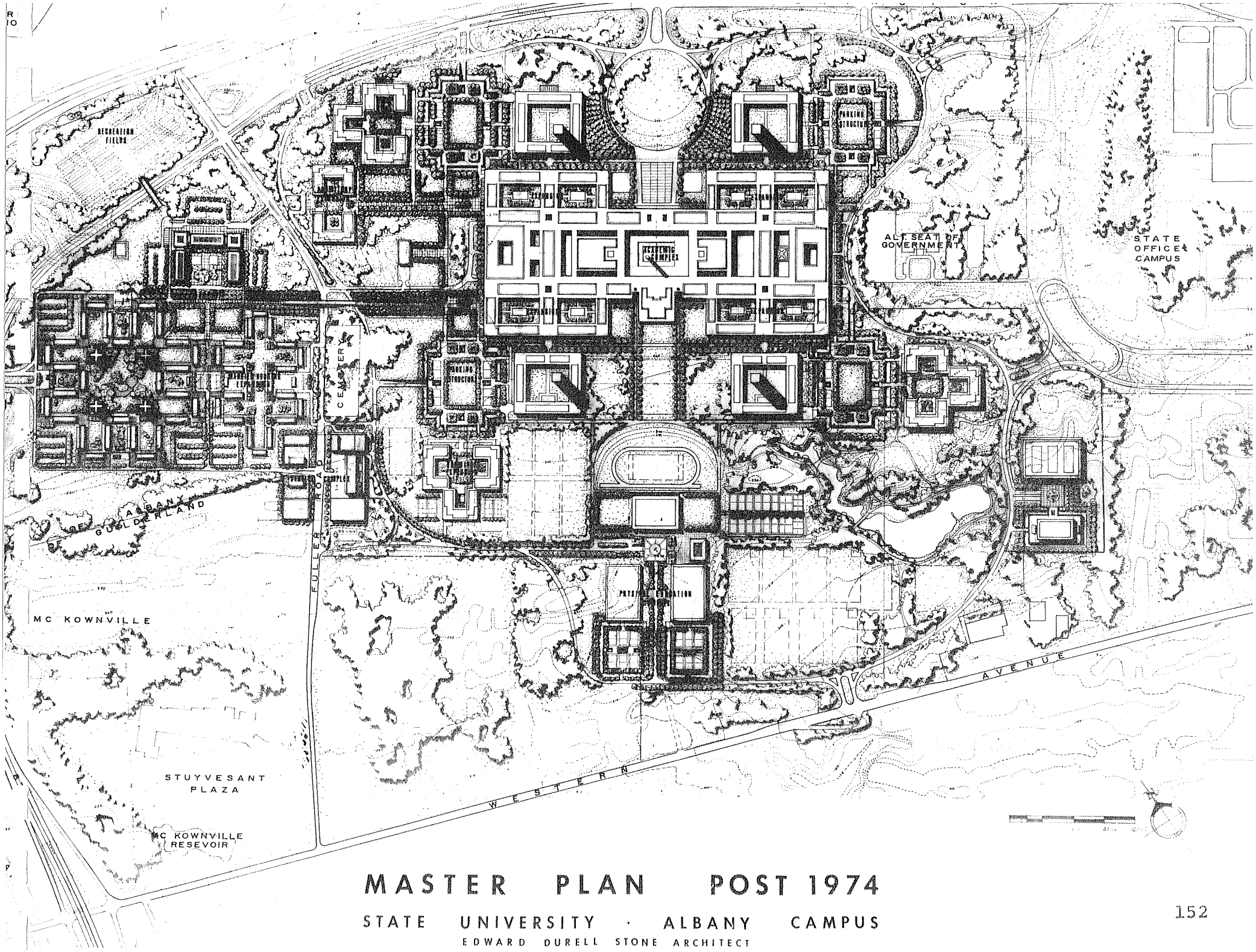
Expansion of service facilities is planned across Fuller Road.

G. Health & Physical Education

Expansion of physical education complex shown would require land acquisition. Another Parking and Recreational structure may also be provided.

H. Miscellaneous

An Aquarium and Museum are proposed as post-1974 projects. Specific locations have not been determined.



MASTER PLAN POST 1974

STATE UNIVERSITY · ALBANY CAMPUS

EDWARD DURELL STONE ARCHITECT

ACTION PROGRAM SITE WORK

Scope

The site work shown in the charts for the various projects is predicated on a continuation of the quality and standards of construction of the existing site improvements.

The site work includes the area within the project limits and up to the building walls. The walls of podium type structures were considered as building walls.

The site work includes all site preparation, site construction, paving, utilities, exterior lighting, finish grading and all planting within the project's limits.

Terraces, plaza, decks, etc., that are part of a structure have been estimated from the waterproof membrane to the finished surface and the unit costs include all walls, steps, benches, lighting, planting, etc.

A 10% contingency has been added to all project costs to cover the various unforeseeable factors and elements inherent in this type of work, such as increased piling lengths, unsuitable soils material removal, heavier foundations required, etc.

After 1969 a 4% per year escalation factor has been added to all projects.

The following factors and unit costs have been recognized in preparing the Action Program Charts.

I SITE PREPARATION

A. Clearing and Grubbing

The projects west of Fuller Road, the dormitories, Parking Recreation - Structures, and Multi-Purpose Auditorium will require the clearing and grubbing of existing forest type areas.

The areas of clearing range from stands of large dense tree masses with heavy undergrowth, to fairly scattered stands of medium trees.

An average price of $600 per acre has been assigned for this work.

B. Demolition

The areas west of Fuller Road contain several houses of generally frame and masonry construction. These buildings will be demolished and removed at an average cost of $0.05 per cubic foot; included in this work will be the abandonment and/or removal of utilities and paving.

C. Strip and Stockpile Topsoil

All projects include the stripping and stockpiling of topsoil wherever available. Because of the character and nature of the existing soils an average 3" depth of soil was estimated as the maximum obtainable unit costs of $1.10 per cubic yard was assigned to this work.

D. Earth Work

All projects will require adjustments of the existing grades and the subsequent excavations, embankments. In several projects the disposal of excess material is an important factor, particularly during the latter periods of construction. The costs may be greatly alleviated by selling the material or permitting the use of the areas as borrow pits by independent contractors.

During the early construction period all material can be disposed of on the campus. As the campus develops areas for disposal become increasingly difficult to find as the quantities of excess material also become larger and the material must be removed from the site.

The surcharge material is a relatively small amount and with careful planning can be mostly disposed of within the projects limits.

Several earth mounds are recommended on the periphery of the campus to screen non-compatible views and to dispose of as much as possible of the excess material.

Because of the nature of the subsoils (varied clay) all finish grading which results in heavy added weight of soil at building sites should be placed at least six months before construction starts.

Because of existing grade relationships the major excavation projects are the Academic expansions, the Parking

recreation structures and Dormitory XV. The Continuing Education Building area is the only project requiring large amounts of fill.

The following unit prices were assigned to the various earthwork operations:

1. Excavation and embankments - using power equipment (scrappers) - $0.60 per cu. yd.

2. Excavation and embankments where trucking is involved - $0.75 per cu. yd.

3. Fill, furnish, compact using a stockpile or borrow area on campus - $1.10 per cu. yd.

4. Finish grading and placing topsoil from stockpile - $2.20 per cu. yd.

5. Disposal of excess material off campus - $1.00 per cu. yd.

6. Surcharge disposal in project - $1.10 per cu. yd.
   as fill - $1.10 per cu. yd.

The topsoiling and finish grading of each project assumes only the topsoil stripped in each project will be used in the project and the soil will be treated to meet planting requirements.

II SITE CONSTRUCTION

A. Roads

The $55.00 per lineal foot is predicated on a roadway of 24 foot width and including the following:

Paving	$12.00
Curbs (Granite)	11.00
Lighting	11.00
Storm Drains	10.00
Grading	4.00
Seeding	3.00
Contingencies	4.00
	$55.00 per Lin. foot

B. Walks

1. Concrete - Standard detail cross section and finish $8.50 S.Y.

2. Asphalt - Standard $3.75 S.Y.

The major campus walk in the proposed projects will continue the existing walk format with the 20 foot asphalt paving and stabilized gravel shoulders. Minor walks in the married housing area will be six foot width.

C. Parking

The proposed on grade parking areas are based on 60 foot wide bays with a 10 foot landscape strip between bays. Where grade relationships permit, the areas are depressed and the excavation is part of the Site Preparation costs.

The parking costs are predicated on the following units:

Subgrade preparation	$ 0.20
2" asphalt on 6" stone base	4.00
Curbs or car stops	1.50
Lighting	1.10
Drainage	1.00
Planting	.60
Striping	.10
Access Roads	1.70
Contingencies	.30
	$10.50 S.Y.

At 35 sq. yd. per car space a $370 car space unit price was assigned.

The temporary parking areas were assigned a $180 per car space unit price based on stabilized gravel at 2.20 per sq. yd., and minimal use of lighting, curbs, planting, etc.

D. Plazas and Terraces

The plazas or terraces on grade, such as the Continuing Education building, Married housing and Health, Physical Education building, have been assigned an average unit cost of $40 a square yard, based on the following criteria:

1.	Paving - a good precast on pattern concrete, brick or block type at	$ 20.00
2.	Planting - large shade flowering and evergreen trees with high type ground covers	10.00
3.	Benches, seat walks, planters, furniture, etc.	10.00
4.	Lighting	5.00
5.	Contingencies	5.00
		$ 40.00 S. Y.

The terraces assigned a lower cost of $20 per sq. yard would use a lower level of paving, less planting and furniture.

Terraces with higher costs ($50 sq. yd.) would use generally a higher level paving such as stone.

Paving, terraces and courtyards have generally been assigned higher unit prices to reflect the better and invariably more costly materials used in conjunction with these more important facilities.

E. Recreation Decks

The upper decks of the parking structures have been relegated to recreation uses. The costs are like podium improvements from the waterproof membrane to finished surfaces.

The unit costs have been assigned on the following basis:

Paving - concrete patterns Finish	$15.00 S.Y.
Courts - asphalt surface, fenced drainage, etc.	$8,000 each
Turf area, topsoil, sod, drainage, etc.	$ 4.00 S.Y.
Court lighting	$ 1.00 S.F.

The bridge from the Deck to the Walks and Road are a simple reinforced concrete slab and includes rails at $ 7.00 S.F.

III PLANTING

The planting projects include all work necessary for the material in place.

A. Seeded areas include soil preparation and mulching at $1500 per acre.

B. Sod where used includes the sod in place at $2.10 sq. yd.

C. The tree and ground cover planting envisions large trees of good quality at $4000 per acre.

The planting costs reflect the problems with the existing soils and the requirement for tree pits that are 3 times the diameter of the tree ball.

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE I 1968–69

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
PLANTING I													
ACADEMIC II	0190												
DORM X	0191												506,000
STAGE XIII DORM													
& DINING	0156-57												
SITEWORK	0192											1,257,897	
WASHINGTON AVENUE												35,750	
LEFT TURN IMPROVEMENT													
LINEAR ACCELLERATOR													
SITEWORK	0119											136,000	
CONNECTION TO OFFICE													
CAMPUS LOOP												55,000	
PLANTING 2	01199												66,000
MAJOR UTILITY													
MECHANICAL	01182												1,509,200
MAJOR UTILITY													
ELECTRICAL	01273												638,000
LAND ACQUISITION													

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

COMPOSITE SCHEDULE 1

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
MARRIED HOUSING	0161												
SITEWORK (160 UNITS)	1086											1,313,667	
CONTINUING EDUCATION	0128												
SITEWORK												964,896	
STAGE XV DORM													
& DINING (1000 BEDS)	0158-59												
SITEWORK	01177											1,009,185	
PARKING & RECREATIONAL													
STRUCTURE Nº 5													
SITEWORK (1300 CARS)	01183											837,843	
PLANTING 3	01270												547,200
HEALTH & PHYS. EDUC	0118												
GYM Nº 2													
SITEWORK (500 CARS	01191											935,655	
(PARK. + REC. #8)													
ACADEMIC II WEST PODIUM EXTENSION Nº 0129													
SOCIAL SCIENCE	0135												
HUMANITIES	0129												
SCHOOL OF BUSINESS	0139												
NURSING ARTS	0131												
STUDENT ACTIVITIES	0137												
CRIMINAL JUSTICE	0140												
PUBLIC AFFAIRS	0141												
SOCIAL WELFARE	0136												
ADDT'L. ADMINIS.	0130												
ADDT'L. SER. FACIL.	0138												
SITEWORK	01193											1,386,441	

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

COMPOSITE SCHEDULE 2

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE III 1972–74

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
MARRIED HOUSING	0162												
SITEWORK (240 UNITS)	01185											1,200,410	
MULTI-PURPOSE AUDITORIUM, FIELD HOUSE &													
PARK/REC Nº 7	0126												
SITEWORK (400 CARS)	01197											1,005,890	
STAGE XVII DORM &													
DINING (1000 BEDS)	0164												
SITEWORK	01180											768,648	
PARKING & RECREATIONAL													
STRUCTURE Nº 6	01148											836,810	
ACADEMIC IV EAST PODIUM EXTENSION Nº 0132													
GRAD. BIOLOGY	0132												
GRAD. CHEMISTRY	0133												
GRAD. PHYSICS	0134												
ADDT'L. LIBRARY	0142												
STUDENT ACTIVITIES	0143												
UNDER STRUCTURE													
PARKING Nº 4 (850 CARS)	0144												
SITEWORK	01196											2,102,360	
PARKING Nº 3 (WEST PODIUM EXTENSION)													
(ADD. SERV. FACIL.)	01192												
SITEWORK	01196											156,559	
ATHLETIC FACILITIES	01274											9,880	
PLANTING 4	01271												88,400
PLANTING 5	01272												260,000
CAMPUS GRAPHICS													
WEATHER PROTECTION													

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

COMPOSITE SCHEDULE 3

ACTION PROGRAM

S.U.N.Y. ALBANY CAMPUS
STATE UNIVERSITY CONSTRUCTION FUND

PHASE I
1968–69

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
PLANTING I													
ACADEMIC II	D190												
DORM X	0191											506,000	
													506,000
DORM XIII	0192									13 ACRES			
SITE CONSTRUCTION													
OUTSIDE PODIUM												217,000	
ADD. SITE REQ'D.												45,000	
INT. COURT												331,387	
SERVICE TUNNEL												225,540	
ADD. LENGTH PILES												45,150	
UTILITIES:													
WATER												14,000	
SANITARY												1,000	
STORM												23,000	
ELECTRICAL												83,370	
H.V.A.C.												23,100	
PLUMBING												63,000	
TEMP. PARKING										400 CARS	180/CAR	72,000	
									CONTINGENCIES			114,350	
													1,257,897
WASHINGTON AVENUE													
LEFT TURN IMPROVEMENT										2 ACRES			
PAVING										650 L.F.	55/LF	35,750	
CURBS													
LIGHTS													
DRAINAGE													
EXCAVATION													
SEEDING & MISC.													
													35.750

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 1

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE I 1968–69

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
LINEAR ACCELERATOR	0119									1.5 ACRES		136,000	
													136,000
MAJOR UTILITY PROJECTS													
MECHANICAL	01182												
100 MILLION BTU/HR HTW GENERATOR												350,000	
1500 TON ELECTRIC HERMETIC REF. MACHINE												300,000	
CONDUIT W/PIPING & PIPING IN TUNNEL										6,000 L.F.		722,000	
10% CONTINGENCIES AND ESCALATION												137,200	
													1,509,200
ELECTRICAL	01273												
POWER DUCT BANK AND FEEDERS										7000 LF			
FEEDERS IN EXISTING DUCT BANKS										6400 LF		580,000	
SIGNAL DUCT BANKS AND CABLES										2500 LF			
ADD 10% CONTINGENCIES AND ESCALATION												58,000	
													638,000
CONNECTION TO OFFICE CAMPUS LOOP ROAD										1000 L.F.	55/L.F.	55,000	
													55,000
PLANTING 2	01199									10 Ac.	4000/Ac	40,000	
OFFICE LOOP CONNECTION													
DORM XIII													
HEALTH & PHYS. EDUC. GYM #2 (RELOCATE EXISTING TREES)										200	100/EA.	20,000	
10% CONTINGENCIES												6,000	
													66,000

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 2

ACTION PROGRAM

S.U.N.Y. ALBANY CAMPUS
STATE UNIVERSITY CONSTRUCTION FUND

PHASE I
1968 – 69

PROJECT	NO.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
(LAND ACQUISITION)													
WASHINGTON AVE.													
LEFT TURN													
ACCESS TO LOOP ROAD.													
CORNER @ GYM #2													
RELOCATE POWER LINE													
CORNER @ ADD. SERV. FACIL.													
WESTERN AVE.													
LEFT TURN													

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 3

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	NO.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
MARRIED HOUSING	0186												
160 UNITS													
SITE PREPARATION													
CLEAR AND GRUB										38 ACRES			
STRIP AND STOCKPILE	TOPSOIL									25 ACRES	600/AC.	15,000	
DEMOLITION										13,000 C.Y	1.10/C.Y.	14,300	
EXCAVATION a). IN PROJECT										80,000 C.F.	.05/C.F.	4,000	
b). TO CONTINUING EDUCATION SITE										55,000 C.Y.	.60/C.Y.	33,000	
TOPSOIL (FIN. GRADE)										40,000 C.Y.	1.00/C.Y.	40,000	
PAVING: PARKING										13,000 C.Y.	2.20/C.Y.	28,600	
TERRACES										180 CARS	370.00	66,600	
TERRACES										3000 S.Y.	40/S.Y.	120,000	
ROADS										2,400 S.Y.	20/S.Y.	48,000	
WALKS										5,200 L.F.	55/L.F.	286,000	
CHILDREN'S PLAY AREA										3,200 S.Y.	3.70/S.Y.	11,840	
WALK LIGHTING										6,000 L.F.	12/L.F.	72,000	
UTILITIES:													
ELECTRIC & SIGNAL													
H.V.A.C.										160 UNITS @ 1500/UNIT		240,000	
WATER										MECH. & ELEC.			
SANITARY										2300 L.F.	16/L.F.	37,000	
STORM										4200 L.F.	14/L.F.	59,000	
WATER METER & JACKING												60,000	
												17,000	
10% CONTINGENCIES and 4% ESCALATION					(14%)							161,327	
													1,313,667

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 4

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
CONTINUING EDUCATION	0128												
SITE PREPARATION													
CLEARING AND GRUB										18 ACRES			
STRIP AND STOCKPILE SOIL										10 ACRES	600/AC.	6,000	
GRADING										6000 C.Y.	1.10/C.Y.	6,600	
BORROW FROM DORM	XV SITE												
EXCAVATION										40,000 C.Y.	1.00/C.Y.	40,000	
SURCHARGE (DISPOSE IN PROJECT)										15,000 C.Y.	.60/C.Y.	9,000	
TOPSOIL & FIN. GRADE										10,000 C.Y.	2.20/C.Y.	22,000	
PAVING. ROADS										6,000 C.Y.	2.20/C.Y.	13,200	
WALKS										400 L.F.	55/L.F.	22,000	
TERRACES										8000 S.Y.	10/S.Y.	80,000	
PARKING										7000 S.Y.	40/S.Y.	280,000	
ATHLETIC FACILITIES:										200 CARS	370/CAR.	74,000	
PLAYFIELDS													
TENNIS										2	6000/EA	12,000	
POOL										4	9000/EA	36,000	
PUTTING GREEN										1500 S.F.	15/S.F.	22,500	
PEDESTRIAN BRIDGE										1	10,000	10,000	
										600 L.F.	150/L.F.	90,000	
UTILITIES:													
ELECTRIC & SIGNAL													
HEAT & A.C.										300 L.F.	67/L.F.	21,100	
WATER										100 L.F.	210/L.F.	21,000	
SANITARY										100 L.F.	20/L.F.	2,000	
STORM										100 L.F.	10/L.F.	1,000	
WALK LIGHTING										400 L.F.	120/L.F.	48,000	
										2,500 L.F.	12/L.F.	30,000	
10% CONTINGENCIES	and 4%	ESCALATION		(14%)								118,496	
													964,896

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 5

ACTION PROGRAM

S.U.N.Y.
STATE UNIVERSITY CONSTRUCTION FUND

ALBANY CAMPUS

PHASE II
1970–71

PROJECT	NO.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
STAGE XV (1000 BEDS)													
DORM AND DINING	01177												
PREPARATION:										28 ACRES			
CLEAR & GRUB.													
STRIP & STOCKPILE TOPSOIL										7 ACRES	600/AC	42,000	
GRADING										3000 C.Y.	1.10/C.Y.	3,300	
FIN. GRADE. & TOPSOIL										35,000 C.Y.	.60/C.Y.	21,000	
ROADS										3,000 CY	2.20/C.Y.	6,600	
WALKS										4,200 L.F.	55/L.F.	231,000	
PLAZAS										5,500 S.Y.	370/S.Y.	20,350	
PODIUM (ABOVE MEMBRANE W.P.)										8,000 SY.	30/S.Y.	240,000	
										3,000 S.Y.	30/S.Y.	90,000	
UTILITIES:													
WATER													
SANITARY										5500 L.F.	16/LF	88,000	
STORM										1000 L.F.	12/LF	12,000	
ELEC. & SIGNAL										1300 L.F.		50,000	
HEAT & A.C.										900 L.F.		60,000	
										100 L.F.	210/LF	21,000	
10% CONTINGENCIES & 4% ESCALATION						(14%)						123,935	
													1,009,185

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 6

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
PARKING & RECREATIONAL													
STRUCTURE Nº 5	01183												
SITE DEVELOPMENT													
CLEAR & GRUB										12 ACRES			
STRIP AND STOCKPILE SOIL										4 ACRES	600/AC	2,400	
GRADING										2000 C.Y.	1.10/C.Y.	2.200	
EXCESS OFF CAMPUS										125.000 C.Y.	.75/C.Y.	93,750	
TOPSOIL & FIN. GRADE.										100,000 C.Y.	1.10/C.Y.	110,000	
SOD										2,000 C.Y.	2.20/C.Y.	6,600	
ROAD										9.000 S.Y.	2.10/S.Y.	18,900	
BRIDGES										200 L.F.	55/L.F.	11,000	
WALKS										8.000 S.F.	7/S.F.	56.000	
REC. DECK										1,000 S.Y.	3.70/S.Y.	3,700	
COURTS													
LAWN										4 EA.	8000	32,000	
PAVING										6,600 S.Y.	4/S.Y.	26.400	
LIGHTING	(COURTS)									11,000 S.Y.	15/S.Y.	165,000	
UTILITIES										28,000 SF	1/S.F	28,000	
STORM													
ELEC. & SIGNAL										2000 L.F.	12/L.F.	24.000	
RELOCATE	EXISTING UTILITIES											75.000	
												80.000	
10% CONTINGENCIES & 4% ESCALATION					(14%)								
												102,893	
													837,843
PLANTING 3	01270												
MARRIED HOUSING										30 Ac.	4000/Ac	120.000	
CONT. EDUCATION										12 Ac.	4000/Ac.	48,000	
STAGE XV DORM & DINING										8 Ac.	4000/Ac	32,000	
ACADEMIC III										10 Ac.	10,000/Ac	100.000	
PARK. & RECREATIONAL STRUCTURE Nº 5										8 Ac.	10,000/Ac	80,000	
HEALTH & PHYS. EDUC. - PARK. STRUCT. Nº 8										10 Ac.	10,000/Ac	100,000	
10% CONTINGENCIES & 4% ESCALATION					(14%)							67,200	
													547.200

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 7

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
HEALTH & PHYSICAL EDUCATION GYM No 2.													
PARKING & REC. No. 7	01-191												
SITE DEVELOPMENT										14.5 AC.			
REMOVE EXIST. PAV.										17,000 S.Y.	1.30/S.Y.	22,100	
CLEAR AND GRUB										2.5 AC.	600/AC.	1,500	
STRIP AND STOCKPILE	TOPSOIL									2,500 C.Y.	1.10/C.Y.	2,750	
GRADING										30,000 C.Y.	.75/C.Y.	22,500	
SURCHARGE (DISPOSE IN PROJECT AREA)										4,000 C.Y.	1.10/C.Y.	4,400	
TOPSOIL AND FINISH	GRADE									2,500 C.Y.	2.20/C.Y.	5,500	
ROADS										2,000 L.F.	55/L.F.	110,000	
PLAZA										11,000 S.Y.	30/S.Y.	330,000	
SOP										5,000 SY	2.10/SY	10,500	
BRIDGES										3200 SF	7/SF	22,400	
RECREATION DECK													
LAWN										4400 S.Y.	4/S.Y.	17,600	
COURTS										4	8000/EA.	32,000	
PAVING										1700 S.Y.	15/S.Y.	25,500	
LIGHTING										20000 S.F.	1.00/S.F.	20,000	
UTILITIES													
WATER										400 L.F.		6,000	
SANITARY										300 L.F.		6,000	
STORM										900 L.F.		32,000	
ELEC. & SIGNAL										900 L.F.		60,000	
H. TEMP. WATER										1,000 L.F.		90,000	
10% CONTINGENCIES &	4%	ESCALATION			(14%)							114,905	
													935,655

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 8

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE II 1970–71

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
ACADEMIC													
PART III (WEST)	01193												
SITE PREPARATION										18 Ac.			
REMOVE EXIST. PAVING.										6,500 S.Y.	1.30/S.Y.	8,450	
CONSTRUCTION													
EXCAVATION										160,000 C.Y.	.75/C.Y.	120,000	
DISPOSE EXCESS MATERIAL										160,000 C.Y.	1.00/C.Y.	160,000	
FINISH GRADE AND TOPSOIL										5,000 C.Y.	2.20/C.Y.	11,000	
ROADS										1,700 L.F.	55/L.F.	93,500	
WALKS										3,000 S.Y.	3.00/S.Y.	9,000	
PLAZAS										5,500 S.Y.	6.00/S.Y.	33,000	
COURTYARDS										8,000 S.Y.	60/S.Y	480,000	
PODIUM PAVING										3,000 S.Y.	30/S.Y.	90,000	
UTILITIES: ELEC. & SIGNAL										500 L.F.		58,000	
AIR CONDITION										900 L.F.		58,000	
WATER										300 L.F.		5,000	
STORM										700 L.F.		22,000	
HEAT & AIR COND.										300 L.F.		27,000	
10% CONTINGENCIES &		8% ESCALATION			(18%)							211,491	
													1,386,441
MARRIED HOUSING	01185									16 Ac.			
240 UNITS													
TOPSOIL & FIN. GRADE										8,000 C.Y.	2.20/CY	17,600	
PAVING: TERRACES										6,000 S.Y	40/SY	240,000	
PARKING										280 CARS	370/CAR	103,600	
TERRACES										2400 S.Y.	20/S.Y.	48,000	
WALKS										4,000 S.Y.	3.70/S.Y.	14,800	
WALK LIGHTING										7,000 L.F.	12/L.F.	84,000	
CHILDREN'S PLAY AREA										3	7500/EA	22,500	
UTILITIES: WATER										3500 LF	16/LF	56,000	
SANITARY										2,600 LF	12/LF	31,000	
STORM												40,000	
MECH. & ELECT.								240 UNITS @ 1500/UNIT				360,000	
10% CONTINGENCIES &		8% ESCALATION			(18%)							182,910	1,200,410

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 9

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE III 1972–74

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
MULTI-PURPOSE AUDITORIUM, FIELD HOUSE, & PARK./REC STRUCTURE													
Nº 7 (SKATING RINK)	01197									12 ACRES			
SITE PREPARATION:													
CLEARING										10 ACRES	600/AC.	6,000	
STRIP TOPSOIL										4000 C.Y.	1.10/C.Y.	4,400	
SITE CONSTRUCTION													
EXCAVATION										75,000 CY	.60/C.Y.	45,000	
TOPSOIL & FIN. GRADE										80,000 CY	2.20/C.Y.	17,600	
DISPOSE FILL ON CAMPUS										50,000 CY	1.10/CY	55,000	
ROADS										400 L.F.	55/LF	22.000	
PLAZA										2500 S.Y.	50/S.Y.	125,000	
WALKS										1000 S.Y.	6/S.Y.	6.000	
ATHLETIC FACILITIES:													
SOCCER FIELD										1	8000/EA	8,000	
BASEBALL										1	25,000	25,000	
BLEACHERS										5000 SEATS	10/EA	50,000	
PARK. & REC. DECK										7500 S.Y.	15/S.Y.	112.500	
COURT										4	6,000 EA	24,000	
SOD SLOPES										5000 S.Y.	2.20/S.Y.	11.000	
BRIDGES										3000 SF	7.00/SF	21,000	
UTILITIES: HEATING										1600 LF		110,000	
ELEC. & SIGNAL										1800 LF		96,000	
WATER										1200 LF		19,000	
SANITARY										400 LF		15,000	
STORM (BLDG.)										400 LF		8,000	
STORM (ATHLETIC FIELDS)												40,000	
STORM (PARK STRUCTURES)												4,000	
10% CONTINGENCIES & 12% ESCALATION					(22%)							181,390	
													1,005,890

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 10

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE III 1972–74

PROJECT	NO.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
STAGE XVII DORM. &													
DINING (1000 BEDS)	01180									13 ACRES			
CLEAR AND GRUB										5 ACRES	600/AC	3000	
STRIP & STOCKPILE TOPSOIL										2400 C.Y.	1.10/C.Y.	2640	
GRADING										50,000 CY	.60/C.Y.	30,000	
EXCESS DISPOSE OFF SITE										35,000 C.Y.	1.10/C.Y.	38,500	
PODIUM (ABOVE MEMBRANE W.P.)										3,000 SY	30/SY	90,000	
COURTYARD										8,000 SF	30/SF	240,000	
ROAD (SERVICE)										500 LF	55/LF	27,500	
WALKS										1200 S.Y.	3.70/S.Y.	4,400	
UTILITIES: ELECTRIC & SIGNAL												60,000	
HEATING												21,000	
WATER										3400 LF	16/LF	55,000	
SANITARY										1900 LF	12/LF	23,000	
STORM												35,000	
10% CONTINGENCY & 12% ESCALATION				(22%)								138,608	
													768,648
PARK & REC. STRUC. No 6	01148									12 ACRES			
CLEAR & GRUB										3 ACRES	600/AC.	18,000	
STRIP & STOCKPILE TOPSOIL										500 C.Y.	1.10/C.Y.	550	
GRADING										85,000 CY	.75/C.Y	63,750	
DISP. EXCESS MAT.										70,000 CY	1.00/C.Y.	75,000	
TOPSOIL & FIN. GRADE										2,000 CY	2.20/C.Y.	4,400	
ROADS										600 L.F.	55/L.F.	33,000	
BRIDGES (6)										6400 SF	7/SF	44,800	
SOD										9000 SY	2.20/SY	19,800	
REC. DECK: COURTS										4	8000 EA	32,000	
LAWNS										6600 SY	4/SY	26,400	
PAVING										11000 SY	15/SY	165,000	
LIGHTING										28000 SF	1.00/SF	28,000	
RELOCATE EXIST. UTILITIES												53,000	
UTILITIES: STORM & ELECTRICAL										200 LF		80,000	
10% CONTINGENCY & 20% ESCALATION				(30%)								193,110	836,810

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 11

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE III 1972–74

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
ACADEMIC													
PART IV (EAST)	01196									12 ACRES			
PREP: REMOV. PAV.										23,000 SY	1.30/S.Y.	29,900	
CONST: EXCAVATION										240,000 CY	.75/C.Y.	180,000	
DISPOSE EXCESS MATERIAL										240,000	1.00/CY	240.000	
TOPSOIL & FINISH GRADE										2500 C.Y.	2.20 C.Y.	5,500	
ROADS										300 L.F.	55/L.F.	16,500	
WALKS										4000 S.Y.	3.70/S.Y.	14,800	
COURTYARD										5000 S.Y.	40/SY	200,000	
PODIUM PAVING										6000 S.Y.	30/S.Y.	180,000	
UTILITIES: ELEC. & SIGNAL										500 LF		58,000	
A.C. & HEATING										850 LF		76,500	
WATER										200 LF		3,000	
SANITARY										100 LF		1.000	
STORM										600 LF		12.000	
SERV. BLDG {INCLUDE COST FOR MECHANICAL INSTALLATION: 100 MILLION BTU/HR, HTW GENERATOR & 1500 TON ELEC. HERMETIC REF. MACHINE}												600.000	
10% CONTINGENCY & 20% ESCALATION (30%)												485,160	
													2,102,360
ADD. SERV. FACILITY	01196									3 ACRES			
PREP. DEMOLITION										12000 C.F.	.03/C.F.	360	
CLEARING										1 ACRE	600/AC	600	
STRIP TOPSOIL										400 C.Y.	1.10/C.Y.	440	
CONST. EXCAVATION										1000 C.Y.	.75/C.Y.	750	
TOPSOIL & FIN. GRADE										400 C.Y.	2.20/CY	880	
PAVING (OUTDOOR STORE.)										3000/S.Y.	5/S.Y.	15000	
UTILITIES: WATER										100 LF		2000	
SANITARY										200 LF		2000	
STORM										150 LF		9000	
ELEC. & SIGNAL										1000 LF		87,000	
HEATING										300 LF		2400	
10% CONTINGENCIES & ESCALATION 20% (30%)												36,129	
													156,559

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 12

ACTION PROGRAM

S.U.N.Y. STATE UNIVERSITY CONSTRUCTION FUND — ALBANY CAMPUS — PHASE III 1972–74

PROJECT	No.	1968	1969	1970	1971	1972	1973	1974	1975	UNIT	UNIT COST	ELEMENT COST	PROJECT TOTAL
ATHLETIC FACILITIES	01274												
CONSTRUCTION:													
RESTRIPE										16	100/EA	1600	
GOALS										4	1500/EA	6000	
10% CONTINGENCIES & 20% ESCALATION				(30%)								2280	
													9,880
PLANTING 4	01271												
MULTI-PURPOSE AUDITORIUM										10 Ac.	4000/Ac.	40,000	
DORM XVII										5 Ac.	4000/Ac.	20,000	
ADDITIONAL SERVICE FACILITY										2 Ac.	4000/Ac.	8,000	
10% CONTINGENCIES & 20% ESCALATION				(30%)								20,400	
													88,400
PLANTING 5	01272												
ACADEMIC IV										12 Ac	10,000/Ac	120,000	
PARKING & REC. STRUCTURE No 6										8 Ac.	10,000/Ac	80,000	
10% CONTINGENCIES & 20% ESCALATION				(30%)								60.000	
													260,000
CAMPUS GRAPHICS													
WEATHER PROTECTION													

PLANNING
CONSTRUCTION

EDWARD DURELL STONE ARCHITECT

PROJECT SITE WORK 13

APPENDIX

CONSULTANTS' REPORTS

Clarke and Rapuano
- Water Supply
- Sanitary Sewer System
- Storm Drainage
- Lawn Irrigation

Cosentini Associates
- Gas
- Mechanical
- Electrical
- Signals Systems
- Site Lighting

Severud Associates
- Report on Foundations

Wolf and Company
- Construction Costs Analysis

These reports have been previously distributed to the Construction Fund. Additional copies will be furnished on request.