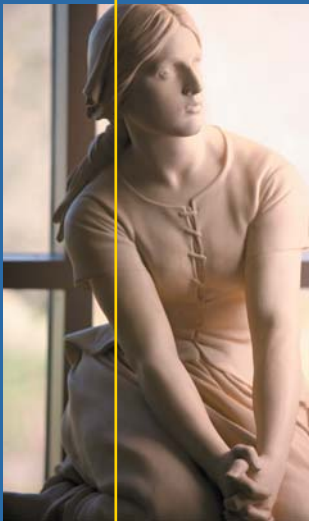


Facilities Development Plan



2006 - 2015



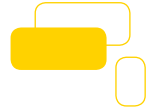


Table of Contents

UNIVERSITY OF NEBRASKA AT KEARNEY
Facilities Development Plan 2006 - 2015

1	INTRODUCTION	
	Planning Direction	2
	Campus Context	2
	Concurrent & Cooperative Planning Efforts	6
2	PLANNING IMPERATIVES	
	UN Strategic Planning Guidance	13
	UNK Mission, Vision, and Values	14
	Tasks Derived from UNK Strategic Planning ..	16
	The Outcomes We Seek	18
	Challenges for Growth & Development ...	19
3	PLANNING PROCESS	
	Advisory Committee	21
	Data Gathering & Stakeholder Input	22
	Concept Development	23
4	DATA ANALYSIS & ASSUMPTIONS	
	Enrollment Trends	24
	Faculty and Staff Trends	26
	Housing	26
	Classroom & Class Lab Utilization	28
	Land & Building Inventory	32
	Parking	34
	Recreation	36
	Campus Building Space Needs	37
	Utilities	38
5	FACILITIES DEVELOPMENT PLAN CONCEPTS & RECOMMENDATIONS	
	Overview	39
	Existing Land Use	40
	Land Use Analysis	42
	Campus Features	53
	Circulation	55
	Physical Master Plan	58
6	IMPLEMENTATION RECOMMENDATIONS	
	Overview	60
	New Construction	60
	Campus Deferred Maintenance	61
	Analysis of Potential Building Sites	62
	Other Studies & Planning Efforts	63
	UNK Policy Recommendations	64
7	ACKNOWLEDGEMENTS	66

List of Maps, Figures and Tables

MAPS

MAP 1:	Campus Context	3
MAP 2:	Historical Rendering	8
MAP 3:	Existing Campus Land Use	41
MAP 4:	Future Campus Academic/ Research Land Use	43
MAP 5:	Future Campus Life Land Use	45
MAP 6:	Future Campus Green Space Land	47
MAP 7:	Future Campus Recreation/ Athletics Land Use	49
MAP 8:	Future Campus Institutional Services Land	51
MAP 9:	Future Campus Parking & Transit	52
MAP 10:	Existing Campus Flood Plain	53
MAP 11:	Future Campus Pedestrian & Bicycle Circulation	55
MAP 12:	Future Campus Vehicular Circulation & Parking	57
MAP 13:	Future Campus Land Use	58
MAP 14:	Facilities Development Plan	59

FIGURES

FIGURE 1:	Nebraska High School Graduates ...	24
FIGURE 2:	Percent of Students Living on Campus	27
FIGURE 3:	Classroom Utilization	28
FIGURE 4:	Classroom Student Station Utilization	29
FIGURE 5:	Class Lab Utilization	30
FIGURE 6:	Class Lab Student Station Utilization ...	31

TABLES

TABLE 1:	Headcount Enrollment – Fall Semester	25
TABLE 2:	UNK Students Living in University Housing	26
TABLE 3:	UNK Land Inventory	32
TABLE 4:	UNK Gross Building Area	33
TABLE 5:	UNK Net Assignable Area	33
TABLE 6:	UNK Parking Inventory	34
TABLE 7:	UNK Parking Needs	35
TABLE 8:	UNK Recreation Inventory	36
TABLE 9:	Space Needs Projection	37

APPENDIX	68
-----------------	-------	----

CHAPTER 1: Introduction

Planning Direction

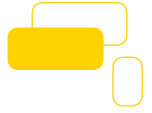
In 2004 all campuses of the University of Nebraska were directed to update their facilities development plans. To assist in this effort, the University of Nebraska at Kearney commissioned Sinclair Hille Architects to work with a broadly-representative committee of faculty, staff, students, and community members to study UNK's foreseeable needs, challenges, and opportunities. This document is the product of that collaboration. It (a) builds upon extensive baseline analyses that supported UNK's October 1997 Master Plan, (b) incorporates careful assessment of our current situation, and (c) describes a vision that will guide the development of our physical infrastructure to advance UNK's mission over approximately the next decade. While shaped by the principles, goals, and objectives stated in the University of Nebraska's Strategic Framework Document 2008-11, it also reflects comparable ideas that have emerged in UNK's ongoing strategic planning process.

Generally, this plan outlines how UNK envisions using its four land parcels: the main campus; the apartment-style housing complex located about a mile north of the main campus; the adjacent south property now devoted primarily to agricultural use; and the recently acquired farmland property approximately a mile west of the main campus. We regard the document as a framework to guide planning and to influence decisions about these properties. Still, it is not intended to be an inflexible blueprint. Rather, its purpose is to assemble and organize our best current

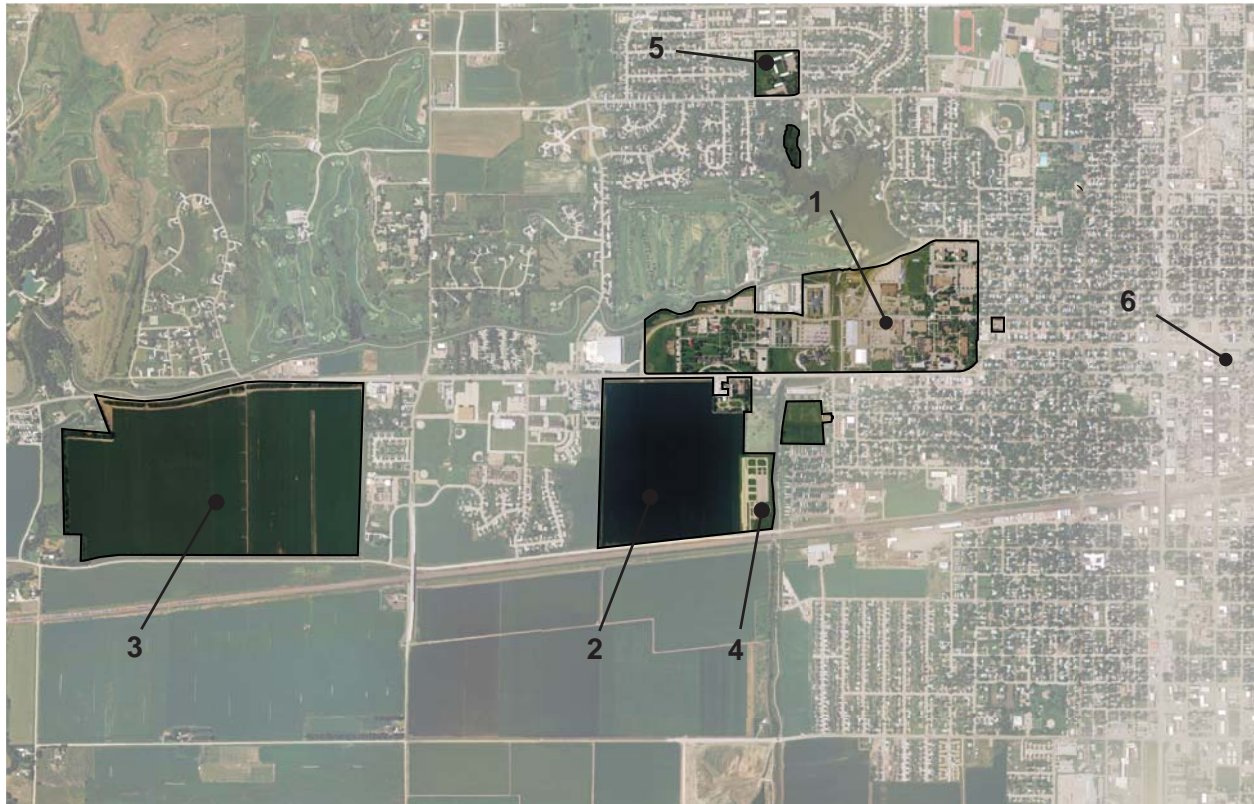
thinking about how to align anticipated resources, land uses, and the functional needs of our students, faculty, and stakeholders. While its broad developmental themes are grounded in enduring principles, we expect that—like all long-range plans—it must be a living document, which adapts to new circumstances and opportunities as they may arise.

Campus Context: UNK Properties, Current Uses, and Community Environs

The University of Nebraska at Kearney has one main campus area and several outlying areas of both developed and undeveloped land. Located in the western part of the City of Kearney, the main campus consists of 127.59 acres with 43 buildings. Nearly all UNK educational, student service, and administrative programs and facilities are situated on this land parcel, which is bounded on the east by 9th Avenue, on the south by U.S. Highway 30, and on the north by University Drive. The campus is bisected into eastern and western halves by an NPPD right-of-way, a Spillway/Tail Race and its watercourse, and by a hike/bike trail extending from Kearney Lake and Kearney Canal just north of campus to Kearney neighborhoods south of Highway 30. Student residence halls are clustered generally in the northeastern part of the main campus, as are the Nebraskan Student Union, the Health and Sports Center, and the Cope Memorial Stadium complex. Programs of the College of Fine Arts and Humanities and the College of Natural and Social Sciences are located in several academic buildings on the east part of main campus. Some non-business programs of



Map 1: Campus Context



legend 

- 1 - UNK main campus
- 2 - UNK south campus
- 3 - UNK west campus
- 4 - Safety Center
- 5 - University Heights
- 6 - Museum of Nebraska Art



the College of Business and Technology are also located there. The remainder of the Business College, the College of Education, the nursing program delivered by the University of Nebraska Medical Center, and the residence halls occupied by Greek organizations are housed on the west part of campus. On its longest axis, the main campus extends nearly a mile from Founders Hall in the east to a large recreational field on its western edge.

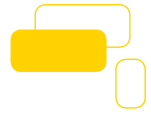
The three streets that form the perimeter of the main campus are major vehicular thoroughfares for students and UNK employees, as well as for the community at large. Surface parking lots for student and employee vehicles are located on both east and west campus. Privately-owned property adjacent to the main campus is zoned primarily for residential use, with some limited commercial uses including a bookstore, restaurants, gas stations, and convenience stores located along U.S. Highway 30. Many students live in private houses and apartments in neighborhoods immediately east and south of the main campus.

Located about ten blocks north of the main campus is University Heights, which was built in 1960 to house married students. Today, its 100 apartments house married and nontraditional students. The complex, which features substantial green/open space and surface parking lots for residents, is located on a 10 acre land parcel that is surrounded by private residences: single-family homes on the east, south, and west, and garden-style apartments on the north.

Also north of the main campus, just north of Kearney Lake, UNK owns 5.23 acres known as Westlake Acreage. Surrounded by the lake and private homes, this tract was donated to the University to be kept in its natural state and used for biological studies.

Directly south of the west part of main campus, across U.S. Highway 30, is a 103.52 acre plot of undeveloped land currently contracted for agricultural use and planted in corn. A recent acquisition has added 3.5 acres of





land (the Cranewood property) adjacent to the northeast corner of this tract. Motel-style apartments and a trailer park are now located on the Cranewood property. An additional 11.62 acres adjacent to the southeast corner of the cornfield is occupied by the Nebraska Center for Safety Education. The Center was established by 1978 legislation to provide instruction in traffic, industrial, home, fire, and recreational safety. Its driving range facility is a regional hub for driver training and safety education.

In 2006 the Nebraska Department of Health and Human Services transferred to UNK 252.33 acres of farmland located about one mile west of campus and south of US Highway 30. As the western part of Kearney has developed

over the last decade in particular, land between the main campus and this new property features a variety commercial, residential, and community recreational uses. Just to the north of the property, across Highway 30, are two developments of mainly large, single-family homes and Meadowlark Hills, a municipal golf course.

In the City of Kearney UNK uses, but does not own, two major buildings. The Alumni House, located in a residential neighborhood two blocks south of the main campus, houses the Alumni Association and is owned by the University of Nebraska Foundation. The Museum of Nebraska Art (MONA) is located in downtown Kearney and is owned by the MONA Foundation.

In addition, UNK activities use a number of Kearney facilities under longstanding partnership arrangements. UNK's track teams use the outdoor track facility at Kearney High School while the baseball and softball teams use city fields for practices and intercollegiate games. In return, Kearney Public School teams use UNK's Foster Field for football and soccer competitions and the Cushing Field House for indoor track and swimming meets. We are also developing a partnership that will enable UNK to use the newly renovated Robert M. Merryman Performing Arts Center, located a few blocks to the southeast of the main campus.

The University of Nebraska Medical Center houses its Kearney Nursing Program on the UNK Campus. UNK also provides space for the University of Nebraska at Omaha's Masters in Social Work Program.

Concurrent and Cooperative Planning Efforts

Concurrent planning projects at UNK include the following:

- UNK has embarked on a comprehensive strategic planning process that incorporates guidance from Central Administration's Strategic Framework Document and guides program planning and budgeting in key functional areas. In Phase One of this project, which extended from 2004 to 2006 and built upon the Self-Study we prepared for our 2004 academic re-accreditation process, we developed a consensus statement of UNK mission, vision, values, goals, and objectives. Phase Two, currently underway, will generate a family of action plans to implement the Phase One guidance. This facilities development update will be incorporated into that family of plans.
- LB 605 funds have enabled us to renovate and expand the Bruner Hall of Science. That building was constructed 40 years



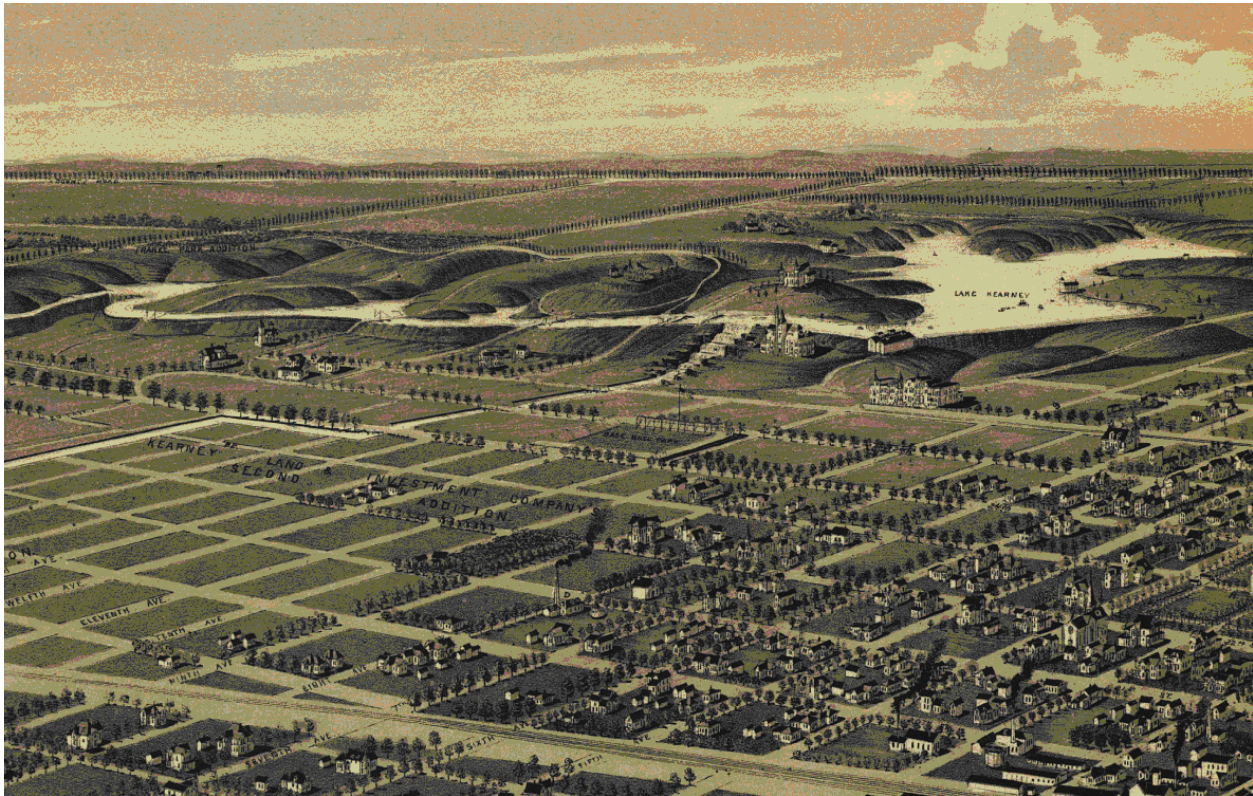
ago and—although some infrastructure upgrades have been accomplished—it has never been renovated to improve the program capabilities located there. We hired Clark Enersen Partners to develop a program statement for this work, which will renew classrooms, laboratories, and offices and replace Mary Morse Lecture Hall with a Bruner addition housing new classroom and office space. The project will also relocate UNK's planetarium from the basement of the Mary Morse Lecture Hall to the new addition.

- Another major project, funded by LB605, reconfigures and centralizes UNK's campus heating and cooling infrastructure. Farris Engineering prepared the program statement for this project; which was presented to the Board of Regents in November, 2006. Farris Engineering has also updated the Utilities Master Plan. The Executive Summary of that report is the Appendix to this development plan.
- Sinclair Hille Architects is assisting us in developing both a parking master plan and a landscape design.
- Under a broad concept for renewal of the residential campus, we are proceeding with a long-term program to improve UNK's residence halls. The first step is underway: we are constructing three new suite-style halls which will replace two aging and unsuitable buildings and add attractive new housing options for our students. Next steps, to be launched as funds are available, will include renovating traditional halls and replacement of University Heights.



Cooperative planning with the City of Kearney is ongoing. The City of Kearney Comprehensive Plan recognizes that the University of Nebraska at Kearney is an important feature of the community. Over the last ten years city and civic leaders have engaged in broad dialogue about vision development, and UNK has participated actively and productively to identify citizen needs and responsive projects. Specific topics under discussion currently, and of special interest to UNK, include partnership arrangements with respect to the Merryman Performing Arts Center, possibilities to adjust vehicular traffic patterns, and property uses, especially along UNK's eastern boundary and adjacent to the Spillway Park on the north side of campus.

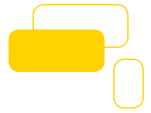
While Kearney currently has only one interstate access point at Second Avenue, the city's comprehensive plan projects additional interstate interchanges at Cherry Avenue, three miles east of Second Avenue and at 30th Avenue, two miles west of Second Avenue. The projected interchange at 30th Avenue has a strong potential for carrying university related traffic. The city has constructed a trail system routed along the northern edge of the main campus and south along the Spillway watercourse. This integrates well into both the university and the surrounding neighborhoods.

Map 2: Historical Rendering

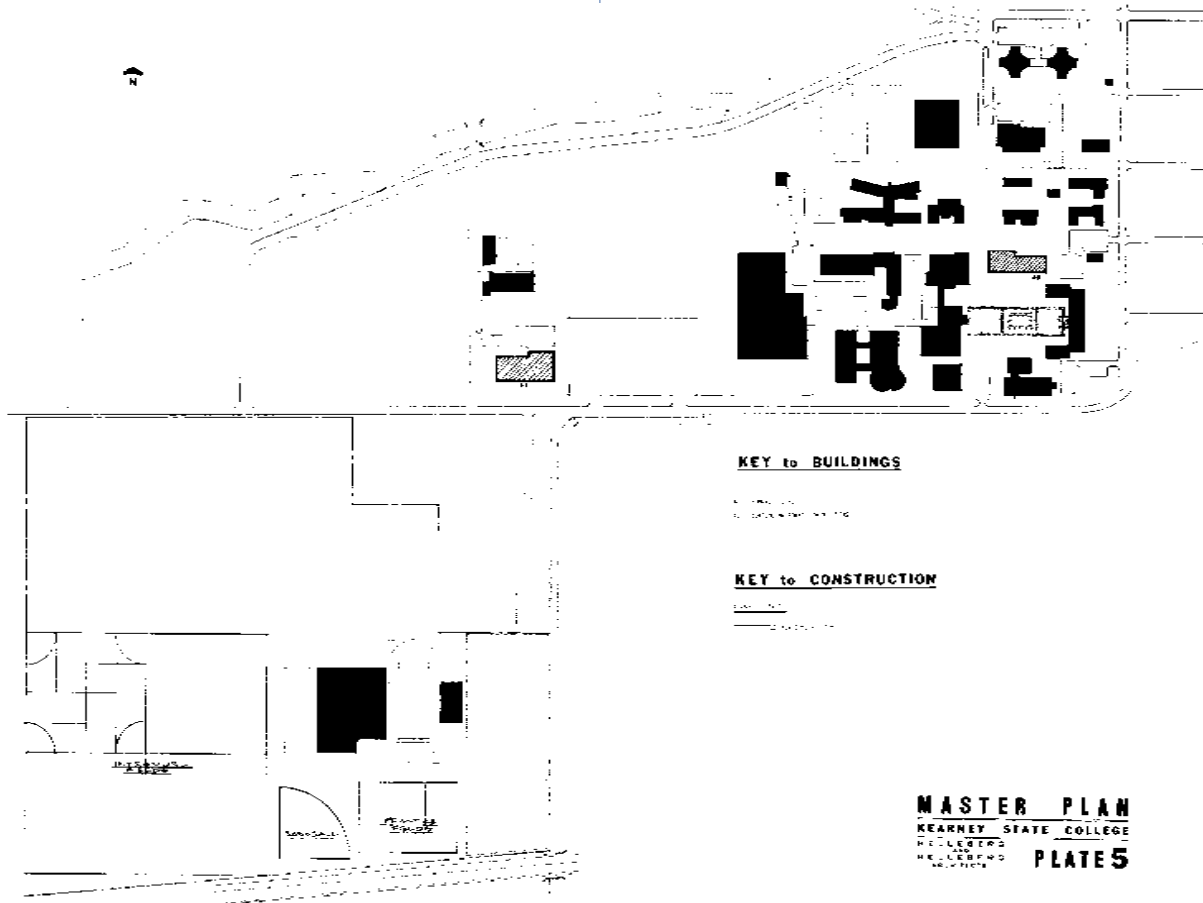
In the early decades of our development, long-range facilities planning at the University of Nebraska at Kearney consisted primarily of a series of short-term, project-focused efforts. Still, the first documented plan—a report to the State Planning Commission, was prepared in 1938 when the institution was still a State Teachers College. Since then, the major benchmarks have been as follows:

1961 The Kearney City Comprehensive Plan included a section for the Nebraska State Teachers College.

1967 Kearney State College prepared a Master Plan.



1970 Kearney State College prepared an updated Master Plan.



1978 A Kearney State College Campus Study was developed by a graduate student in the College of Architecture at the University of Nebraska Lincoln at the request of President Brendan J. McDonald. It established design guidelines the college could use as the school continued to grow.

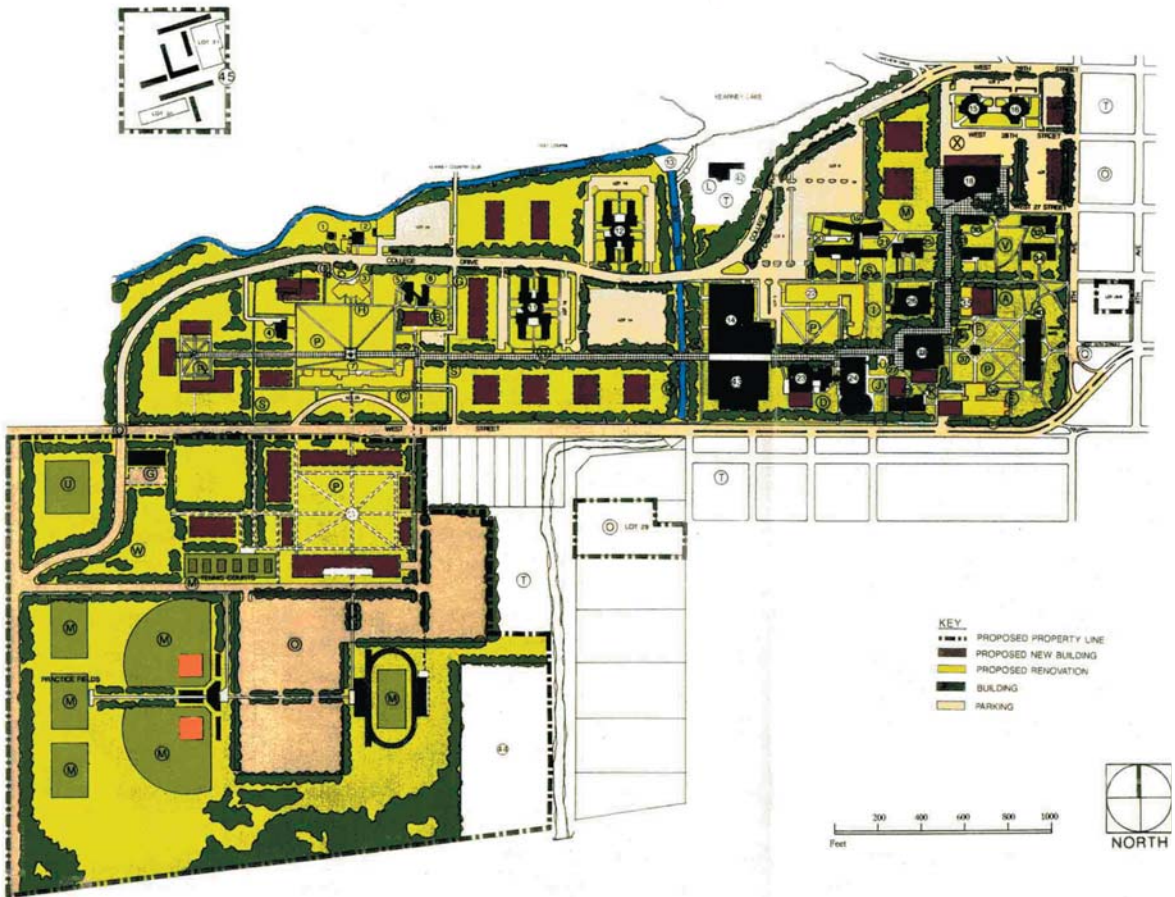
1990 During the transition of Kearney State College to the University of Nebraska, Bahr Vermeer & Haecker Architects, Ltd., developed a UNK Campus Facilities Master Plan.

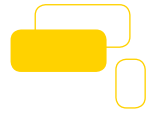
Building Key

- | | |
|---------------------------------|----------------------------|
| 1. Water Tower | 24. Fine Arts Center |
| 2. Heating Plant #2 | 25. Men's Hall |
| 3. West Center Annex | 26. Student Services |
| 4. Frank House | 27. Hosteler Amphitheater |
| 5. Ockinga Seminar Center | 28. Calvin T. Ryan Library |
| 7. West Center Building | 29. A. O. Thomas |
| 8. Business Department Offices | 30. Conrad Hall |
| 11. New Student Housing (South) | 32. Martin Hall |
| 12. New Student Housing (North) | 33. Ludden Hall |
| 13. Dam | 34. Case Hall |
| 14. Cushing HPER | 35. Copeland Hall |
| 15. Centennial Towers (West) | 37. Bell Tower |
| 16. Centennial Towers (East) | 38. Mary Morse Lecture |
| 18. Nebraskan Student Union | 39. Bruner Hall of Science |
| 19. Mantor Hall | 40. Founders Hall |
| 20. Randall Hall | 42. Hydroelectric Power 1 |
| 21. Stout Hall | 43. Health and Sports Ce |
| 22. Otto Olsen | 44. NE Safety Center |
| 23. F.A.C. (Art Wing) | 45. College Heights |

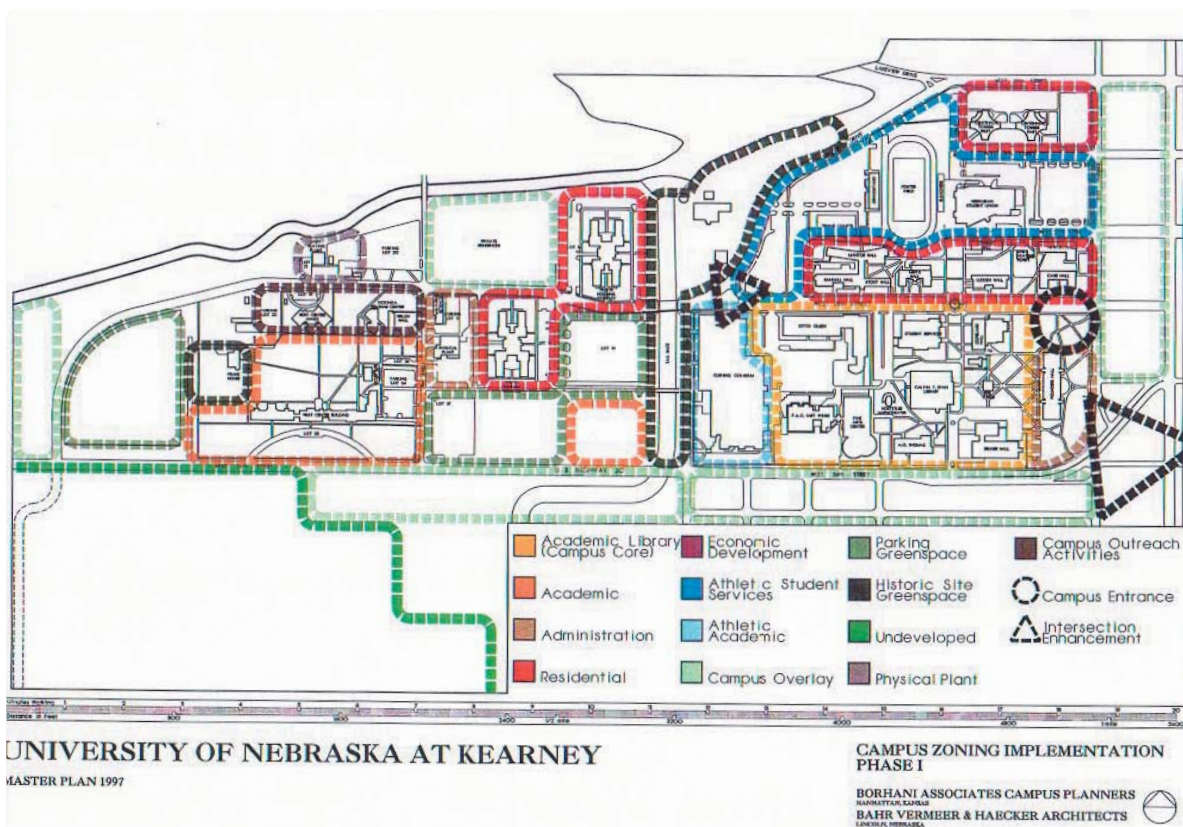
Proposed Improvements:

- A. Copeland Hall renovation and addition.
- B. New School of Education Classroom Building.
- C. Renovate West Center Building.
- D. Addition to Fine Arts Building.
- E. Renovate Bruner Hall and Addition.
- F. Relocate Greenhouse.
- G. Relocate Physical Plant.
- H. Renovate West Center Auxiliary Building.
- I. Renovate Otto Olsen.
- J. Addition to A. O. Thomas.
- K. Addition to Ryan Library.
- L. Renovate Hydroelectric Plant to Museum.
- M. Relocate Football Field and other recreational-athletic fields.
- N. Develop Campus Mall.
- O. Relocated Parking Lots.
- P. Major campus open-green spaces.
- Q. Enhance East and West Campus Entrances.
- R. Develop Tall Race Park.
- S. Secondary streets removed.
- T. Proposed campus expansion zone.
- U. Holding Nursery.
- V. Relocate Power Plant #1.
- W. Extend College Drive.
- X. Addition to Nebraskan Student Union.





1997 UNK published a Facilities Master Plan, prepared by a broadly representative committee with the assistance of Borhani Associates Campus Planners.



The UNK 2006 Facilities Development Update has renewed campus discussion of our current situation, needs, and opportunities, and it outlines use concepts that align with present strategic assessments and plans. As part of UNK's overall strategic planning process, it will be reviewed regularly to ensure it reflects our actual circumstances, progress, vision, and prospects.

As we go forward with this iterative and collaborative planning process, we derive a great deal of confidence from the history of our development both as a state college and within the university. In the large, here are major examples of what history indicates that UNK leaders have accomplished, through planning.

- The physical setting of the main campus has evolved from a tract of land divided into city blocks into an expansive, tree-lined, residential, academic village with buildings and grounds that are fully consistent with our status as an arboretum and with our Platte Valley surroundings.
- We have made substantial progress in renewing and modernizing our academic infrastructure. Ten years ago the West Center, housing UNK's business programs and UNMC's nursing program, was outdated and unsuited to modern instruction. Today, it is an educational showcase. A decade ago departments composing the College of Education were scattered in buildings from one end of the campus to the other. Today, the College has its own completely modern, dedicated state-of-the-art facility. While we plan a large renovation and expansion for Bruner Hall, we have already added two new research facilities adjacent to the old building which consists of a new greenhouse and an animal research lab.
- The Nebraskan Student Union a decade ago was small and insufficient by today's university standards and student expectations. Today, it is an expanded, fully modernized facility that has literally changed the way students, employees, and community members use the heart of our campus.
- Foster Field in the mid-1990's was essentially unchanged from the grass field and running track that were in place fifty years earlier. Today, the expanded Cope Memorial Stadium complex provides a year-round sports and recreational facility for intercollegiate competitions, for general recreational uses, and for local school and community uses as well.
- We have begun a substantial renewal of our on-campus residential establishment – a key part of UNK's mission within the University of Nebraska.
- We have acquired new properties that enable us to develop new thinking about further advancements serving the University and our community.



CHAPTER 2: Planning Imperatives

The Facilities Development Plan is part of a family of documents that implement UNK's strategic plan. It is informed as well by expectations established in the Strategic Planning Framework developed by the Board of Regents. In the future, this plan—and the iterative dialogue that produces it—will enable planners to integrate University and UNK goals in a coherent vision for future development of our physical campus. In this chapter, we outline the guidance parameters, vision, values, and intended outcomes that have shaped UNK's Facilities Development Plan.

University of Nebraska Strategic Planning Guidance

The Board of Regents' Strategic Planning Framework: 2005-2008 identifies six overarching goals to guide University-wide and campus planning. Each goal has a number of related objectives. The six goals are addressed by the UNK Facilities Development Plan as follows.

- *The University of Nebraska will provide the opportunity for Nebraskans to enjoy a better life through access to high quality, affordable undergraduate, graduate and professional education.* UNK's Facilities Development Plan aims to provide the infrastructure required for programmatic excellence in all aspects of our mission. It continues a comprehensive renewal program for academic and residential facilities, preserves a setting consistent with our enviable Platte Valley surroundings, and improves the usefulness, accessibility, and attractiveness of our buildings and grounds.
- *The University of Nebraska will build and sustain undergraduate, graduate and professional programs of high quality with an emphasis on excellent teaching.* UNK's plan equips academic facilities with state-of-the-art instructional technology and modernized classrooms, laboratories, conferencing facilities, and faculty office space.

- *The University of Nebraska will play a critical role in building a talented, competitive workforce and knowledge-based economy in Nebraska in partnership with the state, private sector and other educational institutions.* UNK's plan will renew our campus in ways calculated to enhance alignment of the UNK educational experience with career preparation needs in Nebraska's—and our region's—evolving economy.
- *The University of Nebraska will pursue excellence and regional, national and international competitiveness in research and scholarly activity, as well as their application, focusing on areas of strategic importance and opportunity.* UNK's plan devotes attention to the renewal of our academic infrastructure, with special focus on facilities that house academic priority programs.
- *The University of Nebraska will serve the entire state through strategic and effective engagement and coordination with citizens, businesses, agriculture, other educational institutions, and rural and urban communities and regions.* UNK's plan envisions the use of our property and facilities in collaborative ways that have potential to develop new instructional, research, and service capability.
- *The University of Nebraska will be cost effective and accountable to the citizens of the state.* Resource stewardship imperatives have informed both the general concepts and the specific projects envisioned in this plan. We expect design, construction, and operation efficiencies in all initiatives.

University of Nebraska at Kearney Mission, Vision, and Values

Within the University of Nebraska, UNK has the mission to be a premier residential institution for undergraduate education, to offer graduate programs grounded in that strength, and to enhance the social, cultural, and economic development of our region and state through educational programs, scholarship, and public service.

We aim to achieve national distinction for a high quality, multidimensional learning environment, one that engages with community and public interests, and prepares students to lead responsible and productive lives in a democratic, multicultural society. This vision places commitments to learning and to people above all others.



LEARNING

UNK's learning environment is student-centered and reaches both on- and off-campus to build an active community of scholars. It:

- is structured by principles of academic freedom and academic responsibility;



- centers on individualized teaching-learning relationships between faculty and students, with facilities, faculty capabilities and workloads, class sizes, and out-of-class activities that support and encourage those interactions;
- recognizes the important role of experiential learning;
- fosters students' academic success and achievement of their educational goals;
- provides personal growth opportunities in student life, activities, and government;
- values civility, celebrates accomplishment, and offers full opportunity for every individual to realize his or her potential.

PEOPLE

At UNK, faculty—who are the heart of the university—have always been devoted to serving students and others in the larger community who can benefit from their scholarship, creative expertise, and activity. Similarly, administrators and staff have always been devoted to serving faculty and students and to meeting the public's educational needs. Students, who are the focus of our educational enterprise, have always prized the opportunity to live and learn together in this unique academic community. UNK has no institutional life apart from these networks of interaction and mutual support. The people who generate these dynamics are UNK's greatest strength – indeed they are UNK.



For these reasons, as we plan for the future, it matters—and will always matter :

- whether students are satisfied and succeed at UNK.
- whether faculty members have the wherewithal to teach well, to produce scholarship, and to apply their expertise to advance campus, community, and societal interests.
- whether administrators and staff have the wherewithal to lead and support a broad student-centered partnership in learning and personal development.
- whether our community and state are better off because of the work of the people at UNK.

All UNK plans, including the Facilities Development Plan, serve these values.

Tasks Derived from UNK Strategic Planning

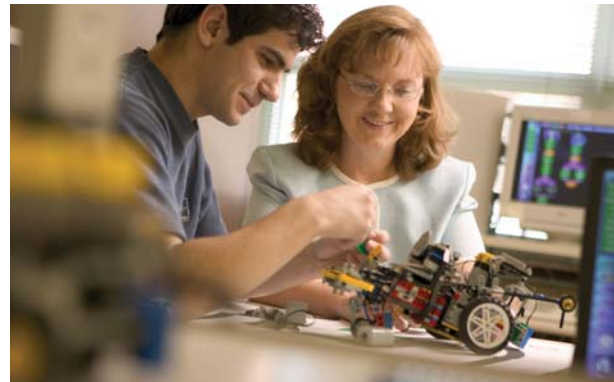
The UNK Strategic Plan states five broad goals and outlines specific objectives and high-value program directions for each goal. Specific tasks stated for facilities development planners, with respect to each of the overarching goals, are indicated below.



LEARNING GOAL: *to enlarge students' understanding of the world, to improve their ability to think critically, and to prepare them for advanced study and productive careers, by engaging with each as an individual learner.*

Facilities Development Tasks:

- Continue the renewal of UNK's academic infrastructure, including buildings, classrooms/laboratories, library resources, and instructional technology.
- Improve facilities supporting student advising, program and career planning, and academic support services.



SCHOLARSHIP GOAL: *to advance academic disciplines, curriculum and pedagogy, and Nebraska/community interests through excellent scholarship.*

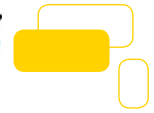
Facilities Development Task:

- Provide superior research facilities, technology, and equipment tailored to faculty and student needs.

STUDENT DEVELOPMENT GOAL: *to graduate individuals who are prepared for the responsibilities and opportunities of leadership, citizenship, and careers in a pluralistic, democratic, multicultural and entrepreneurial society.*

Facilities Development Tasks:

- Renew the campus housing inventory to provide a balanced array of living choices through new construction and renovation.
- Maintain excellent Student Union and student service facilities, and equip them with modern information technology.
- Expand/enhance parking capacity.



- Enhance recreational and other facilities serving the health, physical fitness, and general wellness needs of students and staff.
- Provide intercollegiate athletics facilities that meet appropriate competitive standards and serve general student and community needs.
- Enhance campus landscaping, including green and open spaces, and consider landscape and aesthetic impacts in all projects.
- Continuously evaluate and improve campus safety and security measures, including building/room access controls, lighting, emergency communications, and pedestrian and vehicular traffic patterns and management.



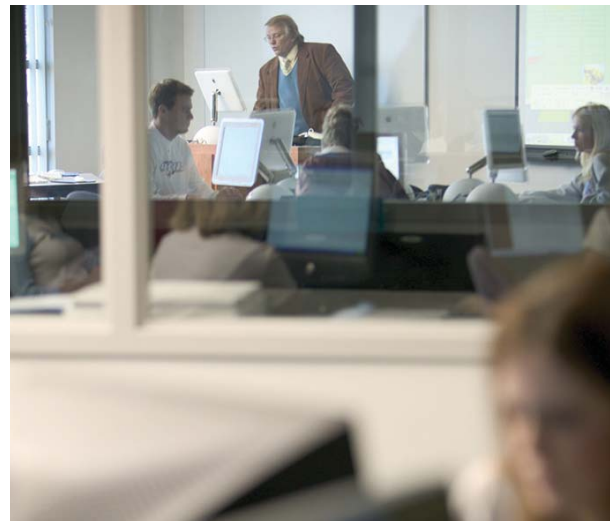
OUTREACH AND ENGAGEMENT

GOAL: *To help people, businesses, communities, and the state achieve their educational and developmental aims.*

Facilities Development Tasks:

- Improve campus venues for special events/performances, recreation and athletics activities, and conferences/meetings.

- Maintain and fully utilize the Museum of Nebraska Art and the Frank House as venues for special events and programs.
- Develop campus perimeter and buffer property to enhance access to key facilities, to improve green space, aesthetics, and pedestrian and vehicular movement, and to reinforce the residential character of our campus.



ORGANIZATIONAL DEVELOPMENT

GOAL: *To build a strong, effective institution by empowering staff, organizations, and the campus as a community to attain strategic goals.*

Facilities Development Tasks:

- Address employees' workplace needs including facilities, office space, and associated infrastructure, information technology, and equipment.
- Employ best practices, including technology applications, to improve operational efficiency and effectiveness.

The Outcomes We Seek

In the main, we envision that over approximately the next decade the facilities development tasks we undertake will produce the following outcomes.



RESIDENTIAL RENEWAL

We will renew our residential capabilities with new or refurbished residence halls that offer a variety of housing choices. These facilities, along with a multi-faceted, service-oriented Student Union at the heart of campus, will provide the main infrastructure supporting student development outside the classroom and laboratory. They also enable UNK to serve as a hub for regional cultural, artistic, and athletics/recreational activity. Improving them will be critical to achieving our vision of excellence among institutions of our kind.

ENVIRONMENTAL ENHANCEMENT

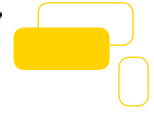
The residential environment will feature safe and efficient pedestrian access and movement across the entire campus. Landscaping will promote beauty as well as functionality, will provide green and open spaces for gatherings, recreation, and contemplation, and finally, will

foster a sense of campus heritage. Vehicular traffic will be moved increasingly to the campus perimeter, and additional parking capacity will be added. Building architecture and grounds development initiatives will maintain the “academic village” nature of our main campus and will reflect the residential quality of our neighborhood and community. Working with the City of Kearney and other officials, we will make campus entrances more prominent, capacious, accessible, and attractive. We will seek to regulate and reroute perimeter and internal traffic to promote safety and campus integrity. Buffer property, and currently undeveloped campus land, will be devoted to uses that serve our students and community in new ways, including innovative outreach and partnership initiatives.



ACADEMIC INFRASTRUCTURAL RENEWAL

We will comprehensively modernize the infrastructure supporting our academic mission. Renovation projects, such as Bruner Hall of Science which has completed initial phases addressing mechanical, safety, and accessibility needs, will proceed to phases that will upgrade the program capabilities they house. Classrooms and laboratories will be



outfitted with current instructional technology and appropriate equipment. Academic conferencing facilities will be improved. Faculty offices will be improved where required and located so as to enhance student/faculty interaction. Planners will respect UNK’s historical commitment to small-class sizes and comprehensive undergraduate research capability throughout the curriculum. UNK’s information technology infrastructure will feature comprehensive wireless networking capability in every building. The infrastructure will support on- and off-campus teaching, outreach, and student support services as well as administrative computing.

Challenges for Growth & Development

No plan can provide for all future eventualities. Nor can it remove certain realities that are beyond our control and can become significant constraints or limitations. Therefore, it must be adjusted to accommodate changes—including the progress it generates. Among such variables and challenges that require constant attention, we regard the following as especially important.

ENROLLMENT

University and UNK leaders have established ambitious goals for enrollment growth. We strive to meet them. In recent years we have launched a variety of initiatives to offer new educational programs tailored to citizens’ needs. We are determined to market the institution more aggressively and widely, to increase recruitment of new students, to raise

the college-going rate in Nebraska, and to improve our performance in retaining students to graduation. The physical campus improvements envisioned in this plan certainly will enhance our capability to enlarge our enrollment. Indeed, it is unlikely that our traditional residential enrollment can grow significantly unless we address long-standing deficiencies in our residential environment and academic infrastructure (additional scholarship resources are also required; this need is being addressed in other planning processes). But to the extent our residential enrollment grows, we must be alert for ways in which the physical campus should be refashioned to serve our students.

SCHOLARSHIP ENHANCEMENT

A major goal of our strategy is to enhance the quality and quantity of faculty and student research, notably externally funded research. This builds upon significant advances realized during the last decade, in which the dollar amount of grant awards to our faculty more than doubled, and in which UNK has become a national pacesetter in the undergraduate research arena. To sustain and grow this momentum, which is a key part of our vision to achieve distinction among our peers, we will need to devote special attention to emerging needs for added laboratory facilities and equipment as well as new library and information services.

LAND USE POTENTIAL

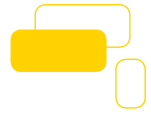
The large tracts of land south and west of our main campus will afford many opportunities to expand and enhance UNK programs. We outline concepts for such uses in this

document. If UNK grows substantially—through larger enrollment—the main campus is too small to accommodate the program, residential, and recreational space expansions that will likely be needed. Current undeveloped property, accordingly, will become the site of mainstream UNK programmatic activity. Even in the absence of such growth, however, we regard the land south of West Center as the likely site of new facilities addressing long-standing needs. We also envision that these properties have potential to be used in new ways to advance our mission and serve evolving state, regional, and community interests. We expect to consult and collaborate with constituents and stakeholders to identify particular initiatives along these lines. As they take shape we will incorporate them into the UNK and University-wide planning process.

CAMPUS BOUNDARIES AND BUFFER PROPERTY

This plan cannot address all the development possibilities that might emerge in particular property acquisition scenarios. Opportunities to acquire adjacent or nearby property will arise unpredictably. However, it is plain that we could use such property to serve a variety of campus interests: to rationalize perimeter traffic, to add more parking capacity, to supplement UNK housing, to enhance green/open and recreational space, or to emphasize and enhance campus entrances. We are alert for such prospects, and as they materialize, we will adjust this plan accordingly.





CHAPTER 3: Planning Process

UNK’s Facility Development Plan Update was developed by the Vice Chancellor for Business and Finance in a planning process that was both expertly advised and broadly participatory. The architectural firm Sinclair Hille advised and facilitated the process, which began with data gathering and analysis. At this early stage, the process included several initial consultations with UNK administrative leaders including Vice Chancellors, deans, and managers of major functional areas. Then, a broad campus dialogue was conducted, which generated a wealth of campus and community input that has importantly shaped our concept for the next decade’s development.

Advisory Committee

The key participatory phase of the planning process occurred throughout the spring, summer, and fall of 2006. In the spring of 2006, after the initial consultations described above, the University of Nebraska at Kearney formed an Advisory Committee to work with consultants and UNK leaders in preparing this Facilities Development Plan Update. The role of the committee was to review relevant data (including strategic planning objectives and information about progress on initiatives that had been completed or were still underway), to conduct a structured dialogue with constituencies concerning unmet needs or advancement opportunities, and to identify the most promising ideas for inclusion in this planning update.



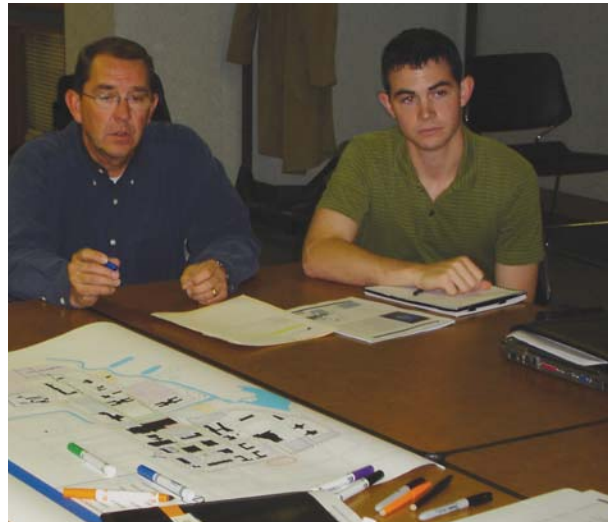
The committee was composed of representatives from:

- **Faculty Senate**
 - Gary Davis, *Director of the Honors Program and Professor of Music*
 - Steve Rothenberger, *Professor of Biology and Curator UNK Arboretum*
 - Beverly J. Frickel, *Associate Professor of Accounting and Finance*
- **Student Senate**
 - Kevin R. Wait, *Student Senate Vice President*
 - Amber M. Lewis, *Speaker of Student Senate*
- **Staff Senate**
 - Deb Schroeder, *Assistant Vice Chancellor for Information Technology*
 - Brandon J. Benitz, *Assistant to the Dean of Student Life*

- **Facilities Department**
 - Lee V. McQueen, *Director Facilities Management and Planning*
- **Administration**
 - John L. Lakey, *Interim Vice Chancellor for Business & Finance*

With consultant assistance from Sinclair Hille, the group drew on analyses and conclusions that had emerged in several related processes, including:

- UNK campus-wide strategic planning, a comprehensive process launched in 2004.
- The April 2004 Institutional Self-Study for North Central Re-Accreditation, which reflects campus-wide assessment (including evaluation of the physical campus) conducted for more than a year.
- Extensive planning in 2005 and 2006 for LB 605 initiatives: Bruner Hall of Science Expansion and Renovation and central utilities service.
- Planning for long-term renewal of our residential hall inventory and for the first stage of that effort: ongoing construction of three new halls on the eastern part of main campus.

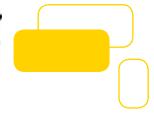


Data Gathering & Stakeholder Input

Among the concerns about the physical campus recorded in earlier studies were the following: a backlog of deferred maintenance and repair projects affecting many buildings on campus; aging residence halls; the need to replace or renovate sports and recreational facilities; and programmatic renovations for Bruner Hall and Otto Olsen.

To assess the currency of these observations, and to ensure that facilities planners have the benefit of “customer” appraisals of our physical campus and its future potential, the Advisory Committee over a period of several months conducted a series of forums or focus group discussions with a variety of constituencies. These included:

- Faculty Senate Forum
- Student Government Forum
- Staff Senate Forum



- Open Campus Forum
- Kearney Community Forum

In all, 250 members of the UNK and Kearney community attended these discussions and contributed their ideas to the planning process.

Typically, these discussions included, at the outset, a review of campus properties and current uses, a summary of projects completed in the last decade or underway at this time, and discussion of initiatives that are imminent (e.g., LB 605 projects). With that information as foundation for discussion, attendees were invited to offer their perspectives on both concerns pertaining to their individual workplaces and general development needs for the physical campus. A follow-up presentation to these same groups was held after the advisory committee completed its work. There, the work of the advisory committee that described the conclusions the committee reached was shared and comments invited.

Input ratified a number of findings in recent campus-wide analyses. Some common themes emerged. They included:

- Renovation of buildings to correct obvious and long-standing functional shortcomings, e.g.: outdated lavatory facilities in residence halls, recurrent roof or window leaks in key student support areas.
- Concern to improve campus aesthetics, e.g.: green/open space, landscaping, and architecture appropriate to a residential, academic setting.

- Concern to enhance people-friendly aspects of the campus in order to make it more accessible and easier to use, for example *via* signage and readily identifiable entrances.
- Safety concerns arising from heavy vehicular traffic around UNK's periphery, especially on the east and south sides of main campus and the awkward intersection of 9th Avenue and Highway 30.
- Insufficient vehicle parking capacity.
- Health and safety concerns arising from outdated facilities.
- Rebuilding or relocating University Heights.
- Adding modern and convenient facilities to support UNK wellness programs.

Parallel to the Advisory Committee discussion forums, we also created a planning website to enable all members of the UNK community (whether on-campus or off-campus) to express their views or contribute new information relevant to the plan.

Concept Development

When the Advisory Committee concluded its dialogue sessions, it met four times to review and evaluate the input that had been offered. In the fall of 2006 the Committee prepared a report for the UNK Chancellor and cabinet group, who then supervised the writing of this planning update. The result is a general and current statement of the principles, parameters, and priorities that will guide our facilities and grounds development work over the next decade.

CHAPTER 4: Data Analysis & Assumptions

This Facilities Development Plan takes into account a variety of data relevant to judgments about future needs. These data sets include student headcount enrollment, trends in staffing, housing, classroom utilization, recreation area usage, parking and traffic, land and building space, and utilities capacity. Projected increases in enrollment, advancement in undergraduate research, and growth in faculty and staff were considered to estimate future needs.

Beyond any imperatives associated with growth in activity, the Facilities Development Plan also addresses many needs to remedy long-standing condition deficiencies and other qualitative shortcomings in key facilities.

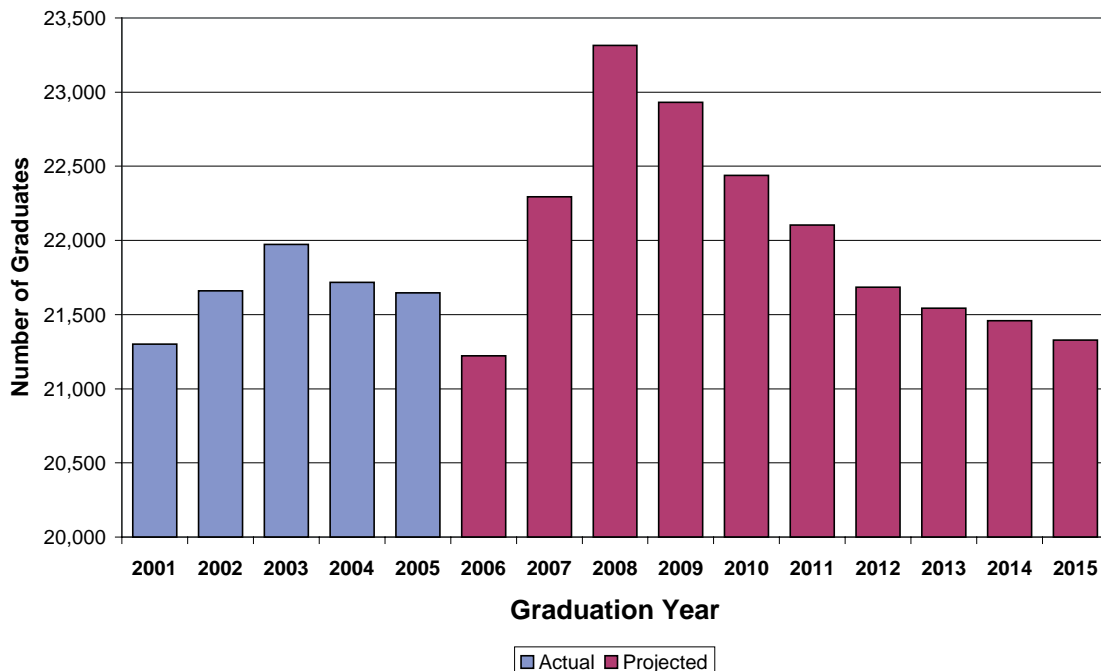
Enrollment Trends

Enrollment trends at UNK show a gradual increase in student headcount enrollment since 2001. This differs from the trend in the late 1990's, which saw substantial headcount declines. Factors which contributed to the 1990's declines will continue to affect enrollment results over the next decade. These include declines in the Nebraska high school graduate population (particularly acute in Outstate Nebraska), more rigorous admission requirements, increasing tuition rates and increasing competition from community colleges.

The table below shows the high school graduate trend since 2001 and projected through 2015:

Figure 1

Nebraska High School Graduates



A continuing trend at UNK is the growth in proportion of full-time students. Full-time students as a percentage of total enrollments have increased from 73.4% in 1996 to 79.0% in 2005.

In addition to monitoring headcount, UNK monitors trends in degrees conferred. While headcount peaked in 1996 at 7,680, the number of degrees conferred has exceeded the 1996 total six times. This demonstrates that UNK's contribution to the state has been relatively constant during this period. Seen another way, it means that by this measure UNK's productivity has been sustained at an historically high level. We retain the same or even greater need to support quality in graduate-producing operations in the future

in terms of instruction and research facilities. If UNK were to attain 1.5% annual growth over the planning period, which is the near-term University-wide growth target specified in the Regents' Strategic Framework Document, the headcount result at UNK would be 7,480 students (including headcount produced in distance education programs) by 2015. Although that is an aggressive target in our circumstances, the physical campus improvements envisioned in this plan will help to bring it within reach. Additional funding for scholarships and facilities will be required to help us meet this target. Moreover, those advancements will be critical to maintaining quality education, services, and residential life for current levels of UNK enrollment.

Table 1

HEADCOUNT ENROLLMENT – FALL SEMESTER										
BY COURSE LOAD	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
UNDERGRADUATE										
Full-Time	5,372	5,256	5,091	5,047	4,826	4,762	4,768	4,839	4,881	4,895
Part-Time	917	855	795	758	676	645	598	534	499	486
Total	6,289	6,111	5,886	5,805	5,502	5,407	5,366	5,373	5,380	5,381
GRADUATE										
Full-Time	264	211	178	179	197	202	202	186	180	195
Part-Time	1,127	811	785	796	807	817	827	820	822	869
Total	1,391	1,022	963	975	1,004	1,019	1,029	1,006	1,002	1,064
TOTAL										
Full-time	5,636	5,467	5,269	5,226	5,023	4,964	4,970	5,025	5,061	5,090
Part-time	2,044	1,666	1,580	1,554	1,483	1,462	1,425	1,354	1,321	1,355
Total	7,680	7,133	6,849	6,780	6,506	6,426	6,395	6,379	6,382	6,445
PERCENT FULL-TIME STUDENTS	73.4%	76.6%	76.9%	77.1%	77.2%	77.2%	77.7%	78.8%	79.3%	79.0%
DEGREES CONFERRED (all semesters)	1,141	1,070	1,045	1,119	1,218	1,155	1,300	1,212	1,226	1,276

Faculty and Staff Trends

Numbers of UNK faculty and staff have averaged 12% to 14% of student enrollment during the past decade. The peak year was 928 in 1996, with 894 in 2005. Ratio of faculty and staff to students is expected to remain within this range through the planning period, resulting in faculty and staff totals of 1,038 by 2015 (assuming enrollment growth). These numbers exclude temporary and student workers.

Housing

The residential experience at UNK is regarded as an integral part of our educational mission and program. While the number of students living in university housing decreased from 2,224 in 1996 to 2,016 in 2005, the percentage of total enrollment living on campus has increased from 29.0% to 31.3% in that period. Since 2000, the average has been 30.7%. We expect this number to rise as we address qualitative deficiencies in our facilities.

Average construction of UNK residence halls dates to the early 1960's. Current on-campus housing inventory is heavily reliant on

traditional (two-occupant) rooms, with semi-suite accommodations offered in the CTE and CTW towers. The number of students residing in traditional residence halls has decreased as double rooms have been converted to single rooms to meet student preferences. Coincident with these changes in room use patterns are changes in student expectations concerning their housing needs. Therefore, it is very important that UNK residence halls undergo a systematic renovation process that transforms our housing to meet the needs of millennial generation and subsequent students.



Table 2

UNK Students Living in University Housing										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total on Campus*	2,121	2,050	1,934	1,963	1,835	1,759	1,831	1,949	1,962	1,925
University Heights	103	99	92	100	96	99	96	100	93	91
Total	2,224	2,149	2,026	2,063	1,931	1,858	1,927	2,049	2,055	2,016
PERCENT OF TOTAL ENROLLMENT	29.0%	30.1%	29.6%	30.4%	29.7%	28.9%	30.1%	32.1%	32.2%	31.3%

* Includes Greeks in UNK Housing

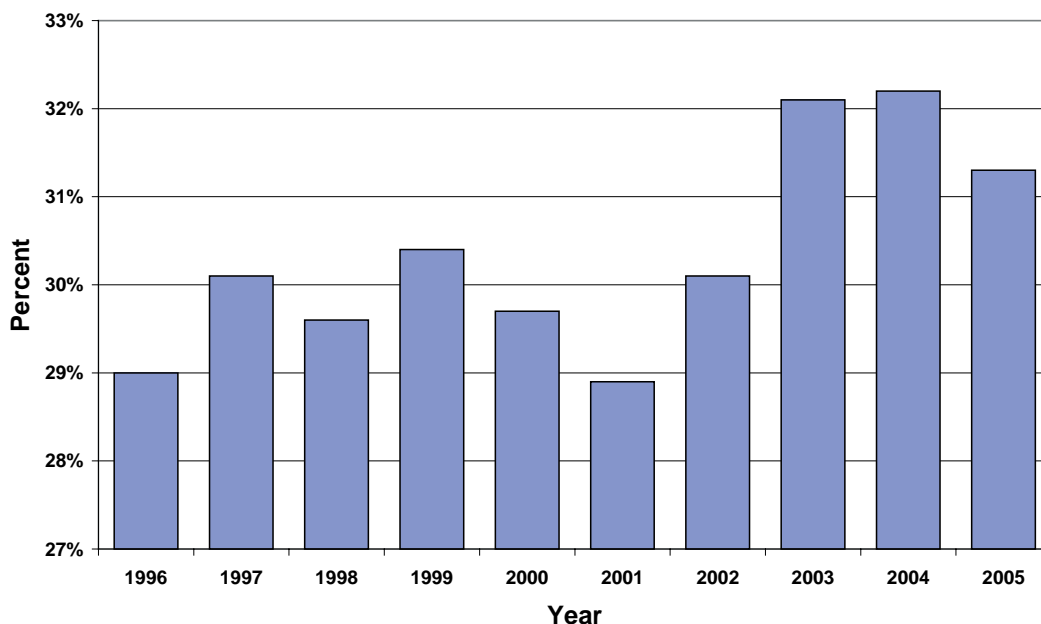


Barring unprecedented and unexpected advances in enrollment of traditional students, the overall size of our housing inventory should be adequate to meet requirements through 2015. But aging and outdated facilities must be replaced or substantially renovated within the planning period. In addition, surveys conducted in conjunction with a 2004 housing master plan indicated that we need to add new living options to the inventory, including the suite-style rooms that are featured in the three

new halls that will be operational by fall 2008. The ongoing project will replace more than 300 beds in the near-term. Further stages of the residential renewal envisioned in this facilities development plan will renovate our remaining traditional halls and modernize our apartment facilities. The result will be a “ladder” of living options for students to progress from traditional rooms as freshmen to more independent living choices as they achieve upper division status.

Figure 2

Percent of Students Living On Campus





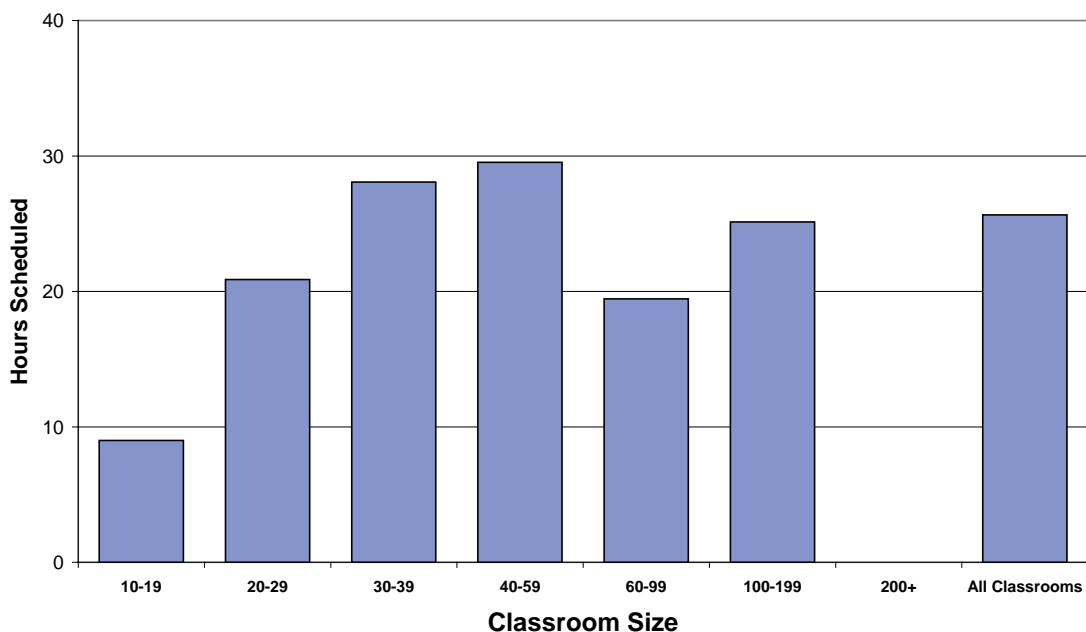
Classroom and Class Laboratory Utilization

The University’s guideline for evaluating classroom utilization is scheduling at least 30 hours per week, and student station occupancy rate of 65%. The utilization figures show that UNK is near the targeted classroom utilization of 30 hours per week.

The chart below reveals that rooms seating 30-39 students and 40-59 students are the closest to reaching target utilization, with 28.1 hours per week, and 29.5 hours per week. Present class scheduling results in rooms with 10-19 seats being furthest from target values. UNK does not utilize rooms with over 200 seats. A project presently being programmed will further reduce use of lecture halls with over 100 seats, and increase use of smaller rooms, increasing overall utilization.

Figure 3

Classroom Utilization
(Weekly Hours Scheduled -- Fall 2005)



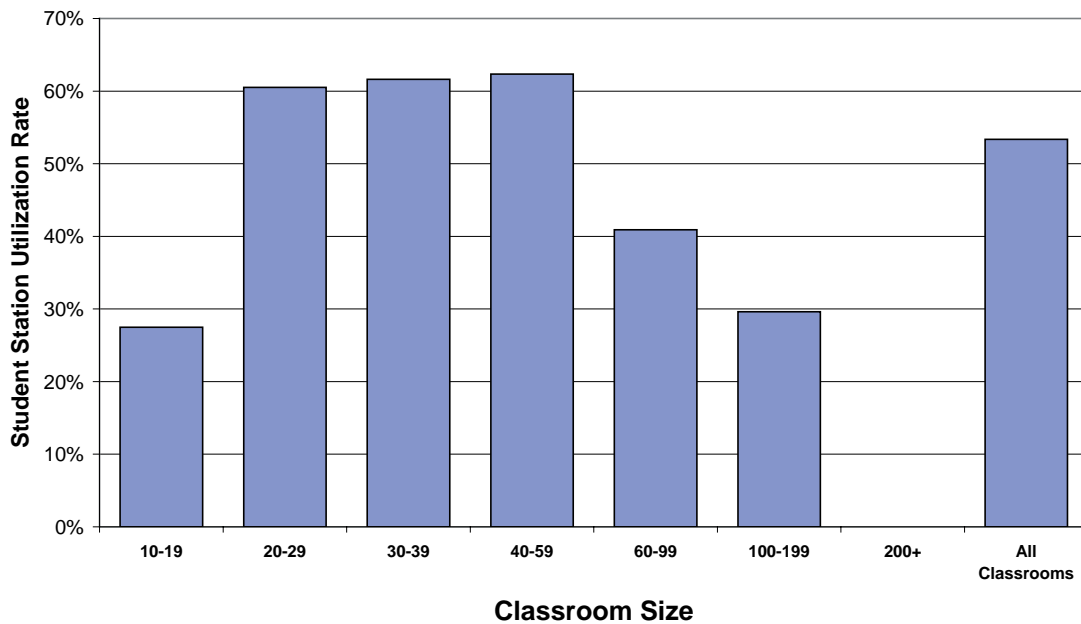


Overall student station utilization is 53.4 percent. The chart below shows that rooms seating 30-39 students and 40-59 students are the closest to reaching target station utilization, with 61.6 percent and 62.4 percent station utilization per week. Again, with present class scheduling rooms with 10-19 seats are furthest from target values. Future station utilization values will be higher as a large lecture hall is removed from inventory, and classes are relocated to smaller rooms.



Figure 4

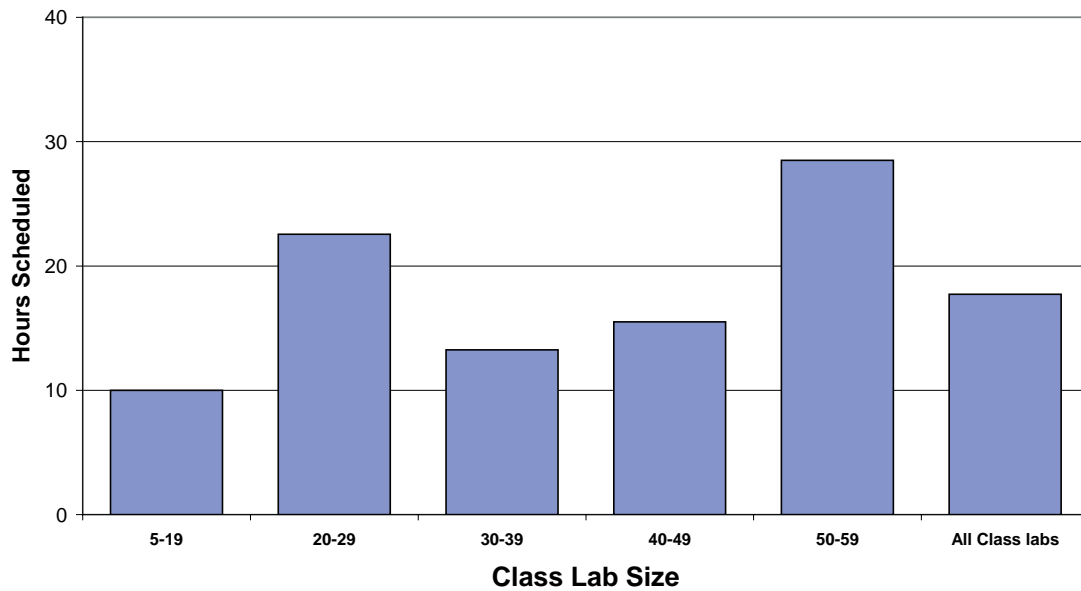
Classroom Student Station Utilization
Fall 2005



The chart below notes that on average, class labs are scheduled 17.7 hours per week. Rooms seating 20-29 and 50-59 exceed target values, as they are scheduled 22.6 and 28.5 hours per week. In addition, the Bruner Hall of Science program will alter configuration of several labs, increasing overall lab utilization values.

Figure 5

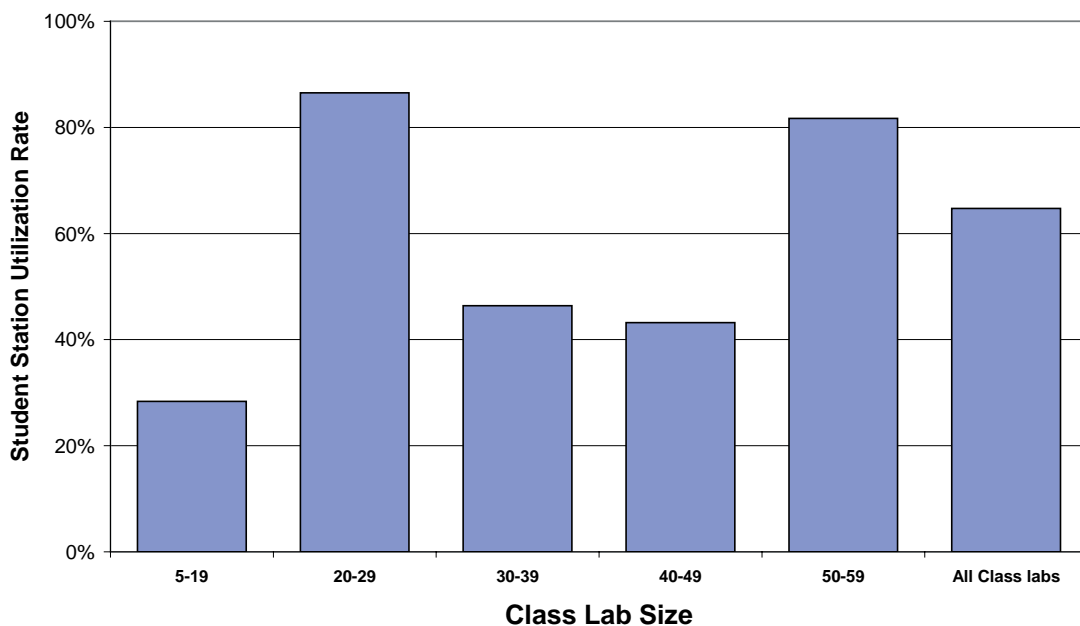
Class Lab Utilization
(Weekly Hours Scheduled -- Fall 2005)



The chart below indicates that average station utilization for class labs is just under target values, at 64.7 percent. Rooms seating 20-29 and 50-59 exceed target values, as they have utilization rates of 86.5 percent and 81.7 percent.

Figure 6

Class Lab Student Station Utilization
Fall 2005



While growth in student headcount may eventually require identifying additional classroom space, there is an on-going need to efficiently and effectively manage existing space. Policies for evaluating and allocating space will require continuous monitoring to assure proper support of high quality programs.

Equally important for this planning process are needs related to qualitative deficiencies—or

enhancement imperatives—related to learning space, such as:

- suitability for new pedagogies,
- adaptability to technology advancements,
- location disadvantages with respect to collaborative requirements among faculty, students, and disciplines.

Assessment of these factors has shaped several ongoing or imminent projects, including the

expansion and renovation of Bruner Hall of Science and the planned renovation of Otto Olsen. Such analyses continue with respect to all academic facilities. Each type of academic space has a functional life span that is limited largely by changes in the technical requirements of the various disciplines. For example, the functional life span of science and technology facilities is typically between 20 and 30 years. Therefore, to assure that our facilities meet the educational needs of our students, we must continue the renewal of our academic facilities.

Land and Building Inventory

The University of Nebraska at Kearney has a total building inventory of over 1.8 million gross square feet (GSF) within 43 buildings. Over 98% of this space is included in the main campus. The 127.59 acre main campus, 103.52 acre south property and 252.33 acre west property compile the bulk of UNK’s 514 acre land inventory.

Table 3

UNK LAND INVENTORY		
LOCATION	Acreage	Percent of Total
UNK Campus	127.59	24.8%
University Heights Apartments	10.00	1.9%
Westlake Acreage	5.23	1.0%
Cope Nebraska Center for Safety Education	11.62	2.3%
HHS Farmland	252.33	49.1%
Cranewood property RV park	3.50	0.7%
Farmland	103.52	20.1%
UNK TOTAL	513.79	100.0%

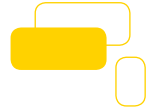
LAND

The south farmland property offers many advantages due to its proximity to the main campus. This property has the potential to be developed for multiple uses, ranging from recreation and athletic spaces (including tennis courts, softball and baseball fields, and track), to campus housing, academic development, with an addition to the adjacent Nebraska Safety Center.

The recently acquired west farmland property lends itself to a variety of options. Significant further study is necessary to determine appropriate use. Still, any future development of this property will be consistent with the mission of the university.

In addition, partnerships with outside entities may be considered for approval under established university procedures. Of special interest will be projects that advance the university’s mission in one or more of the following ways.

- No cost or very low cost to UNK, combined with appreciable enhancement of university interests.
- Financial benefit to UNK.
- Availability of student internships or employment, especially if relevant to programs of study.
- Opportunities for UNK faculty to apply their expertise for research and scholarship in the partnership enterprise.
- Opportunities to use partner expertise in UNK academic programs.



We would expect all such projects to adhere to campus architectural standards and align with the character of our community environs and the Lincoln Highway heritage.

BUILDING INVENTORY

Table 4

UNK GROSS BUILDING AREA		
LOCATION	Gross Square Feet	Percent of Total
Main Campus	1,834,601	98.1%
Alumni House <i>(owned by others)</i>	5,513	0.3%
Museum of Nebraska Art <i>(owned by others)</i>	30,657	1.6%
UNK TOTAL	1,870,771	100.0%
Less Buildings Removed		
Case	30,512	
Ludden	34,953	
UNK ADJUSTED TOTAL	1,805,306	

ROOM USE SUMMARY

UNK has a total area of over 1.1 million net assignable square feet (NASF). Residential facilities are the largest component, exceeding 30%. Classrooms, class labs and non-class labs exceed 16% of assignable space. Offices comprise 13% of total NASF.

Table 5

UNK NET ASSIGNABLE AREA		
ROOM USE	Net Assignable Area	Percent of Total
Classroom Facilities	91,792	8.3%
Class Lab Facilities	95,339	8.6%
Non-Class Lab Facilities	3,140	0.3%
Office Facilities	142,833	13.0%
Study Facilities	66,179	6.0%
Special Use Facilities	159,344	14.5%
General Use Facilities	163,286	14.8%
Support Facilities	40,028	3.6%
Health Care	1,366	0.1%
Residential Facilities	338,909	30.7%
Residential Under Construction <i>(completed by 8/08)</i>	161,712	0.0%
UNK TOTAL	1,102,216	100.0%
Less Buildings Removed, (NASF)		
Case	18,582	
Ludder	23,286	
UNK ADJUSTED TOTAL	1,222,060	



Parking

There are over 3,100 surface stalls available by permit or meter on the contiguous campus and in adjacent lots. The existing parking stall-to-population ratio is over 43 percent. Projecting through 2015, with enrollment growth of 1.5% per year and maintaining 14% ratio of staff to students, UNK will need 445 additional parking stalls, based on current space guidelines.

Expansion of campus parking will be needed during this planning period. Options to develop additional parking capacity range from developing new lots on available buffer property to constructing parking decks over existing surface lots. Only 62% of our parking spaces are on the eastern side of campus, where 77% of classes are taught and 85% of resident students live. This suggests that we should give first priority to new capacity on the east side of campus. Also, policy or pricing changes may be needed to encourage parking farther from final destinations.

Sinclair Hille Architects was engaged to develop a campus parking study. The intent of this study was to evaluate a variety of alternatives, including both surface and deck parking. These options focused on increasing stall counts near the academic core utilizing parking decks and perimeter surface parking utilizing buffer properties. These options could create 250-450 additional stalls within 10 minutes of the library entrance. If the lot north of Otto Olsen is converted to green space, an additional 100 spaces will be needed.

Table 6

UNK PARKING INVENTORY	
TYPE OF SPACE	Spaces
ADA	64
Faculty/Staff	700
Student (Residents + Commuters)	1,399
Faculty/Staff/Student	950
Visitor*	7
Service/Departmental/Loading Zone	25
Cashier/Meter	18
UNK TOTAL**	3,163

* Visitor reserved spaces, other visitor parking available

** Excludes motorcycle parking

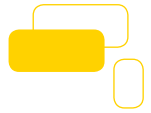


Table 7

UNK PARKING NEEDS						
	Parking Allowance Factor*		Spaces Needed	Annual Growth Rate		Spaces Needed
YEAR		2005			2015	
STUDENT HEAD COUNT						
Commuters	0.3	4,445	1,334	1.0%	4,931	1,479
Undergrad, Residential	0.6	1,900	1,140	2.5%	2,432	1,459
Graduate, Residential	0.4	100	40	1.5%	116	46
FACULTY + STAFF <i>(excludes temps)</i>	0.6	894	536	1.5%	1,038	623
TOTAL CAMPUS POPULATION		7,339		1.5%	8,517	
TOTAL STALLS REQUIRED			3,050			3,608
AVAILABLE PARKING STALLS			3,163			3,163
Additional Stalls Required			0			445

* Factors from University of Nebraska Space Guidelines and Land Guidelines, 1/1987



Recreation

Exterior recreation space accounts for 24.0 acres, which are located throughout the main campus, and across 25th Street. Nearest the academic core, the football stadium is open regularly for both formal intramural use and informal recreational activities. This is a lighted, synthetic field that is marked for both football and soccer. The stadium does not feature a running track. An old and deteriorated asphalt track was removed from Foster Field before installation of synthetic turf and has not been replaced. Property that is currently undeveloped is being evaluated for this use.

Intramural softball fields define the western boundary of the main campus. The mid-campus green space serves multiple functions, including use by the marching band, intramural sports, track team throwing event

practices, and informal recreational activities. Additional green space south of 25th Street is used for varsity football practices, summer sports camps, intramurals, and informal student recreation.

Current construction of residence halls has removed sand volleyball courts. Replacement of this space is being considered near the residence halls.

Recent expansion of parking near the football stadium has removed tennis courts. If additional recreational space were taken for other uses, we would develop similar replacement space in the existing south farmland, and consider developing replacement tennis courts with this project.

The table below summarizes these exterior spaces.

Table 8

UNK RECREATION INVENTORY				
TYPE OF AREA	Previous		Current	
	COUNT	SQUARE FEET	COUNT	SQUARE FEET
Sand Volleyball Court	2	11,560	0	0
Tennis Courts	4	25,440	0	0
Basketball Courts	4	4,293	4	4,293
Playing Field, Synthetic, Lighted	1	261,250	1	261,250
Multi-Use Field (<i>Matheny Property</i>)	1	547,388	1	547,388
Intramural Fields	3	234,000	3	234,000
UNK Total, s.f.		1,083,931		1,046,931
UNK Total, Acres		24.9		24.0

Campus Building Space Needs

The following table summarizes space needs for the coming decade, using University of Nebraska Guidelines.

Table 9

SPACE NEEDS PROJECTION					
SPACE TYPE	Fall 2005			Fall 2015	
	2005 NSAF	PROJECTED NEEDS BY NU GUIDELINES	SURPLUS/ (DECIFIT)	PROJECTED NEEDS BY NU GUIDELINES	SURPLUS/ (DECIFIT)
Classroom Facilities	91,792	87,719	4,073	101,801	(10,009)
Class Lab Facilities	88,305	93,531	(5,226)	108,546	(20,241)
Non-Class Lab Facilities	10,174	11,330	(1,156)	14,883	(4,709)
Office Facilities	175,011	175,502	(491)	191,155	(16,144)
Study Facilities	66,179	70,571	(4,391)	77,595	(11,451)
Special Use Facilities	159,344	164,013	(4,669)	173,472	(14,127)
General Use Facilities	163,286	167,954	(4,669)	176,158	(12,873)
Support Facilities	40,028	52,230	(12,202)	57,453	(17,425)
UNK Total	794,119	822,850	(28,731)	901,063	(106,945)

Existing facilities provide most, but not all, space needed to support existing programs. Expansion of facilities will be necessary to respond to any enrollment growth and expanding programs. Growth from existing to proposed enrollment levels will necessitate the following space modifications:

- Classroom Facilities:** An additional 10,000 net assignable square feet (NSAF) of space will be required, an additional 11%.
- Class Lab Facilities:** An additional 20,200 NSAF of space will be required, an additional 23%.
- Non-class Lab Facilities:** Additional laboratory needs are 4,700 NSAF.
- Office Facilities:** Future office needs are 4,700 NSAF greater than existing space.
- Study Facilities:** Future needs for study facilities are 11,400 over existing space.
- Special Use Facilities:** An additional 14,000 NSAF will be needed to support expanding programs.
- General Use Facilities:** An additional 12,800 NSAF will be needed to support program growth.
- Support Facilities:** Future needs for support facilities will be 17,400 NSAF beyond existing space.



In addition to these needs, the Facilities Development Plan addresses a variety of qualitative deficiencies and improvement imperatives to extend the useful life of existing facilities and adapt them to UNK's educational and residential needs. The Bruner Hall and Otto Olsen projects are examples.

Two other needs are also apparent:

- **To expand and enhance facilities now devoted to wellness programs – i.e., individual and group health/fitness assessment, training, and instruction.** Space now allocated to this function in Cushing Coliseum is outdated and inadequate.
- **To replace University Heights.** This aging facility should be completely renovated, rebuilt on its current site, or moved to another location adjacent to campus. Options for developing another site include the south farmland property or the existing motel property. This will be accomplished as part of the residential renewal strategy described elsewhere in this document.

Utilities

Farris Engineering was engaged to update the campus utility master plan. This update considered electrical, thermal, sanitary and domestic water systems external to buildings. The study also identified weaknesses in campus utility systems and proposed phased corrective action.

The analysis considered the present condition, capacity, and locations of the two existing production plants (one on the eastern part of main campus and one on the western part). This also reviewed distribution piping, feasibility, cost and timing of potential utility infrastructure improvements serving production and distribution needs of the entire campus. Fire alarm, security, access, voice, data, or other systems inside or outside of buildings were not included within the analysis.

The Executive Summary of this report is included as Appendix I of this update.

CHAPTER 5: Facilities Development Plan Concepts & Recommendations

Overview

Goals that have guided this facilities development plan are fundamentally the same as the goals that shaped UNK's 1997 Facilities Master Plan.

1. To provide our people with the highest quality learning, teaching, and research environment.
2. To encourage a greater sense of community among all students, faculty, and staff.
3. To maintain the highest standards while developing facilities, image, and resources, and to conserve those resources while devoting particular attention to: (a) the health, safety, and welfare of our people; (b) the current and potential aesthetic and environmental qualities of our community; (c) efficient and economical location, construction, and operation of facilities and supporting infrastructure; and (d) development of technological capabilities to enhance both academic and administrative service.

Under that guidance, since 1997 we have undertaken a number of initiatives to achieve specific objectives with respect to land use, buildings and facilities, circulation, outdoor space, and utilities. These have included the following:

- We consolidated elements of the College of Education in a new state-of-the-art facility.

- We comprehensively renovated the West Center.
- We modernized and expanded the Nebraskan Student Union.
- We completed first renovation phases in the Bruner Hall of Science and Otto Olsen.
- We developed the Spillway Park and built the Main Street Bridge over the Canal.
- We developed Foster Field into Cope Stadium, a multi-use recreation and sports facility.

Other projects are now underway, including an expansion and renovation of the Bruner Hall of Science and the establishment of a modern central utilities system. Time and resource constraints have, of course, importantly determined our development agenda over the last ten years, in ways that the 1997 plan did not anticipate. We have also benefited from infusion of new resources (e.g., LB 605, donations, and renewed bonding capacity) that gave us options and opportunities not specifically envisioned in the 1997 plan.

Now, looking ahead, our circumstances have changed, in large part because of the progress we have made in implementing our 1997 plan. As we go forward to achieve enduring goals, our current vision has the following new initiatives:

- We have acquired substantial western farmland property that may be appropriate for uses formerly envisioned for land closer or adjacent to campus. Concepts for such use might include joint UNK/community projects and could develop within the next few years.

- We have clearer focus on the potential of the property south of West Center to address long-standing residential and recreational/sports needs.
- We have a long-term renewal strategy for our residential core—the residence halls and their environs supporting campus life activities.
- Development momentum on the east part of main campus has highlighted the importance of several initiatives. In cooperation with neighbors and community planners, we seek to improve perimeter traffic regulation, enhance our parking capacity, and use buffer property to serve campus interests.
- The design of our new residence halls, and associated landscape planning, provides new opportunity to develop green/open space, pedestrian malls, and campus landmarks, all of which serve important aesthetic goals.

Existing Land Use

The several broad categories of land use are depicted in the Existing Campus Land Use map.

Academic/Research: Land and buildings whose primary function is for teaching and research. This includes academic support offices, along with galleries, theaters and auditoriums, a radio station, distance education facilities and related spaces that support the university mission.

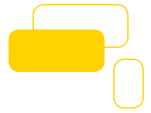
Campus Life: Land and buildings whose primary function is to enhance the university experience by creating community spaces to encourage interaction. These include student union, dining facilities, and on- and off-campus student housing. (Recreation fields and interior recreation spaces are noted separately.)

Green Space: Land whose primary function is to enhance the university experience by providing open space such as lawns, gardens, public plazas where plants are displayed for their aesthetic, educational, historical or cultural value. These include research and display plots. UNK maintains an affiliation with Nebraska Arboretum as a landscape steward, to demonstrate its ongoing commitment to excellence in design and plant diversity.

Recreation/Athletics: Land and buildings whose primary function is for recreation or intercollegiate athletics including playing and practice fields, courts, running tracks, stadiums, arenas, dining and study facilities, training facilities and coaching and administrative offices.

Recreation Fields: These are noted separately, as they also serve as additional green spaces.

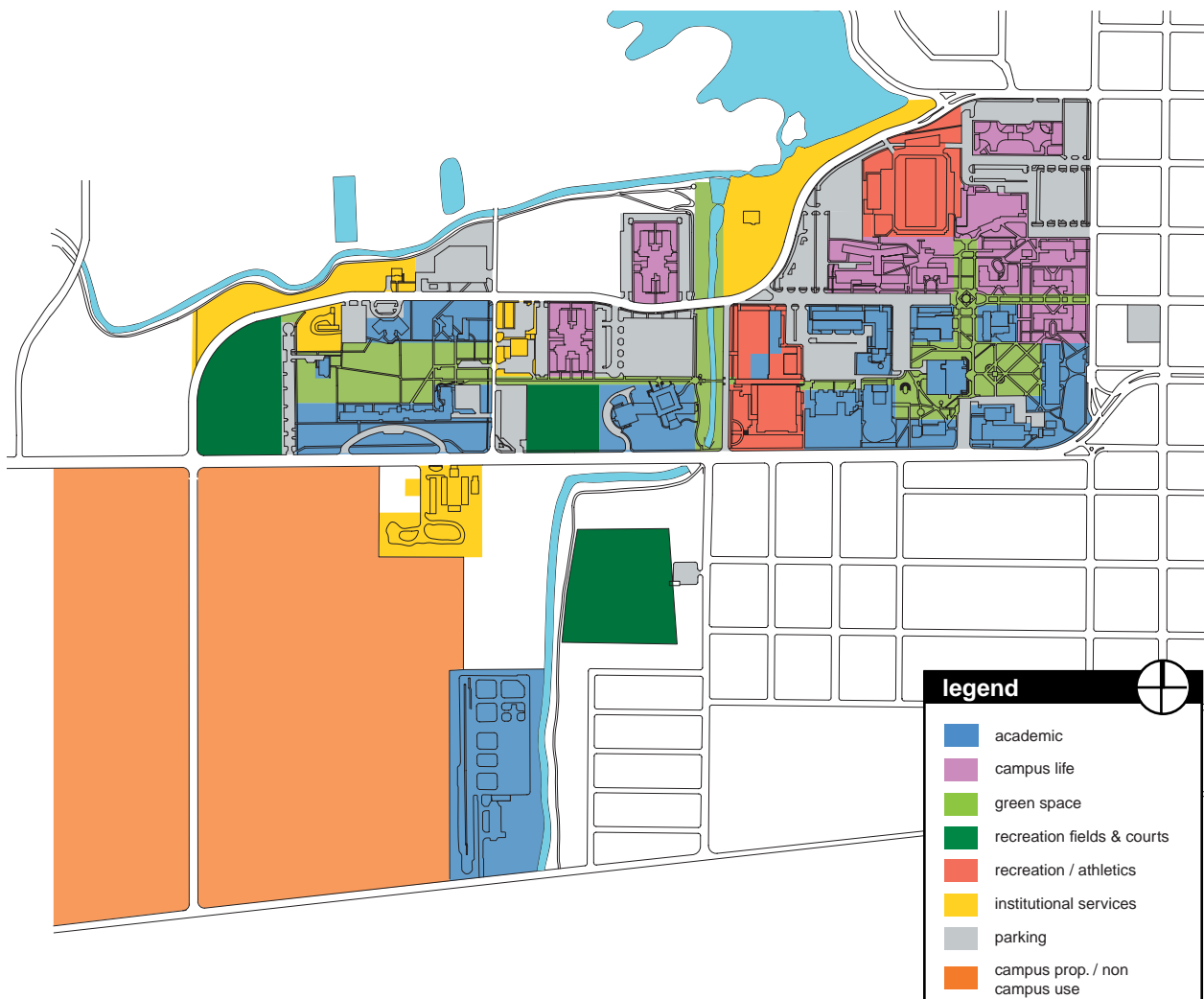
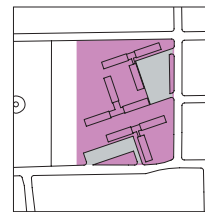
Institutional Services: Land and buildings whose primary function is the support of daily non-academic university functions. These include: support for buildings and grounds, utilities, mail delivery, transportation, inventory, thermal production and distribution, public safety, and related functions. Services in direct support of academic and research operations, such as general administration,



libraries or student and research services are considered to be Academic Services.

Parking: Land and buildings used for general parking for students, faculty, staff and visitors. Parking and storage areas for University vehicles are categorized as Institutional Services land use.

Map 3: Existing Campus Land Use





Land Use Analysis

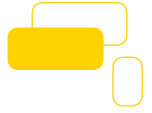
ACADEMIC/RESEARCH

On the east part of the main campus, it is likely that future development of academic/research functions will occur within the parameters currently occupied by these activities.

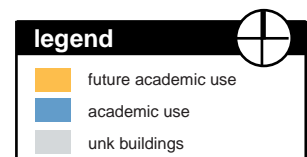
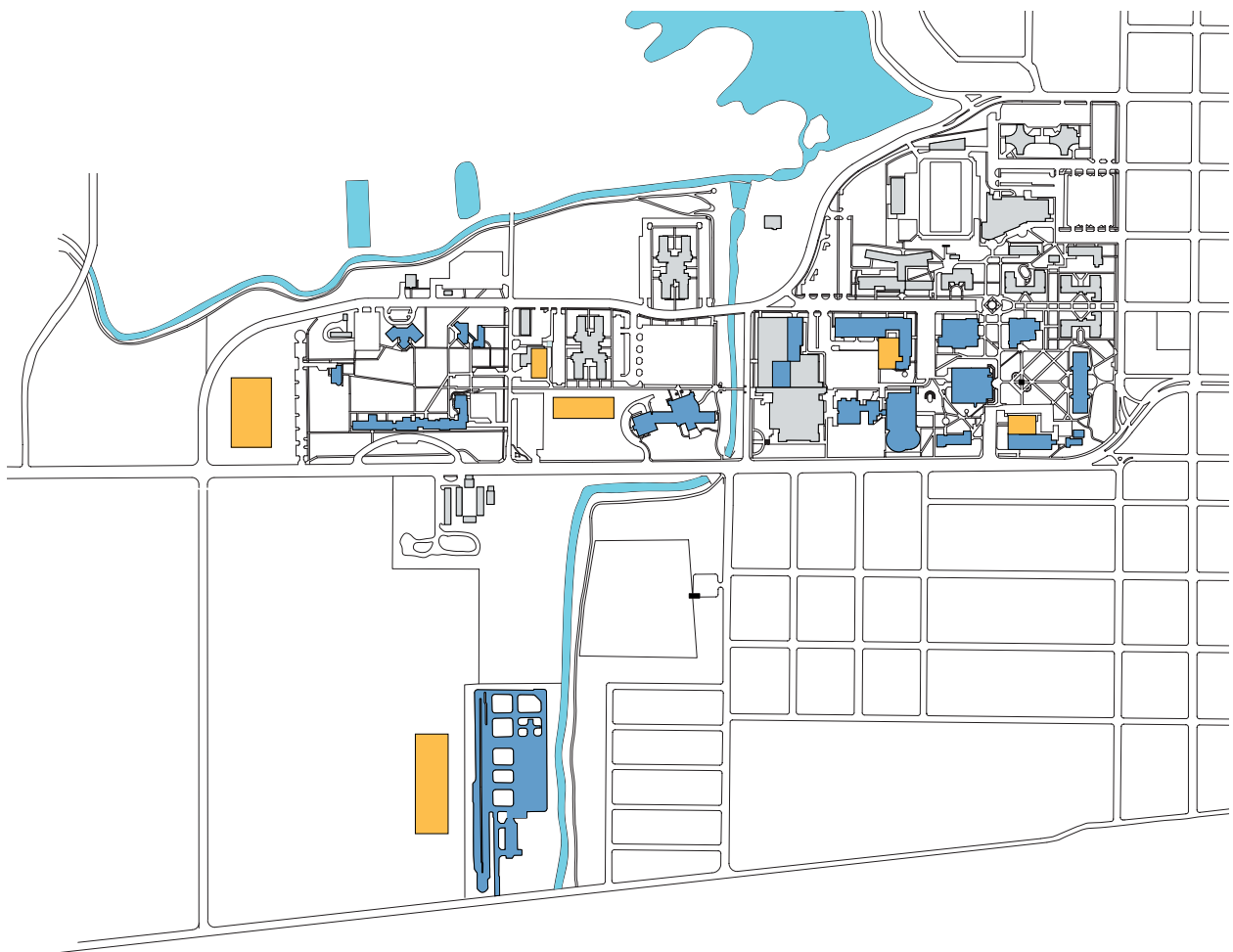
However, as in the Bruner Hall project which is in planning stages, additions/renovations to existing buildings may be possible. On the west part of main campus, three sites might be made available for new academic/research facilities. One is on the green space west of the College of Education and north of Highway 30. A second is the intramural field on the west edge of campus. A third would be on the site currently housing the Facilities Motor Pool, just north of Main Street.

Several factors suggest that properties south of Highway 30 should not be considered for future academic/research uses. First, extending the required utilities service to that area would be costly and would complicate infrastructure planning. Second, it would be contrary to a decades-long development thrust at UNK, which is to eliminate the dissection of mainstream educational functions on our campus by major vehicular thoroughfares. Third, safety concerns argue against increasing foot traffic across a major community transportation artery.

Farmland property south of West Center might, however, be appropriate to accommodate future expansion of the Nebraska Safety Center, if added training responsibilities or service enhancements so require.



Map 4: Future Campus Academic/ Research Land Use



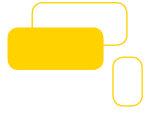
CAMPUS LIFE

The eastern part of UNK's main campus has developed into a full-service academic village, with students living near where they learn. Here, facilities for support services and campus life are close at hand, and academic facilities, designed to promote faculty collaboration and student-faculty interaction, are readily accessible. Residence halls in this area surround the student union, where the campus dining service and other student activities are located. Future development of this residential core will primarily consist of renovations of existing facilities. It may also include eventual replacement of Conrad and Martin Halls by new apartment-style residence halls generally on the current Martin Hall site.

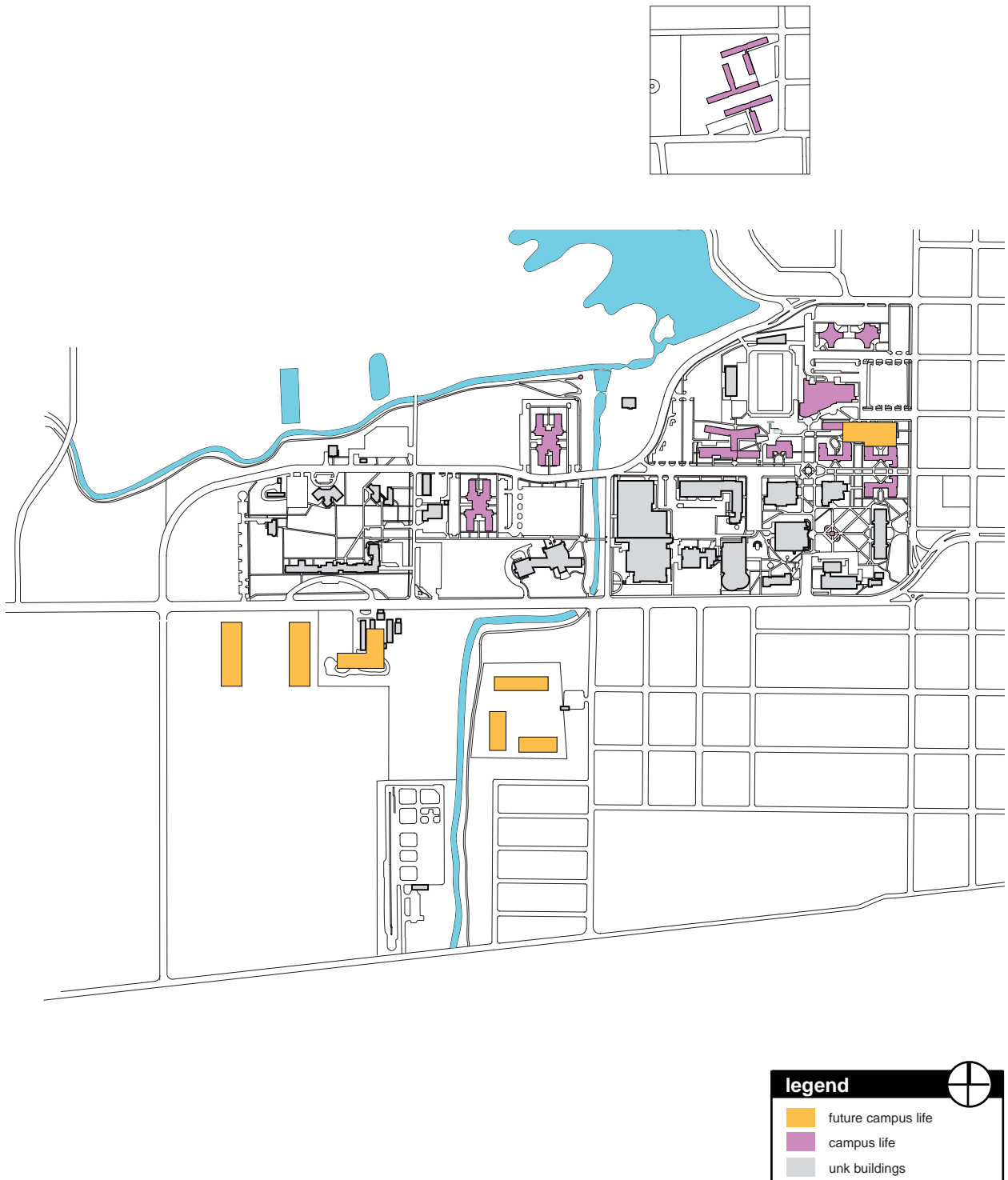
Within the time frame contemplated by this update, we expect to replace the University Heights apartment complex, either by demolishing the old facility and rebuilding it in place, or by constructing a new facility on an alternate site. Potential sites for this housing include south of the Highway 30 within the south farmland site or on the multi use property known as the Matheny property. It is not presently anticipated that the west farmland property would be considered for student housing.



The Cranewood Motel property was recently purchased to continue development of the campus perimeter. This facility is not currently considered a part of the student housing inventory, and as such is shown separately from those facilities. The condition of the facilities located on this property would not warrant the cost for renovation to meet student living standards.



Map 5: Future Campus Life Land Use



GREEN SPACE

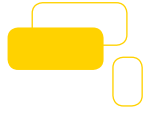
We intend to remain a rural university within a setting that reflects our Platte River Valley surroundings and heritage. Kearney Lake, Kearney Canal, the Spillway, the Tail Race, and the campus main street mall, all form a backdrop for east campus development of malls, plazas, and lawns. This would provide for a less dense west campus that features parkland landscaped for our unique educational mission.

The following open space map reflects our intention to extend the 26th street mall west from the fountain to University Drive, while further development and planting of the campus main street and the Tail Race will anchor the interior of the campus.

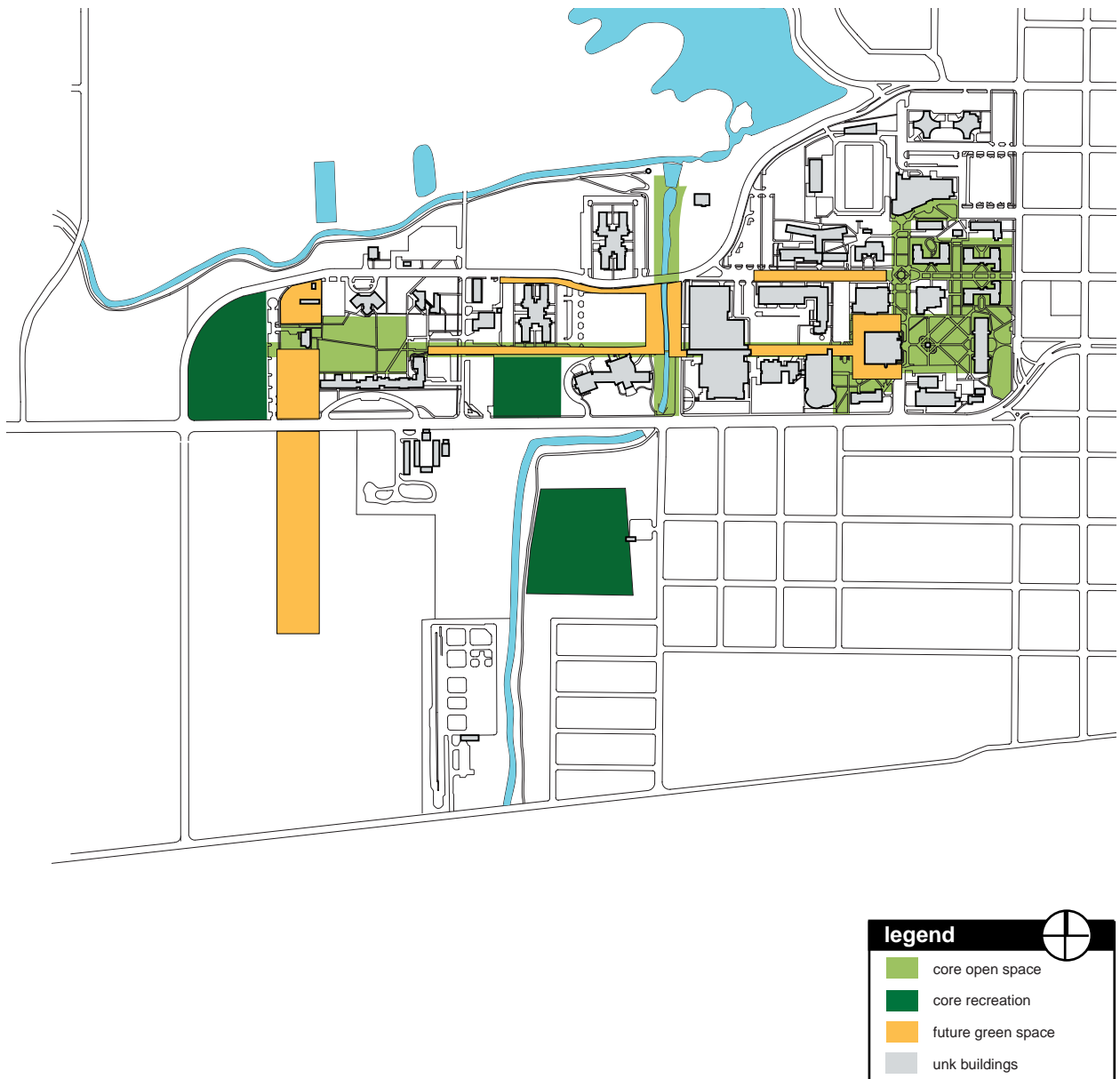
A campus Landscape development plan is underway to provide concepts to strengthen the campus edges and entries. The plan will establish recommended standards for street setbacks, parking requirements, sidewalks, pedestrian and bicycle trails, exterior screening, utilities, architectural elements, signage, lighting, site amenities and landscapes.

The South Farmland and West Farmland properties provide the campus land for future development.





Map 6: Future Campus Green Space Land Use



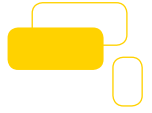
RECREATION AND ATHLETICS

UNK's current recreational and sports infrastructure is composed of the Cope Stadium/Foster Field complex, the HPER facility and Cushing Coliseum, and the playing and practice fields which lie west of the College of Education, south of Highway 30 on the Matheny property, and on the west edge of campus. Any future development serving these functions on main campus would likely be confined to current venues. These sites could also afford space, via either expansion or renovation of current facilities, for new wellness programs.

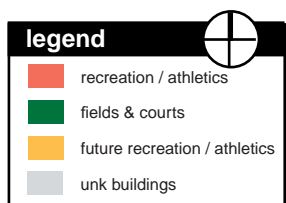
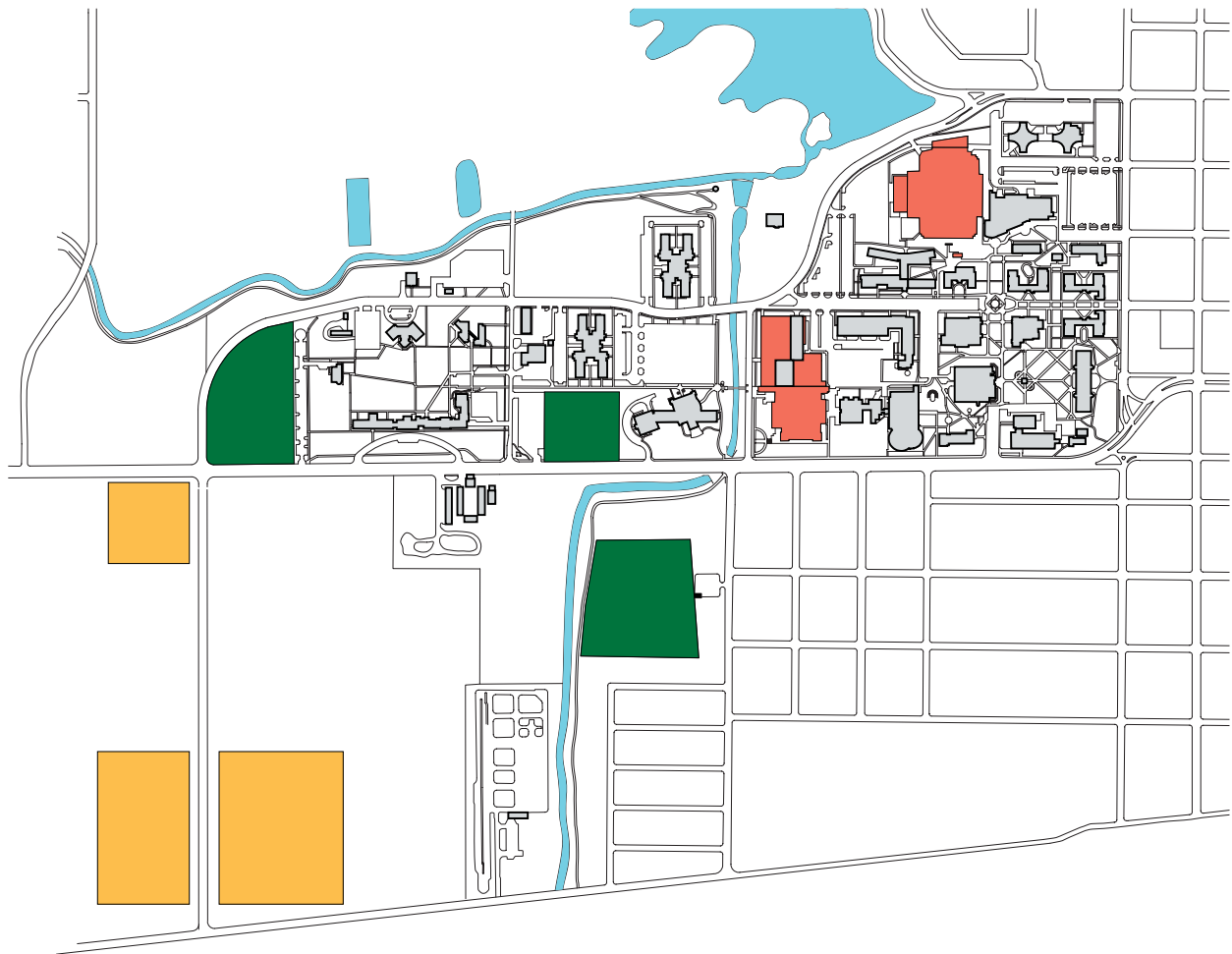
The farmland south of West Center also has potential to address long-standing needs for recreational facilities including tennis courts and a running track. The dilapidated tennis and track facilities formerly located at Foster Field were removed prior to construction of Cope Stadium and have not been replaced. This property is also a likely location for additional intramural/recreational facilities if the western fields on main campus are taken for another use.

Parking for major athletic events and recreational functions is addressed within the parking study.





Map 7: Future Campus Recreation/ Athletics Land Use



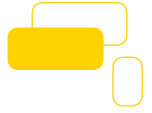
INSTITUTIONAL SUPPORT

Most nonacademic student services are located on the eastern part of main campus, in our residential core. Founders Hall, the Memorial Student Affairs Building, and the Nebraskan Student Union house the bulk of these services, although the Intramural Sports office is located in Cushing Coliseum and the Office of Residential and Greek life is located in the basement of Conrad Hall. While it would be possible to improve operations in some cases by reconfiguring these buildings or altering space assignments internally, with two exceptions we would not anticipate relocating these services. The first exception is the Office of Undergraduate Recruitment and Admissions, which is housed in the Memorial Student Affairs Building. This office would be better located on the eastern edge of campus, near a prominent campus entrance and more

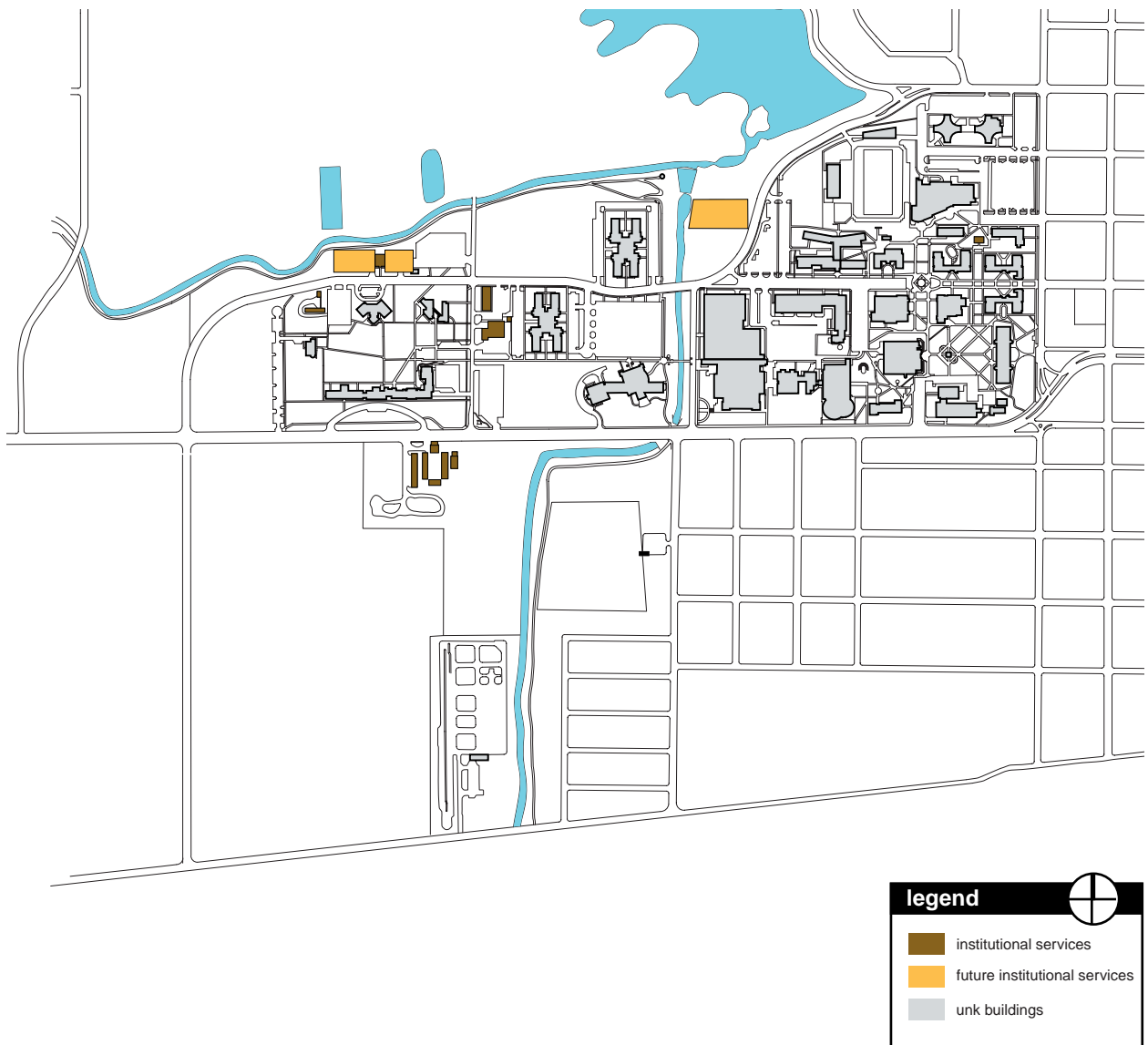
parking capacity. The second exception is the Office of Residential and Greek Life, whose quarters in Conrad Hall are not easily accessible to some physically handicapped students.

The Campus Utilities Master Plan provides the planning for the extension of the chilled water and steam infrastructure to the entire campus, and is included as Appendix I-6. The main boiler and chiller plant will be relocated to the site east of the Tail Race. The existing campus storage buildings north of the Frank House and the Facilities Building/ Motor Pool building north of the campus main street will be relocated to the existing West Boiler plant site. The relocations will remove these industrial support uses from key future building sites within west campus.





Map 8: Future Campus Institutional Services Land

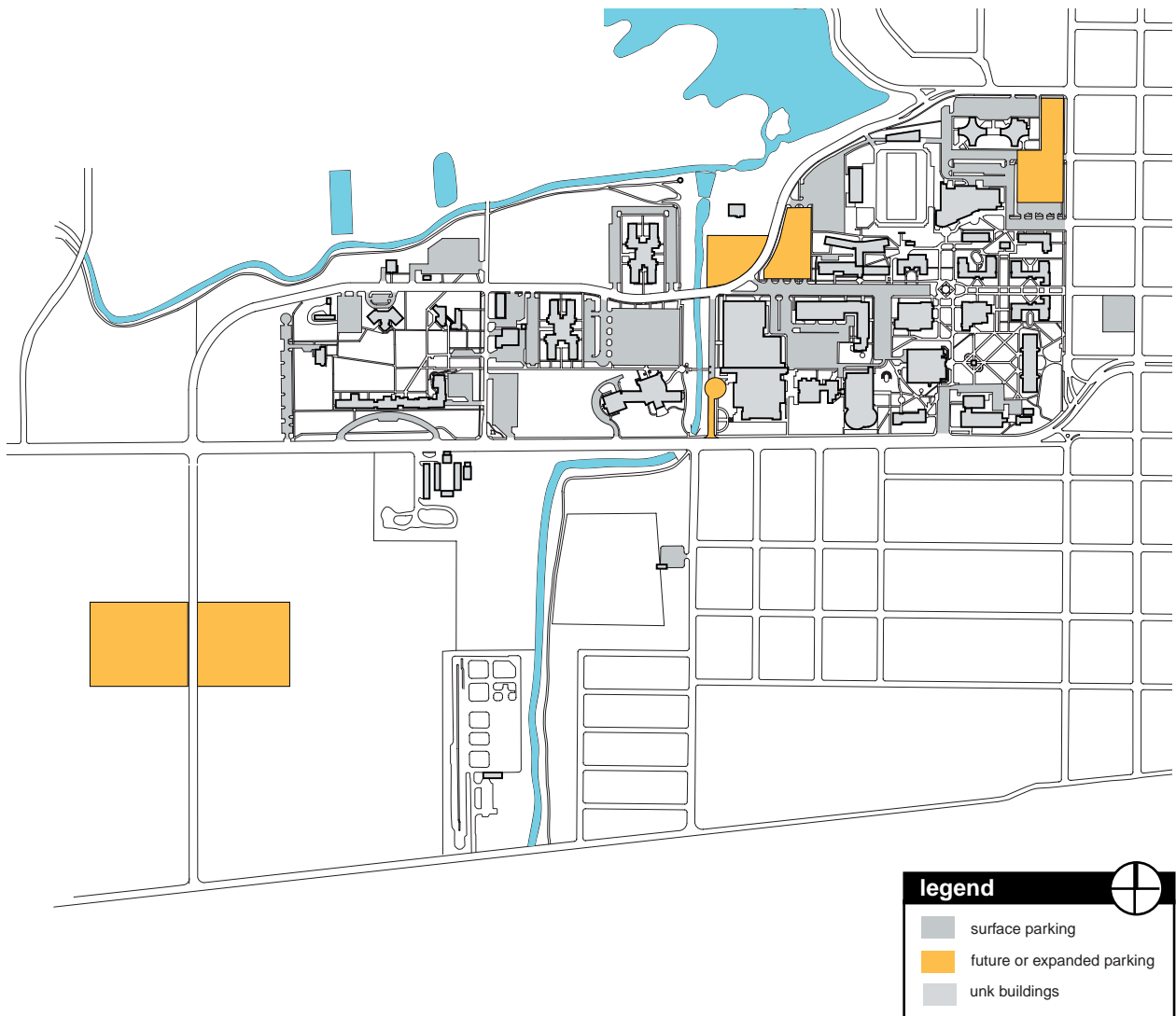


PARKING

Twenty-nine parking lots are dispersed throughout the campus. Lot #26-B is off campus, abutting 8th Street. Another off-campus lot, #29, is south of West 24th Street, east of the canal. The campus will have a need for additional parking. A campus-wide parking study currently underway has located possible parking deck sites as well as future surface

parking lots. An approach to the future campus parking needs must be developed within the duration of this plan. The availability of property adjacent to the exterior of the eastern side of campus will be monitored for possible sites of additional surface property.

Map 9: Future Campus Parking & Transit

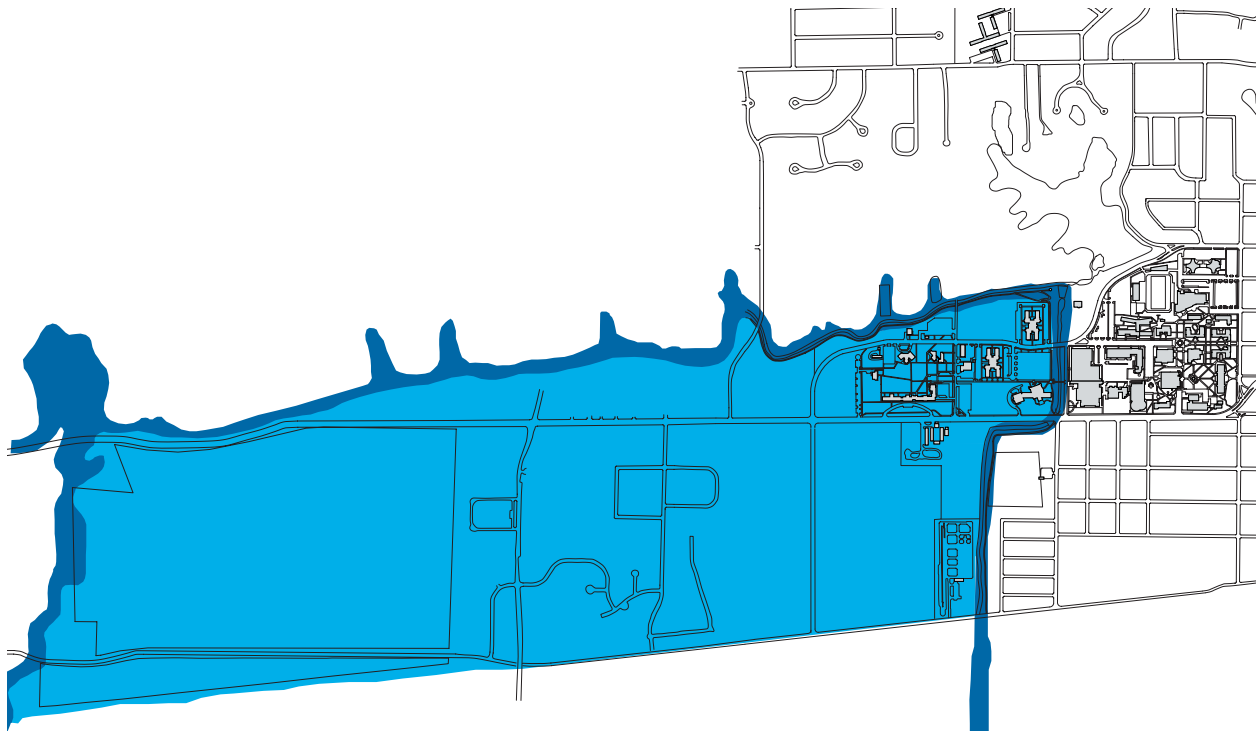




Campus Features

Flood plains: The campus west of the Tail Race is within the 500 year flood plain and the properties adjacent to the Tail Race and canal are within the 100 year flood plain. Academic buildings located in this area are the College of Education, West Center and the Communications Center building. The historic Frank House and institutional service buildings are also located in this area. All new projects within this area must be designed for flood issues.

Map 10: Existing Campus Flood Plain



HISTORIC DISTRICTS AND PLACES

UNK and the City of Kearney have made significant contributions to the history and settlement of Nebraska and the United States. The community possesses many historic resources. The Platte River has long been an important corridor for the inhabitants of this

valley. The City of Kearney currently boasts six historic properties listed at the National Register of Historic Places, one of which is situated at UNK—the George W. Frank House (1889).

The original eastern portion of campus features a distinctive and attractive architectural style, best evidenced by Copeland Hall, A. O. Thomas Hall, and Men's Hall. This style should receive special consideration as campus development continues, especially in new buildings and exterior renovations. The western portion of main campus, originally a hospital facility, has its own architectural style, reflected in the West Center, and the West Heating Plant. Unique features of these facilities should be reflected in future west campus development.

In all cases, a balance needs to be struck between desire for historic preservation and overall cost of renovation and maintenance. The former Electric Street Railway Power Plant is an example of a facility with significant historic interest that is structurally unsuitable for use. Consideration of this location as a central heating plant maintains this site for its original intentions. Developing a façade sensitive to this history, and integrating it with the Spillway Park will benefit both the campus and the community.





Circulation

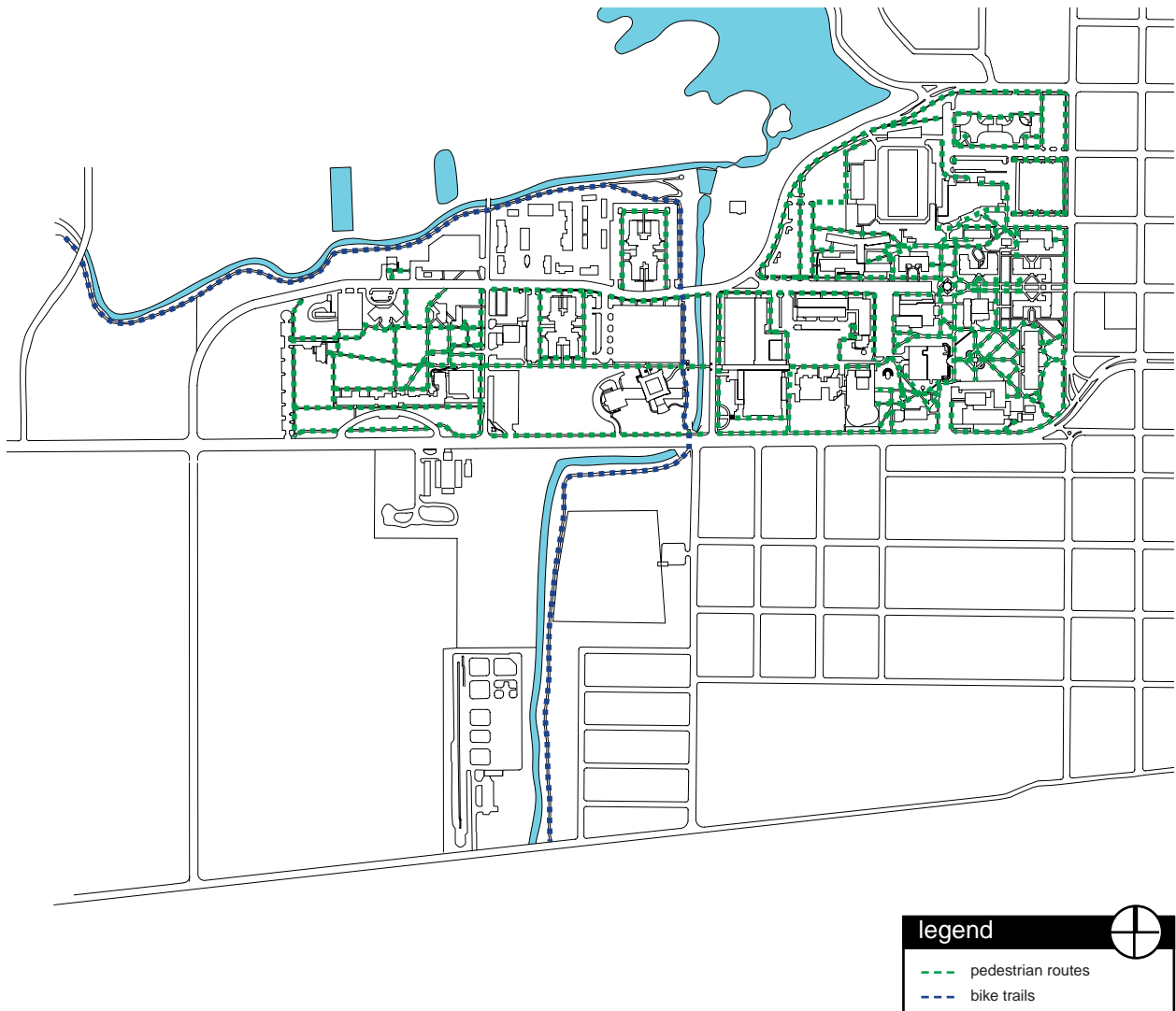
PEDESTRIAN AND BICYCLE

The Facilities Development Plan recommends the further development of pedestrian and bicycle paths on and around campus. The existing city bike path that parallels the Tail Race allows the public and students to access Kearney to the south of Highway 30. The

campus commitment to further reduction of parking and roads from the interior of campus is creating a wonderful network of paths and green spaces within the campus.

The campus planting plan includes design standards for pedestrian amenities.

Map 11: Future Campus Pedestrian & Bicycle Circulation



VEHICULAR

The campus has good perimeter access via West 24th Street and 8th Avenue. Because of excellent perimeter access and the long rectangular shape of the campus, interior streets are not required for access. The elimination of interior streets should be continued. Interior streets cause conflicts with pedestrian movement. Some parking lots are located in areas where they cause visual or functional intrusions. Improvements to these lots are being studied within the Campus Planting Plan. Mass transit of students around campus has been considered. The campus will continue to look at the feasibility of such a system. A potential route is noted on the map located on page 50.

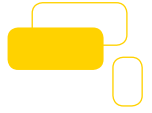
The Health and Sports Center, the Fine Arts Center, and the Student Union generate large volumes of public traffic and parking requirements for events. These facilities are located mid-campus causing traffic to enter and exit via campus streets. Development of parking and circulation paths for these facilities would improve campus circulation.

Expansion of campus parking will be needed during this planning period. Beyond the numerical need for spaces is a perceived lack of convenient parking. The eastern side of campus contains 62% of parking spaces, where 77% of classes are taught and 85% of resident students live. This suggests that policy or pricing changes may be needed to encourage parking further from final destinations.

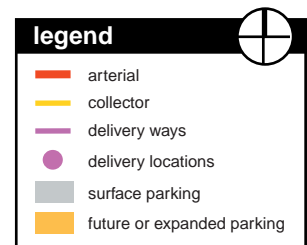
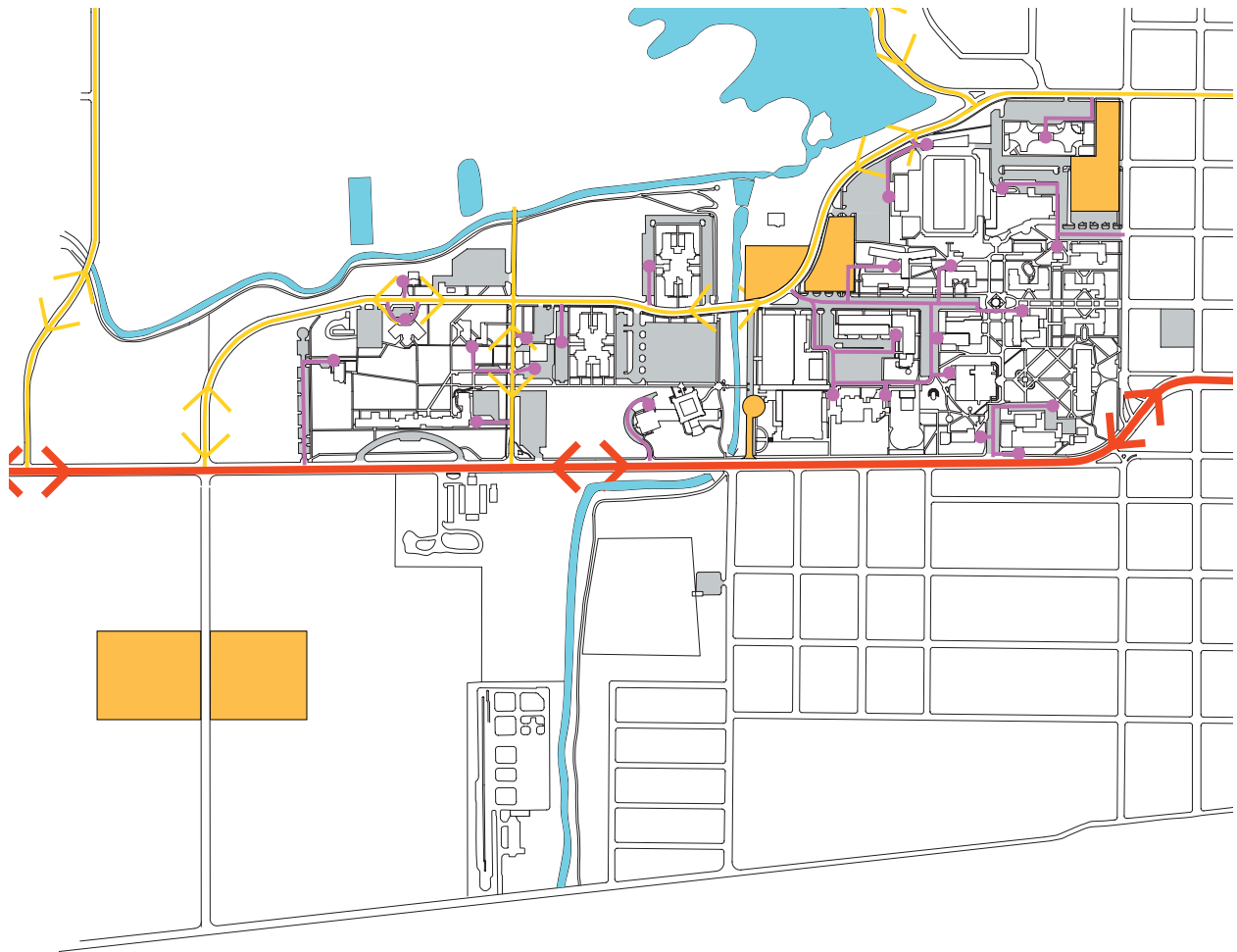
Continued discussions are needed with the City of Kearney and the State of Nebraska on safety issues concerning streets adjacent to campus. Solutions to slowing the speed of traffic on 9th Avenue to protect pedestrians crossing the street need to be developed. The reconstruction of the southeast entrance of campus known as “the curve” will address safety concerns as well as provide a more attractive main entrance to campus. Discussions with the State of Nebraska will also include the State’s plan of relocating portions of Highway 30 which affects the northern edge of the west farmland property.

SERVICE AND DELIVERY ROUTES

Vehicular service points and access routes wherever possible (making allowances for buildings without service points) should be consolidated. The intrusion of vehicles into the pedestrian campus core should be minimized. All sidewalks and plazas are to be designed to be used by service and emergency vehicles.

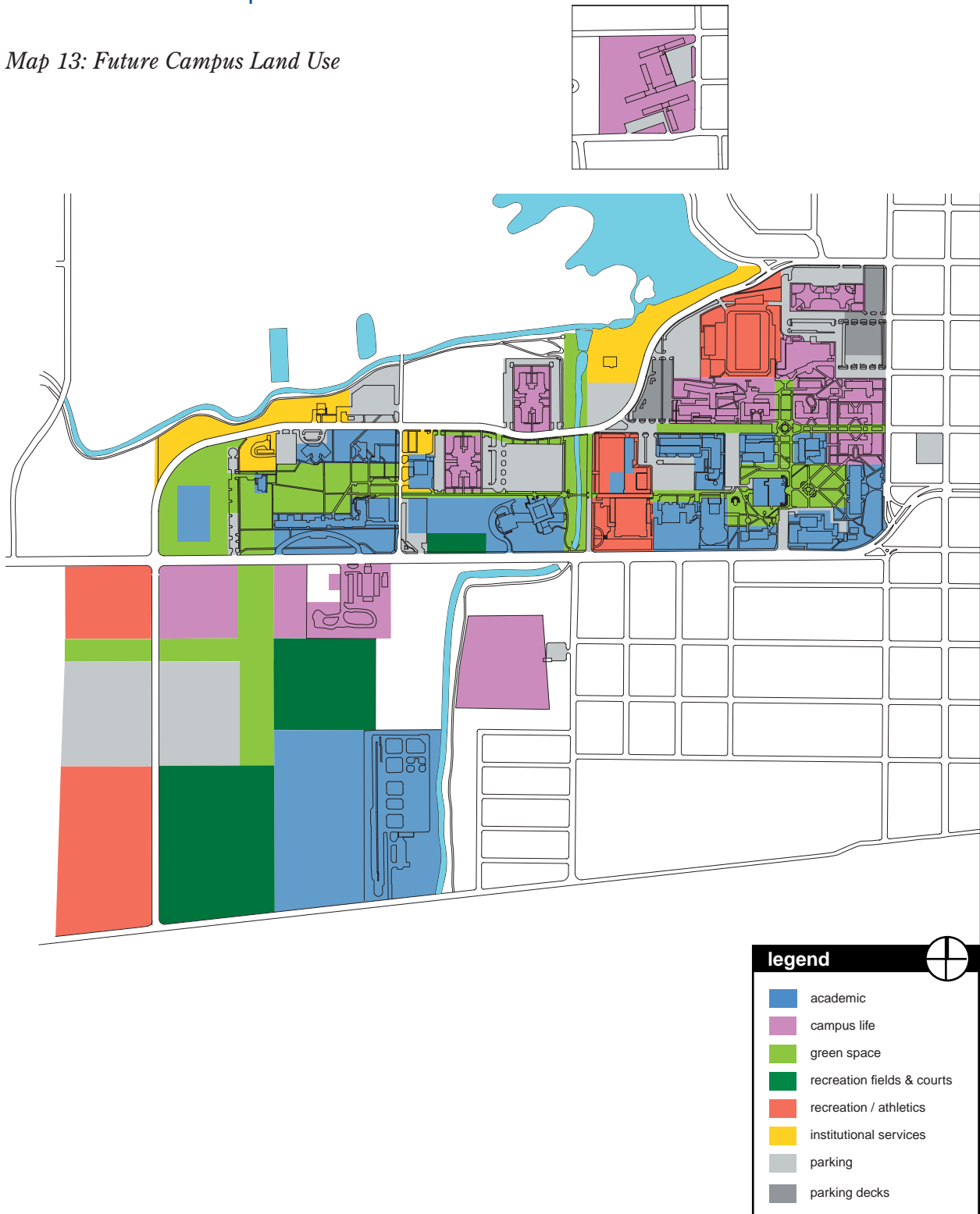


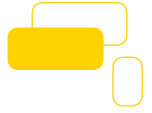
Map 12: Future Campus Vehicular Circulation & Parking



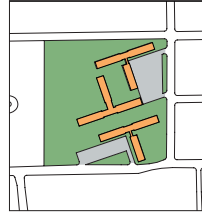
Facilities Development Plan


Map 13: Future Campus Land Use







Map 14: Facilities Development Plan



legend 

-  existing building
-  potential expansion/
new construction

CHAPTER 6: Implementation Recommendations

Overview

The purpose of this 2006 Facilities Development Plan is to update the 1997 Master Plan and ensure that a unifying, but flexible vision governs the development of the physical campus over the next seven to ten years. While the Facilities Development Plan builds on the guiding principles and goals of the 1997 Plan, it has been shaped by careful assessment of our current situation, our progress in meeting its goals, our appraisal of future campus needs, and new input from our stakeholders.

Implementation of the Facilities Development Plan will be governed by the strategic agenda of the University, which reflects overall directions set in the Board of Regents' Strategic Framework. Challenges related to the implementation of the Facilities Development Plan include: resource constraints (including

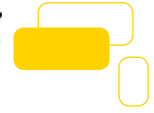
limited bonding capacity); the extent of the challenge to remedy some facilities' shortcomings; the need to coordinate with a variety of third parties on matters involving our southern, western, and buffer properties; and the regulation of traffic and parking proximate to the campus. The following are recommendations for plan implementation for new construction, deferred maintenance, building site analysis, studies and policies.

New Construction

Three significant new construction projects are underway or will begin soon on the main campus.

The first project, to build three new suite-style residence halls, is already under construction. One of three new residence halls is moving towards its goal of completion by August, 2007. Preliminary work has begun to prepare the





other two halls for completion by August, 2008. This project replaces the aging room inventory from Case and Ludden halls.

The second project that will be developed is the campus-wide Utilities Plant and System. This project will solve expected future overloading of the electrical systems, as well as help alleviate localized electrical breaker tripping which occurs during the summer months in buildings currently cooled with window air conditioning units. The project will also provide for additional current and future centralized heating and cooling needs for the campus. Currently, several buildings are not connected to the central system and require stand-alone cooling units. Centralized or district heating and cooling systems are in place at each of the other University of Nebraska campuses.

The third project is the next phase of earlier infrastructure improvements in Bruner Hall of Science. Funding from LB 605 will enable significant renovation to this facility. The building was constructed 40 years ago and has never been renovated to improve the program capabilities. This work will renew classrooms and laboratories, and replace Mary Morse Lecture Hall with an addition that will house new classroom and herbarium space. The project will also relocate UNK's planetarium from the basement of the Mary Morse Lecture Hall to the new addition.

These three projects are among the six largest UNK construction projects, adjusted for inflation. It will be a significant challenge for the university to weather the simultaneous activity of these projects.

If funding sources can be identified, the proposed renovation of Otto Olsen and related improvements to other buildings would significantly advance efforts to align the physical buildings with the needs of the academic programs. Portions of Otto Olsen have received life-safety improvements, but significant programmatic and infrastructure deficiencies remain. Completing this construction project would provide significant benefits to the campus.

Campus Deferred Maintenance

The campus has developed a considerable backlog of deferred maintenance because of limited resources available for these repairs. Every effort is made to minimize immediate and cumulative impact on programs, but over time this backlog has grown to an estimated \$60,000,000 for 1.1 million square feet of state supported facilities.

Once the three new residence halls have been completed as described above, our renewal strategy for the residential campus anticipates that we will renovate existing residence halls to address deferred maintenance needs and to improve functionality for our students. These buildings are old and outdated, and they have extensive infrastructure deficiencies (e.g., lack of air conditioning, poor plumbing). We can, however, proceed systematically to reinvest housing revenue to reconfigure and modernize them. Within the time frame contemplated by this planning update, we should be able to renew the bulk of our “traditional” (double

occupancy) housing inventory in this fashion. As we proceed, we will continue to evaluate the cost-benefit of renovating verses new construction.

Analysis of Potential Building Sites

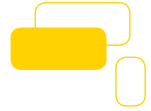
Various sites have been considered as possible locations for new buildings or additions. Adhering to UNK's building design guidelines, new construction in these areas should be planned to integrate appropriately with the existing campus environment. Potential sites are:

- **Bruner Hall Site:** Future expansion of Bruner Hall will be a significant addition to the main campus quadrangle bounded by Founders Hall, Copeland Hall, Bruner Hall, and Ryan Library. The Memorial Carillon Tower is the central focus to the quad. Building additions should complement the aesthetics of the existing Bruner Hall and help unify the historic and modern facades of the adjacent buildings.
- **Otto Olsen Site:** Because of the renovation costs and the difficulties of moving vital infrastructure provided by the Department of Information Technology service located in Otto Olsen, a new building appears to be the most practical and cost effective approach. We anticipate updating the existing program statement accordingly. The existing west wing of Otto Olsen and the west parking lot are potential sites for rebuilding Otto Olsen. The adjacent parking lot site could also accommodate a potential



parking deck. The Fine Arts building to the south and the Cushing Coliseum building to the west provide a suitable back drop for a modern and visually high tech building. In addition, the south façade of the new building will provide a more formal edge to Main Street in this area. The north façade should complement the soon to be developed core green space between Otto Olsen and Mantor Hall that will stretch from near University Drive to Cope Fountain.

- **Campus Central Utilities Building Site:** This area has a great historical significance as the site of the original Kearney trolley barn. Although the existing building is no longer structurally sound, its site will provide space for the new Central Utility building and additional campus surface



parking. The building and site development must complement the Tail Race Park area. It may be possible as well to work with NPPD to relocate the electrical substation now situated on the southern part of this property, across from Cushing Coliseum.

- **Band Practice Field Site:** This open site provides the largest building pad. The adjacent surface parking lot will support the new academic use. The building will visually tie the campus edge between College of Education and West Center. The north façade and site development will strengthen Main Street in this area.

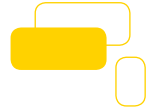


- **Facilities/Motor Pool Site:** This site becomes available once the Motor Pool is moved to the old West Boiler Plant site. A building on this site strengthens the Facility Development Plan goal of concentrating academic and campus life buildings along Main Street.

- **Softball Fields Site:** These fields will provide a western terminus to the campus and to Main Street. While the academic use of the site should create a flow of students to this portion of campus, the building must take into consideration the historic significance of both the Frank House and West Center. Of greater significance is the fact that the building will be highly visible as the front door of campus to visitors from the west on Highway 30.
- **Matheny or Cranewood Site:** Either of these sites is a potential site for the relocation of University Heights, married apartment style housing. These sites provide a location off of the main campus, but still within walking distance of the main campus.
- **South Farmland Site:** This land is a potential location for replacement of tennis courts and track facility that no longer exist on the UNK campus. Additional parking around these facilities could be used for overflow parking when UNK hosts events such as the State Cross Country meet, State Speech Competition and other similar events.
- **Buffer Property:** Since surface parking is more economical to construct than parking structures, buffer property surrounding the UNK campus will be monitored for future acquisition to be used for additional parking. UNK planners will continue their dialogue with city and state government concerning traffic and street design to increase safety and easier access to campus for employees, students and visitors.

Other Studies & Planning Efforts

- **Utilities Master Plan:** Farris Engineering has recently developed a thermal and capital needs study for building expansions and renovation. The Appendix reflects the results of this Development Plan.
- **Parking Master Plan:** Sinclair Hille Architects are currently developing a Parking Master Plan.
- **Landscape Master Plan:** In addition, Sinclair Hille Architects are also developing a design for the campus landscape zones.
- **Campus and Greek Life Housing Master Plan:** Completed in 2004, this plan covers the current and future phased development of residence halls.
- **Athletic and Recreation Master Plan:** A concept has been developed for potential construction of athletic and recreation facilities on the south farmland property. However, because of the recent renovation of Foster Field and the addition of the Ron and Carol Cope Stadium, it will need to be revised.
- **Construction Project Process:** UNK should undertake an evaluation of the policies and procedures in the project planning and construction process to ensure that needs can be met quickly and economically. The existing communication process should be updated to educate faculty, staff, administrators and stakeholders on recent developments in the construction planning process.
- **Updating Design Guidelines:** The design guidelines for the campus should be reviewed and updated to provide consistency and coordination in the design of building, signage and other campus features.
- **Updating the Facilities Development Plan:** Should the Board of Regents adopt this document that is broad in scope, yet establishes sufficient background and analysis to provide campus leaders with a framework for decision making, a regular evaluation of the Plan should take place. This evaluation should assess progress in the implementation of the Plan and recommend changes or updates that may be needed.
- **Coordination of Planning Efforts:** UNK's strategic planning process guides program planning in key functional areas. Phase One developed a consensus statement of UNK's mission, vision, values, goals, and objectives. Phase Two will generate a family of action plans to implement the Phase One guidance. This Facilities Development Update will be incorporated into that family of plans.



UNK Policy Recommendations

The development of this plan has identified policy issues that should be considered for future discussion.

- **Parking Study:** As on many campuses, there is, at UNK, a perceived need for additional, “convenient” parking. However, existing distant lots continue to be under-utilized. Further study is needed to determine what can be done to improve utilization of distant lots. Additional study also needs to be done on the impact of the new residence halls on current parking lots located on the east side of campus.
- **Space Analysis and Policy Development:** Recognizing the need to reach the Board of Regents’ guidelines for class utilization, further study is necessary to properly align quantity of existing space with expanding programs. Additionally, further refinement of existing space inventory is needed to better identify space renovations needed to stay current with existing academic programs.
- **Undeveloped Land Use Study:** A study is being planned on the future use of the south and west farmlands. Since the west farmland has only recently been acquired, significant further study is necessary to

determine appropriate use of this property. The future development of all UNK property will be consistent with the mission of the university. In addition, partnerships with outside entities may be considered for approval under established university procedures. Of special interest will be projects that advance the university’s mission in one or more of the following ways.

- No cost or very low cost to UNK, combined with appreciable enhancement of university interests.
- Financial benefit to UNK.
- Availability of student internships or employment, especially if relevant to programs of study.
- Opportunities for UNK faculty to apply their expertise for research and scholarship in the partnership enterprise.
- Opportunities to use partner expertise in UNK academic programs.

We would expect all such projects to adhere to campus architectural standards and align with the character of our community environs and the Lincoln Highway heritage.



CHAPTER 7: Acknowledgements

The preparation of the *University of Nebraska at Kearney Facilities Development Plan 2006 – 2015* was a collaborative effort. Many individuals have contributed their time and assistance in the study and preparation of the plan. It would be difficult to acknowledge all of the individuals who contributed to the plan, but we wish to extend our sincere appreciation to the UNK Administration for the continued interest and attention they have given to the plan and the process. Special thanks go to the members of the Advisory Committee and the Facilities Management and Planning personnel for their leadership in the project. We also would like to thank the Faculty Senate, Staff Senate and Student Senate for their interest and support throughout the planning process. The faculty, staff, students, alumni and community leaders who participated in individual meetings, group meetings and review sessions added valued suggestions for consideration. We also wish to express our appreciation for the review and guidance given by the University Office of the President as the plan was developed. Finally, we are most appreciative for the guidance and expertise offered by Kevin Clark and the Sinclair Hille Architects firm of Lincoln, Nebraska. The efforts of all individuals and organizations who participated in the planning process make this truly a UNK plan for the future.

BOARD OF REGENTS

Charles S. **Wilson**
 Howard L. **Hawks**
 Chuck **Hassebrook**
 Bob **Whitehouse**
 Jim **McClurg**
 Kent A. **Schroeder**
 Bob **Phares**
 Randolph M. **Ferlic**

Student Regents:

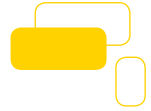
Michael **Eiberger**, UNK
 Steve **Massara**, UNO
 Matt **Schaefer**, UNL
 Dan **Connealy**, UNMC

PRESIDENT

James B. **Milliken**

UNIVERSITY OF NEBRASKA AT KEARNEY ADMINISTRATION

Douglas A. **Kristensen**, *Chancellor*
 Finnie A. **Murray**, *Senior Vice Chancellor Academic Affairs and Student Life*
 Curtis **Carlson**, *Vice Chancellor University Relations*
 John L. **Lakey**, *Interim Vice Chancellor for Business & Finance*
 Lois **Flagstad**, *Dean of Students*
 John **Oseth**, *Executive Assistant to the Chancellor*
 Deborah **Schroeder**, *Assistant Vice Chancellor for Information Technology*
 Jon **McBride**, *Director of Athletics*
 Cheryl **Bressington**, *Director of AA/EEO*



UNIVERSITY DEANS

Bruce A. **Forster**, *Dean of the College of Business & Technology*

Ed **Scantling**, *Dean of the College of Education*

William **Jurma**, *Dean of the College of Fine Arts and Humanities*

Frank **Harrold**, *Dean of the College of Natural and Social Sciences*

Lois **Flagstad**, *Dean of Students*

Kenya **Taylor**, *Dean of Graduate Studies and Research*

Janet **Wilke**, *Interim Dean of the Library*

FACILITIES DEVELOPMENT PLAN ADVISORY COMMITTEE

John L. **Lakey**, *Interim Vice Chancellor for Business and Finance*

Lee V. **McQueen**, *Director, Facilities Management and Planning*

Steve **Rothenberger**, *Professor of Biology and Curator UNK Arboretum*

Gary **Davis**, *Director of the Honors Program and Professor of Music*

Beverly J. **Frickel**, *Associate Professor of Accounting and Finance*

Deb **Schroeder**, *Assistant Vice Chancellor for Information Technology*

Brandon J. **Benitz**, *Assistant to the Dean of Student Life*

Kevin R. **Wait**, *Student Body Vice President*

Amber M. **Lewis**, *Speaker of Student Senate*

LAYOUT, DESIGN AND CONTENT

Kevin **Clark**, *Sinclair Hille Architects*

Troy **Keilig**, *Sinclair Hille Architects*

Jennifer **Koolen**, *Sinclair Hille Architects*

Ilja **Sanio**, *Sinclair Hille Architects*

Michael **Cremers**, *Facilities Systems Specialist, Facilities Management & Planning*

Ryan **Swanson**, *Associate Director, Facilities Management and Planning*

Kathy **Livingston**, *Director of Institutional Research*

Richard **Jussel**, *Professor Emeritus, Department of English*

PHOTOGRAPHY

City of Kearney website – historical photo, page 6.

UNK Communications Office of University Relations – campus photos used in this document

No part of this document may be reproduced or reprinted without permission in writing from the University of Nebraska at Kearney.

The University of Nebraska at Kearney is an equal opportunity educator and employer with a comprehensive plan for diversity.

Copyright ©2006
University of Nebraska at Kearney

APPENDIX

The appendix can be found on the following pages.

I. Executive Summary

Introduction.....	1-2
Background.....	1-3
Process.....	1-5
Conclusions and Recommendations.....	1-6

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Introduction

The purpose of the utilities master plan is to provide a plan of utilities infrastructure enhancements that are seamlessly integrated with facilities enhancements deemed necessary to continue UNK's leadership role as an educational and research institution.

It is recommended that all persons reviewing this Executive Summary also read the entire report to acquire a complete understanding of the facts supporting the conclusions outlined in the Executive Summary.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Background

The last formal Utilities Master Plan was completed in 2000. A Campus Facilities Master Plan was last completed in 1997.

The existing utilities infrastructure at UNK has numerous strong and weak attributes. It is necessary to review these various attributes on a regular basis in order to provide the ability to gauge the requisite upgrades to the various utilities systems and to plan for future growth.

The utilities infrastructure includes the following key items:

A West Campus Utility Plant (WCUP) which supplies steam and chilled water to the academic buildings on the West Campus and chilled water to some of the buildings on the East Campus.

A steam distribution system to distribute steam from the WCUP to West Campus buildings and return the condensate back to the WCUP.

A chilled water distribution system to distribute chilled water from the WCUP to buildings on the West and East Campus and return the water back to the WCUP.

An East Heating Plant (EHP) which supplies steam to the majority of the buildings on the East Campus and, through a connecting loop, a portion of the West Campus.

A steam distribution system to distribute steam from the EHP to the majority of the buildings on the East Campus and return the condensate back to the EHP and, through a connecting loop, a portion of the West Campus.

Domestic water distribution systems which provide domestic water to all buildings on both the East and West Campuses. Some distribution is high pressure and some distribution is low pressure.

A Fire water distribution system which provides high pressure water to all campus fire hydrants and all UNK buildings equipped with an automatic fire suppression system.

A Natural gas distribution system which provides natural gas to numerous buildings on the East and West Campuses.

Gravity flow sanitary sewer systems which serve all occupied buildings on the East and West Campuses.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Gravity flow storm sewer systems on the East and West Campuses.

A 12,400 volt primary electrical distribution system which provides three (3) electrical primary loops along with both loop feed and radial feed transformers to serve all buildings on campus.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Process

To allow for planning and intervals to accomplish upgrades to the utilities systems, time frames of implementation have been utilized. The time frames of five (5) years (short range) and 15 years (long range) are utilized herein. Therefore, where the year 2011 is noted herein, it is meant to indicate the end of the Short Range time period; where the year 2015 is noted, it is meant to indicate the end of the Long Range time period. The end of the Long Range coincides with the end of the 1997 facilities master plan.

UNK possesses numerous parcels of land and buildings. Consideration was given to the holdings located off the main campus; however, it was shown to be financially unfeasible to extend the central utilities beyond the main campus. This report, therefore, will be limited to the main campus which is bound by US Highway 30 to the south, 9th Avenue to the east, and University Drive to the north and west. The University Residence North, which lies on the north side of University Drive, will be included with this report.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Conclusions and Recommendations

SYSTEM OVERVIEW—STEAM

The UNK campus is naturally divided into an east and a west campus by the Tail Race, a stream fed by Kearney Lake which flows through a hydroelectric plant dam. The West Campus is served by a steam distribution system that supplies steam to the academic buildings located west of the Tail Race. The steam supply originates from the WCUP and is typically distributed at 40 PSIG. At the served loads, the steam is typically throttled via a pressure reducing station to meet the pressure requirements of the served load. After the heat has been removed from the steam, the resulting condensate is returned to the WCUP via the condensate return system. At the WCUP, air is removed from the condensate, the condensate is preheated and pumped back into the boilers to be regenerated as steam.

The West Campus boiler system is comprised of one independent boiler and necessary peripherals. Boiler peripherals consist of a condensate return tank, boiler feed water pumps, makeup water system and chemical treatment.

The East Campus is served by a steam distribution system that supplies the majority of the buildings located east of the Tail Race. The steam supply originates from the EHP and is typically distributed at 80 PSIG. At the served loads, the steam is typically throttled via a pressure reducing station to meet the pressure requirements of the served load. After the heat has been removed from the steam, the resulting condensate is returned to the EHP via the condensate return system. At the EHP, air is removed from the condensate, the condensate is preheated and pumped back into the boilers to be regenerated as steam.

The East Campus boiler system is comprised of two (2) independent boilers and necessary boiler peripherals. The peripheral boiler equipment consists of a condensate return surge tank with condensate transfer pumps, deaerating feed water heater, boiler feed water pumps, controls and miscellaneous support equipment and systems. Condensate return pumps, located in the various facilities, pump condensate back to the EHP condensate tank. As part of future construction phases to the new residence halls, the EHP will be removed.

In 2004, a loop was installed to join the east and west campus steam lines and provide a limited redundant heat source for the campus as a whole. This allows UNK to provide heat to all buildings connected to campus steam distribution piping by either the WCUP or the EHP. Currently, UNK is able to meet the winter heating loads to all connected buildings on campus with the EHP. The smaller summer connected load is currently served by the WCUP. If higher heating loads are realized, the UNK staff can operate both plants together or independently, as they see fit, by either balancing the distribution pressures of the two utility plants, or by closing off the loop piping.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Construction of a new Central Utilities Plant (CUP) to serve the entire campus was evaluated. The plant would provide steam and chilled water for the majority of existing and all new facilities located on the campus bound by U.S. Highway 30 on the south, 9th Avenue on the east, and University Drive on the north and west. It was concluded that, based on the current residence hall construction, as well as plans for future construction phases, construction of a new CUP is a necessity and must take place in the short range prior to any future construction phases to the residence hall.

Several buildings on both East Campus and West Campus are heated with localized boilers and are not currently connected to either of the central utility plants. The buildings on the West Campus with localized heating are as follows: Frank House, General Services Building, Facilities, University Residence North, University Residence South and one-third of the Communications Center Building. The buildings on the East Campus with localized heating are as follows: Greenhouse, Bruner Annex, Cope Stadium, North Field House, Fine Arts Annex and Fine Arts Building. The Health and Sports Center and Cushing Coliseum HPER are connected to the steam distribution system; however, they also maintain a localized heating boiler. Both of these buildings serve as emergency shelters and maintain the local boilers as a redundant emergency back-up source of heat. The Greenhouse, Bruner Annex, Cope Stadium and North Field House all have localized heating in the form of gas furnaces.

CURRENT SYSTEM STATUS-STEAM

The west steam plant, itself, continues to be relatively efficient to operate and control due to the centralized nature of the installation. This plant is equipped with a single, 200 HP boiler; the loss of which will render the plant unable to meet load requirements. The installation of a connecting loop between east and west plants provides a second source for heating the buildings currently served by the WCUP; therefore, the overall system operates with a high level of reliability.

The EHP is slated for demolition as part of the next phase of residence hall construction. This plant currently houses two (2) 600 HP boilers that are nearing the end of their life expectancy. Additionally, a significant portion of the utility tunnels associated with this plant are in need of repair or replacement.

The downside to a centralized facility is that a complete loss of steam supply could occur with a single catastrophic event. There are a number of events that could conceivably occur within the plant that could cause an extended loss of steam supply to the campus. Although the loss of steam supply would represent a significant hardship to all parties affected, it is not considered to be critical in nature in that the loss of steam supply is unlikely to lead to the loss of human life. In light of this, a redundant steam plant is not considered to be necessary; however, the WCUP can continue to provide a limited source of standby steam.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

SHORT RANGE NEEDS-STEAM

Short Range construction plans include an addition and renovation to Bruner Hall, the demolition of the Mary Morse Lecture Hall, and the first and second phase construction of the new Residence Hall project. See sheet M2 in Appendix D for Short Range heating and cooling plans. Future construction phases to the Residence Hall will require the removal of the EHP in order to attach the future phases to the first phase, as planned. As a result, a new CUP must be constructed prior to the start of future construction phases to the new Residence Hall. It is recommended that the new CUP be sized to meet the heating loads of the entire main campus bound by U.S. Highway 30, 9th Avenue and University Drive. A new tunnel infrastructure should be installed around the center of the East Campus to distribute the steam from the new CUP to all buildings currently being served by the EHP. See drawing sheets M4 and M5 in Appendix D. It is also recommended that the Memorial Student Affairs Building, Fine Arts Building and Fine Arts Annex be added to the CUP. As part of the next phase of the new Residence Hall construction project, Conrad Hall, Martin Hall and the EHP will be demolished and removed from the CUP. The Mary Morse Lecture Hall will also be demolished in the Short Range and removed from the CUP.

The West Campus load through the Short Range time period is not expected to change. The age and condition of the boiler is such that, with continued maintenance, it should continue to operate reliably throughout the time period.

LONG RANGE NEEDS-STEAM

Thermal modeling was developed based on the 2006 Second Quarter Capital Queue, including the November 2004 Otto Olsen program. This program considered construction of a business and technology addition and a new Child Care Development Building on the West Campus during the Long Range time period. Development on West Campus of programmatically different but thermally similar projects during this time period does not contradict the output of these models.

Likewise, the East Campus thermal modeling is based on the November 2004 Otto Olsen program. This program is projected to construct an addition to the Fine Arts Annex in the Long Range that will relocate an additional program from Otto Olsen. Should this work go forward as presently programmed, once all the expected program relocation projects are complete, a large portion of Otto Olsen is expected to be demolished. See drawing sheets M2 through M4 in Appendix D for Short and Long Range steam requirements.

Other Long Range plans are to add all buildings to the new CUP that are currently heated by localized boilers or gas furnace systems except the Greenhouse, Bruner Annex, and Frank House. These three (3) buildings are small and the cost to add them to the new CUP steam loop is far greater than the savings that the University would receive by making this change.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

SYSTEM OVERVIEW-CHILLED WATER

The West Campus and a portion of the East Campus are served by a chilled water distribution system that supplies chilled water to the larger academic buildings on the West Campus and several academic buildings on the East Campus located primarily in the southern portion of the East Campus. The chilled water supply originates from the WCUP and is augmented, as required, by the standby chillers located in the Health and Sports Center.

The WCUP chilled water generation system is comprised of one (1) independent chiller, and support equipment. Support equipment includes a single cooling tower, chiller pumps, condenser water pumps, chilled water distribution pumps, make up water systems and chemical treatment. Augmentation to this system is provided by two (2) 250-ton chillers located in the Health and Sports Center.

Currently the East Campus does not have a chilled water system. Several of the East Campus buildings are attached to the West Campus system; however, most East Campus buildings have localized cooling or no cooling (primarily residence halls) at all. Localized cooling is done in a variety of fashions. The majority of the localized cooling is accomplished via a cooling tower air-cooled condenser/chiller system. The remaining localized cooling is accomplished using various methods including the following: window units, air-cooled condensing unit split systems, rooftop units, heat pumps or air cooled chillers. With regards to window unit cooling, unless a significant portion of the building is cooled with window units, it has been considered to not have cooling.

The existing chilled water piping distribution from the WCUP is a combination of tunnels, deep trenches and direct-bury piping.

CURRENT SYSTEM STATUS-CHILLED WATER

The existing WCUP chilled water generating system has benefited from a regular maintenance program. The chiller, cooling tower and all associated pumps were installed in approximately year 2000 and are in good operating condition.

The plant continues to be relatively efficient to operate due to the centralized nature of the installation. The existing chiller is operating near its maximum capacity with an estimated 60% diversity. The WCUP does not have a backup system; therefore, loss of any given piece of equipment will render the plant unable to meet load requirements.

The WCUP chilled water distribution pumps are variable speed, therefore the amount of chilled water supplied to the distribution system is a function of the system load.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

SHORT RANGE NEEDS-CHILLED WATER

The chilled water generating equipment in the WCUP will continue to have adequate available capacity to serve the projected West Campus load; however, it will not meet the projected Short Range loads for the entire campus. Through the Short Range time period, the East and West Centennial Towers, Nebraskan Student Union and Memorial Student Affairs Building are projected to require upgrades to their localized cooling systems. The localized cooling to each of these four (4) buildings is either seriously undersized for the current cooling load or has reached the end of its life expectancy. It is financially prudent to place these buildings on a new CUP system in lieu of replacing the localized cooling systems.

Given the requirement to construct a new CUP, it is financially prudent to add central cooling to the East Campus with the addition of the new CUP. The chilled water system should be sized for the future potential to service all existing, Short Range, and Long Range buildings on the main campus with the exception of the Greenhouse, Bruner Annex and Frank House. It would be advisable to add the following buildings to the new CUP chilled water lines in the Short Range time period: Fine Arts Annex, Cushing Coliseum HPER, Memorial Student Affairs Building, Copeland Hall, Mantor Hall, Randall Hall, Nebraskan Student Union, and the East and West Centennial Towers. All of these buildings have some source of localized cooling that is currently, or will in the foreseeable future, become costly to maintain. See sheets M2 and M5 of Appendix D for Short Range chilled water requirements.

The first phase of construction of the new Residence Halls has begun. The new Residence Halls will be cooled with water-source heat pumps. A temporary source for heat rejection from the heat pumps will be provided until the new CUP is available. At that time, the new residence halls will be serviced by the new CUP. Future construction phases to the new Residence Hall will be considered after the end of the Short Range time period.

The Mary Morse Lecture Hall will be demolished in the Short Range and removed from the existing chilled water line from the WCUP.

An addition and renovation to Bruner Hall has been planned for the Short Range. It is expected that this addition will be cooled using the new CUP.

LONG RANGE NEEDS-CHILLED WATER

It is anticipated that, in the Long Range, all buildings on the campus except the Greenhouse, Bruner Annex, and Frank House will be serviced by the new CUP. With the installation of two (2) 1000 ton chillers and relocation of the 1020 ton chiller from the WCUP, the new CUP is expected to provide a firm capacity to serve all existing, Short Range and Long Range building loads for the main campus with a 60% diversity factor.

Thermal and electrical modeling was developed based on the 2006 Second Quarter Capital Queue, including the November 2004 Otto Olsen program. This program considered construction of a business and technology addition and a new Child Care Development

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Building on the West Campus during the Long Range time period. Development on West Campus of programmatically different but thermally similar projects during this time period does not contradict the output of these models. All new projects are expected to be serviced by the new CUP. See sheets M3 and M5 in Appendix D for Long Range chilled water requirements.

Other buildings projected for removal in the Long Range are not currently cooled; therefore, their removal will have no impact on the future need of the chilled water system.

SYSTEM OVERVIEW-DOMESTIC AND FIRE PROTECTION WATER

The UNK Campus is served by two (2) different pressured domestic water lines, a low pressure (45 PSI) system, which is primarily used to serve building domestic water needs, and a high pressure (70 - 90 PSI) system, which is used to serve the majority of the campus fire hydrants and all building automatic fire suppression systems. The 6-inch low pressure mains have several branch lines and originates from the domestic water main located below 9th Avenue. The 14-inch and 12-inch high pressure mains both have several branch lines and originate from domestic water mains located below U.S. Highway 30. See sheet M6 in Appendix D for existing conditions. No leaks or pressure issues were noted. Campus water is provided and serviced by the City of Kearney. Two (2) meter pits have been installed on the low pressure water lines. One (1) meter is located southwest of the Health & Sports Center. The second meter pit is located just east of the current construction project for the new residence halls.

Currently, only eight (8) of the campus buildings, two of which are residence halls, are equipped with an automatic fire suppression system.

Otto Olsen and the Library's domestic water systems are both experiencing low water pressure problems. Both are currently connected to the campus low pressure distribution system.

SHORT RANGE NEEDS-DOMESTIC AND FIRE PROTECTION WATER

New domestic water lines should be constructed to serve new facilities and facilities expansions expected to be constructed during the Short Range time period. Facilities include the first phase of the new Residence Hall project and the Bruner Hall Addition, both on the East Campus. See drawing sheets M2 and M6 in Appendix D. Existing domestic water mains have already been routed around the construction site for the new Residence Halls in preparation for both Phase I and future construction phases. New branch lines will be routed to each of the four (4) new residence halls and, since each building will be equipped with an automatic fire protection system, branch lines should come from the high pressure fire water line. New branch lines should be included for the construction of the Bruner Hall Addition and should tie into the nearest domestic water main. Automatic fire suppression should be added to the new addition as part of the construction project and should tie into the nearest high pressure fire water main.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

Other Short Range projects include the complete renovation to both the East and West Centennial Towers and the construction of a new CUP. Automatic fire suppression should be added to both the new CUP as part of the new construction and also the existing residence halls as part of future renovation projects and should tie into the nearest high pressure fire water main.

The Otto Olsen and Library's domestic water systems are not functioning properly. Existing available pressure on the domestic water lines are not sufficient to meet the demands of the buildings. Both buildings should be researched and corrected. Either a pressure booster pump should be installed at the entrance service to each building, or, as a last resort, each system should be attached to the high pressure main. If attached to the fire main, a water meter will need to be installed near the entrance service.

LONG RANGE NEEDS-DOMESTIC WATER

A West Center Building Addition and a new Child Care Development building are currently identified for the West Campus during the Long Range time period. New branch lines should be included for each facility as part of the construction of the facilities and should tie into the nearest existing domestic water and fire mains. Automatic fire protection should be added as part of both of these construction projects.

On the East Campus, a Fine Arts Annex Addition is planned during the Long Range time period. An automatic fire suppression system should be added to this entire structure as part of the construction and should tie into the nearest high pressure fire main. Alternate Long Range plans should follow a similar model. See drawing sheet M5 in Appendix D.

SYSTEM OVERVIEW-NATURAL GAS

The UNK campus is served by a series of gas mains and branch lines. See sheet M8 in Appendix D for existing conditions. A high pressure, 8-inch gas main transits the campus north to south east of the Library and west of Bruner Hall and the new Residence Hall construction project. This line serves the City of Kearney, in addition to the campus.

SHORT RANGE NEEDS-NATURAL GAS

New natural gas branch lines should be installed to serve the domestic water and laboratory needs of the new facilities expected to be constructed during the Short Range time period. Facilities include an addition and renovation to Bruner Hall, and the new CUP. New branch lines should be included for each facility as part of the construction of the facility and should tie into the nearest natural gas main.

LONG RANGE NEEDS-NATURAL GAS

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

New natural gas branch lines should be installed to serve the domestic water and laboratory needs of the new facilities expected to be constructed during the Long Range time period. Facilities include an addition to both the West Center Building and the Fine Arts Annex and the construction of a new Child Development Building. New branch lines should be included for each facility as part of the construction of the facility and should tie into the nearest natural gas main. Alternate Long Range projects should follow a similar model.

SYSTEM OVERVIEW-ELECTRICAL DISTRIBUTION

Major structures on the Campus are served electrically from UNK's 12.5 KV electrical distribution system. The electrical distribution system is served by an NPPD substation located on campus.

CURRENT SYSTEM STATUS-ELECTRICAL DISTRIBUTION

UNK's 12.5 KV distribution system is broken down into three (3) major feeders, west loop, northeast loop and the southeast loop.

The circuits which provide power to the two (2) CUP's also provide power to other facilities. These circuits (west loop and northeast loop) are operating at 112% and 41% of maximum recommended loading respectively. Additional loading on the west loop circuit may result in premature cable failure. Because of the heavy loading it is possible that the failure of a single large machine within the West CUP could feasibly take out the entire circuit and disrupt power to the entire west campus.

Most of the electrical service on the campus served by the 12.5 KV distribution appears to be in fair condition and will probably provide many years of reliable service.

The majority of the electrical service equipment has sufficient capacity to accommodate additional personal computer loads and minor facility renovations without need to upgrade the transformers or associated switchboards.

The following buildings and associated transformers appear to be mismatched and will require further investigation at each building to determine if corrective action will be required.

- a) Centennial towers east and west each have a 1200 amp 120/208V service with a 300 KVA transformer (T1/T2) which are rated for 834 amps each.
- b) Founders Hall has a 2500 amp 277/480V service with a 500 KVA transformer (T13) which is rated for 601 amps.
- c) Student Affairs has a 1200 amp 120/208V service with a 300 KVA transformer (T16) which is rated for 834 amps.

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

- d) C.T. Ryan Library has a 2500 amp 120/208V service with a 500 KVA transformer (T37) which is rated for 1388 amps.
- e) A.O. Thomas has an 800 amp 120/208V service with a 150 KVA transformer (T38) which is rated for 417 amps.

All the above conditions appear to have service ratings much larger than the serving transformer capacity. Recommend installing electric demand meters on all buildings on campus and record each demand two (2) times each year to determine actual loading conditions.

SHORT RANGE NEEDS-ELECTRICAL DISTRIBUTION

The two (2) existing 12.5 KV northeast and southeast loops have sufficient capacity to meet the increased electrical load throughout the Short Range proposed building projects.

All costs shown for the short range work includes design and escalation to the end of the five (5) year range.

The existing West CUP chiller is recommended to be relocated to the new Central Utilities Plant. This will reduce the present electrical load on the most heavily loaded circuit which would greatly increase the probable life expectancy. Cost for these modifications will be included with the building construction costs.

The existing three (3) 15 KV switches located south of the NPPD substation will be restrictive for adding new electrical campus loop distribution. It is recommended that these switches be replaced with a new 15 KV outdoor switchboard to allow additional feeders to be added to the campus distribution systems. (Cost - \$172,300)

The existing Conrad Hall, Martin Hall and Mary Morse Lecture Hall will be demolished, all of which are served by the northeast loop. New residence halls 'B' and 'C', as well as future construction phases would then be added to the northeast loop. Cost for these modifications will be included with the building construction costs.

Future construction phases to the new Residence Hall will be added to the northeast loop near the end of the short range period. The northeast loop will require modifications to allow construction of the new residence hall. Cost for these modifications will be included with the building construction costs.

New residence hall 'A' will be added to the southeast campus loop. Cost for these modifications will be included with the building construction costs.

A new CUP is being proposed as part of the short range needs. The proposed new CUP will be served directly from the proposed new 12.5 KV substation distribution switchboard

2006 University of Nebraska at Kearney Utilities Master Plan

Executive Summary

located adjacent to the existing NPPD substation. (Refer to the Central Utility Plant Program Statement approved by the Board of Regents 11/03/06 for associated costs.)

LONG RANGE NEEDS-ELECTRICAL DISTRIBUTION

Electrical modeling was based on the November 2004 architectural program for programs currently housed in Otto Olsen, including both new construction on West Campus and renovations for the existing building. Should this work go forward as presently programmed, a large portion of Otto Olsen will be demolished and the load removed from the southeast loop.

West Campus electrical modeling planned that a new Child Care Development building (functions relocated from Otto Olsen) will be added to the west loop. A Business and Technology addition from Otto Olsen will be added to the West Center Building and the west loop. Alternate development on West Campus would not change the cost impact of this recommendation unless the programs for the new construction differ drastically from the buildings that were modeled. (Costs for these modifications will be included with the building construction costs.)

2006 University of Nebraska at Kearney Utilities Master Plan