



Northern Kentucky University  
Highland Heights, Kentucky 41076

January 28, 1987

Dear Friends of Northern Kentucky University:

With appreciation for the considerable effort which has been expended by State Government's Division of Engineering, the local and national consultants who worked on the project, and the faculty, staff, and students who participated in the process, I am pleased that the 1987 Northern Kentucky University Campus Master Plan has reached this final stage of completion. Such a successful undertaking requires significant contributions from all sectors of the University community and the community at-large. Time was taken to solicit responses throughout northern Kentucky in an attempt to seek as broad involvement as possible in an organized fashion. The University is indeed grateful to the many, many people who participated in this process.

As with any planning document of useful value, this is a living, working document. It undoubtedly will be modified as we begin to experience the future, but the basic tenants of the plan should hold true as the University seeks further growth and development to the end of this century.

Once again, I want to thank all who participated in the planning process, and commend the use of this document as the primary guide to the future physical development of the Northern Kentucky University campuses.

Very truly yours,

A handwritten signature in cursive script that reads 'Leon E. Boothe'.

Leon E. Boothe  
President

ACKNOWLEDGEMENTS

The completion of Northern Kentucky University's 1987 Campus Master Plan was enhanced by faculty, staff, student, and community participation throughout the planning process and was coordinated and conducted by a master planning team comprised of the following individuals:

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## Preface

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Initiated by the need for greater higher education opportunities in northern Kentucky, the initial planning activities for Northern Kentucky University commenced in 1968 with the primary tasks of preparing a workable academic program and projecting future enrollment based on regional demographic analysis. Although a site for the University had not been selected at that time, the early Master Plan provided physical development guidelines for the future campus.

Following the initial planning work effort, the second thrust in planning activities occurred in 1970 after an actual site had been chosen for the campus at Highland Heights. The planning activities occurred simultaneously with the design of Nunn Hall, the first building on campus.

In 1972, Nunn Hall opened its doors to baccalaureate classes and in the Spring of 1973, a total of 588 baccalaureate degrees were awarded. Since 1973 a total of thirteen academic or support buildings have been constructed following the general guidelines set forth in the 1971 University Master Plan.

Culminating many planning changes in the original Master Plan, a second University Master Plan was prepared and submitted to the University in June 1979. Since a recommendation in the Master Plan "calls for revision after every major construction project on the Campus," coupled with the fact that the University is on the threshold of implementing a major improvement program, both the Department of Facilities Management, Commonwealth of Kentucky and the University realized that the appropriate time had come for a third updating of the University Master Plan. This master planning effort officially commenced in early November, 1985, and was accomplished through a close collaborative effort which included the University, the Commonwealth's Department of Facilities Management and the planning consultant team.

The timing of this Master Plan is of major importance. The work effort was conducted during the beginning of tenure of a new University president, Dr. Leon E. Boothe. Dr. Boothe has provided important inspiration and direction throughout the planning process.

Additionally, the University is concluding major physical changes in the form of new and improved roadways to ease access and egress problems. These roadway improvements provided an important framework to the physical plan aspects of the Master Plan.

And finally, the Master Plan provides a recommended location for the funded Applied Science and Technology Center within the framework of long-range campus growth.

The master planning process utilized a number of important benchmarks. Two earlier reports or working papers preceded, and are an integral part of this Master Plan. The first was submitted to the University in January 1986 and was titled Campus Master Plan: Inventory Report, and the second was prepared upon completion and presentation of the initial Concept Master Plan Alternatives to the University on January 17, 1986. The second report summarized the major plan components included in each of the two plan alternatives. These reports are included in this document as Appendix A and Appendix B.

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## I. Introduction

Campus planning is a continuing process. The Master Plan described in this document builds from values established in earlier planning milestones for Northern Kentucky University, from the 1968 plan mandated by legislative authorization to create a four-year institution, to the 1970 facilities plan for the Highland Heights Campus, to the 1979 plan designed to accommodate facilities needs in the early 1980's. The 1986 plan addresses a phased program of new facilities, improvements and changes that will have to take place through to the year 2000 if the University is to sustain and enhance its role as a dynamic educational, cultural and research center for the northern Kentucky region.

The significance of the 1986 plan is that it represents major growth and change from the central quadrangle around which academic and support buildings are currently organized. The central quadrangle has accommodated campus development in an exceptionally unified, integrated way that forms a memorable image of Northern Kentucky University. With the exception of important infill opportunities at its building perimeter, the central quadrangle has reached desirable limits of development, and the next generation of campus growth will have to occur outward from its perimeter.

Presently, the Highland Heights Campus has slightly over 666,000 assignable square feet of building area. Assignable academic and support space, not including residential facilities, equals approximately 121 assignable square feet per full time equivalent student enrolled at the University as of the fall of 1985. When compared with the statewide average of 178 assignable square feet per full time equivalent student for Kentucky's eight universities, it becomes clear that Northern Kentucky University has a significant need for more space simply to gain the flexibility and amenity required by a dynamic program. If the University were to reach the current statewide average without any growth in its enrollment of approximately 5,500 full time equivalent students, it would need 979,000 assignable square feet or a total of 1.47 million gross square feet of building area.

In spite of a general leveling in the region's college-age population in the mid-1980's, Northern Kentucky University will likely experience enrollment growth by the year 2000 due to a projected 1990's resurgent increase in the college-age group and the University's ability to reach older, working students. Consequently, the capacity to accommodate future building area on the campus must respond to likely enrollment growth as well as to fundamental space needs.

The Master Plan accommodates 643,500 gross square feet of new building area for a total of 1.6 million gross square feet of existing and future space. In the near term, within the next decade, the program for new space contains several priority buildings, including the Applied Science and Technology Center, the Fine Arts Addition, the Library Addition, and the University Center/Administrative Center Addition. These facilities will add 193,500 gross square feet of much needed space for instruction, student support, and the cultural mission that the University must fulfill for the community. Beyond these facilities, the additional 450,000 gross square feet of new space in the plan reflects a longer term capacity for growth at a density and scale that is compatible with the present campus environment.

Although the Campus occupies 239 acres of land, expansion is limited by several factors. Growth of academic and support facilities should occur no farther than a comfortable 10-minute walking distance between the perimeters of the academic core. To accommodate future academic facilities in a consolidated, pedestrian-oriented campus core will entail the replacement of most of the existing surface parking areas with structure parking or by new surface parking in peripheral locations. At the same time, the University has placed a high priority on the retention of its recreation and athletic fields either on existing sites or those that can be reclaimed from marginal remote parking sites.

Finally, the University realizes the imperative of preserving the wooded and steeply sloped terrain at the campus edges as wildlife habitat, relief to the developed heart of the campus, and as part of a "green oasis" for the changing, urbanizing community that surrounds the campus. In effect, there are overlapping demands on the land resources of the campus that limit the amount of growth that can occur without losing the sense of amenity and coherence that will continue to make the University an inviting and memorable place. Nonetheless, the Master Plan anticipates more than adequate capacity for development within the present boundaries, to and beyond the year 2000, if future expansion follows a logical and orderly process. This Master Plan will serve as the principal tool for guiding this ordered growth into the 21st Century.



## II. Master Plan Overview

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### A. Key Premises

- . The Master Plan is based on the premise that full University build-out will be accommodated on the 239-acre property currently owned by the University. Construction of large land consuming facilities, such as a sports stadium and associated parking, cannot be accommodated on the existing campus property.
- . The University will continue serving as the educational and cultural center of Northern Kentucky, and the University's Community outreach programs will continue to generate special spatial and facility needs in the future.
- . Due to the commuter orientation of Northern Kentucky University and the need for efficient vehicular circulation and parking, most parking and through roadways should be located at the periphery of the campus core. Moreover, the University desires an expanded "pedestrian only" campus core; thus, intensive through traffic should be eliminated from the center of campus.
- . It should be noted that as a result of implementation of each phase, renovation of existing buildings to accommodate new program will be necessary. These renovations should include additional student lounge space in each Classroom Building.
- . Because of the finite land resources of Northern Kentucky University, surface parking is not an efficient use of University property. An important Master Plan recommendation is that most of the University's future parking demand will be satisfied by constructing parking structures. Additional property will need to be acquired if the University does not construct parking structures and maintains the recommended space for Athletic/Recreation purposes.
- . There is demand for increased residence hall space on the Highland Heights campus. New residential units capable of accommodating 600 additional resident students have been included in the campus expansion program.
- . All future major conference and hotel space will be accommodated on the Northern Kentucky University Foundation property.

- . Special purpose housing, including faculty guest housing, sororities and fraternities, could be accommodated on two different sites within the University. These parcels, identified on the Master Plan as "Opportunity Sites," include the President's residence and grounds and property adjacent to Johns Hill Road.
- . Opportunity sites are defined as sites which are highly valuable for the future, yet no suitable program currently exists which would generate a change in land use at this time.
- . An objective of Northern Kentucky University is to improve the physical setting of the University through landscaping, signage, lighting, and campus outdoor furniture such as benches, kiosks, and other similar improvements.
- . The Master Plan recommends that the best use of the University College, the birthplace of Northern Kentucky University, is to accommodate Community Support Services and to contain special University programs.
- . All future construction must conform with the design vocabulary which exists on the campus. This vocabulary includes dark glass, anodized metal and concrete. The materials used in the future must be sympathetic to the colors, textures and fenestration of the existing buildings.

B. Key Findings and Conclusions

- . The master plan is an accommodation plan illustrating the maximum desirable development that should occur on the 239-acre campus. It is assumed that growth will occur as a result of two forces - the need to enhance and improve existing academic and support space, and the need to accommodate increased future enrollment.
- . The University is currently in the process of developing a Comprehensive Strategic Plan that will result in a unification of goal setting, directional cohesiveness and resource commitment. The University is fully cognizant of the imperative to ensure that this activity and the evolution of the Campus Master Plan are kept in appropriate harmony. Future program growth is able to proceed independently because the Master Plan addresses space needs without specific reference to the programs which will be housed in

the facilities. One key requirement of the Strategic Plan is to address future program needs; the Campus Master Plan has been designed to accommodate the future program needs to be articulated in the Strategic Plan.

- . As a commuter institution with a large proportion of part-time students, Northern Kentucky University has unique service support needs. Conversion of the University's headcount enrollment to a full-time equivalent (FTE) ratio provides a false indication of facilities and service needs. An institution which is primarily residential, by contrast, would be well served by use of an FTE figure. However, because of the reliance upon FTE standards for higher education space planning, an FTE figure is used in this document only as a basis for space planning.
- . The Fall 1985 enrollment at the University was 8,697 students. The University's Office of Institutional Research has projected enrollment for the year 2000 at 11,000 students. Due to the mix of full-time and part-time students, this translates to an FTE of 6,800 students.
- . Northern Kentucky University currently has an educational and general assignable square feet (E&G ASF) ratio of 121 per FTE student, the lowest ratio in the state. The statewide average is 178 E&G ASF per FTE. This plan recommends that Northern Kentucky University strive to attain the statewide average. To meet this objective by the year 2000, the University must construct 543,619 E&G ASF of new space to accommodate a 6,800 FTE.
- . Five proposed new academic buildings, in addition to the funded Applied Science and Technology Center, are proposed in the Master Plan to satisfy future space needs of the University.
- . With a substantial investment in physical facilities since groundbreaking for the first building in 1970, Northern Kentucky University has a high level of indebtedness in comparison to other state institutions. Construction of the Applied Science and Technology Center represents utilization of 30% of the University's available bonding capacity at current enrollment levels. Thus, other sources of funding must be explored if the Northern Kentucky University campus is to be completed. Alternative funding sources which would not create additional institutional

indebtedness must be considered, especially direct appropriation for the construction of additional campus buildings.

- . Full Master Plan implementation will occur in four separate phases. An important recommendation of this Master Plan is that each phase should be addressed and implemented in a sequential manner.
- . The construction schedule of the various phases of Master Plan implementation is contingent on necessary funding and, in later phases, on University enrollment growth. Therefore, much flexibility exists in the timing of new construction as described in this document.
- . The University has spent approximately \$75 million on facilities from 1972 to 1986. It is estimated that an additional \$132 million will be required to fully implement the Master Plan. The \$130 million expenditure will be phased as follows: Phase 1 = \$25 million; Phase 2 = \$17 million; Phase 3 = \$51 million; and Phase 4 = \$39 million.

### III. Planning Context-Profile Summary

#### A. Location

Northern Kentucky University is comprised of two separate facilities. The main campus of 239 acres is located in the City of Highland Heights, Kentucky, approximately seven miles southeast of Cincinnati, Ohio. The Highland Heights campus is highly accessible by Interstate I-275, I-471, and U.S. Route 27. The University College Campus is comparatively small, approximately 41 acres, and is located in Covington, Kentucky, three miles south of Cincinnati, Ohio, as shown in Figure 1.

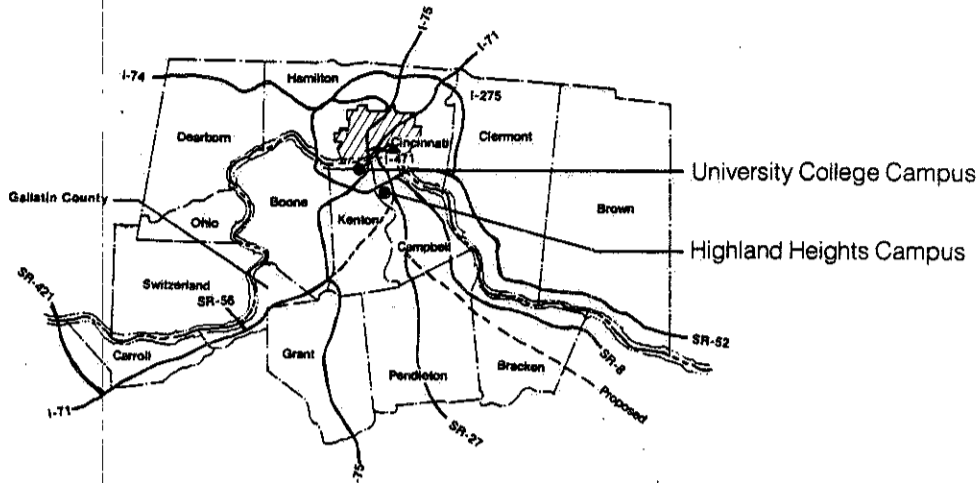


Figure 1 Regional Context

#### B. The University in the Commonwealth of Kentucky

Northern Kentucky University is an integral part of the Commonwealth of Kentucky's eight-state University system of higher education and primarily serves an eight-county service area located at the northern extremity of Kentucky. The counties include, clockwise from the northernmost, Boone, Kenton, Campbell, Bracken, Pendleton, Grant, Carroll and Gallatin.

The University also enrolls students from other parts of the Commonwealth, other states and countries. In 1985, for example, 81% of the University enrollment was generated from the eight-county service region, an additional 13% was drawn from Ohio, 4% from other regions in the Commonwealth, and the remaining 2% from other states and foreign countries. This proportional distribution has remained relatively constant from 1972 to the present.

C. The University in the Region

Above and beyond traditional classroom functions, the University serves as the primary cultural resource for residents in the region and plays an important role in providing opportunities for enhancing the regional "quality of life." The following community outreach programs are currently underway at the University:<sup>(1)</sup>

1. Educational Activities - These activities include the Homemaker Re-Entry Program, Educational Talent Search, Stealy Library, WNKU radio station, the Small Business Development Center/Small Business Institute, continuing education programs, Governmental Services Institute, instructional activities sponsored by academic departments, In-Service Teacher Education, and Inter-collegiate Athletics.
2. Scholarly Activities - Including community research and services by NKU faculty and the Visiting Scholars Program.
3. Cultural Activities - Such as, the University's Art Collection and musical, theatrical and artistic events.

D. The University Mission Statement

The following Mission Statement was adopted by the Council on Higher Education on January 19, 1977, and revised on January 13, 1983.

"Northern Kentucky University shall serve students living in its immediate environs and offer a broad range of educational programs which emphasize the traditional collegiate and liberal studies. Recognizing the needs of its region, the University shall provide programs primarily at the associate and baccalaureate degree levels.

Subject to careful justification, selected master's degree programs, as approved by the Council on Higher Education, may be offered. The provision of broader graduate education services shall be provided by a graduate education center at Northern Kentucky University in which the participation of one or more advanced graduate education universities is arranged through Northern.

<sup>(1)</sup> Source: Northern Kentucky University: Contributions to the Region's Education, Quality of Life, and Economy.

The University should continue to offer health and selected technical programs because it serves as a community college for the area.

Because of its close proximity to other higher education and post-secondary institutions, Northern should foster close working relationships and develop articulation agreements with those institutions. The University should provide applied research, service, and continuing education programs directly related to the needs of its primary service region.

The development of a community studies center encouraging applied research and public service activities would provide a unique opportunity for cooperating with other institutions and for service in the northern Kentucky area."

A Mission Statement Clarification was prepared by the University in 1985 pursuant to the current Strategic Plan. The Mission Statement Clarification can be found in the Campus Master Plan: Inventory Report which is Appendix A of this Master Plan document.

1. University Academic Programs - The University is primarily an undergraduate commuter institution offering educational opportunities for part-time, full-time, day and evening students, recent high school graduates, minority and foreign students, working adults and retired citizens.

E. Summary of Enrollments - Fall 1980 to Fall 1985

Table A summarizes the growth and decline of University enrollment over the past six-year period. It is important to note the nearly even split between full-time and part-time students.

TABLE A  
TOTAL ENROLLMENT SUMMARY  
1980-1985<sup>(2)</sup>

	Fall 1980	Fall 1981	Fall 1982	Fall 1983	Fall 1984	Fall 1985
Headcount	8,358	8,835	9,339	9,361	8,879	8,697
FTE	5,201	5,539	6,026	5,927	5,618	5,493
FTE/HDCT Ratio	62.3%	62.6%	64.4%	63.2%	63.3%	63.2%
Resident	7,397 88.5%	7,709 87.3%	8,009 85.8%	8,010 85.6%	7,622 85.8%	7,401 85.1%
Non-Resident	961 11.5%	1,038 11.7%	1,259 13.5%	1,295 13.8%	1,219 13.7%	1,241 14.3%
Foreign	63 0.8%	88 1.0%	71 0.8%	56 0.6%	38 0.4%	55 0.6%
Full-Time	4,213 50.4%	4,532 51.3%	4,988 53.4%	4,957 53.0%	4,690 52.8%	4,623 53.2%
Part-Time	4,145 49.6%	4,303 48.7%	4,351 46.6%	4,404 47.0%	4,189 47.2%	4,074 46.8%
Male	3,924 46.9%	4,158 47.1%	4,304 46.1%	4,294 45.9%	4,091 46.1%	4,049 46.6%
Female	4,434 53.1%	4,677 52.9%	5,035 53.9%	5,067 54.1%	4,788 53.9%	4,648 53.4%

<sup>(2)</sup> Source: Office of Institutional Research

It is also important to note that the University had experienced continual growth from its first year of operations until the Fall of 1984. Enrollment began to plateau in both 1984 and 1985, reflecting a change in demographic characteristics in the northern Kentucky region.

F. Summary of University Academic and Support Space

The main campus of Northern Kentucky University in Highland Heights has 666,781 assignable square feet (ASF) of educational and support space, excluding the on-campus residences. The University College Campus has a total of 38,278 ASF of combined classroom and support space. Focusing on the main campus, the ratio of assignable square feet to each Full Time Equivalent (FTE) student is far below the statewide average of 178 assignable square feet. The ratio at Northern Kentucky University is 121 ASF per FTE student using both 666,781 total ASF and a Fall 1985 FTE student count of 5,493. To increase at the University to meet the statewide average, an additional 310,973 ASF would be required. This number represents the existing space deficiency based on statewide standards.



Early University objectives of maximizing classroom space during design of the University's academic structures resulted in little space allocated for the comfort and relaxation of students in the form of student lounges, reading rooms, and other common space. Lounge areas are important aspects of an academic building program for providing comfortable space for students to congregate between scheduled classes. Additionally, commuter-oriented institutions require convenient locker space for books and classroom materials brought to the campus. Unlike students on a residential campus; commuter students cannot return to residence halls to drop off and pick up additional books. Without locker space, students would be required to carry all classroom materials required for an entire day.

The University plays a special role in the community and in the region, and the diverse space and facility requirements necessary to fulfill community needs, as well as purely academic needs, are not being satisfied on the existing campus. A full description of the role of the University in the community can be found in Section B of Appendix A included at the end of this report.

The following section of this Master Plan outlines planning objectives which, when implemented, will aid in strengthening the educational capacity of the University, and will expand the capability of the University to maintain active community outreach programs by providing diverse academic programs.

#### IV. Master Plan Objectives

The primary objectives of this Master Plan are: (1) to establish a growth strategy and (2) provide guidelines for maximum University expansion at the Highland Heights campus. The plan illustrates a wide spectrum of land uses located on what is considered the net useable area within the 239-acre site capable of accommodating future growth. The net useable area excludes utility zones and setbacks, excessively steep slopes, key open space areas, and existing development. Approximately 140 acres of the total campus area were considered useable for future campus growth, including certain existing parking and circulation areas. Therefore, the Master Plan indicates the maximum accommodation of University land uses on the available property owned by the University.

A third major objective of the Master Plan is to identify logical growth increments or phases which allow the University to expand to satisfy the demands of needed academic and support space. The first phase of the growth plan has been designed to accommodate the facilities identified in the 1986-1988 Biennial Capital Budget Request. The specific expansion program for each phase of University growth is described in Section VG of this report, and the Biennial Capital Budget Master Plan Program can be found in Table A of the Campus Master Plan: Inventory Report.

In addition to the primary objectives described above, certain physical planning and design objectives were also targeted.

##### A. Spatial Organization and Land Use

- . To expand the center or the "heart" of the campus by planning adjacent clusters of buildings and open spaces.
- . To develop an expanded core of academic functions (classrooms, administration, library, student center), surrounded by an outer core of support functions (athletic fields, housing, parking, and natural areas).
- . To site the location of future buildings in consideration of the following:
  - . to locate certain academic programs close to one another and, therefore, to create structural proximity;

- . to create meaningful and attractive open spaces and formal landscaped quadrangles framed by buildings;
- . to separate the vehicle from the pedestrian by creating pedestrian precincts which are protected from vehicular movements;
- . to enhance the sense of arrival and entry to the future campus by developing ceremonial "drop-off's" and by reinforcing existing entrances or "portals" into the original campus core; and
- . to efficiently provide service and utilities to future structures.

B. Circulation and Parking

- . To provide convenient service roads to serve the existing and proposed structures.
- . To expand the pedestrian oriented core of the campus by developing a loop circulation system utilizing an outer campus ring road and a part of Johns Hill Road.
- . To discourage non-campus through traffic and develop an efficient vehicular system to move people into and out of the campus as quickly and effectively as possible.
- . To create a hierarchical system of circulation to differentiate between major vehicular movement corridors (Kenton Drive, Nunn Drive and University Drive) and local access roads (entry points and drop-off's).
- . To construct parking garages to efficiently accommodate the automobile parking requirements necessary for a commuter institution.
- . To provide adequate parking as close to campus functions as possible without sacrificing the pedestrian character of the academic core. Parking garages should be located at all primary entries of the campus to "capture" entering traffic before it moves through the campus.
- . To provide landscaped pedestrian walkways to connect entry points, parking garages and high use areas, such as the University Center, athletic complex, dormitories and the Library.

- . To provide sufficient handicapped surface parking close to buildings.
- . To develop a hierarchy of lighting and signage to orient and direct campus visitors to their intended destinations.

C. Campus Open Space and Environment

- . To establish a design "vocabulary" for new construction that is sympathetic to colors, textures and fenestration of the existing campus.
- . To use plant materials to contain and create spaces, screen certain land uses (such as parking areas) and reinforce vehicular and pedestrian movement patterns.
- . To "soften" the existing campus plaza by expanding planting areas for groundcovers, shrubs and trees.

## V. Master Plan Elements

### A. Land Use/Functional Organization

The future land use organization of Northern Kentucky University can generally be described as a series of concentric circles with each ring of the circle encompassing a specific land use. As indicated in Figure 2, the larger outermost ring or zone includes a green buffer which separates the campus from adjacent land uses. The following zone includes land uses requiring extensive land area, such as athletic fields, surface parking, the dormitories, and the maintenance facility. The next zone includes the primary loop road and the landscaped foreground to proposed buildings. This zone is followed by the actual campus core with existing and proposed structures, open space quadrangles, commons, plazas and pedestrian circulation.

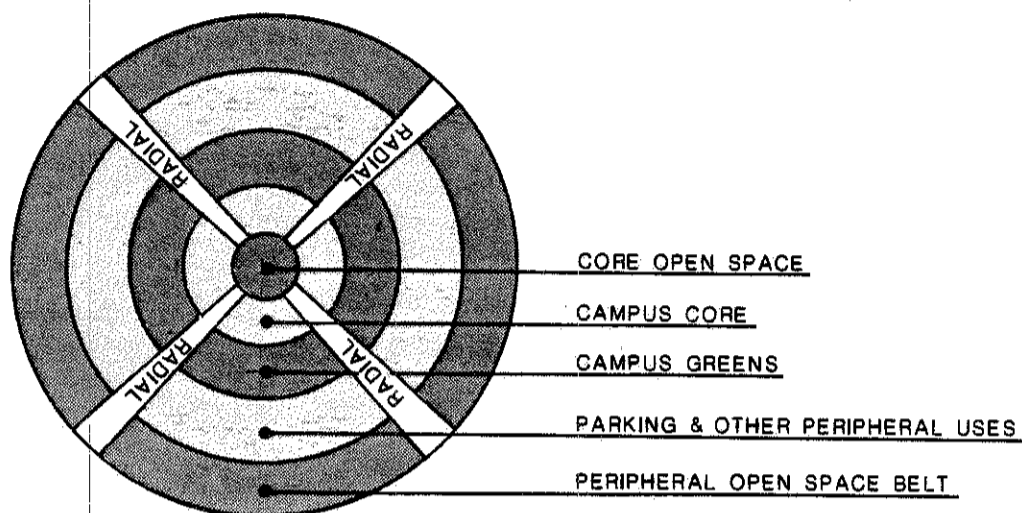


Figure 2 Open Space Structure

These concentric circles can further be distilled to two primary zones: the academic core zone and the perimeter zone. The two primary zones are woven together by a pedestrian pathway and open space system which both penetrates through and radiates from the academic core. These radiating pathways connect athletic facilities, parking, and the residences to the academic buildings of the campus. Perhaps the most important student walkway is a pedestrian spine which extends from the residence halls, through the center of the campus, to the University Center and to the Albright Health Center.

B. The Academic Core

The maximum growth or full "build out" of academic facilities will be accommodated within an expanded academic core area. The size of the core is limited to minimize the distance between buildings and to maximize the ease of functional academic relationships; to maintain its pedestrian orientation; and to limit vehicular penetration.

A total of 643,500 gross square feet (GSF) of proposed buildings are accommodated on the Master Plan in addition to the existing 1,006,000 (GSF) of space currently located at Northern Kentucky University. To accommodate parking needs, five parking structures capable of providing nearly 2,900 parking spaces have been strategically distributed around the periphery of the campus core and inside the major loop road. An additional 1,400 surface spaces will also help to serve campus parking needs, resulting in a total of approximately 4,300 spaces available on campus. Other structural land uses illustrated on the Master Plan include new residence halls with accommodations for 600 additional students.

The existing plaza will continue to function as the center of campus activity due to its surrounding "public" campus uses, including the University Center, Library, and Fine Arts Center.

Excluding the existing plaza open space, five additional major open space zones have been planned: the Commons; Regents Hall South Entry; Landrum North; Nunn Hall West; and the Residence Halls Green. These zones are illustrated on Figure 3.

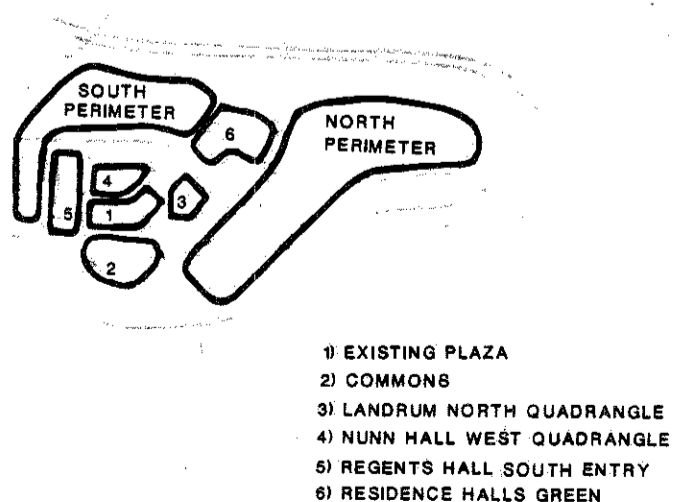


Figure 3 Campus Zones and Districts

1. The Commons - will be north of the BEP building and east of the Fine Arts Center. This open space will focus on an improved pond and a terraced lawn located east of the pond. The nine acre space surrounding the pond and its grounds will be enclosed by a proposed 480-car parking garage, the Applied Science and Technology Center, the Fine Arts Center, Library, and BEP Center. The Commons will also accommodate a new "Ceremonial Entrance" into the campus. This entrance will be located at the lower level of the Fine Arts Center Addition providing direct access to the theater and proposed music recital hall, and will serve as the formal "portal" into the campus. A landscaped terrace will provide a more architectural edge to the reconfigured pond and also provide a public gathering space for use during special campus events and theater intermissions.
2. Regents Hall South Entry - will penetrate close to the inner core of the campus. This major three-acre landscaped entry road into the campus will be framed by the Albright Health Center, Regents Hall, Administration Center and a proposed 480-car parking garage located immediately east of the loop road.
3. Landrum North Quadrangle - will be contained by two new academic buildings with a total of approximately 190,000 GSF of space and the proposed Interfaith Center. The new buildings will surround a 2.5-acre landscaped quadrangle. Additional plantings to the north of Landrum Hall will help to establish a strong linear orientation and help relate it to the main campus spine. A second 480-car parking garage will be located immediately east of the quadrangle.
4. Nunn Hall West Quadrangle - will be contained by three new academic buildings which will relate architecturally to Nunn Hall and the Natural Science Center. These three buildings will add an additional 260,000 GSF of space to the campus. As with the Landrum North quadrangle, the three-acre Nunn Hall West landscaped quadrangle will be framed by buildings and trees. The west quadrangle, unlike the north quadrangle, will be in proximity to several "front door" entries,

including drop off points south and west of University Center and north of Albright Health Center. Two smaller "front lawns" will accomplish this linkage. Two parking garages will be located west of the proposed buildings and will add 960 parking spaces.

5. Residence Halls Green - will form the open space focus for four additional residence halls programmed to accommodate 600 students. The green will contain approximately three acres of landscaped open space.

C. Intensity of Campus Development

The Master Plan illustrates the actual land areas or sites to be covered by proposed structures (footprints) and also illustrates the juxtaposition of buildings.

As a general concept, the intensity of land uses surrounding future quadrangles should be less than that of the existing campus core to maintain a hierarchy and spatial order on the campus. Building intensity can primarily be expressed in terms of the height and mass of the structures and the size, character and spatial quality of the open space enclosed by the building masses.

The height of proposed buildings should reach a maximum of four floors for the north and west quadrangles (as long as the base plan elevation remains at approximately 850'). However, the future AS&T Center (to the east of BEP) will be located on a knoll at a higher elevation. The height of the AS&T Center should not exceed three stories. Figure 4 illustrates the suggested heights for future buildings.

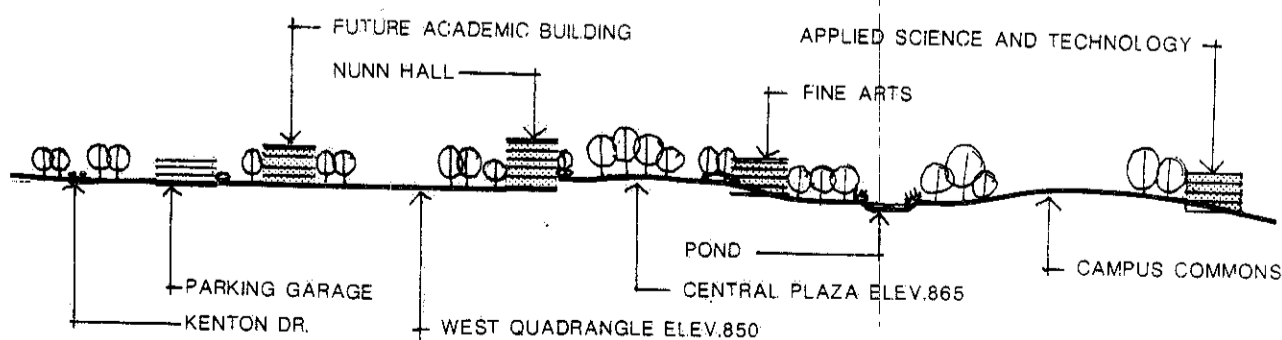


Figure 4 Proposed Massing



The character and spatial quality of open spaces within the campus will be more diversified than the present enclosed open spaces. In general, the new proposed quadrangles will be "softer" and more heavily landscaped to provide opportunities for and to encourage more passive uses. A transition from the hard, plaza-like quality of the existing core to the softer quadrangle spaces will occur through more intimate terraces and courtyards. The changes in level from the existing core to the future quadrangles will also help to reinforce this hierarchy of spatial order.

The perimeter area of the campus consists primarily of land allocated to circulation, surface parking, recreation, natural areas and buffers, and secondary or support uses including the utility substation, residence halls, maintenance and storage facilities.

Athletic fields are sited proximate to both the Albright Health Center and the residential community.

The natural areas surrounding the University form a distinctive edge to the campus and should be preserved and enhanced. The integrity of the buffer has been compromised in some cases and new woodland plantings should be established to reinforce this use (especially along Interstate I-275; along Nunn Drive from Johns Hill Road to the transmission line; and along Johns Hill Road itself). A perimeter jogging path should be constructed through this wooded buffer. The path should be highly accessible to the residence halls and provide linkages to the athletic facilities.

#### D. Vehicular Circulation and Parking

In general terms, the Master Plan envisions the development of a circulation system to expedite the movement of vehicles to and from the campus as conveniently as possible. The primary means of accomplishing this goal is through development of a loop road, external to all primary pedestrian circulation, with access roads penetrating the campus at areas of concentrated use, including Fine Arts, University Center and Albright Health Center (See Figure 8). These strategic entrances will serve as landscaped "portals" into the academic core.

The present Campus Drive west and north of the existing academic complex will ultimately be eliminated with building expansion across those sections of roadway.

The campus is primarily commuter oriented with only 5% of the student body housed on campus. Present parking count is approximately 3,300 cars, all on surface lots. These lots cover 30 acres, or a disproportionate 12%, of the total property.

1. Circulation - External - In addition to the primary access corridors of I-275, I-471, and US 27, two additional major highways potentially affecting the campus are in the planning stage. The first is an extension of I-71 from Walton, Kentucky, to I-275 at Ky.9 called the Cross County Highway. The second is the Ashland to Alexandria Highway which will terminate at the same point as the Cross County Highway. The new interchange will be located one mile southwest of the University's I-275 interchange at Three Mile Road.

In general, the University should resist any efforts that will introduce additional non-University traffic in the quadrant between US-27 and KY-9 (AA Highway).

2. Origin of Vehicles Entering the Campus - The following describes the routes followed by vehicles entering the Campus along with a proportional breakdown by origin.

- . I-275 Southwest carries 65% of all vehicles entering the University. This highway connects the Greater Cincinnati International Airport, as well as Boone and Kenton Counties, with the University.
- . I-275 Northeast and I-471/US-27 account for 25% of all entering vehicles. These highways serve north Campbell County and Southwest Ohio.
- . US-27 and Johns Hill Road to the Southeast contribute the remaining 10% of traffic flow into the University.
- . The improvement of Three Mile Road on the north and east includes a new entry point south of the Electric Substation. This, together with recommended improvements to Johns Hill Road on the South will complete the Campus Loop Road. Traffic generated at the three entry portals is projected as follows:

From Three Mile Road	65% = 2,925 vehicles
From US-27/I-471	25% = 1,125 vehicles
From Johns Hill Road/US-27	10% = <u>450</u> vehicles
Total	4,500 vehicles

3. Campus Entry Points - Four entry terminals are planned as cul-de-sacs for mass transit busses and passenger unloading. These occur at the following:

- . The Fine Arts Center, as a ceremonial entrance (with vertical connections to Theaters, Galleries, Library and Upper Plaza);
- . The Administrative/University Center complex for daytime visitors to campus;
- . The A. D. Albright Health Center from the west; and
- . The Student Housing Complex to the north.

4. Projected Traffic Impacts - The arrival of 4,500 cars within a two-hour morning period represents peak traffic conditions and should cause no problems at the three entry portals. Access to parking, however, will be slowed if left turns are allowed from the Loop Road. A traffic pattern is thus envisioned using the entire loop to dilute traffic with only right turns to parking permitted.

The total planned development will be phased in increments and there will be no sudden upsurge in traffic; rather, it will increase gradually through the years. As need occurs, the Loop Road will be widened to four lanes with required stacking or turning lanes. To complete the ambience of the campus, curbs, gutters, sidewalks and lighting for all access roads will be programmed into future development packages.

5. Parking - General Organization - Parking areas will be provided as close to the academic core as possible and organized so that each entry has adequate parking to accommodate student, visitor, and faculty demands.

. All academic buildings and parking structures are planned within the confines of the campus loop road, maintaining the original plan of separation of vehicular and pedestrian traffic.

6. Future Parking - Master Plan projections anticipate 4300 parking spaces to adequately handle over-lapping demands. The scheduling of large gatherings is generally hampered by present parking limitations. The construction of future buildings, recreational areas and passive open space will ultimately eliminate 1800 surface spaces. Reconciling this loss along with future demands the Master Plan recommends 2900 spaces in structured parking garages plus the remaining 1400 spaces on surface lots. The 2900 spaces will be staged in five structures averaging approximately 600 cars each, and must be programmed with future academic needs as a composite package. Since pay parking is a new concept at Northern Kentucky University, serious study is needed on both funding and amortization.

Surface parking for team buses, participants and spectators will be provided adjacent to recreation/athletic fields.

Residence Hall parking is planned at one space/two students plus 10% overflow for visitors.

E. Pedestrian Circulation

The primary means of linking the residential halls, parking lots, garages, and athletic fields to the classrooms, laboratories, libraries, University Center, and other academic or support facilities will be a series of pedestrian walkways. The pedestrian spine, the major campus walkway connecting the residence halls with the campus core, will be reinforced by other important pedestrian walks including those designed to accommodate pedestrian movements during class change intervals. In addition, it is envisioned that an outer tier of paths located around the perimeter of the campus would interconnect the uses located at the extremity of the campus and also serve as walking trails/jogging paths (See Figure 5).

To provide a degree of pedestrian safety, the pedestrian pathways and vehicular routes are separated within the academic core and, to some extent, within the perimeter area.

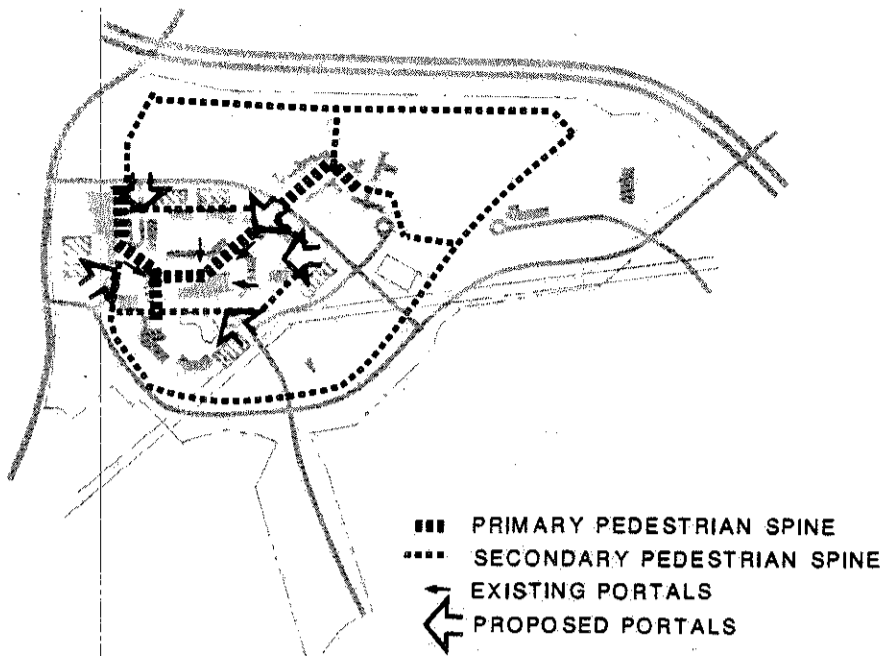


Figure 5 Pedestrian Circulation

It is recommended that the walkways vary in width reflecting the hierarchy of importance; that they be landscaped with shade trees flanking both sides of the walks; that shrub planting visually separate parking areas from the walks; that quality pavement material be used to complement the campus architecture; that adequate walkway lighting be installed; and, finally, that benches be located in strategic locations along the walks.

F. Utilities

1. Heating and Cooling

Phases 1 and 2: The residual capacity (33%) at Central Power Plant (see Inventory Report) is capable of serving Phase 1 projects totaling 143,000 square feet plus Phase 2 projects of 60,000 square feet.

Logic:

	<u>Area</u>	<u>Percentage Utilized</u>	<u>MBH (15075)</u>
Existing	767,742 sf	67.0%	10,100
Addition	203,000 sf	17.8%	2,713
Reserve	175,141 sf	15.2%	2,262
Total	1,145,883 sf	100.0%	15,075 avail.

Design engineers for these projects must, however, verify these preliminary studies.

- a. Utility Extension: Fine Arts Addition, Library Addition (Phase 1) and University Center Addition (Phase 2) are logically served from existing utility tunnel.
- b. The New Applied Science & Technology Building will be served by buried utility trench from Central Power Plant to building site. (See Table B, Phase 1, Item 16).

Phases 3 and 4: With the beginning of the North Quadrangle, a new coal fired power plant is necessary. This plant will be designed to accommodate the complete North Quadrangle, the Residence Halls and the West Quadrant. In planning the new plant, the separate power plants in Nunn and Science should be tied into the new coal fired plant, evaluating the use of residual capacity (see Inventory Report).

2. Water

Phases 1 and 2: Water for the AST Building is available from the main entry line running from east to west just north of BEP Building.

Water for Fine Arts, Library and University Center is available at existing source.

Phase 3: Water is available north of Landrum and along the road serving the Housing Complex.

Phase 4: Water is available north of Health Center and west of Nunn and Science.

3. Sanitary Sewer

Phases 1 and 2: Fine Arts, Library and University Center additions may connect to existing service.

AST Building may access main E-W sewer line at entry road north of building site.

Phases 3 and 4: Phase 3 - Outfall may connect to sewer line north of substation running from Housing Complex to main collector. Phase 4 - Routing to existing sewer north of Landrum must be investigated; capacity must be checked.

4. Electric Distribution and Lighting

Phases 1 and 2: Design Engineers to verify capacity and to extend service to AST Building. Service to Library, Fine Arts and University Center to be extended from existing building service. Include exterior lighting for Commons.

Phases 3 and 4: Consider need for enlarged substation. Develop distribution system contemplating demand for power, interior and exterior lighting for both phases.

Tele-Communications and Communications Network as described in the Inventory Report must be extended in each phase of development (see Table B, "Master Plan Phasing").

G. Master Plan Phasing/Implementation Costs

As stated above, the maximum expansion at Northern Kentucky University will provide an additional 643,500 GSF of space to the existing 1,006,000 GSF existing on campus. It is recommended that the Master Plan be implemented in logical "packages" which can be constructed during one single construction period. By constructing a specific phase of the master plan in one single period, the construction will occur in one area to minimize campus-wide disruption. Once a phase has been implemented, the new construction will be closely tied both physically and functionally to the existing campus core. Implementation will include the construction of buildings, roads, parking lots and garages, walks, landscaping, lighting, signage, and utility services.

The actual forces which will drive the pace of implementation will be a combination of enhancement or improvement of existing conditions, increased enrollment and new program growth. Because the expansion program cannot be accurately keyed to projected completion target dates, the implementation phases are placed in priority.

Table B describes the various improvements necessary for each of the Master Plan Implementation phases, along with generalized improvement costs. Appendix C contains cost assumptions and other notes related to Implementation costs. Numbers in parentheses listed under the heading Implementation Cost in Table B relate to more detailed cost information in Appendix C.

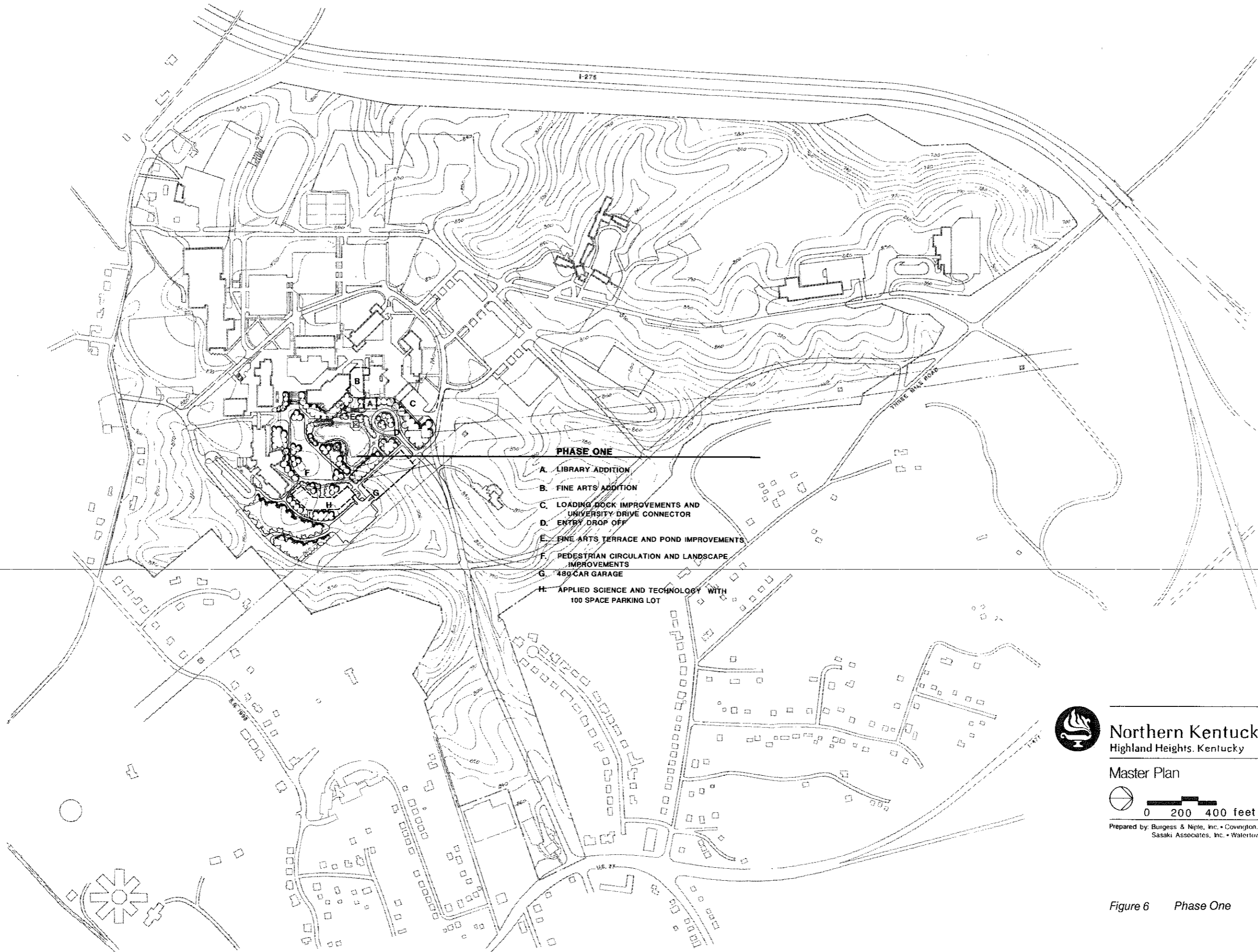
TABLE B  
MASTER PLAN PHASING

First Priority-Phase 1

<u>Land Use Category</u>	<u>Proposed Improvement</u>	<u>Implementation Cost</u>
<u>Buildings:</u>	Applied Science & Technology	\$10,000,000 (1)
	Fine Arts Addition	5,600,000 (2)
	Library Addition	2,640,000 (3)
<u>Vehicular Circulation:</u>	Reconfiguration of Nunn Drive and New Campus Entry (through traffic remains)	420,000 (4)
	Entrance and campus wide signage	208,000 (5)
	Improvement of Kenton Drive	900,000 (6)
	Visitor parking/information	40,000 (7)
<u>Parking:</u>	Displacement of 198 surface spaces	N/C
	Replace with 480-car garage and public safety office	3,936,000 (8)
	100-car surface lot	100,000 (9)
<u>Service:</u>	Service access to AS&T from Nunn Drive (using parking lot access)	N/C
<u>Open Space:</u>	Fine Arts Terrace	416,000 (10)
	Central Plaza landscape improvements	162,000 (11)
	Commons landscape improvements	513,000 (12)
	Pond improvements	395,000 (13)
	Pathway connections to campus core	179,000 (14)
	Terrace between University Center and Fine Arts	72,000 (15)
<u>Utilities:</u>	Expansion of electric distribution loop, steam, condensate, chilled water, chilled water return from existing Power Plant to AS&T	N/A (16)
	Telecommunication expansion	N/A (16)
	Campus wide communication network	400,000
	Water and Sewer	
<u>TOTAL PHASE 1</u>		<u>\$25,981,000</u>

Key: N/C - No Direct Cost  
N/A - Not Available



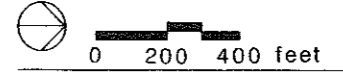


- PHASE ONE**
- A. LIBRARY ADDITION
  - B. FINE ARTS ADDITION
  - C. LOADING DOCK IMPROVEMENTS AND UNIVERSITY DRIVE CONNECTOR
  - D. ENTRY DROP OFF
  - E. FINE ARTS TERRACE AND POND IMPROVEMENTS
  - F. PEDESTRIAN CIRCULATION AND LANDSCAPE IMPROVEMENTS
  - G. 480 CAR GARAGE
  - H. APPLIED SCIENCE AND TECHNOLOGY WITH 100 SPACE PARKING LOT



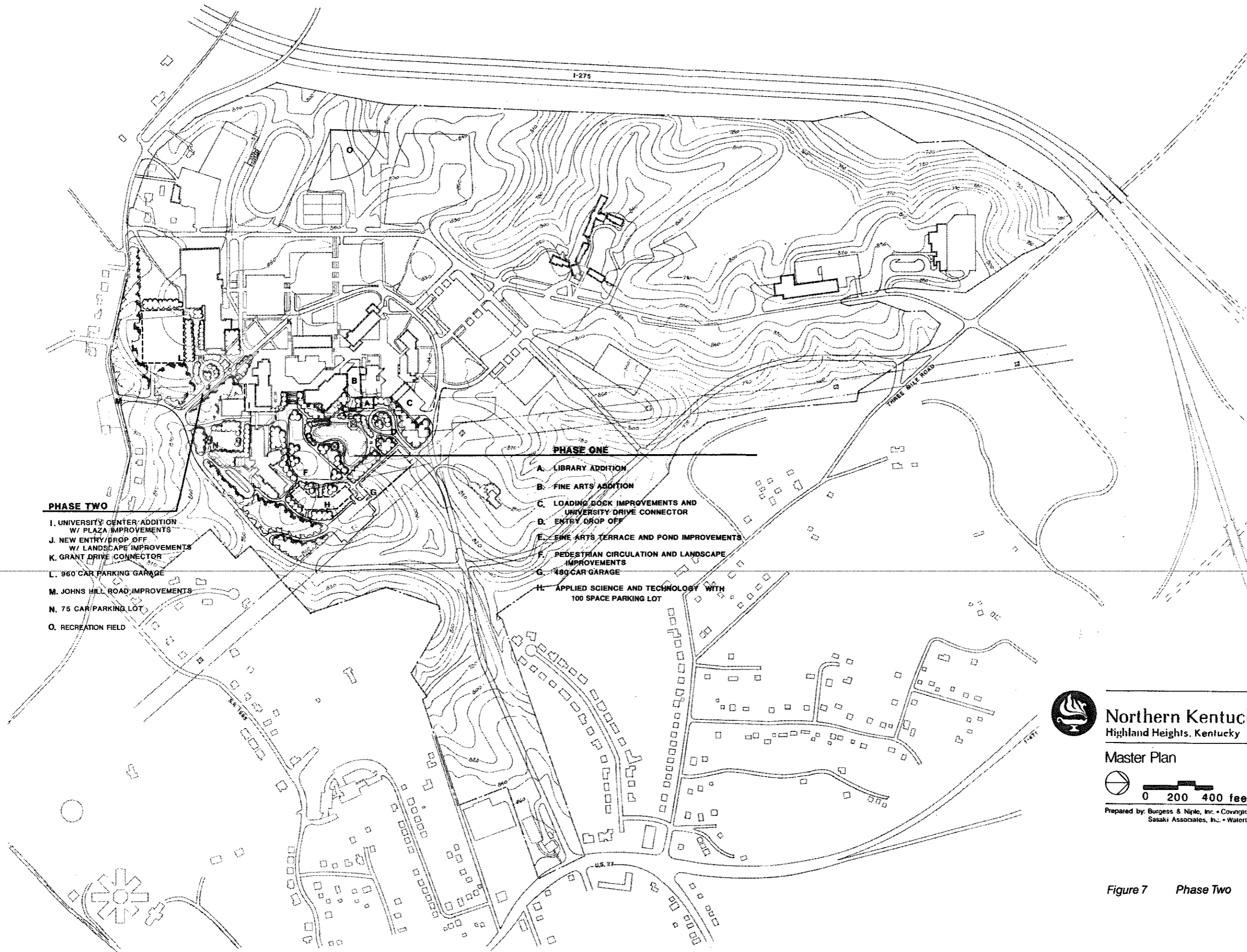
**Northern Kentucky University**  
Highland Heights, Kentucky

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Figure 6 Phase One



I-275

THREE MILE ROAD

U.S. 27

**PHASE ONE**

- A. LIBRARY ADDITION
- B. FINE ARTS ADDITION
- C. LOADING DOCK IMPROVEMENTS AND UNIVERSITY DRIVE CONNECTOR
- D. ENTRY DROP OFF
- E. FINE ARTS TERRACE AND POND IMPROVEMENTS
- F. PEDESTRIAN CIRCULATION AND LANDSCAPE IMPROVEMENTS
- G. 480 CAR GARAGE
- H. APPLIED SCIENCE AND TECHNOLOGY WITH 100 SPACE PARKING LOT

**PHASE TWO**

- I. UNIVERSITY CENTER ADDITION W/ PLAZA IMPROVEMENTS
- J. NEW ENTRY/DROP OFF W/ LANDSCAPE IMPROVEMENTS
- K. GRANT DRIVE CONNECTOR
- L. 960 CAR PARKING GARAGE
- M. JOHNS HILL ROAD IMPROVEMENTS
- N. 75 CAR PARKING LOT
- O. RECREATION FIELD



**Northern Kentucky University**  
Highland Heights, Kentucky

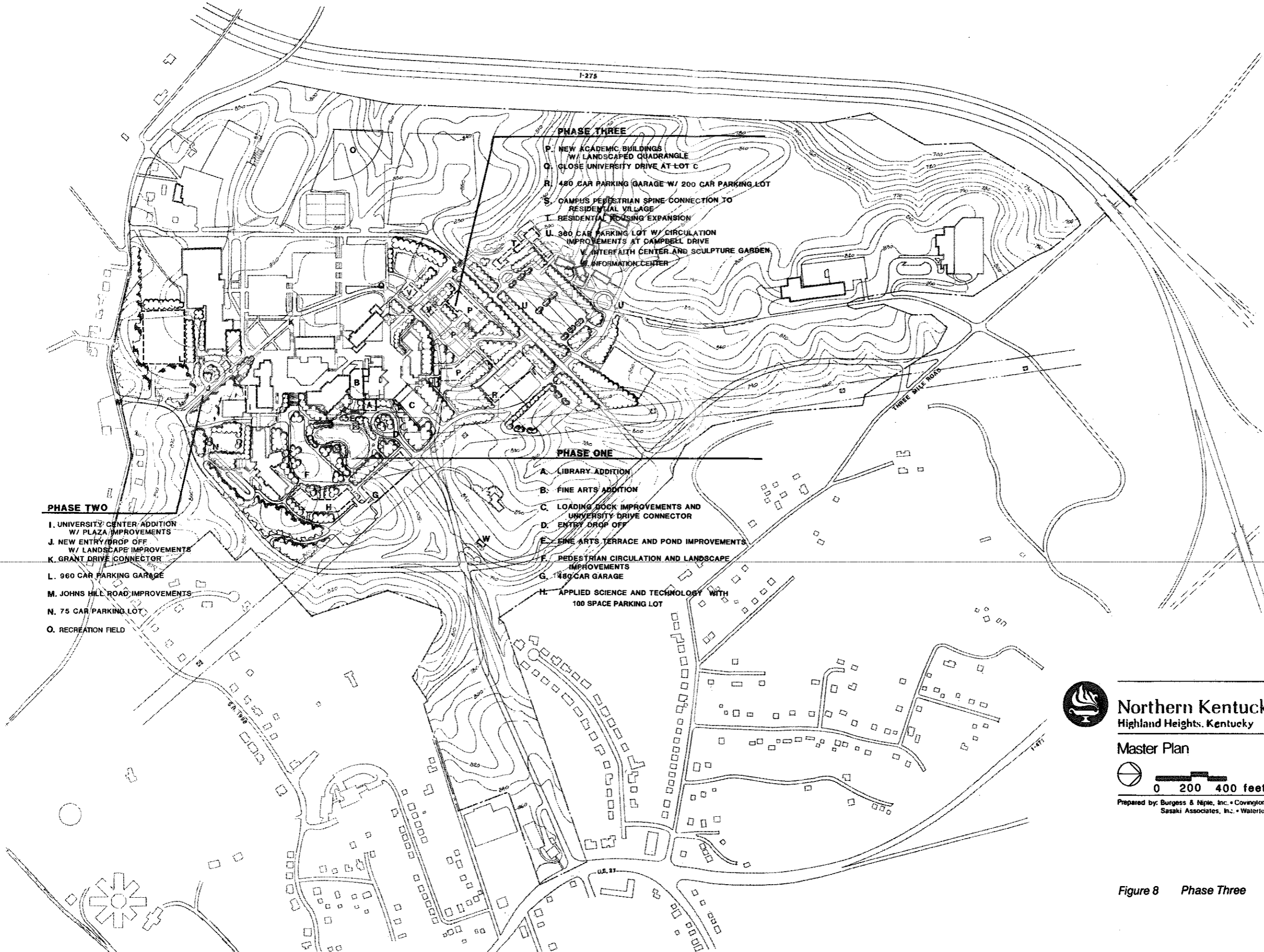
Master Plan



0 200 400 feet

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Figure 7 Phase Two



**PHASE THREE**

- P. NEW ACADEMIC BUILDINGS W/ LANDSCAPED QUADRANGLE
- Q. CLOSE UNIVERSITY DRIVE AT LOT C
- R. 480 CAR PARKING GARAGE W/ 200 CAR PARKING LOT
- S. CAMPUS PEDESTRIAN SPINE CONNECTION TO RESIDENTIAL VILLAGE
- T. RESIDENTIAL HOUSING EXPANSION
- U. 360 CAR PARKING LOT W/ CIRCULATION IMPROVEMENTS AT CAMPBELL DRIVE
- V. INTERFAITH CENTER AND SCULPTURE GARDEN
- W. INFORMATION CENTER

**PHASE ONE**

- A. LIBRARY ADDITION
- B. FINE ARTS ADDITION
- C. LOADING DOCK IMPROVEMENTS AND UNIVERSITY DRIVE CONNECTOR
- D. ENTRY DROP OFF
- E. FINE ARTS TERRACE AND POND IMPROVEMENTS
- F. PEDESTRIAN CIRCULATION AND LANDSCAPE IMPROVEMENTS
- G. 1480 CAR GARAGE
- H. APPLIED SCIENCE AND TECHNOLOGY WITH 100 SPACE PARKING LOT

**PHASE TWO**

- I. UNIVERSITY CENTER ADDITION W/ PLAZA IMPROVEMENTS
- J. NEW ENTRY/DROP OFF W/ LANDSCAPE IMPROVEMENTS
- K. GRANT DRIVE CONNECTOR
- L. 960 CAR PARKING GARAGE
- M. JOHNS HILL ROAD IMPROVEMENTS
- N. 75 CAR PARKING LOT
- O. RECREATION FIELD



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Figure 8 Phase Three

TABLE B (Continued)

Second Priority-Phase 2

<u>Land Use Category</u>	<u>Proposed Improvement</u>	<u>Implementation Cost</u>
<u>Buildings:</u>	University Center Addition	\$ 6,000,000 (17)
<u>Vehicular Circulation:</u>	Close Nunn Drive and construct new entry drop-off east of Regents Hall	240,000 (18)
	Johns Hill Road improvements*	N/C (19)
<u>Parking:</u>	Displace 50 surface spaces (2 lots at entry)	N/C
	Displace lot K (510 spaces)	N/C
	Replace with 960-car garage (south of Regents Hall)	7,872,000 (20)
	Add 75-car surface lot (south of BEP)	75,000 (21)
<u>Service:</u>	Maintain service access to campus core (between Nunn Hall and University Center)	N/C
<u>Open Space:</u>	Entry plantings	558,000 (22)
	Pedestrian linkages (w. lighting)	83,000 (23)
	Recreation/athletic field at lot K	400,000 (24)
	Lighting for athletic fields and tennis courts	400,000 (25)
<u>Utilities:</u>	Connect to existing service in tunnel	N/C
<u>TOTAL PHASE 2</u>		<u>\$15,628,000</u>

Key: N/C - No Direct Cost

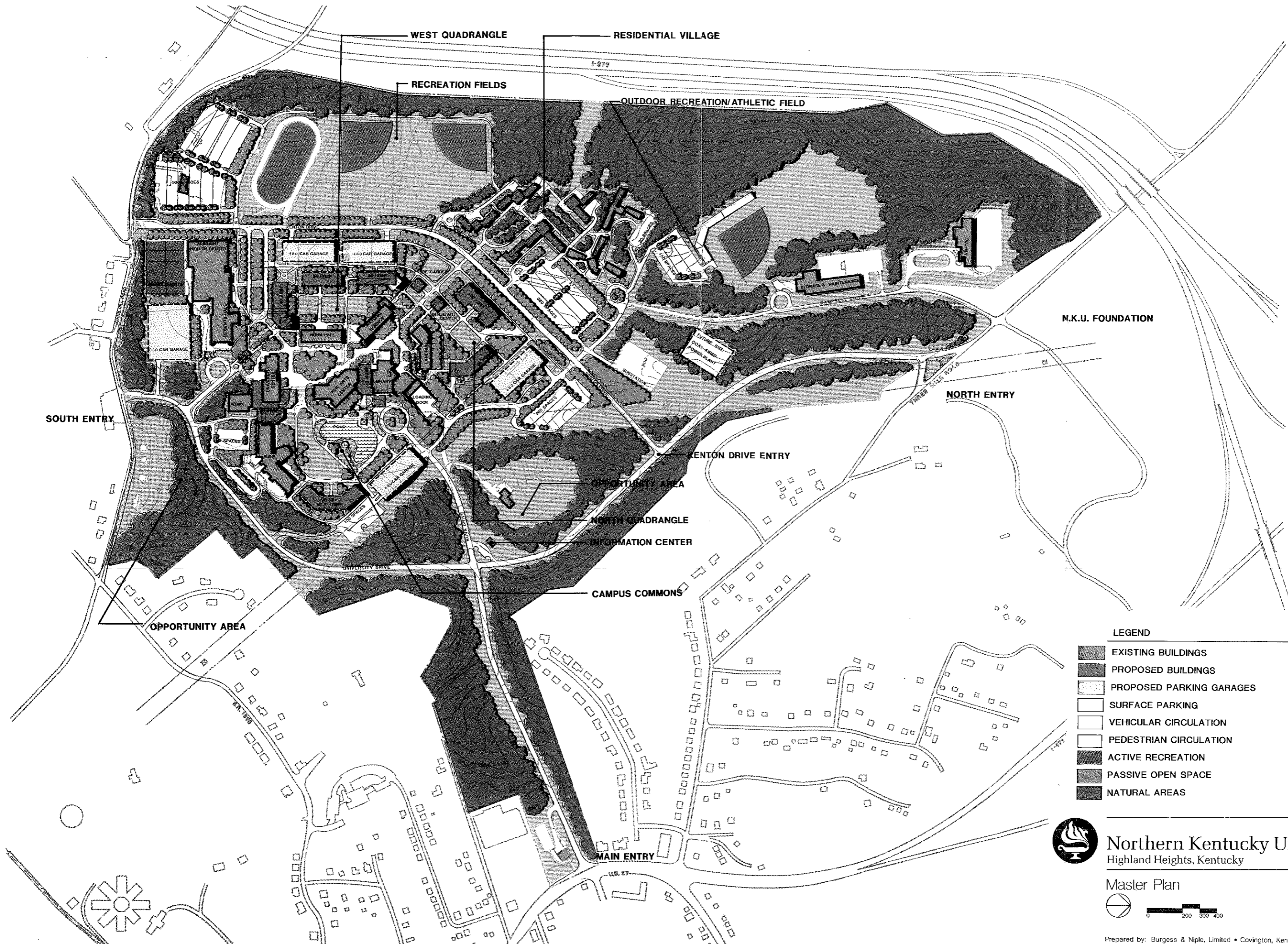
\* Funding to be obtained from public agencies

TABLE B (Continued)

Third Priority-Phase 3

<u>Land Use Category</u>	<u>Proposed Improvement</u>	<u>Implementation Cost</u>
<u>Buildings:</u>	Two new academic buildings	\$19,380,000 (26)
	Interfaith Center (optional)	960,000 (27)
	Residential buildings (optional)	6,000,000 (28)
<u>Vehicular Circulation:</u>	Close Campbell Drive to through traffic	N/C
	Construct new entry drop-off to residence halls	175,000 (29)
<u>Parking:</u>	Displace surface lots D, E, and F (520 spaces)	N/C
	Construct 480-car garage	3,936,000 (30)
	200 surface spaces (in area of lot F)	200,000 (31)
	Reconfigure lot H to accommodate 540 surface spaces	540,000 (32)
<u>Service:</u>	Serviceable pathways to existing docks at Central Power and new buildings	300,000 (33)
<u>Open Space:</u>	Demolish University Drive and install landscaping	45,000 (34)
	Landscape improvements in North Quad	319,000 (35)
	Campus Spine walkways and landscape improvements	459,000 (36)
	Kenton Drive Landscape	378,000 (37)
	Access Road Landscape	216,000 (38)
	Residence Halls Landscape	315,000 (39)
<u>Utilities:</u>	Sanitary sewer connection	40,000 (40)
	New coal-fired power plant (ceramics complex relocation)	18,000,000 (41)
	Electric distribution, tele-communication expansion, campus communication network	240,000 (42)
	Water and Sewer	
<u>TOTAL PHASE 3</u>		<u>\$51,503,000</u>

Key: N/C - No Direct Cost



WEST QUADRANGLE      RESIDENTIAL VILLAGE

RECREATION FIELDS      OUTDOOR RECREATION/ATHLETIC FIELD

N.K.U. FOUNDATION

SOUTH ENTRY

NORTH ENTRY

KENTON DRIVE ENTRY

OPPORTUNITY AREA

NORTH QUADRANGLE

INFORMATION CENTER

CAMPUS COMMONS

OPPORTUNITY AREA

MAIN ENTRY

LEGEND

- EXISTING BUILDINGS
- PROPOSED BUILDINGS
- PROPOSED PARKING GARAGES
- SURFACE PARKING
- VEHICULAR CIRCULATION
- PEDESTRIAN CIRCULATION
- ACTIVE RECREATION
- PASSIVE OPEN SPACE
- NATURAL AREAS



Northern Kentucky University  
Highland Heights, Kentucky

Master Plan

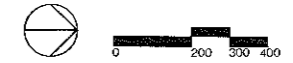


Figure 9

TABLE B (Continued)

Fourth Priority-Phase 4, Complete Master Plan Implementation

<u>Land Use Category</u>	<u>Proposed Improvement</u>	<u>Implementation Cost</u>
<u>Buildings:</u>	3 new academic buildings	\$ 26,520,000 (43)
<u>Vehicular Circuation:</u>	Construct drop-off at Albright Health Center System in-place	300,000 (44)
<u>Parking:</u>	Displace lots A, B, & C (485 cars) Replace with two 480-car garages	N/C 7,872,000 (45)
<u>Service:</u>	As required for new building program	400,000 (46)
<u>Open Space:</u>	West Quadrangle planting	1,103,000 (47)
	Residence Halls landscape	405,000 (48)
	Outdoor facilities including lighting	675,000 (49)
	Tennis court lighting	438,000 (50)
<u>Utilities:</u>	Distribution	896,000 (51)
<u>TOTAL PHASE 4</u>		<u>\$ 38,609,000</u>
<u>TOTAL ALL PHASES</u>		<u>\$131,721,000</u>

It should be emphasized that the above costs reflect 1986 dollars and that actual costs will vary depending on the year of construction.

Key: N/C - No Direct Cost

## VI. Landscape Vocabulary

The purpose of these guidelines is to describe the general design character and intent of various landscape components of the Master Plan. These landscape components are aesthetically complementary to the existing campus and in most cases are functional. Design elements to be addressed include information centers and signage, walkways, lighting, planting, and site furnishings. It is recommended that the following guidelines provide the foundation for further, more detailed study.

Figure 10 is a diagrammatic section through Kenton Drive to indicate the prototypical location of landscape elements such as tree and shrub plantings, berming, screening, lighting and signage.

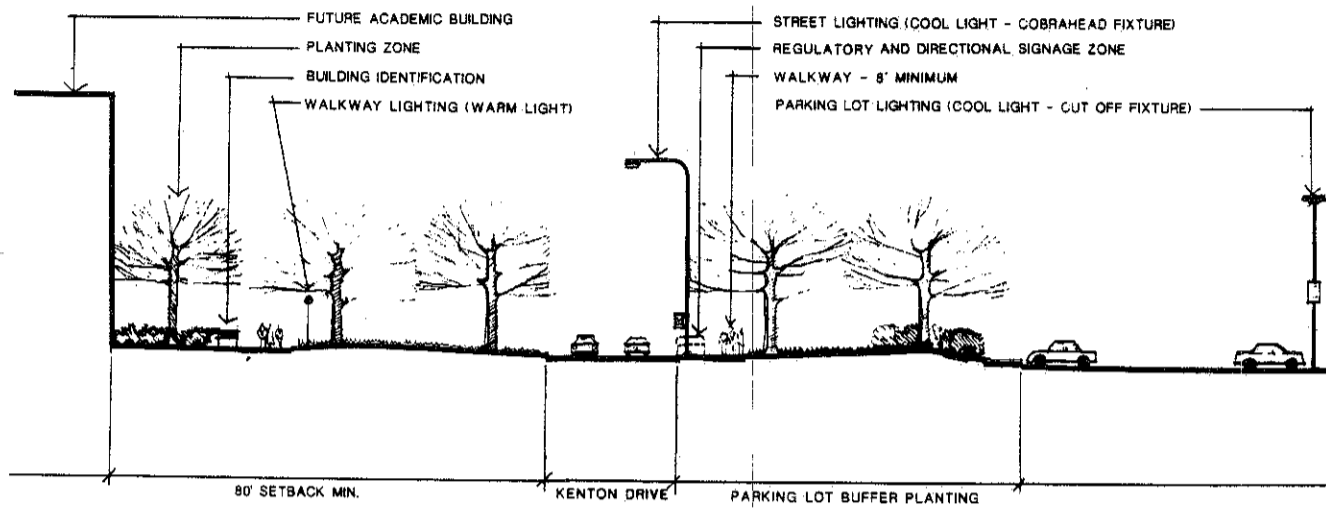


Figure 10 Kenton Drive Landscape Vocabulary

### A. Information Centers and Signage

Existing signage on campus is less than adequate, and locating a specific area or building on campus is extremely confusing to first time visitors. The following recommendations describe needed informational systems improvements.

- . An information center should be located at the intersection of the ceremonial entrance and the loop road. The Center will be invaluable in directing visitors to destinations.



- . A hierarchy of signage should be established in the following order: (1) Primary road informational/ directional signs; these signs would be the largest on campus and have the boldest type face. They should be located at the main entrances at US Route 27, Johns Hill Road and Three Mile Road, and at all intersections of the loop road. (2) The next tier of signage would direct visitors to parking lots or garages off the loop road. Once parked, visitors would be directed to specific buildings by signs located adjacent to parking areas. (3) Buildings would be identified by signs. (4) The various uses within each building would be described along with room numbers. The size of signs should relate to the hierarchy described above.

#### B. Walkways

The primary walkway proposed for the campus will extend from the residence area, through the existing campus Plaza, to the Albright Health Center. Secondary walkways would connect all other land uses within the campus. The following recommendations will aid in creating attractive and safe pedestrian routes.

- . Similar to other landscape vocabulary elements, the width and landscape treatment of the walkways should be based on a hierarchy of use and importance.
- . Walkways should be screened from parking areas through landscaped berms and hedges.
- . Shade trees should be used to identify the location and alignment of walks.
- . All pedestrian walks should be adequately lighted.
- . Walkways should be constructed of textured concrete to respect the architecture of existing and proposed buildings.
- . Stop signs should be located on roadways to allow safe crossing for pedestrians.
- . Walkways on the Plaza should be reduced in size wherever possible to "soften" the urban starkness of the Plaza. Landscaping should replace the excess pavement.
- . Relatively narrow walkways should cross all proposed quadrangles and the Commons following anticipated foot traffic desire lines.

C. Lighting

In general the tallest light standards and brightest lights should be located along the loop road. A lighting hierarchy should be developed for specific areas on campus, including parking areas, walks, quadrangle spaces, and the Plaza.

- . The ceremonial entrance road, from Route 27 to the main entrance loop near the Fine Arts building, should be lighted.
- . Lighting intensity should help to differentiate the various uses on the campus. Corridors with the most intense use, such as the primary walkways and primary vehicular roads, should be programmed for the most intense lighting.
- . Pedestrian scale fixtures should be located within open space quadrangles and the Plaza.
- . If economically feasible, the light standards existing on campus should be used in future campus areas to promote consistency.

D. Planting

Some areas within the existing campus are well landscaped, such as the area south of the Student Center, while other areas require improvement. A major landscape objective is to raise the quality level of the landscape environment to a certain higher level of consistency.

- . Railroad tie planters located in the existing campus plaza are residential in character and not appropriate for use in the University setting. Well designed concrete planters should replace the existing wood planters.
- . High maintenance landscaping, such as the installation and rotating of annuals for color, should be limited to the primary open space areas - quadrangles, the Common, and the Plaza - and key areas which are highly visible.
- . Tall, large canopied shade trees should be planted along the primary road system and sensitively established within the proposed quadrangles. Native woodland plantings should also be extended along both sides of the main entrance road from Route 27 to the campus.

- . "Portals" providing entrance into the center of the campus should be defined by framing walkways with medium size trees. The trees lining the entrance walk to Nunn Hall nicely define this important portal. This treatment should be emulated in the future.
- . Evergreen trees such as Austrian Pine should be used to screen parking areas from the academic core of the campus.
- . Large shade trees should be planted close to existing and proposed buildings to relate to the scale of the buildings. (Minimum 30' setback to allow room for trees to flourish).
- . Barren areas along the periphery of the campus not programmed for explicit campus use should be re-forested.
- . Flowering trees and shrubs should be used as much as possible to provide needed color on the campus, especially near entrances to buildings and other smaller scale spaces.
- . Increased planting should occur in the Plaza areas by displacing excess Plaza paving.
- . Special planting including aquatic planting should occur around the pond in the Commons area. The aquatic plantings could be used as an educational resource for natural science classes.

E. Site Furnishings

Site furnishings include benches, trash containers, kiosks, and bicycle racks.

The site furniture on the campus should be standardized. This standardization will add to the unity of the campus while reducing the problems of maintenance and installation. Materials should be selected for both attractiveness and durability.

- . Campus benches should be fixed in place and constructed of durable low-maintenance materials. All benches should have backs.
- . Benches in the Plaza areas must be urban in character while those in the proposed quadrangles and the Commons should be more "parklike" in appearance.

- . Landscaped alcoves or small sitting areas should be located adjacent to but not conflicting with pedestrian walkways.
- . The use of seat height walls should be used in the areas where students tend to congregate. The plantings at the edge of the seat walls must be carefully selected to withstand compacted soils and heavy student traffic.
- . Trash containers should be constructed of concrete for durability and be compatible with surrounding architecture.
- . Newspaper vending machines should be consolidated near portals to the campus core and screened from direct view.
- . Similar to the wood planters located in the central Plaza, the existing kiosk in the Plaza is excessively park-like in appearance. Kiosks should be constructed of steel or concrete and should be located at key gathering areas.
- . While the commuter orientation of the campus and circulation patterns on the University property are not conducive to bicycle riding, provisions should be made for bicycle storage. Storage areas should be located at each major cluster of buildings or near each of the proposed quadrangles.
- . Bicycle racks should be located at side entrances to buildings and carefully be integrated into existing landscaped areas. Racks should be designed as a fixed integral component rather than a portable unit.

NORTHERN KENTUCKY UNIVERSITY  
MASTER PLAN  
INVENTORY-ASSESSMENT REPORT

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NORTHERN KENTUCKY UNIVERSITY  
MASTER PLAN

INVENTORY/ASSESSMENT REPORT

A. INTRODUCTION

The overall intent of the Inventory-Assessment Report component of the Northern Kentucky University Master Plan is to summarize both the physical and academic conditions existing at the University and to describe the consultant's understanding of basic issues which must be addressed and aspirations which must be tested during the continuing master planning effort.

The information included in this report was obtained from three primary sources: the first being on-site reconnaissance by the consultant team; the second being meetings and interviews with key University personnel; and the third being a review of existing papers, reports and other documents useful as background material in master planning.

The Assessment Report will provide an important master planning tool by consolidating a firm bank of knowledge from which master planning recommendations can be made. The report will contain a summary of key information useful to both the consultants in the next phases of work and to the University as a conveniently retrievable database.

B. COMMUNITY CONTEXT/DEMOGRAPHY

Northern Kentucky University since its inception as a four-year college in 1968 has had a profound and positive impact on not only the community of Highland Heights but also on the eight county "service region" from which Northern Kentucky University draws the majority of its students.

- Regional Role - The report entitled Northern Kentucky University: Contributions to the Region's Education, Quality of Life, and Economy clearly describes the varied contributions which can be attributed to the school. As an educational institution it has stimulated increased years of higher education within the service area - for example, in 1970 in the eight county area, a total of 10,075 persons over the age of 25 had completed 1-3 years of higher education. With the influence of Northern Kentucky University, this figure rose in 1980 to 18,957. Similarly, in 1970, 9,547 people over

the age of 25 had completed four or more years of higher education and that figure rose to 18,892 by 1980 - a 98% increase in ten years.

The report also describes, in summary, the demands of higher education in the 1970's and the general demographic characteristics of the region:

"While it was coming to grips with its new-found identity, Northern, like the region as a whole, was growing by leaps and bounds. The increasing popularity of the northern Kentucky counties as a location for residential, industrial, and commercial activities resulted in a 7.7% population growth between 1970 and 1980. At the same time, the region's pent-up demand for post-secondary education resulted in Northern's enrollments exploding with an increase of 588%, from 1,356 students in 1968 to 9,339 in 1982. Though population growth in the region, like that of the University's, is projected to slow significantly during the 1980s, no one can doubt that both the region and the school established themselves as important forces with which to reckon. With maturity, each began to carve out its own niche and exert a profound impact on those with whom they deal."

The University has also been a dominant cultural and athletic resource for not only the community in which it is located but also for its service region. For example the benefits of the Stealy Library to the community and diversity of events and functions by the Fine Arts Department are significant and provide important contributions to the quality of life in the region.

Economically, the University, even with its tax free status, is estimated to contribute over \$776,000 in property taxes in the Northern Kentucky/Greater Cincinnati region.

Surrounding Land Uses - Physically, the 239-acre campus is located in a key area of Highland Heights and is in proximity to one of the largest highway interchanges in the region - the Interstate 275 and interstate 471/U.S. Route 27 interchange. A secondary interstate access road, a half interchange at I-275 and Three Mile Road, was constructed to improve access to the Northern Kentucky University Foundation to encourage

economic development. The half interchange was also constructed to ease the congestion caused by University bound traffic at the I-471 and U.S. Route 27 interchange.

The land uses included in the Route 27 corridor adjacent to the University include a variety of commercial/residential uses with relatively intense development and circulation patterns. The land uses along the Route 27 corridor are in stark contrast to current uses surrounding other areas of the University. Although most of Johns Hill Road and Three Mile Road are fronted by single family residential development, the area of Johns Hill Road adjacent to I-275 continues as farmland. The western edge of campus property abuts I-275 and the University owns all property up to the Interstate right-of-way.

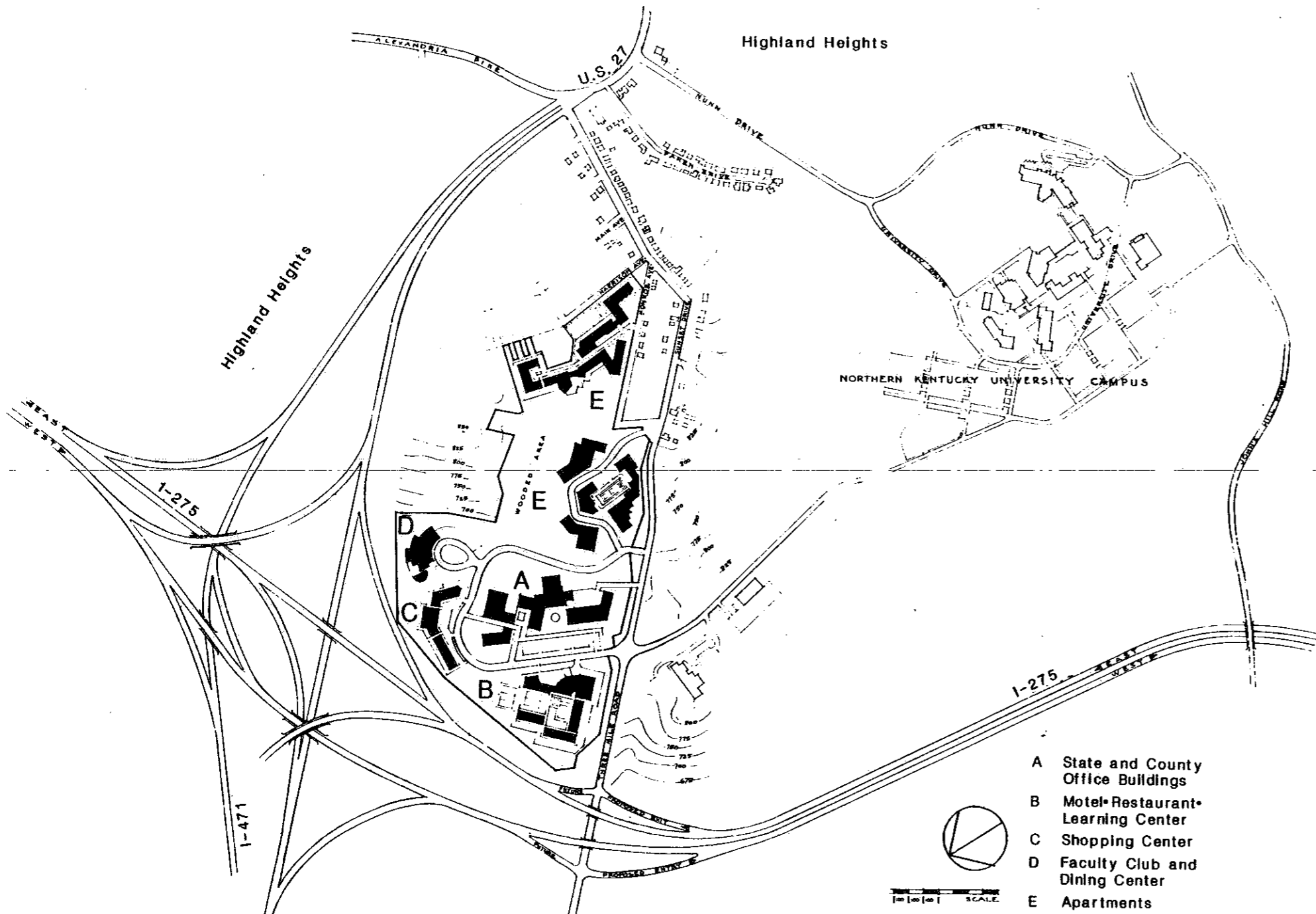
The Northern Kentucky University Foundation - The Northern Kentucky University Foundation is located immediately north of the University and north of Three Mile Road and owns a total of approximately 75 acres. The objective of the Foundation is to provide funds for a University endowment by leasing on a long term basis, development property. The Kroger Technical Center is the first of a range of uses programmed for the site. Long term development is to include:

- . State and County Office Buildings
- . Motel, Restaurant and Learning Center
- . Faculty Club and Dining Center
- . Apartments

Figure 1 illustrates the long range master plan of the Northern Kentucky University Foundation.

Zoning - The University is located partly within the City of Highland Heights and partly within the unincorporated area of Campbell County. The property within the City of Highland Heights flanking the University along its eastern edge is zoned for single family residential land uses (R-ID and R-IE). Zoning near the Route 27 entrance to the campus includes a wider variety of zoned uses including General Commercial (GC); Professional Office (PO); Limited Service Commercial (LSC); Multi-Family Residential (R-E) and Single Family Residential (R-IEF, R-IE, and R-ID). No zoning exists in the incorporated area.





- A State and County Office Buildings
- B Motel-Restaurant-Learning Center
- C Shopping Center
- D Faculty Club and Dining Center
- E Apartments



**Site Development**

Master Plan for the Development of the Property of the Northern Kentucky University Foundation

Figure 1

C. MISSION STATEMENT/GOALS/PROGRAM PROJECTIONS.

. Abbreviated Mission Statement - The following mission statement is excerpted from the Northern Kentucky University Student Handbook:

"Northern Kentucky University has a four-fold mission: to offer bachelor's programs in the basic disciplines, preparatory programs in career and selected professional fields, programs of community services, and experimental programs that have promise of improving the University's services to its constituencies. Through this four-fold mission, the University services predominantly those students and agencies within commuting distance of the institution."

. Adopted Mission Statement - A more formalized mission statement was adopted by the Council on Higher Education on January 19, 1977, and revised on January 13, 1983.

"Northern Kentucky University shall serve students living in its immediate environs and offer a broad range of educational programs which emphasize the traditional collegiate and liberal studies. Recognizing the needs of its region, the University shall provide programs primarily at the associate and baccalaureate degree levels.

Subject to careful justification, selected master's degree programs, as approved by the Council on Higher Education, may be offered. The provision of broader graduate education services shall be provided by a graduate education center at Northern Kentucky University in which the participation of one or more advanced graduate education universities is arranged through Northern.

The University should continue to offer health and selected technical programs because it serves as a community college for the area."

The adopted mission statement quoted above is amplified by a document entitled University Mission Statement Clarifications. This document is included in Appendix A of this report.

During the various meetings, reviews, presentations, and interviews held at the University, several planning goals were identified which directly influence the future environmental setting of the campus. These goals represent the quality, spirit and character of the University envisioned by a varied cross section of those involved in the planning process. The following goal statements were disclosed during the various sessions and meetings on-campus and clearly convey a vision of the future environmental setting of the University.

University as an Open Space Resource - Although Northern Kentucky was initially constructed as a tightly knit academic complex in a rural setting, the sub-region beyond the University boundaries has seen continual change since the first University buildings were constructed. The strip commercial activities flanking Route 27 near the University entrance and nearby residential development coupled with recent (and proposed) nearby highway improvements will nurture continued growth along the north, south, and eastern edges of the Campus. As development pressures increase, much of the existing open space surrounding the University (unless publicly owned or controlled) will no doubt be lost to development. Recognizing this probability, the decision makers at the University feel a sense of urgency in maintaining and enhancing the role of Northern Kentucky University as an important open space resource in the region. Therefore, an important objective of the master plan will be to provide guidelines for both aesthetic and passive recreational use.

Environmental Quality - Realizing that the mental attitude towards the campus is directly related to its environmental setting, it was emphasized that high environmental quality is essential to both the students and the faculty. The campus must be a source of community pride. Spaces must be provided for solitude suitable for outdoor study or for informal gatherings.

Gateways - Given the University's role as a cultural and educational resource in the region, it is particularly important to achieve a clear, gracious sense of entry into the campus and especially to the public function areas on campus. The construction of Nunn Drive will significantly enhance the approach to the

University. However, once a visitor reaches the main campus, he or she is confronted with a relatively "utilitarian" environment including open parking and the central receiving dock. The campus currently lacks a sense of organized public reception at the campus core.

In a broader sense, the term "gateways" has many connotations for Northern Kentucky University ranging from the points of entry into the campus described previously to the more intangible connotation of the University's educational experience providing the key to open gateways to greater opportunities.

Additionally, and in still broader terms, the University has been described as a gateway between the rural southern states and the more industrialized northern states.

Master Plan Goals and Objectives - In conjunction with University goals and objectives, several objectives for the Master Plan were stated. These targets are summarized as follows:

- . The plan should illustrate campus development within the next 15 years. It should be a guideline document with a certain degree of flexibility.
- . The plan must be an easily understand working document.
- . The plan must be achievable and capable of being used for funding purposes.

Program Projections - The need for new academic space at the University primarily relates to the current need for space - "it can be shown that Northern's assignable square feet per FTE ratio is well below that of the other seven state institutions".<sup>1</sup> In addition, the University has grown in specific academic areas and this growth has resulted in space needs tailored to those disciplines.

The Fall 1985 enrollment at the University was 8,697 students. The University Office of Institutional Research has projected enrollment for the year 2000 at 11,000 students. Due to the mix of full-time and part-time students, this translates to a FTE of 6,800.

<sup>1</sup>Source - P.1 - Biennial Capital Budget

Northern Kentucky University currently has an educational and general assignable square feet (E&G ASF) ratio of 121 per FTE student, the lowest ratio in the state. The standard statewide average is 178 ASF per FTE. This report recommends that Northern Kentucky University strives to attain the statewide average.

The University currently has an inventory of 666,781 E & G ASF of space at the below-average ratio of 121 E & G ASF per FTE student. To meet the recommended statewide average of 178 E & G ASF per FTE student for the year 2000, the University must construct 543, 619 E & G ASF of new space to accommodate a 6,800 FTE.

The University has experienced a decline in enrollment for the past two years - from 9,376 total student enrollment in the Fall of 1983 to 8,879 in 1984 and a second decline in the Fall of 1985 to a total student enrollment of 8,697.<sup>1</sup> This decline reflects a change in demographic characteristics in the Northern Kentucky region. Prior to the Fall of 1984, the University maintained a healthy growth pattern from its first functioning year. During interviews with officials from the University, a general sense of optimism was noted. For example, the Office of Institutional Research disclosed that of the eight county service area, three counties can be considered primary - Boone, Kenton, and Campbell, and that two of the three primary counties are projecting growth. Industrial development has been projected for both Boone and Kenton Counties, which will in turn increase the residential population.

Short-term needs important in the master plan program are found in the 1986-88 Biennial Capital Budget Request at the end of this report.

The Capital program is a reflection of the applied technologies and other academic programs necessary to broaden and enrich the University's educational capabilities. It is also responsive to the cultural and service function that the University performs for the Northern Kentucky region.

<sup>1</sup>Source Management Information Reports - Office of Institutional Research

Of the 41 items included in the Biennial Capital Budget Request, seven items will result in physical changes to the master plan. In addition to the 1986-88 time period, the Biennial Capital Budget Request also includes requests beyond the 1988 time period.<sup>3</sup> All items having a direct influence on the physical character of the University are summarized in Table A.

TABLE A  
MASTER PLAN PROGRAM

<u>Numerical Priority</u>	<u>Project Title/Name</u>	<u>Fiscal Year of Request</u>	<u>Space Needs Gross Square Feet</u>
1	Applied Science & Technology Center and Telecommunications Expansion	1986-87	87,500
2	University Center/Administrative Center Enclosure & University Center Expansion	1986-87	49,230
3	Fine Arts Completion	1986-87	41,224
4	Library Renovation/Expansion	1986-87	13,750
5	Parking Structure	1986-87	140,000
14	Reception Center Expansion	1986-87	5,600
22	Outdoor Recreational Facility	1986-88	3,850 plus seating for 2,000 +
.	Classroom Building	1988-89	N/A
.	Six Tennis Courts	1988-89	N/A
.	Ceramics Facility	1988-89	N/A
.	Information Center	1988-89	N/A
.	Parking Structure	1989-90	N/A
.	Science Building Lab Expansion	1989-90	N/A

During the course of the meetings and interviews at the University, several additional master plan program elements were considered including:

- . Housing to accommodate 600 additional students
- . Interfaith Center
- . Sports Arena
- . Conference Facility
- . Increased seminar space
- . Increased or improved open space areas
- . Student gathering spaces or "comfort zones"
- . Museum for selected disciplines
- . Industrial Technology and Sub Engineering Building
- . Expansion of Law Library
- . Media Center for electronic educational delivery systems
- . Increased parking
- . New residence for the University President

<sup>3</sup>Subsequent to the submission of this report, the University was notified that the only capital project to be funded for the 1986-88 Biennium is the Applied Science and Technology Center. Long-term projects and priorities identified in the 1986-88 Biennial Capital Budget Request as the "Five Year Plan" will change as a result of Master Plan recommendations.

A major objective of the next phase of the master planning sequence - Concept Plan Development - will be to test the physical accommodations of these program elements on the University landholdings.

D. PHYSICAL CHARACTERISTICS/ENVIRONMENTAL SETTING

- Topography - The topography of the campus can be described as having rolling hills, shallow to deep drainage swales, ridges, and plateaus. The highest elevation of the campus - approximately el. 915 - is located immediately north of Johns Hill Road and east of the Johns Hill Road entrance to the campus. Four residential structures owned by the University are located on the height of land and are conspicuous from the Johns Hill Road entrance. The lowest elevation on the Campus is at approximately elevation 690 and is located along the I-275 right-of-way and west of the Northern Kentucky University Physical Plant facility.

A ridge of high land extends in a north-south direction bisecting the University landholdings. This ridge extends to the campus core which is located on a plateau at approximately elevation 860. The main entrance road at the intersection of U.S. Route 27 is close to the same elevation - elevation 860 - as the upper plaza of the Campus. Long vistas to the Campus are available at the Route 27 entrance due in part to topographic characteristics and to the wide "swath" cut for the road right-of-way.

The greatest amount of "open" land adjacent to the University is located southwest of the Campus. This property is composed of farm houses, barns, woodlands, fields and pastures.

- Drainage - In general, the campus drainage flows in an east-west direction resulting from the prominent north-south ridge and campus core plateau. Approximately one-half of the land area flows toward I-275. All University drainage eventually flows into the Licking River which in turn flows into the Ohio River.

Many of the natural existing drainage swales have been filled or re-graded to accommodate University needs such as parking and athletic fields.

Transmission Line - One of the most important land use components which must be recognized in master planning is the overhead power transmission line which penetrates the campus following a general north-south alignment. The power lines and towers are not only visually obvious but also present certain planning constraints since buildings cannot be constructed within the right-of-way. It is the consultant's understanding, however, that surface parking can occur within the right-of-way and under the power lines.

Woodlands - Although a large percentage of the campus comprises man-made land uses such as buildings, plazas, parking, roadways, and lawns, much of the periphery of the campus remains as native woodlands with a dense understory of shrubs and groundcovers. The woodlands are primarily composed of deciduous trees with very few evergreens. The selective thinning of native trees, the removal of most understory plant material, and the planting of desirable species of ornamental, shade trees and shrubs has occurred along the ridge of a hill located east of the existing pond and northeast of the Business-Education-Psychology Building. Picnic benches and tables have been located in this particular area and a small park-like setting has been created.

Existing Open Space System - The existing campus open space system is primarily the product resulting after buildings, plazas, parking areas, roadways and paths were constructed. The open space is not perceived as a "form giving" master plan component, except within the campus core where open space is well defined at its edge.

The current open space pattern is relatively disjointed with patches of green areas dispersed around the campus. Few linkages occur within the core of the campus to the more natural open space area located along the periphery.

The system comprises a wide variety of components ranging from highly manicured landscapes to zones of native woodlands. The nucleus of the open space system is the small tightly enclosed "green" quadrangle located inside the University plaza and surrounded by the University Center, Nunn Hall, and the Fine Arts Center. A second enclosed plaza is surrounded by the Stealy Library, Landrum Academic Center, and the Natural



Science Center. Although the latter open space includes raised planters, the space is more urban in its spatial quality and the plant material falls short of making a strong visual contribution in the space.

Along the periphery of the campus core, lawns and mowed fields predominate. Ornamental trees and shrubs are primarily located near entrance "portals" and some planting of shade trees has occurred within the mowed lawns. Blocks of mature woodlands are generally located beyond parking areas and along the periphery of the campus. Much of the native woodland areas is located along steep slopes associated with the remaining natural swales.

#### E. SITE RESOURCES/LAND USE

The functional organization of the campus can be broken into six main components: the campus core with its buildings and plazas; parking lots, roads, and walks; athletic fields; the residential complex; physical plant; and passive open space areas.

Of the total 239 acres constituting the University's landholdings, approximately 14 acres is composed of buildings and plazas; 37 acres is composed of parking areas, roadways and pedestrian paths; and 188 acres is composed of "soft" open spaces, including undeveloped woodlands, fields and meadows, mowed lawns, utility easements and playfields. The following briefly describes the main land use components.

Buildings and Plazas - The tightly knit urban-like character of the University core creates a strong architectural image that is unmistakably the Northern Kentucky campus. This identity, which has been established through strong architectural forms, is further strengthened by the use of bold forms for lighting fixtures, walkways, stairs and walls. The central plaza plays an important visual as well as functional role by unifying the nine structures located within the campus core.

The spatial composition of structures when viewed from certain directions, resembles a medieval town with building elements clustered around a central piazza. During the initial planning and design of the University, the horizontal and vertical relationships of existing and proposed building masses were carefully studied and, therefore, the ultimate visual profile of the

entire campus core was established simultaneously when Nunn Hall, the first building on campus, was being designed.

An important function of the early master plan was to provide a strategy for siting structures. This design strategy was based on both 90° and 45° axial relationships between buildings and other campus elements. For example, the University Center and W. Frank Steely Library are sited within a 90° format and oriented north-south while the Natural Science Center is slanted on a 45° angle having a north-east/south-west axis. Other structures such as the Landrum Academic Center, the Fine Arts Center, and the Business-Education-Psychology (BEP) Center contain structural components oriented both on a 90° and 45° format. Similarly, stair systems, walkways, sunken gardens and other plaza components are also designed within the 90° or 45° grid, as are parking areas A-F and a portion of University Drive and Kenton Drive.

Parking Areas, Roadways, and Paths - Being primarily a commuter University with approximately 11,000 students, faculty, and staff, and with on-campus living accommodations of only 400 units, the campus requires expansive parking areas and well designed vehicular circulation systems to function efficiently. The most recent roadway improvements including the reconstruction of Nunn Drive from US 27 to the Central Receiving Area, Kenton Drive Extension and Three Mile Road Extension have been designed to move vehicles more effectively. To accommodate the substantial parking demand, the campus core of buildings and plazas is nearly surrounded by parking lots capable of storing 3,259 vehicles.<sup>4</sup> The largest concentration of parking occurs immediately west and north of the campus and comprises two "bands". The first band of parking is located between University Drive and Kenton Drive, while the outermost band is located along the outer periphery of Kenton Drive. Table B identifies the various designated use assignments for each of the generalized parking areas.

<sup>4</sup>Source: Northern Kentucky University Department of Public Safety

TABLE B

PARKING SPACES

Lot	Students	Fac. & Students	Visitors	Reserved	Handicapped	Totals
A	113	--	--	--	--	113
B	--	156	--	20	--	176
C	--	196	--	--	--	196
D	140	--	--	--	--	140
E	196	--	--	--	--	196
F	184	--	--	--	--	184
G	430	--	--	--	--	430
H	156	--	--	--	--	156
I	175	--	--	--	--	175
J	--	190	8	--	--	198
K	--	--	--	--	--	510
L	685	--	--	--	--	685
V	--	--	33	--	--	33
No Lot Designation In Designated Lots	--	--	--	--	37	37
<b>TOTAL</b>	<b>2,589</b>	<b>542</b>	<b>41</b>	<b>50</b>	<b>37</b>	<b>3,259</b>

The roadway pattern serving the University comprises a loop road consisting of the new Nunn Drive and University Drive along with a "half loop" road consisting of both the existing and new section of Kenton Drive. Secondary access roads to service both parking areas and structures radiate from these two major road systems to the campus core. Campbell Drive which once served as a secondary means of access into the University will function primarily as a service road for facilities located west of the road, including the residence halls, athletic fields, and the storage/maintenance facilities. Primary service to buildings will continue to be provided to the east of the Fine Arts Center, the Library, and the Main Distribution Center. Service will be accessed from Nunn Drive. Section G of this report describes parking and circulation in greater detail.

Reflecting the locations of the major parking areas and the radiating pathway system from the parking areas to the campus, three of the six pedestrian access points are located west of the campus core. The three others are located north, south-west and south-east of the campus.

Athletic Fields and the A.D. Albright Health Center - The campus has three athletic/recreation fields with the largest located immediately north of the residence halls. This 11.5 acre intramural field consists of two baseball diamonds and a large all-purpose recreational space. The second athletic/recreation facility includes a soccer/ intramural field, a track, and six tennis courts and is located between parking lots G and K. The third facility is a baseball diamond located south of the A.D. Albright Health Center. In addition to the outdoor intramural fields is the multi-functional A.D. Albright Health Center which offers six handball/raquetball courts; three basketball/volleyball courts; badminton and tennis courts; running track; swimming pool; gymnastics room; golf/archery room and a weight room.

Northern Kentucky University offers a variety of intercollegiate competition for both men and women. The mens' and womens' athletic programs operate within the National Collegiate Athletic Association Division II. The mens' program offers competition in baseball, basketball, golf, soccer, and tennis while the womens' program offers competition in basketball, softball, tennis and volleyball. The University also allows the use of its facilities for certain non-University activities, such as a camp program offered each summer for high school athletes and clinics for grade school and high school coaches. In total, the University utilizes approximately 25 acres for both outdoor and indoor recreation.

Residence Halls - The residence halls are located immediately west of Campbell Drive, approximately 1/3 of a mile from the center of the campus. A total of 396 residential units are housed in three structures with residential wings generally extending out from a central core. The residential area and its adjacent parking and circulation system is sited on approximately 4.4 acres.

- Maintenance/Storage Facilities - These facilities house the physical plant operation and are located west of Campbell Drive at the outer periphery of the campus.
- "Passive" Open Spaces - By far the largest proportion of soft or passive open space areas occur around the periphery of the campus. The most visible, relatively natural open space areas are to the south of the entrance road from Route 27 and the areas west of the new Nunn Drive.

Perhaps the most important open space zone is located immediately east of the Fine Arts Center and Library and immediately north of the Business-Education-Psychology (BEP) Center. This 5-acre open space area contains a 1-acre pond which is a remanent farm pond from earlier uses on the property. Due to high nutrient in-flow from surrounding lawns and shallow depth, the pond eutrophies during the summer months and is therefore not aesthetically pleasing. However, the pond and its adjacent land area have great potential for being important open space/passive recreational resources in the future.

It is important to recognize that the useability of this land area for diverse passive recreation is limited by the character of the sloping topography. However, the open space resource is an invaluable land use component with exciting potential.

F. BUILDING UTILIZATION

Inasmuch as all instructional space is fully utilized at the present scheduling of classes, it is premature to address renovated usage of present buildings.

Buildings now used for instructional purposes include:

	<u>Assignable Square Feet</u>	<u>Gross Square Feet</u>
Nunn	68,066	99,488
Science	69,954	100,000
Landrum	62,254	100,500
Fine Arts	64,589	105,321
BEP	73,430	127,000
Health Center	<u>119,537</u>	<u>136,324</u>
	457,830	668,633

The addition of a 100,000 gross square foot classroom building without increase in enrollment would free 15% of the gross square feet in existing buildings for other uses. Such space could be used for student lounges and gathering spaces as suggested in the University's goals. As a result, students will spend more time on Campus and increase the parking demand.

A study of "Student Attendance Count by Time" report Fall 1985, indicates a peak usage of 114 classrooms by 2,840 students, averaging 24.9 students per classroom occurs at 10:00 A.M. on Tuesdays. It can be assumed that this represents maximum usage of present facilities. An excess of 100 classrooms are used on Tuesday from 9:24 A.M. to 11:36 A.M. and Thursdays from 9:24 A.M. to 10:36 A.M. Usage of 80-100 class rooms occurs:

Monday 9:00 to 11:48 A.M. and 1:00 to 1:48 P.M.  
Tuesday 11:42 A.M. to 12:00 Noon  
Wednesday 9:00 to 11:48 A.M. and 1:00 to 1:48 P.M.  
Thursday 10:48 A.M. to 12:00 Noon and  
Friday 9:30 to 10:30 A.M.

This indicates a better than 70% utilization during these 12 hours which is probably as good as can be obtained, satisfying scheduling and available hours of both student and instructors.

A corollary would suggest that peak load of parking facilities occurs during these same hours, probably expanded by two hours per day, totalling 22 hours per week.

To spread these twelve high-utilization hours by one hour per day would theoretically reduce the student per class ratio, increase the flexibility of classroom assignments, reduce the parking demand, increase the faculty instruction time, all by approximately 30%. Such an adjustment to scheduling may of course be impossible.

This paper may be amended following scheduled meetings with the University to review refined figures on building utilization.

G. CIRCULATION AND PARKING

Anticipating the completion of the following:

- . New On-Campus Road connecting Three Mile Road to Nunn Drive and to Kenton Drive west of existing parking lots,

- . Martha Lane Collins Drive, U.S. 27 to Johns Hill Road, and
- . Future improvements to Three Mile Road, I-275 to SR-9.

The access patterns to the Campus are relatively complete.

Recommendations:

- . Johns Hill Road should be upgraded to Martha Lane Collins standards westerly to I-275.
- . Void vehicular traffic on Campus Drive from University Center to Central Power Plant.
- . Enter and exit Lots A, B, C, D, E, & F from Kenton Drive
- . Widen and improve Kenton Drive

Origin and Destination: (From NKAPC 1981 Study)

- . 50% traffic from I-275 via Three Mile Road
- . 40% traffic from I-471/US27 (N)
- . 10% traffic from US27 (S) via Martha Lane Collins or Louie B. Nunn Drive.
- . Further evaluation must be made of peak traffic flow both entering and exiting campus.

Parking - An analysis of existing parking is shown on the following chart:

	<u>Population</u>	<u>No. Spaces</u>	<u>Ratio</u>
Students	8,697	2,589	1/3.4
Faculty & Staff	1,036	542	1/1.9
Visitors		41	-
Reserved		50	-
Handicapped		37	-
		<u>3,259</u>	

Desirable parking at a ratio of 1.5 indicates additional parking needs.

	<u>Population</u>	<u>Spaces @ 1.5 Ratio</u>	<u>New Spaces Needed</u>
Students	8,697	5,798	(-2589) 3,209
Faculty & Staff	1,036	691	(-542) 149
Visitors, Reserved, Handicapped	-	128	128
<b>Total</b>		<b>6,617</b>	<b>3,486</b>

Peak student load approaching 5,000 occurs Monday, Wednesday & Friday 8:00 A.M. - 2:00 P.M. Using this figure rather than 8,697 at a 1/1.5 ratio indicates a student parking need of 3,333 or a deficiency of 744. This 744 plus 149 plus 128 suggests a realistic need of 1,021 additional parking spaces. The potential of reclaiming all or part of existing lots as recreational and green belt areas will add another 1,000-car deficiency.

To accommodate this parking need there are four options:

- . A mass transit solution with TANK
- . A rescheduling of usage
- . Structured parking
- . Remote parking.

Discounting the first and second options as unobtainable, four general statements are offered:

- . As mentioned in the Major Concept statement, parking and recreational open space should be integrated with academic buildings, housing, and community offerings.
- . Space for additional surface parking is not available on the existing campus.
- . Some structural parking can be integrated on the existing campus.
- . A remote location is necessary for additional surface parking.

Structural Parking - (Related to Academic Buildings)

- . Cost is estimated at \$8,000/car.



- Amortization is estimated at \$400/car/year at 20 year amortization. With 200 days of usage, a fee of \$2.00/day must be charged or find other subsidy.
- Potential users include visitors, conferees, citizens (participants at athletic and cultural events), select faculty, staff or students.
- Cost of 300-car structure as a test/demonstration to ascertain acceptance - \$2.4M.
- Annual Cost
 

Amortization		\$240,000.00
Three Attendants \$12,000 ea.		<u>36,000.00</u>
		\$276,000.00
Cost per car/year		\$ 920.00

Remote Parking - Cost of 300-car surface lot at 100 cars per acre:

Land \$35,000/acre	\$105,000.00
Surface \$100,000/acre	<u>\$300,000.00</u>
Total	\$405,000.00
Twenty Year Amortization	\$ 20,250.00
Number Attendants	-0-
Cost per car per year	\$ 67.50

Depending on public acceptance, 300 car increments either structural or remote can be added to meet needs and funding available. As increments are added, existing surface parking can be phased out and replaced with open space uses.

Intra-Campus Bus Service - Depending on site selection, remote parking can be from one-half mile to one mile south of Academic Complex. The Foundation development is an equal distance north of the Academic Complex. A mile can be walked in 15-20 minutes, however, integration of these two points to the Academic Complex is worthy of consideration.

- A 45 passenger bus on a ten minute round trip will move 250 passengers per hour. Two buses moving 500/hour should adequately handle the 300 car remote lot at peak periods.

Cost - 2 buses @ \$50,000	\$100,000.00
Twenty year amortization	5,000.00
Operational Cost (100 miles @ \$.25/mile X 200 days X two buses)	10,000.00
Two drivers \$12,000 ea.	24,000.00
Operational cost per year	\$ 39,000.00
Cost per car per year	\$ 130.00

Remote Surface Lot Plus Bus Service - Cost per car per year:

Capital	\$ 67.50
Operational	\$130.00
	\$197.50

Preferred parking related to the Academic Complex will be limited to 1,500-2,000 cars and must be controlled or metered.

Remote parking as envisioned will be unlimited.

Sheltered Collection Stations are desirable in remote lots.

#### H. UTILITIES

##### 1. Heating and Cooling:

A Central Power Plant located between the Steely Library and Landrum Academic Building house includes, in part, the following equipment:

	<u>BHP</u>	<u>MBH</u>	<u>Combined</u>
One oil fired boiler	150	5,025	
One gas/oil boiler	300	10,050	15,075 MBH
Two 740 ton chiller		17,760	
One 1,200 ton chiller		14,400	32,160 MBH

Steam and chilled water is distributed from these sources to Landrum, Steely, Fine Arts, University Center, Administration Building, Business-Education-Psychology Building via service tunnel, and to Albright Health Center via pipe trench. The total area of these buildings is 767,742 sq. ft. or 10,748,000 cu. ft. University sources state that boiler operation is at 67% and chiller operation at 50% of capacity.

The 5,000 KW electric boilers serve only as standbys and are not used.

Historically, the Central Power Plant began with the 150 BHP boiler installed with the Library. The 5,000 KW boilers were added in the Fine Arts and Landrum programs during the energy crunch, 1974. The 300 BHP gas/oil boiler was added when gas and oil were again available.

Nunn Hall, Science & Regents Hall, the original three buildings have independent power plants which house the following equipment:

Nunn Hall

Oil fired boilers 2 @	125 BHP	8,400 MBH
Chiller	559 ton	6,608 MBH

Science Center

Oil fired boilers 2 @	135 BHP	9,000 MBH
Chiller	740 ton	8,880 MBH

Regents Hall Not significant

Nunn Hall and Science Center have an area of 210,000 sq. ft. or 2,940,000 cu. ft. with boiler operation at less than 50% capacity and chillers less than 25% capacity.

2. Expansion Restrictions on Central Power Plant:

Facilities Management, Department for Finance & Administration, Commonwealth of Kentucky has advised that the "energy source for future buildings with the Commonwealth shall be domestic coal."

Additional building programs whose heating requirements exceed the capacity of the present Central Power Plant equipment must include provisions for new coal fired boilers.

3. Water:

A single source water line from Highland Heights main line east of BEP Building enters the campus north of BEP and serves all existing buildings and fire hydrants. Campbell County Water District contemplates the upgrading of the John's Hill Road line, which, if utilized, would provide a second source west of the Health Center. Distribution mains run north along Campus Road west of Nunn Hall and Science Center to Student Housing Complex and east on Campus Road north of Landrum.

4. Sanitary Sewer:

A private collector sewer located on the east side of the campus serves all existing buildings, including the residence halls. Sewers gravitate to Three Mile Creek and are connected to Campbell-Kenton Sewer District. Additional studies of capacity are contemplated as development occurs.

5. Electric:

A major substation maintained by Cincinnati Gas & Electric Company is located on the northeast sector of the campus. The University is fed from here to a private substation and thence by twelve precast underground conduits through a series of manholes, and two loop systems, which serve the entire campus. These twelve conduits also service the telephone and data communication system on campus. This distribution system must be extended to additional loops serving the east, north and west quadrants.

6. Lighting:

Exterior lighting of the campus is only partial, leaving obvious dark spots at some locations. An extension of lighting on roadways, walkways and passive open space must be anticipated in each development phase.

7. Tele-Communications:

The University purchased and installed a Telephone System in 1981. Despite the planned growth factor, the system is presently operating at capacity. Continued expansion of physical facilities, as well as growth and computing requirements makes upgrading and/or replacement of the current system a necessity.

8. Communications Network:

Integration of voice, data and video transmission lines should be a goal of the University. Currently the underground plant is limited. All major buildings have direct underground voice service, and four buildings are connected to the campus cable television or video system. Data connections are extremely restricted, involving only four buildings on a limited basis. The most crucial need involves data connections between all buildings to allow creation of a computing network. However, computing as well as voice and video needs can be accomplished simultaneously in a cost effective manner. Once designed and engineered, this network could be implemented in an incremental manner.

## UNIVERSITY MISSION STATEMENT CLARIFICATION

Northern Kentucky University was created in 1968 to bring the benefits of higher education to the region of Northern Kentucky. The principal benefit is, of course, the provision of education at the college level. The establishment of any institution of higher learning provides, in addition, other benefits to the surrounding community; most notably, the institution serves as a resource to and generally enriches life in the community. Northern Kentucky University's missions, then, are to educate, to be a resource to the community, and to enrich life in the region. Of the three, the central mission is to provide education, primarily through classroom teaching.

The educational responsibilities delegated to Northern Kentucky University by the General Assembly are related primarily to undergraduate education:

- (1) The University shares a major purpose of all state universities in the Commonwealth, namely, to provide instruction at the baccalaureate level. At Northern Kentucky University, such instruction includes programs in the traditional arts and sciences -- these serve as the core of higher education for all students and in professional career studies, especially those suitable to the employment needs of the region.
- (2) The University provides programs of a community college nature, thereby continuing the mission of its predecessor, Northern Community College, in accordance with provisions of KRS 164.597.

In addition:

- (3) The University offers legal education programs through Chase College of Law in accordance with provisions of KRS 164.020.
- (4) The University offers post-baccalaureate degrees to serve the needs of a commuting, in-service population. Cooperative arrangements with other institutions may enhance this role.
- (5) The University offers other, non-degree programs designed to meet particular needs in the region.

Although the University was established to serve students in Northern Kentucky, a university education must expose students to a non-parochial environment and to a variety of viewpoints. To benefit all students, the University seeks to ensure diversity in the student body by enrolling individuals with different cultural and economic heritages from outside the immediate University environs.

The institution strives to create an effective and exciting learning environment in order that the central mission of formal education can be realized. Teaching, as the chief mechanism for implementing this mission, is therefore the first consideration in establishing and maintaining a quality faculty. Excellence in teaching, moreover, requires continual growth in depth and breadth of knowledge. Scholarship in the broadest sense is expected of all faculty members to ensure their continuing value as teachers. In the context of the University's missions, teaching-related scholarly activity, pure research, and applied research of a community service nature are all valued. Experimentation with programs to enhance further the University's instructional mission is also necessary but is viewed as an institutional responsibility not necessarily applicable to each individual. Scholarly activity and research at the individual level and experimentation at the group level are important corollaries of the University's mission.

The University is a resource for the community, the primary resource being the expertise of its faculty and staff. To enhance this aspect of its mission, the University initiates programs of community research and service to meet identifiable regional needs. Service to the community is, like experimentation, a University responsibility. Secondary resources include physical facilities such as libraries, the University Center, recreational and sports facilities, and theaters and galleries, which serve the region as a whole.

The University supports programs and activities to better the overall life of the extended community. Programs such as continuing education, film and lecture series, fine arts presentations, concerts, student activities, and intercollegiate athletics provide the community with educational and cultural enrichment and with entertainment. The provision of such programs involves costs that must be kept in appropriate balance with the formal educational mission of the University.

The University also recognizes the need to create an environment in which each student can develop and assume a productive and positive role in society. For that reason the University has created a network of student services to assist students in obtaining optimum benefits from the instructional process. Support services and activities provide opportunities for practical application of formal learning. The network of support services includes counseling, student organizations and publications, career development, cooperative education experiences, and testing.

To fulfill all of these worthy purposes, the University undertakes activities to foster the welfare and existence of the University itself, since the missions are rendered meaningless should the University cease to exist. Support

functions are embodied in all University offices and activities not directly responsible for the three missions of the University. These services are important to the life of the institution as, similarly, scholarship is important to the life of the faculty.